Attachment A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

WATER QUALITY BASED EFFLUENT LIMIT CALCULATIONS FOR FRESHWATER

WQBELs Calculation Summary

Facility Name:	Date Gardens MHP
NPDES Number:	CA0104841
Session ID:	22
Session Name:	FW Run No. 1
User Name:	Carmj
Session Date:	3/3/03

	AMEL(ug/l)	MDEL(ug/l)
Mercury (Hg)	0.0510	0.1024
Selenium (Se)	4.0933	8.2150

Period used for effluent data: From 12/17/01 to 12/26/01
Period used for ambient data: From 12/17/01 to 12/26/01

STREAM CONDITIONS:

Ambient TSS (mg/l):	26
Ambient Hardness (mg/l CaCO3):	400
Ambient pH (SU):	7.9

MIXING CONDITIONS:

Acute Receiving Water Flow (cfs):	1
Facility Maximum Daily Flow (MGD):	1
Acute Dilution Ratio:	0
Chronic Receiving Water Flow (cfs):	1
Facility 4-day avg Daily max flow (MGD):	1
Chronic Dilution Ratio:	0
Human Health Receiving Water Flow (cfs):	1
Long Term Mean Flow (MGD):	1
Human Health Dilution Ratio:	0

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841
WATER QUALITY BASED EFFLUENT LIMIT CALCULATIONS FOR SALT WATER

WQBELs Calculation Summary

Facility Name:	Date Gardens MHP
NPDES Number:	CA0104841
Session ID:	23
Session Name:	SW Run No. 1
User Name:	Carmj
Session Date:	3/3/03

	AMEL(ug/l)	MDEL(ug/l)
Copper (Cu)	2.3917	4.8000
Mercury (Hg)	0.0510	0.1024
Nickel (Ni)	6.7130	13.4727

Period used for effluent data: From 12/17/01 to 12/26/01
Period used for ambient data: From 12/17/01 to 12/26/01

STREAM CONDITIONS:

Ambient TSS (mg/l):	26
Ambient Hardness (mg/l CaCO3):	400
Ambient pH (SU):	7.9

MIXING CONDITIONS:

Acute Receiving Water Flow (cfs):	1
Facility Maximum Daily Flow (MGD):	1
Acute Dilution Ratio:	0
Chronic Receiving Water Flow (cfs):	1
Facility 4-day avg Daily max flow (MGD):	1
Chronic Dilution Ratio:	0
Human Health Receiving Water Flow (cfs):	1
Long Term Mean Flow (MGD):	1
Human Health Dilution Ratio:	0

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841
COMPLIANCE SUMMARY REPORT

Compliance Summary Report

Facility Name:	Date Gardens MHP
NPDES Number:	CA0104841
Session ID:	22
Session Name:	FW Run No. 1
User Name:	Carmj
Session Date:	3/3/03

Compliance Summary Report

Facility Name:	Date Gardens MHP
NPDES Number:	CA0104841
Session ID:	23
Session Name:	SW Run No. 1
User Name:	Carmj
Session Date:	3/3/03

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841
REASONAL POTENTIAL ASSESSMENT REPORT

REASONABLE POTENTIAL ASSESSMENT

Facility Name : Date Gardens MHP
NPDES Number : CA0104841

CAPWTT Session ID : 22
CAPWTT Session Name : FW Run No. 1
CAPWTT Session Date : 3/3/03

Pollutant : Mercury (Hg)
ISWP Criteria : 0.051 ug/l
WQBEL Required?: YES

EFFLUENT DATA SUMMARY:
This pollutant was not detected in 1 observations. The MEC is set to the lowest detection limit.

MEC = 0.03 ug/L (nondetect) requiring analysis of ambient data.

AMBIENT DATA SUMMARY:
This pollutant was detected 1 times out of 1 observations. The B is set to the maximum detected value.

B = 0.2 ug/l

REASONABLE POTENTIAL:
B (detect) is GREATER THAN the criterion requiring an effluent limitation for Mercury (Hg).

Pollutant : Selenium (Se)
ISWP Criteria : 5.000 ug/l
WQBEL Required?: YES

EFFLUENT DATA SUMMARY:
This pollutant was detected 1 times out of 1 observations. The MEC is set to the maximum detected value.

MEC = 2 ug/L (detect) and is LESS THAN the criterion requiring analysis of ambient data.

AMBIENT DATA SUMMARY:
This pollutant was detected 1 times out of 1 observations. The B is set to the maximum detected value.

B = 22 ug/l

REASONABLE POTENTIAL:
B (detect) is GREATER THAN the criterion requiring an effluent limitation for Selenium (Se).

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841
REASONAL POTENTIAL ASSESSMENT REPORT

EASONABLE POTENTIAL ASSESSMENT

Facility Name : Date Gardens MHP
NPDES Number : CA0104841

CAPWTT Session ID : 23
CAPWTT Session Name : SW Run No. 1
CAPWTT Session Date : 3/3/03

Pollutant : Copper (Cu)
ISWP Criteria : 3.100 ug/l
WQBEL Required?: YES

EFFLUENT DATA SUMMARY:
This pollutant was detected 1 times out of 1 observations. The MEC is set to the maximum detected value.

MEC = 3.6 ug/L (detect)

REASONABLE POTENTIAL:
MEC is GREATER THAN the criterion requiring an effluent limitation for Copper (Cu).

Pollutant : Mercury (Hg)
ISWP Criteria : 0.051 ug/l
WQBEL Required?: YES

EFFLUENT DATA SUMMARY:
This pollutant was not detected in 1 observations. The MEC is set to the lowest detection limit.

MEC = 0.03 ug/L (nondetect) requiring analysis of ambient data.

AMBIENT DATA SUMMARY:
This pollutant was detected 1 times out of 1 observations. The B is set to the maximum detected value.

B = 0.2 ug/l

REASONABLE POTENTIAL:
B (detect) is GREATER THAN the criterion requiring an effluent limitation for Mercury (Hg).

Pollutant : Nickel (Ni)
ISWP Criteria : 8.200 ug/l
WQBEL Required?: YES

EFFLUENT DATA SUMMARY:
This pollutant was detected 1 times out of 1 observations. The MEC is set to the maximum detected value.

MEC = 3 ug/L (detect) and is LESS THAN the criterion requiring analysis of ambient data.

AMBIENT DATA SUMMARY:
This pollutant was detected 1 times out of 1 observations. The B is set to the maximum detected value.

B = 11 ug/l

REASONABLE POTENTIAL:
B (detect) is GREATER THAN the criterion requiring an effluent limitation for Nickel (Ni).

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

CRITERIA CALCULATION SUMMARY FOR METALS & POLLUTANTS

CRITERIA CALCULATION SUMMARY FOR METALS & POLLUTANTS WITH SSOs

Facility Name : Date Gardens MHP
NPDES Number : CA0104841

CAPWTT Session ID : 22
CAPWTT Session Name : FW Run No. 1
CAPWTT Session Date : 3/3/03

Ambient TSS (mg/l) : 26
Ambient Hardness (mg/l CaCO3) : 400
Ambient pH (SU) : 7.9

Mercury (Hg)
EPA CF Factors

CF Acute : 1
CF Chronic : 1

Acute Criteria (ug/l) : NA
Chronic Criteria (ug/l) : NA
Human Health Criteria (ug/l) : 0.051

Selenium (Se)
EPA CF Factors

CF Acute : 1
CF Chronic : 1

Acute Criteria (ug/l) : NA
Chronic Criteria (ug/l) : 5
Human Health Criteria (ug/l) : NA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

CRITERIA CALCULATION SUMMARY FOR METALS & POLLUTANTS

CRITERIA CALCULATION SUMMARY FOR METALS & POLLUTANTS WITH SSOs

Facility Name : Date Gardens MHP
NPDES Number : CA0104841

CAPWTT Session ID : 23
CAPWTT Session Name : SW Run No. 1
CAPWTT Session Date : 3/3/03

Ambient TSS (mg/l) : 26
Ambient Hardness (mg/l CaCO3) : 400
Ambient pH (SU) : 7.9

Copper (Cu)
EPA CF Factors

CF Acute : 0.83
CF Chronic : 0.83

Acute Criteria (ug/l) : 4.8
Chronic Criteria (ug/l) : 3.1
Human Health Criteria (ug/l) : NA

Mercury (Hg)
EPA CF Factors

CF Acute : 1
CF Chronic : 1

Acute Criteria (ug/l) : NA
Chronic Criteria (ug/l) : NA
Human Health Criteria (ug/l) : 0.051

Nickel (Ni)
EPA CF Factors

CF Acute : 0.99
CF Chronic : 0.99

Acute Criteria (ug/l) : 74
Chronic Criteria (ug/l) : 8.2
Human Health Criteria (ug/l) : 4600

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

CALCULATIONS FOR AMEL AND MDEL

PART 1 CALCULATION OF EFFLUENT CONCENTRATION ALLOWANCES (ECA)

For each water quality criterion/objective, calculate the effluent concentration allowance (*ECA*) using the following steady-state mass balance equation:

ECA = C + D (C - B) when *C > B*, and
ECA = C when *C* **<=***B*,

where *C* = the priority pollutant criterion/objective, adjusted (as described in section 1.2), if necessary, for hardness, pH, and translators (as described in section 1.4.1);
D = the dilution credit (as determined in section 1.4.2); and
B = the ambient background concentration. The ambient background concentration shall be the observed maximum as determined in accordance with section 1.4.3.1 with the exception that an *ECA* calculated from a priority pollutant criterion/objective that is intended to protect human health from carcinogenic effects shall use the ambient background concentration as an arithmetic mean determined in accordance with section 1.4.3.2.

The concentration units for *C* and *B* must be identical. Both *C* and *B* shall be expressed as total recoverable, unless inappropriate. The dilution credit is unitless.

VALUES USED IN ECA CALCULATON

Pollutant	Ambient B	C Acute	D Acute	ECA Acute	C Chronic	D Chronic	ECA Chronic	C HH	D HH	ECA HH
Mercury	.2	NA	0.00	NA	NA	0.00	NA	0.051	0.00	0.051
Selenium	22	NA	0.00	NA	5	0.00	5	NA	0.00	NA
Copper	25	4.8	0.00	4.8	3.1	0.00	3.1	NA	0.00	NA
Nickel	11	74	0	74	8.2	0	8.2	4600	0	4600

FOR MERCURY (acute)
$ECA_{ACUTE} = C_{ACUTE} + D_{ACUTE} \times (C_{ACUTE} - \text{Ambient B})$
$ECA_{ACUTE} = NA$

FOR MERCURY (chronic)
$ECA_{CHRONIC} = C_{CHRONIC} + D_{CHRONIC} \times (C_{CHRONIC} - \text{Ambient B})$
$ECA_{CHRONIC} = NA$

FOR SELENIUM (acute)
$ECA_{ACUTE} = C_{ACUTE} + D_{ACUTE} \times (C_{ACUTE} - \text{Ambient B})$
$ECA_{ACUTE} = NA$

FOR SELENIUM (chronic)
$ECA_{CHRONIC} = C_{CHRONIC} + D_{CHRONIC} \times (C_{CHRONIC} - \text{Ambient B})$
$ECA_{CHRONIC} = 5$

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

CALCULATIONS FOR AMEL AND MDEL

FOR COPPER (acute)

$ECA_{ACUTE} = C_{ACUTE} + D_{ACUTE} \times (C_{ACUTE} - \text{Ambient B})$

$ECA_{ACUTE} = 4.8$

FOR COPPER (chronic)

$ECA_{CHRONIC} = C_{CHRONIC} + D_{CHRONIC} \times (C_{CHRONIC} - \text{Ambient B})$

$ECA_{CHRONIC} = 3.1$

FOR NICKEL (acute)

$ECA_{ACUTE} = C_{ACUTE} + D_{ACUTE} \times (C_{ACUTE} - \text{Ambient B})$

$ECA_{ACUTE} = NA$

FOR NICKEL (chronic)

$ECA_{CHRONIC} = C_{CHRONIC} + D_{CHRONIC} \times (C_{CHRONIC} - \text{Ambient B})$

$ECA_{CHRONIC} = NA$

Pollutant	ECA_{Acute} (µg/L)	$ECA_{Chronic}$ (µg/L)
Mercury	NA	NA
Selenium	Na	5
Copper	4.8	3.1
Nickel	74	8.2

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

CALCULATIONS FOR AMEL AND MDEL

STEP 2 CALCULATIONS OF LONG TERM AVERAGES (LTA)

For each *ECA* based on an aquatic life criterion/objective, determine the long-term average discharge condition (*LTA*) by multiplying the *ECA* with a factor (multiplier) that adjusts for effluent variability. The multiplier shall be calculated as described below, or shall be found in Table 1. To use Table 1, the *coefficient of variation (*CV*) for the effluent pollutant concentration data must first be calculated. If (a) the number of effluent data points is less than ten, or (b) at least 80 percent of the data are reported as not detected, the *CV* shall be set equal to 0.6. When calculating *CV* in this procedure, if an effluent data point is below the detection limit for the pollutant in that sample, one-half of the detection limit shall be used as a value in the calculations. Multipliers for acute and chronic criteria/objectives that correspond to the *CV* can then be found in Table 1.

Cv	WLa Multipliers		
	95th percentile	99 percentile	
0.1	0.853	0.797	
0.2	0.736	0.643	
0.3	0.644	0.527	
0.4	0.571	0.44	**Acute**
0.5	0.514	0.373	
0.6	0.468	0.321	
0.7	0.432	0.281	
0.8	0.403	0.249	
0.9	0.379	0.224	**Table 5-1**
1	0.360	0.204	
1.1	0.344	0.187	
1.2	0.330	0.174	
1.3	0.319	0.162	
1.4	0.310	0.153	
1.5	0.302	0.144	
1.6	0.296	0.137	
1.7	0.290	0.131	
1.8	0.285	0.126	
1.9	0.281	0.121	
2	0.277	0.117	

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

CALCULATIONS FOR AMEL AND MDEL

Cv	WLa Multipliers		
	95th percentile	99 percentile	
0.1	0.922	0.891	
0.2	0.853	0.797	
0.3	0.791	0.715	
0.4	0.736	0.643	**Chronic**
0.5	0.687	0.581	
0.6	0.644	0.527	
0.7	0.606	0.481	
0.8	0.571	0.440	
0.9	0.541	0.404	**Table 5-1**
1	0.514	0.373	
1.1	0.490	0.345	
1.2	0.468	0.321	
1.3	0.449	0.300	
1.4	0.432	0.281	
1.5	0.417	0.264	
1.6	0.403	0.249	
1.7	0.390	0.236	
1.8	0.379	0.224	
1.9	0.369	0.214	
2	0.360	0.204	

LTA Equations

$LTA_{Acute} = ECA_{Acute} * ECA\ multiplier_{Acute\ 99}$ (from Table 1)

$LTA_{Chronic} = ECA_{Chronic} * ECA\ multiplier_{Chronic\ 99}$ (from Table 1)

VALUES USED IN LTA CALCULATON

Pollutant	CV Q	Sigma	Mult Acute	Mult Chronic	LTA Acute	LTA Chronic	LTA Min
Mercury	0.600	0.555	0.321	0.527	NA	NA	NA
Selenium	0.600	0.555	0.321	0.527	NA	2.637	2.637
Copper	0.600	0.555	0.321	0.527	1.541	1.635	1.541
Nickel	0.600	0.555	0.321	0.527	23.75	4.324	4.324

VALUES USED FOR ECA_{Acute} and $ECA_{Chronic}$

Pollutant	ECA_{Acute} (µg/L)	$ECA_{Chronic}$ (µg/L)
Mercury	NA	NA
Selenium	Na	5
Copper	4.8	3.1
Nickel	74	8.2

FOR MERCURY (acute)

$LTA_{ACUTE} = ECA_{ACUTE}$ x $ECA\ multiplier_{Acute\ 99}$

LTA_{ACUTE} = NA

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

CALCULATIONS FOR AMEL AND MDEL

FOR MERCURY (chronic)

$LTA_{CHRONIC}$ =$ECA_{CHRONIC}$ x ECA multiplier $_{Chronic\ 99}$
$LTA_{CHRONIC}$ = NA

FOR SELENIUM (acute)

LTA_{ACUTE} = ECA_{ACUTE} x ECA multiplier $_{Acute\ 99}$
LTA_{ACUTE} = NA

FOR SELENIUM (chronic)

$LTA_{CHRONIC}$ =$ECA_{CHRONIC}$ x ECA multiplier $_{Chronic\ 99}$
$LTA_{CHRONIC}$ = 5 x 0.527 = 2.637

FOR COPPER (acute)

LTA_{ACUTE} = ECA_{ACUTE} x ECA multiplier $_{Acute\ 99}$
LTA_{ACUTE} = 4.8 x 0.321 = 1.541

FOR COPPER (chronic)

$LTA_{CHRONIC}$ =$ECA_{CHRONIC}$ x ECA multiplier $_{Chronic\ 99}$
$LTA_{CHRONIC}$ = 3.1 x 0.527 = 1.635

FOR NICKEL (acute)

LTA_{ACUTE} = ECA_{ACUTE} x ECA multiplier $_{Acute\ 99}$
LTA_{ACUTE} = 74 x 0.321 = 23.750

FOR NICKEL (chronic)

$LTA_{CHRONIC}$ =$ECA_{CHRONIC}$ x ECA multiplier $_{Chronic\ 99}$
$LTA_{CHRONIC}$ = 8.2 x 0.527 = 4.324

Select the lowest (most limiting) of the *LTA*s for the pollutant derived in *Step 2*.
LTA

Pollutant	LTA_{Acute} (µg/L)	$LTA_{Chronic}$ (µg/L)
Mercury	NA	NA
Selenium	NA	2.637
Copper	1.541	1.635
Nickel	23.750	4.324

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

CALCULATIONS FOR AMEL AND MDEL

STEP 3 CALCULATIONS OF AVERAGE MONTHLY EFFLUENT LIMITATION (AMEL) AND MAXIMUM DAILY EFFLUENT LIMITATION (MDEL)

Calculate water quality-based effluent limitations (an *average monthly effluent limitation, AMEL, and a *maximum daily effluent limitation, MDEL) by multiplying the most limiting *LTA* (as selected in *Step 2*) with a factor (multiplier) that adjusts for the averaging periods and exceedance frequencies of the criteria/objectives and the effluent limitations, and the effluent monitoring frequency as follows:

$AMEL_{\text{aquatic life}} = LTA * AMEL_{\text{multiplier95}}$ (from Table 5-2)
$MDEL_{\text{aquatic life}} = LTA * MDEL_{\text{multiplier99}}$ (from Table 5-2)

The AMEL and MDEL multipliers shall be calculated as described below, or shall be found in Table 5-2 using the previously calculated *CV* and the monthly sampling frequency (*n*) of the pollutant in the effluent. If the sampling frequency is four times a month or less, *n* shall be set equal to 4. For this method only, maximum daily effluent limitations shall be used for publicly-owned treatment works (POTWs) in place of average weekly limitations.

Cv	LTA multipliers		**Maximum Daily Limit MDL**
	95th percentile	99 percentile	
0.1	1.170	1.25	
0.2	1.360	1.55	
0.3	1.550	1.9	
0.4	1.750	2.27	
0.5	1.950	2.68	
0.6	2.130	3.11	
0.7	2.310	3.56	
0.8	2.480	4.01	**Table 5-2**
0.9	2.640	4.46	
1	2.780	4.9	
1.1	2.910	5.34	
1.2	3.030	5.76	
1.3	3.130	6.17	
1.4	3.230	6.56	
1.5	3.310	6.93	
1.6	3.380	7.29	
1.7	3.450	7.63	
1.8	3.510	7.95	
1.9	3.560	8.26	
2	3.600	8.55	

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

CALCULATIONS FOR AMEL AND MDEL

Cv	LTA Multipliers									
	95th percentile					99 percentile				
	n=1	n=2	n=4	n=10	n=30	n=1	n=2	n=4	n=10	n=30
0.1	1.170	1.12	1.08	1.06	1.03	1.25	1.18	1.121	1.08	1.04
0.2	1.360	1.25	1.17	1.12	1.06	1.55	1.37	1.25	1.16	1.09
0.3	1.550	1.38	1.26	1.18	1.09	1.9	1.59	1.4	1.24	1.13
0.4	1.750	1.52	1.36	1.25	1.12	2.27	1.83	1.55	1.33	1.18
0.5	1.950	1.66	1.45	1.31	1.16	2.68	2.09	1.72	1.42	1.23
0.6	2.130	1.8	1.55	1.38	1.19	3.11	2.37	1.9	1.52	1.28
0.7	2.310	1.94	1.65	1.45	1.22	3.56	2.66	2.08	1.62	1.33
0.8	2.480	2.07	1.75	1.52	1.26	4.01	2.96	2.27	1.73	1.39
0.9	2.640	2.2	1.85	1.59	1.29	4.46	3.28	2.48	1.84	1.44
1	2.780	2.33	1.95	1.66	1.33	4.9	3.59	2.68	1.96	1.5
1.1	2.910	2.45	2.04	1.73	1.36	5.34	3.91	2.9	2.07	1.56
1.2	3.030	2.56	2.13	1.8	1.39	5.76	4.23	3.11	2.19	1.62
1.3	3.130	2.67	2.23	1.87	1.43	6.17	4.55	3.34	2.32	1.68
1.4	3.230	2.77	2.31	1.94	1.47	6.56	4.86	3.56	2.45	1.74
1.5	3.310	2.86	2.4	2	1.5	6.93	5.17	3.78	2.58	1.8
1.6	3.380	2.95	2.48	2.07	1.54	7.29	5.47	4.01	2.71	1.87
1.7	3.450	3.03	2.56	2.14	1.57	7.63	5.77	4.23	2.84	1.93
1.8	3.510	3.1	2.64	2.2	1.61	7.95	6.06	4.46	2.98	2
1.9	3.560	3.17	2.71	2.27	1.64	8.26	6.34	4.68	3.12	2.07
2	3.600	3.23	2.78	2.33	1.68	8.55	6.61	4.9	3.26	2.14

Average Monthly Limit (AML) Table 5-2

For the applicable human health criterion/objective, set the AMEL equal to the *ECA* (from *Step 1*).

AMELhuman health = ECA
To calculate the MDEL for a human health criterion/objective, multiply the *ECA* by the ratio of the MDEL multiplier to the AMEL multiplier.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

NPDES CALCULATIONS BASED ON THE CALIFORNIA TOXIC RULE
FOR DATE GARDEN MHP PERMIT NO.CA0104841

CALCULATIONS FOR AMEL AND MDEL

VALUES USED IN AMEL MDEL CALCULATON

Pollutant	LTA Min	CV Q	N samp	AMEL Mult	AMEL Aqua	MDEL Mult	MDEL Aqua	AMEL HH	MDEL/AMEL	MDEL HH
Mercury	NA	0.600	4.000	1.553	NA	3.116	NA	.051	2.0069	0.102
Selenium	2.637	0.600	4.000	1.553	4.093	3.116	8.215	NA	2.0069	NA
Copper	1.541	0.600	4.000	1.553	2.392	3.116	4.8	NA	2.0069	NA
Nickel	4.324	0.600	4.000	1.553	6.713	3.116	13.473	4600	2.0069	9231.92

FOR MERCURY

$AMEL_{human\ health}$ = ECA
$AMEL_{human\ health}$ = 0.051 µg/L

$MDEL_{human\ health}$ = ECA x $MDEL_{multiplier}/AMEL_{multiplier}$
$MDEL_{human\ health}$ = 0.051 x (2.0069) = 0.102 µg/L

FOR SELENIUM

$AMEL_{aquatic\ life}$ = LTA Min x AMEL Mult
$AMEL_{aquatic\ life}$ = 2.637 x 1.553 = 4.093 µg/L

$MDEL_{aquatic\ life}$ = LTA Min x MDEL Mult
$MDEL_{aquatic\ life}$ = 2.637 x 3.116 = 8.215 µg/L

FOR COPPER

$AMEL_{aquatic\ life}$ = LTA Min x AMEL Mult
$AMEL_{aquatic\ life}$ = 1.541 x 1.553 = 2.392 µg/L

$MDEL_{aquatic\ life}$ = LTA Min x MDEL Mult
$MDEL_{aquatic\ life}$ = 1.541 x 3.116 = 4.8 µg/L

FOR NICKEL

$AMEL_{aquatic\ life}$ = LTA Min x AMEL Mult
$AMEL_{aquatic\ life}$ = 4.324 x 1.553 = 6.713 µg/L

$MDEL_{aquatic\ life}$ = LTA Min x MDEL Mult
$MDEL_{aquatic\ life}$ = 4.324 x 3.116 = 13.473 µg/L

Pollutant	AMEL (µg/L)	MDEL (µg/L)
Mercury	0.051	0.1027
Selenium	4.0933	8.215
Copper	2.3917	4.8
Nickel	6.713	13.473