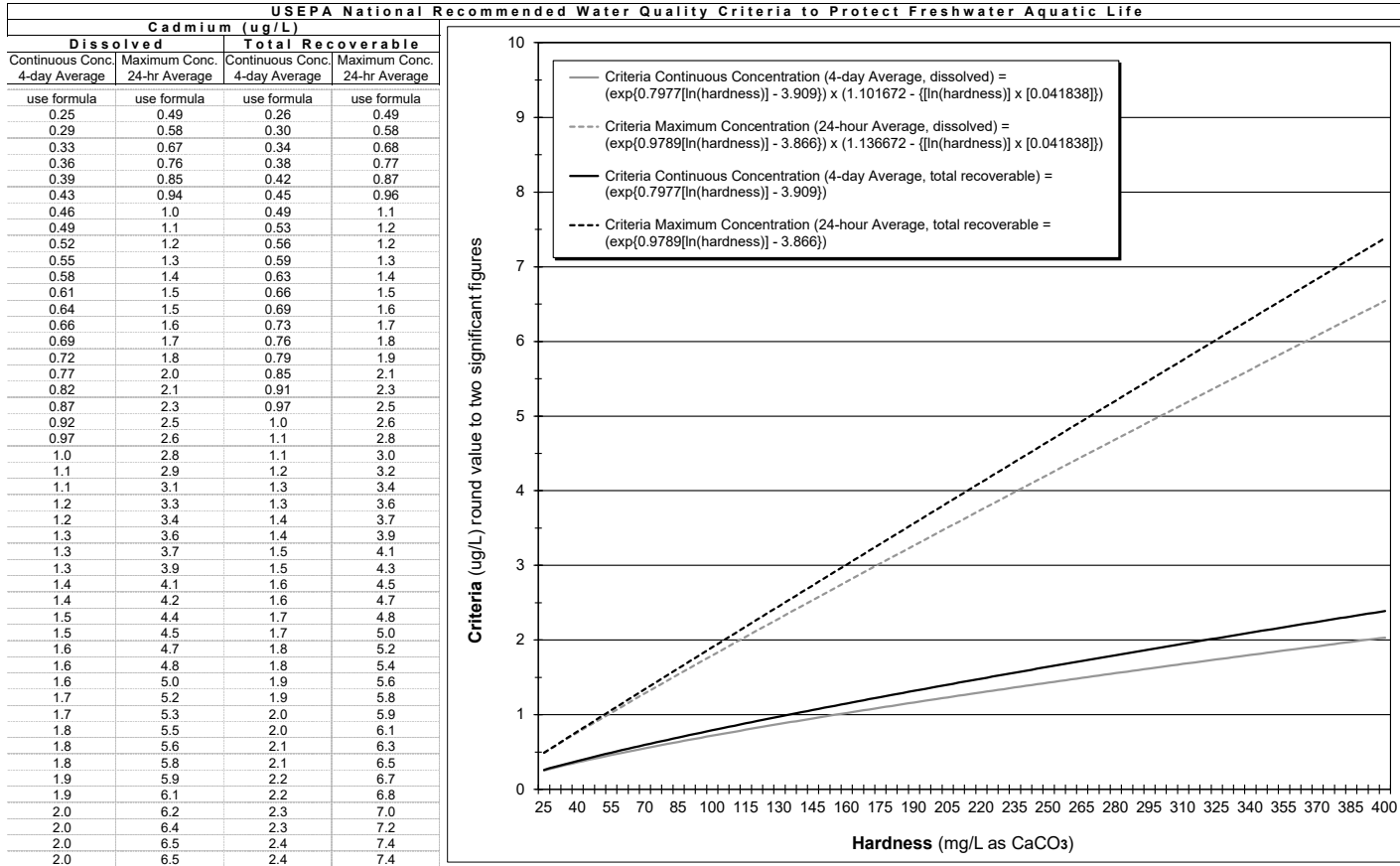


**WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS**  
**FRESHWATER AQUATIC LIFE - CADMIUM (2016)**



Hardness (mg/l)	Dissolved		Total Recoverable	
	Criteria	Criteria	Criteria	Criteria
25	0.252875289	0.490150016	0.26150477	0.489171344
30	0.290154862	0.581461177	0.302442274	0.584751749
35	0.325914676	0.671782971	0.342015627	0.679995035
40	0.360421318	0.761262455	0.380457479	0.774950671
45	0.393867232	0.850009015	0.417936684	0.86965553
50	0.426397297	0.938107179	0.454580961	0.964138155
55	0.458124163	1.025624201	0.490490034	1.058421296
60	0.489137896	1.112614859	0.525743755	1.152523507
65	0.519511094	1.199124615	0.560407392	1.246460206
70	0.549305022	1.285191801	0.594535206	1.340244409
75	0.578570499	1.37084917	0.628172963	1.433887252
80	0.607350966	1.456125023	0.661359738	1.527398364
85	0.635683817	1.541044058	0.694129253	1.620786159
90	0.663601546	1.625628015	0.726510876	1.714058047
95	0.69113262	1.709896173	0.758530399	1.807220608
100	0.71830217	1.793865744	0.790210635	1.900279717
105	0.745132523	1.877552189	0.821571895	1.99324066
110	0.771643635	1.960969469	0.852632367	2.086108211
115	0.797853438	2.044130253	0.883408426	2.178886705
120	0.823778128	2.127046089	0.913914884	2.271580096
125	0.849432391	2.209727545	0.944165197	2.364192007
130	0.874829604	2.29218433	0.97417164	2.456725765
135	0.899981996	2.374425391	1.003945454	2.54918444
140	0.924900785	2.456459001	1.033496962	2.641570872
145	0.949596292	2.538292831	1.06283568	2.733887695
150	0.974078047	2.619934016	1.091970404	2.826137361
155	0.998354868	2.701389204	1.120909283	2.918322156
160	1.022434939	2.782664607	1.149659892	3.010444215
165	1.046325871	2.863766044	1.178229284	3.102505542
170	1.070034763	2.944698974	1.206624043	3.194508015
175	1.093568243	3.025468527	1.234850329	3.286453402
180	1.11693252	3.106079538	1.262913913	3.378343367
185	1.140133416	3.186536567	1.290820215	3.470179484
190	1.163176401	3.266843922	1.318574333	3.561963238
195	1.186066624	3.347005684	1.346181072	3.653696036
200	1.208808938	3.427025717	1.373644962	3.745379212
205	1.231407925	3.506907691	1.400970289	3.837014033
210	1.253867918	3.586655092	1.428161107	3.928601703
215	1.276193019	3.666271238	1.455221256	4.020143368
220	1.298387117	3.74575929	1.482154383	4.111640121
225	1.320453901	3.825122264	1.508963952	4.203093004
230	1.342396881	3.904363036	1.535653256	4.294503012
235	1.364219392	3.983484358	1.562225434	4.385871096
240	1.385924613	4.062488863	1.588683473	4.477198169
245	1.407515575	4.141379069	1.61503023	4.568485101
250	1.428995169	4.220157394	1.641268427	4.65973273
255	1.450366158	4.298826153	1.667400672	4.750941858
260	1.471631182	4.377387572	1.693429457	4.842113256
265	1.49279277	4.455843788	1.719357169	4.933247665
270	1.513853343	4.534196858	1.745186099	5.024345796
275	1.534815221	4.612448758	1.77091844	5.115408337
280	1.55568063	4.690601395	1.796556301	5.206435948
285	1.576451709	4.768656603	1.822101707	5.297429265
290	1.59713051	4.846616154	1.847556605	5.388388903
295	1.617719007	4.924481754	1.872922868	5.479315456
300	1.6382191	5.002255053	1.898202299	5.570209494
305	1.658632618	5.079937644	1.923396636	5.661071573
310	1.678961322	5.157531067	1.948507552	5.751902226
315	1.699206909	5.235036812	1.973536664	5.842701971
320	1.719371017	5.31245632	1.998485529	5.93347131
325	1.739455227	5.389790986	2.023355654	6.024210726
330	1.759461064	5.467204162	2.048148492	6.114920691
335	1.779390003	5.544211159	2.07286545	6.205601659
340	1.799243467	5.621299246	2.097507886	6.296254074
345	1.819022836	5.698307656	2.122077118	6.386878362
350	1.838729442	5.775237585	2.146574418	6.477474942
355	1.858364576	5.852090194	2.17100102	6.568044216
360	1.877929488	5.928866611	2.19535812	6.658586577
365	1.897425389	6.005567932	2.219646877	6.749102408
370	1.916853453	6.082195222	2.243868416	6.839592079

WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS

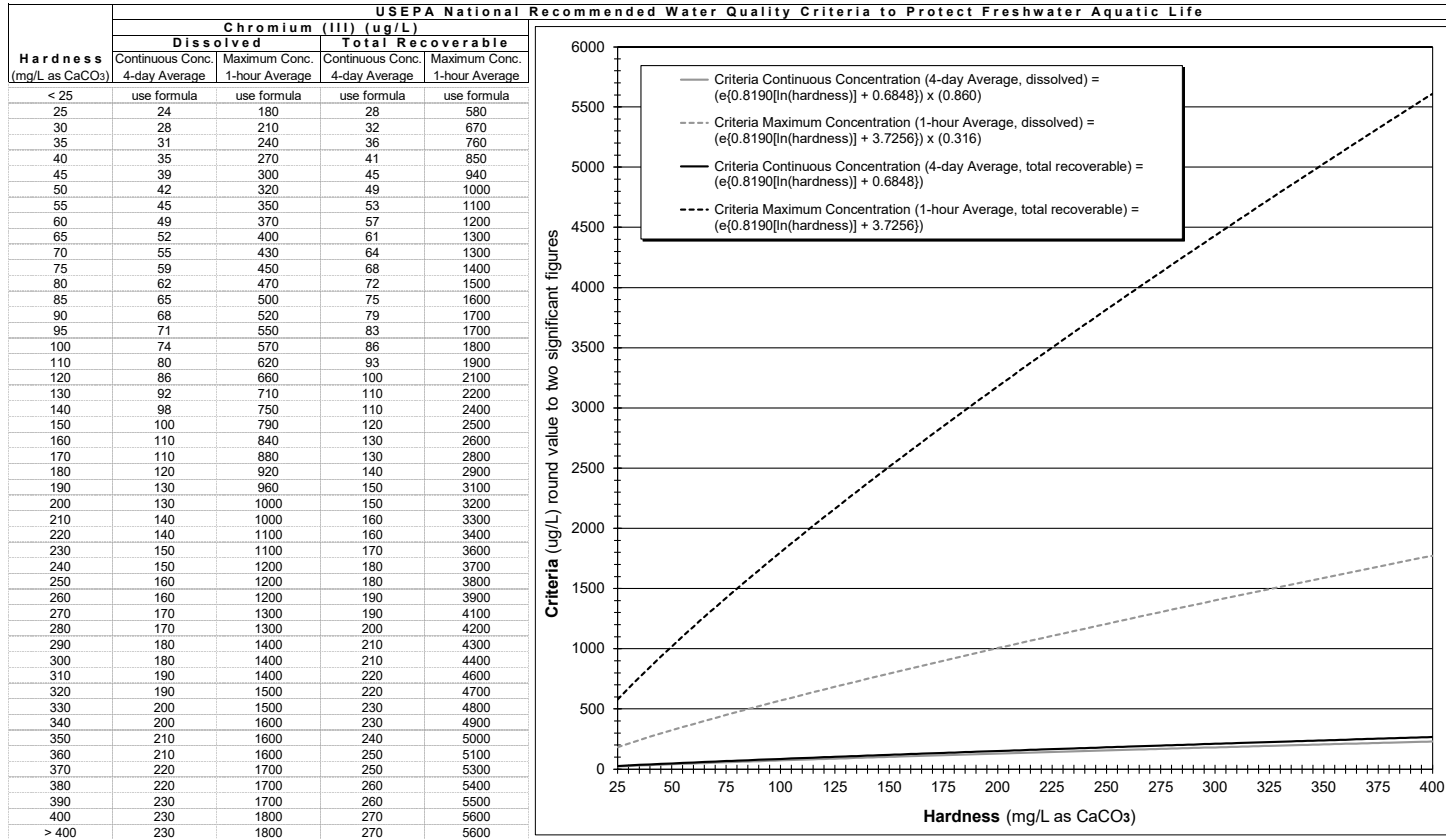
FRESHWATER AQUATIC LIFE - CADMIUM (2016)

375	1.936214818	6.158749517	2.268023826	6.93005595
380	1.955510588	6.235231826	2.292114166	7.020494375
385	1.974741836	6.311643129	2.316140465	7.110907693
390	1.993909602	6.387984381	2.340103721	7.201296238
395	2.013014897	6.464256514	2.364004906	7.291660335
400	2.032058703	6.540460432	2.387844961	7.382000299

# WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS

## FRESHWATER AQUATIC LIFE - CHROMIUM (III)

**USEPA National Recommended Water Quality Criteria to Protect Freshwater Aquatic Life**



Hardness (mg/l)	Criteria	Criteria	Criteria	Criteria
25	23.81311337	183.0659069	27.68966671	579.3224903
30	27.64812091	212.5479458	32.1489778	672.6200816
35	31.3685931	241.1494816	36.47510826	763.131271
40	34.99374682	269.0182463	40.69040328	851.3235643
45	38.53757307	296.2617973	44.81113148	937.5373332
50	42.01068336	322.9617115	48.84963182	1022.030733
55	45.42138316	349.1818384	52.81556182	1105.005818
60	48.77633744	374.9734154	56.71667144	1186.624732
65	52.08100445	400.3784035	60.5593075	1267.020264
70	55.33993022	425.4317509	64.34875607	1346.303009
75	58.55695529	450.1629821	68.08948289	1424.566399
80	61.73536381	474.5973443	71.78530675	1501.89033
85	64.87799391	498.7566561	75.4395278	1578.343848
90	67.98732089	522.6599465	79.05502429	1653.987172
95	71.06552114	546.3239467	82.63432691	1728.873249
100	74.11452208	569.7634741	86.17967684	1803.048969
105	77.13604161	592.9917351	89.69307163	1876.556124
110	80.13161977	616.020569	93.17630206	1949.43218
115	83.10264441	638.8606451	96.63098187	2021.710902
120	86.05037216	661.5216237	100.0585723	2093.42286
125	88.97594578	684.0122901	103.4604021	2164.595855
130	91.88040863	706.3406651	106.8376844	2235.255269
135	94.76471675	728.5140984	110.1915311	2305.424362
140	97.6297492	750.539348	113.5229642	2375.124519
145	100.4763167	772.4226464	116.8329264	2444.375463
150	103.3051693	794.1697598	120.1222898	2513.195439
155	106.1170023	815.7860324	123.3918632	2581.601368
160	108.9124627	837.2764388	126.6423985	2649.608983
165	111.6921531	858.6456117	129.8745966	2717.232948
170	114.4566364	879.8978794	133.0891121	2784.48696
175	117.2064398	901.0372928	136.2865579	2851.383838
180	119.9420574	922.0676514	139.4675086	2917.935606
185	122.6639535	942.9925246	142.6325041	2984.153559
190	125.3725651	963.815272	145.7820525	3050.048329
195	128.0683043	984.5390608	148.9166329	3115.629939
200	130.7515599	1005.166881	152.0366976	3180.907852
205	133.4226999	1025.701561	155.1426743	3245.891017
210	136.0820725	1046.145778	158.234968	3310.587906
215	138.7300079	1066.502071	161.3139627	3375.006553
220	141.3668198	1086.772849	164.380023	3439.154587
225	143.992806	1106.960405	167.4334953	3503.039256
230	146.6082501	1127.066917	170.4747094	3566.67459
235	149.2134224	1147.094463	173.5039796	3630.04577
240	151.8085805	1167.045024	176.5216052	3693.180457
245	154.3939704	1186.920491	179.5278725	3756.077503
250	156.969827	1206.72267	182.5230546	3818.742625
255	159.5363752	1226.453289	185.507413	3881.181294
260	162.0938302	1246.114003	188.4811979	3943.398744
265	164.6423981	1265.706397	191.444649	4005.399991
270	167.1822767	1285.231991	194.3979962	4067.189846
275	169.7136558	1304.692244	197.3414602	4128.772924
280	172.2367175	1324.088556	200.2752529	4190.153659
285	174.751637	1343.422274	203.1995779	4251.336311
290	177.2585828	1362.694693	206.1146312	4312.324979
295	179.7577169	1381.90706	209.0206011	4373.123606
300	182.2491956	1401.060574	211.9176693	4433.735992
305	184.7331692	1420.156392	214.8060107	4494.165797
310	187.2097829	1439.19563	217.6857941	4554.416551
315	189.6791767	1458.179364	220.5571822	4614.491659
320	192.1414858	1477.108634	223.4203323	4674.394411
325	194.5968407	1495.984442	226.2753961	4734.127982
330	197.0453675	1514.80776	229.1225204	4793.695442
335	199.4871884	1533.579524	231.961847	4853.09976
340	201.9224214	1552.300643	234.7935132	4912.343808
345	204.3511807	1570.971995	237.617652	4971.430365
350	206.773577	1589.594431	240.4343919	5030.362125
355	209.1897176	1608.168776	243.2438577	5089.141695
360	211.5997063	1626.695827	246.0461701	5147.771604
365	214.003644	1645.17636	248.8414465	5206.254304
370	216.4016284	1663.611127	251.6298005	5264.592173
375	218.7937544	1682.000857	254.4113424	5322.787521
380	221.1801143	1700.346258	257.1861794	5380.842589
385	223.5607974	1718.648019	259.9544155	5438.759555

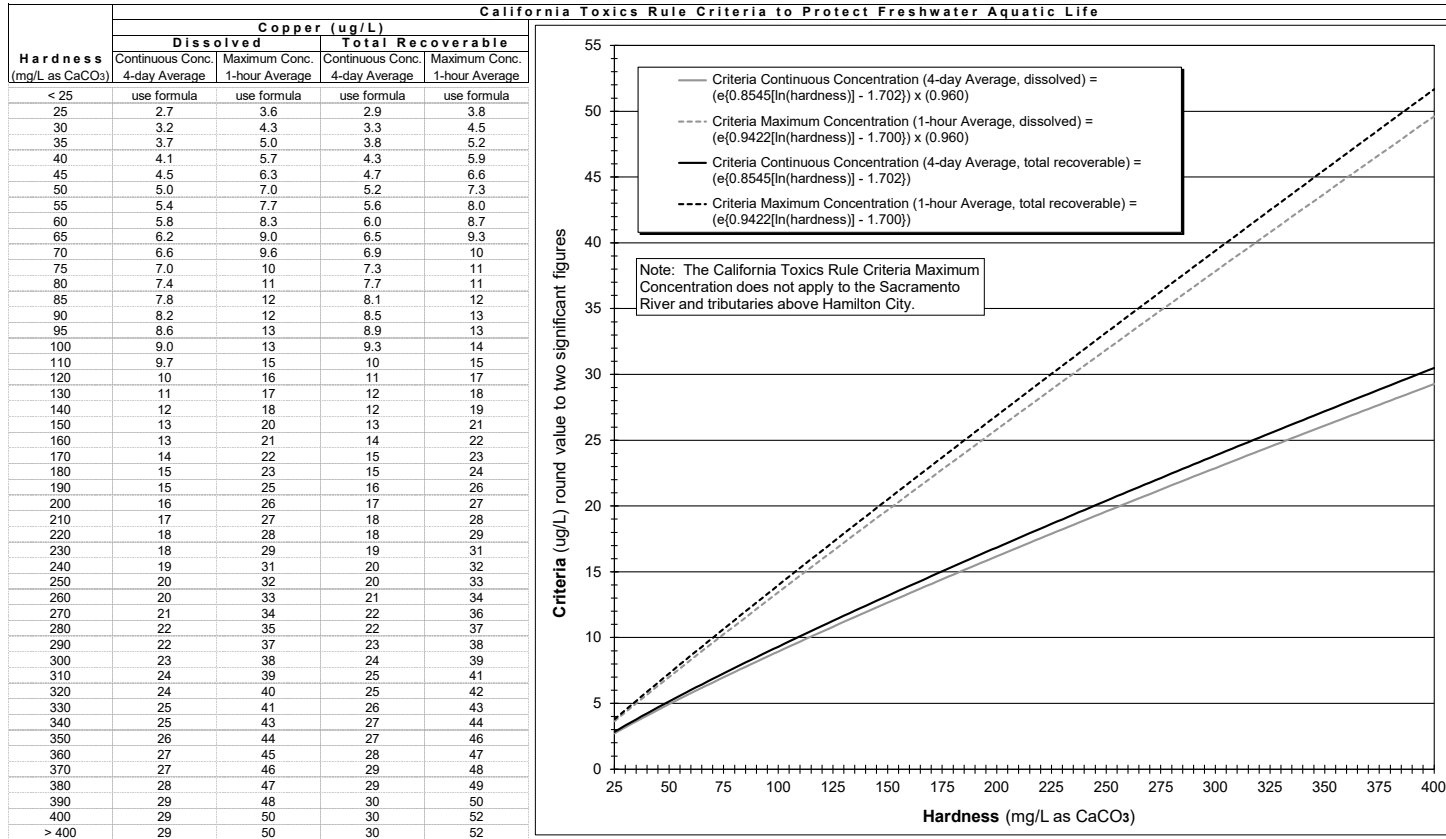
WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS

FRESHWATER AQUATIC LIFE - CHROMIUM ( III )

390	225.9358907	1736.906808	262.716152	5496.540533
395	228.3054789	1755.123276	265.471487	5554.187582
400	230.669644	1773.298053	268.2205163	5611.7027

# WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS

## FRESHWATER AQUATIC LIFE - COPPER



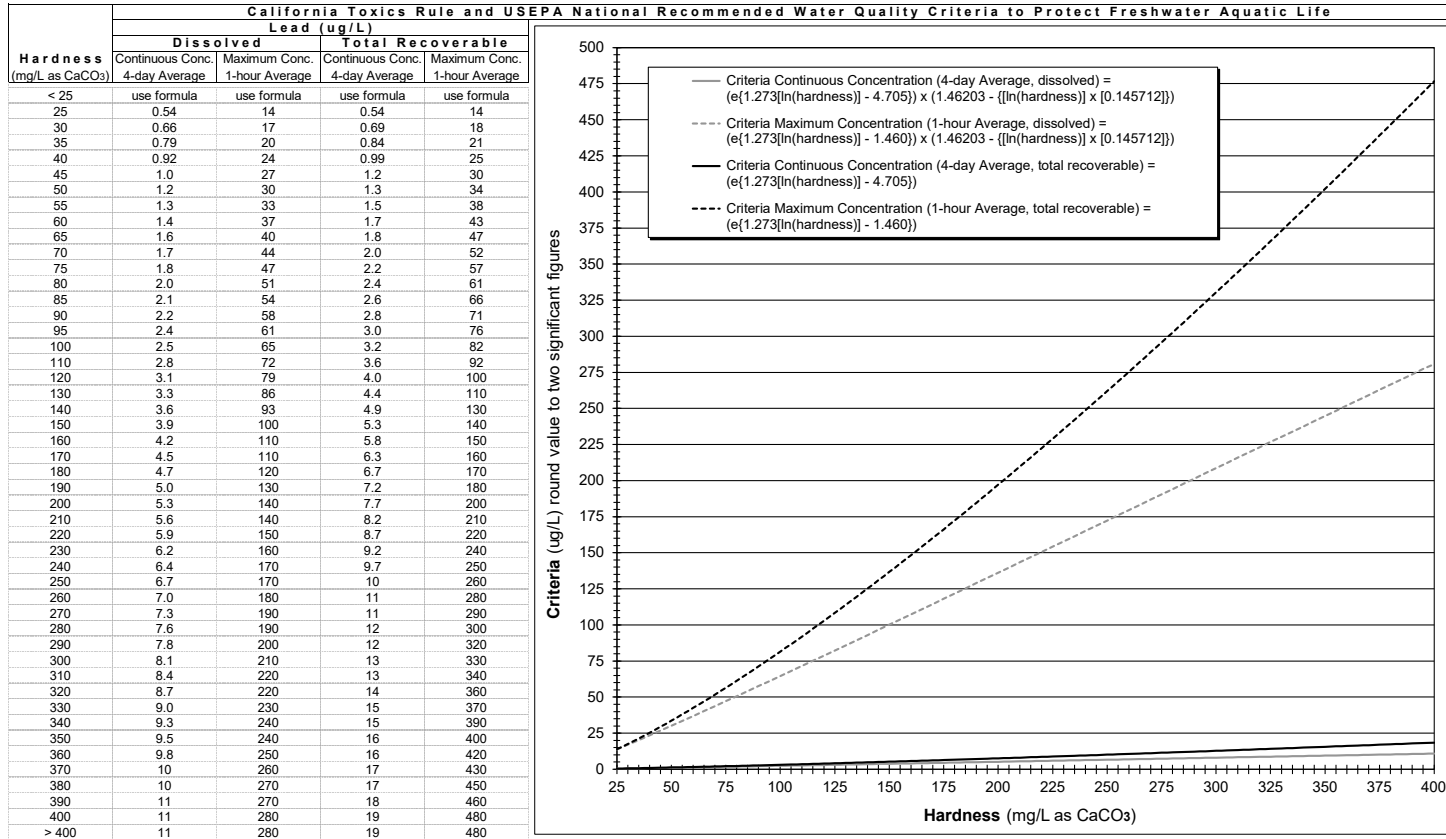
Hardness (mg/l)	Criteria	Criteria	Criteria	Criteria
25	2.739313654	3.640069619	2.853451723	3.791739187
30	3.201121343	4.322293562	3.334501399	4.502389127
35	3.65180996	4.997945605	3.803968708	5.206193339
40	4.09319361	5.668022135	4.263743343	5.904189724
45	4.526599987	6.333261848	4.71520832	6.597147759
50	4.953040664	6.994233901	5.159417359	7.285660314
55	5.373310571	7.651390015	5.597198512	7.970197932
60	5.788049922	8.305097243	6.029218669	8.651142962
65	6.197784736	8.955659611	6.456025767	9.328812095
70	6.60295443	9.603332969	6.878077531	10.00347184
75	7.00393125	10.24833554	7.295761718	10.67534952
80	7.40103433	10.89085559	7.709410761	11.34464124
85	7.794540121	11.53105718	8.119312626	12.01151789
90	8.184690269	12.16908448	8.52571903	12.67612967
95	8.571697686	12.80506522	8.928851756	13.3386096
100	8.95751301	13.43911325	9.328907606	13.99907631
105	9.342719824	14.07133075	9.726062317	14.6576362
110	9.715654767	14.70180986	10.12047372	15.31438527
115	10.0917929	15.33063412	10.51228427	15.96941054
120	10.46555826	15.95787959	10.90162319	16.62279124
125	10.83706382	16.58361581	11.28834815	17.27459881
130	11.20641288	17.20790651	11.67334675	17.92480272
135	11.57370024	17.83081075	12.05593775	18.57376119
140	11.93901317	18.45238252	12.43647205	19.22123179
145	12.30243227	19.07267224	12.81503361	19.86736691
150	12.66403219	19.69172663	13.1917002	20.51221524
155	13.02388225	20.30958924	13.56654401	21.15582212
160	13.38204697	20.92630069	13.93963226	21.79822989
165	13.73858659	21.54189903	14.31102769	22.43947816
170	14.09355739	22.15641992	14.68078894	23.07960408
175	14.44701213	22.76989685	15.04897097	23.71864256
180	14.79900035	23.38236137	15.41562536	24.35662642
185	15.14956863	23.99384319	15.78080065	24.99358666
190	15.49876084	24.60437041	16.14454255	25.62955251
195	15.84661841	25.21396959	16.50689418	26.26455165
200	16.19318047	25.82266587	16.86786933	26.89861028
205	16.53848406	26.43048312	17.22758757	27.53175325
210	16.88256429	27.03744402	17.58600447	28.16400419
215	17.22545446	27.64357012	17.94318173	28.79538554
220	17.56718624	28.24888195	18.29915234	29.42591869
225	17.90778974	28.85339906	18.65394765	30.05562402
230	18.24729363	29.45714014	19.00759753	30.68452098
235	18.58752527	30.06012302	19.36013049	31.31262815
240	18.92311074	30.66236476	19.71157369	31.93996329
245	19.25947498	31.26388168	20.0619531	32.56654342
250	19.59484183	31.86468943	20.41129358	33.19238482
255	19.92923412	32.4646803	20.75961887	33.81750312
260	20.26267369	33.06423677	21.10695176	34.4419133
265	20.59518152	33.66300458	21.45331409	35.06562977
270	20.92677772	34.26111972	21.79872679	35.68866637
275	21.25748159	34.85859495	22.14320999	36.3110364
280	21.58731171	35.45544258	22.48678303	36.93275269
285	21.91628593	36.05167447	22.82946451	37.55382757
290	22.24442141	36.64730203	23.17127231	38.17427295
295	22.57173472	37.24233628	23.51222367	38.79410029
300	22.89824179	37.83678786	23.85233352	39.41332069
305	23.22395801	38.43066703	24.19162292	40.03194482
310	23.5488982	39.02398371	24.53010229	40.64998304
315	23.87307668	39.61674751	24.86778821	41.26744532
320	24.1965073	40.20896769	25.20469511	41.88434135
325	24.51920342	40.80065325	25.5408369	42.50068047
330	24.84117798	41.39181287	25.87622706	43.11647174
335	25.16244348	41.98245499	26.21087863	43.73172394
340	25.48301204	42.57258776	26.54480421	44.34644559
345	25.80289538	43.16221912	26.87801603	44.96064492
350	26.12210488	43.75135674	27.21052591	45.57432994
355	26.44065153	44.34000809	27.54234535	46.18750843
360	26.75854604	44.92818041	27.87348546	46.80018793
365	27.07579876	45.51588073	28.20395704	47.41237576
370	27.39241975	46.10311588	28.53377058	48.02407905
375	27.7084188	46.68989253	28.86293625	48.63530472
380	28.02380537	47.27621712	29.19146393	49.2460595
385	28.33858871	47.86209596	29.51936324	49.85634996

WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS  
FRESHWATER AQUATIC LIFE - COPPER

390	28.65277778	48.44753516	29.84664352	50.46618245
395	28.96638129	49.03254068	30.17331384	51.07556321
400	29.27940773	49.61711833	30.49938305	51.68449826

# WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS

## FRESHWATER AQUATIC LIFE - LEAD



Hardness (mg/l)	Criteria	Criteria	Criteria	Criteria
25	0.540968344	13.88217279	0.544781177	13.98001661
30	0.664037104	17.04032764	0.687099796	17.63215576
35	0.789228414	20.25295073	0.836070852	21.45500781
40	0.916180959	23.51077014	0.990984431	25.43035515
45	1.044625341	26.80687263	1.151288039	29.54401985
50	1.174353286	30.13591353	1.316537634	33.78460705
55	1.305199215	33.49364383	1.486367382	38.14272881
60	1.437028534	36.87660959	1.660469889	42.61049684
65	1.569729831	40.2819518	1.838582684	47.18117577
70	1.703209484	43.70726796	2.020478659	51.84893752
75	1.837387811	47.15051328	2.205959074	56.60868216
80	1.97219625	50.60992835	2.394848342	61.45590378
85	2.107575247	54.08398492	2.586990031	66.38658809
90	2.243472643	57.5713445	2.782243761	71.3971327
95	2.379842423	61.07082625	2.980482747	76.48428409
100	2.516643724	64.58138158	3.181591829	81.64508705
105	2.653840053	68.10207398	3.385465874	86.87684367
110	2.791398643	71.63206265	3.59200846	92.17707963
115	2.929289939	75.17058909	3.801130792	97.54351629
120	3.067487163	78.71698618	4.01275079	102.9740473
125	3.205965861	82.27056895	4.226792316	108.4667189
130	3.344704105	85.83082697	4.443184528	114.0197131
135	3.483681235	89.3972178	4.661861318	119.6313335
140	3.622878652	92.96926155	4.882760831	125.2999927
145	3.762279127	96.54651613	5.105825047	131.024202
150	3.90186675	100.1285732	5.330999422	136.8025615
155	4.041626786	103.7150548	5.558232566	142.6337525
160	4.181545566	107.3056099	5.787475967	148.5165302
165	4.321610374	110.8999124	6.018683744	154.4497172
170	4.461809362	114.4976582	6.251812429	160.4321979
175	4.602131471	118.0985635	6.48682077	166.4629138
180	4.742566355	121.7023627	6.723669561	172.5408588
185	4.883104323	125.3088073	6.962321484	178.6650753
190	5.023736284	128.9176639	7.20274097	184.8346504
195	5.164453694	132.5287133	7.444894073	191.0487113
200	5.305248512	136.1417491	7.688748355	197.306431
205	5.446113165	139.756577	7.934272786	203.6070078
210	5.587040506	143.3730136	8.181437647	209.9496808
215	5.728023784	146.9908856	8.430214443	216.3337188
220	5.869056617	150.6100292	8.680575832	222.7584201
225	6.010132961	154.2302895	8.932495543	229.2231108
230	6.15124709	157.8515193	9.185948323	235.7271425
235	6.292393573	161.4735795	9.440909865	242.2698917
240	6.433567251	165.0963375	9.69735676	248.8507575
245	6.574763224	168.7196676	9.955266444	255.4691611
250	6.71597683	172.3434502	10.21461715	262.1245437
255	6.857203629	175.9675714	10.47538787	268.8163662
260	6.998439395	179.5919226	10.73755829	275.5441077
265	7.139680096	183.2164006	11.00110881	282.3072646
270	7.280921886	186.8409064	11.26602043	289.1053498
275	7.422161092	190.465346	11.53227478	295.9378918
280	7.563394206	194.0896292	11.79985407	302.804434
285	7.704617874	197.71367	12.06874106	309.7045339
290	7.845828885	201.337386	12.33891902	316.6377623
295	7.987024168	204.9606985	12.61037173	323.6037031
300	8.128200782	208.5835318	12.88308345	330.6019521
305	8.269355906	212.2058137	13.15703888	337.632117
310	8.410486838	215.8274747	13.43222317	344.6938165
315	8.551590983	219.4484484	13.70862188	351.78668
320	8.692665854	223.0686708	13.98622096	358.9103471
325	8.833770905	226.6880806	14.26500674	366.064467
330	8.974718303	230.306619	14.54496592	373.2486984
335	9.115691378	233.9242291	14.82608556	380.4627089
340	9.256626163	237.5408567	15.10835302	387.7061748
345	9.397520616	241.1564493	15.39175602	394.9787804
350	9.538372772	244.7709565	15.67628257	402.2802181
355	9.679180741	248.3843298	15.96192097	409.6101878
360	9.819942702	251.9965224	16.24865981	416.9683969
365	9.960656899	255.6074894	16.53648796	424.3545595
370	10.10132164	259.2171872	16.82539456	431.7683969
375	10.24193353	262.8255741	17.11536889	439.2096365
380	10.3824963	266.4326098	17.40640087	446.6780123
385	10.52300313	270.0382552	17.69848008	454.1732642

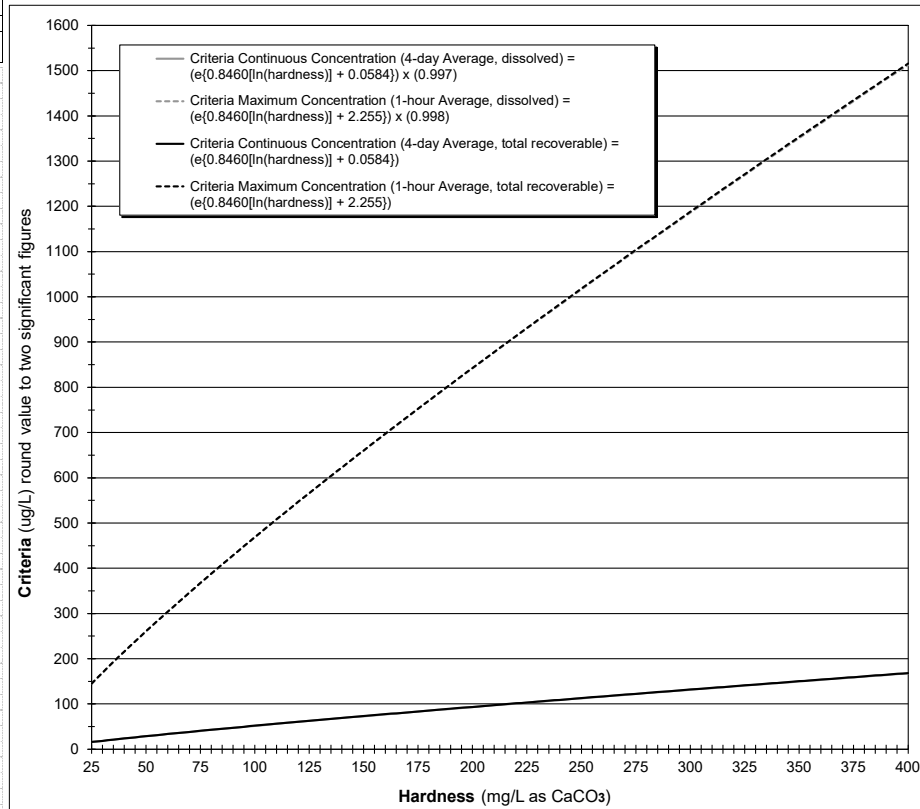
WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS  
FRESHWATER AQUATIC LIFE - LEAD

390	10.66345432	273.6424729	17.9915967	461.695138
395	10.80384845	277.2452266	18.28574105	469.2433851
400	10.94418418	280.8464812	18.58090366	476.8177624



**WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS**  
**FRESHWATER AQUATIC LIFE - NICKEL**

California Toxics Rule and USEPA National Recommended Water Quality Criteria to Protect Freshwater Aquatic Life				
Hardness (mg/L as CaCO <sub>3</sub> )	Nickel (ug/L)			
	Dissolved		Total Recoverable	
	Continuous Conc. 4-day Average	Maximum Conc. 1-hour Average	Continuous Conc. 4-day Average	Maximum Conc. 1-hour Average
< 25	use formula	use formula	use formula	use formula
25	16	140	16	150
30	19	170	19	170
35	21	190	21	190
40	24	220	24	220
45	26	240	27	240
50	29	260	29	260
55	31	280	31	280
60	34	300	34	300
65	36	330	36	330
70	38	350	39	350
75	41	370	41	370
80	43	390	43	390
85	45	410	45	410
90	48	430	48	430
95	50	450	50	450
100	52	470	52	470
110	56	510	57	510
120	61	550	61	550
130	65	580	65	590
140	69	620	69	620
150	73	660	74	660
160	77	700	78	700
170	81	730	82	740
180	86	770	86	770
190	90	810	90	810
200	93	840	94	840
210	97	880	98	880
220	100	910	100	910
230	110	950	110	950
240	110	980	110	980
250	110	1000	110	1000
260	120	1100	120	1100
270	120	1100	120	1100
280	120	1100	120	1100
290	130	1200	130	1200
300	130	1200	130	1200
310	140	1200	140	1200
320	140	1300	140	1300
330	140	1300	140	1300
340	150	1300	150	1300
350	150	1400	150	1400
360	150	1400	150	1400
370	160	1400	160	1400
380	160	1400	160	1500
390	160	1500	160	1500
400	170	1500	170	1500
> 400	170	1500	170	1500

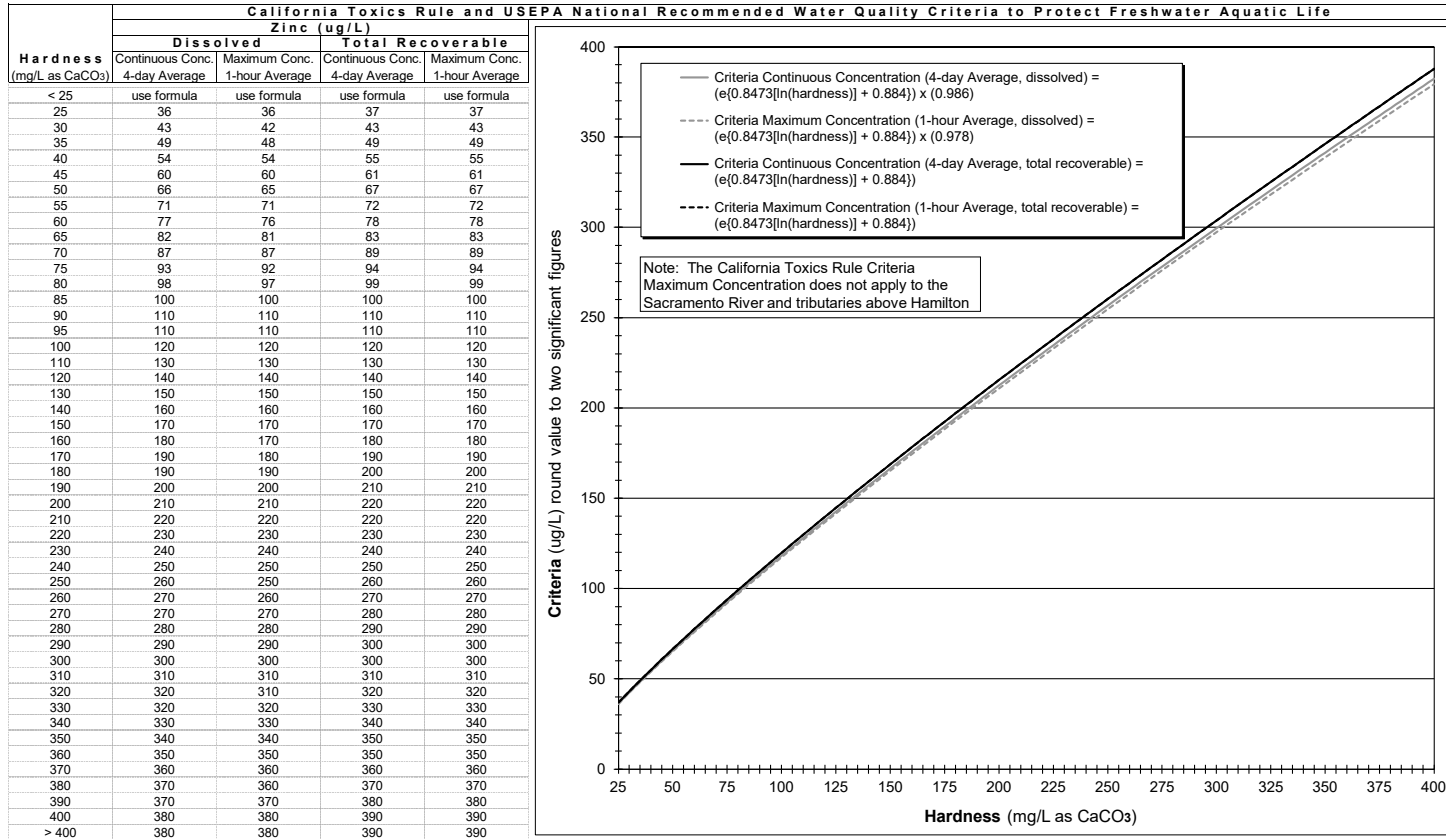


Hardness (mg/l)	Criteria	Criteria	Criteria	Criteria
25	16.09589771	144.9178377	16.1443307	145.2082542
30	18.78030052	169.0865954	18.83681095	169.4254462
35	21.39634153	192.6398642	21.4607237	193.0259161
40	23.95525006	215.6787464	24.02733206	216.1109684
45	26.46523427	238.2771433	26.54486888	238.7546526
50	28.93254117	260.4912991	29.01959997	261.0133258
55	31.36207517	282.3653704	31.4564445	282.9312329
60	33.75778275	303.9348888	33.85936083	304.5439768
65	36.1229039	325.2290254	36.2315987	325.880787
70	38.46014329	346.2721311	38.5758709	346.9660633
75	40.77179058	367.0848211	40.89447401	367.820462
80	43.05980761	387.6847581	43.18937573	388.4616815
85	45.32589279	408.087234	45.46227963	408.9050441
90	47.57152995	428.3056081	47.71467398	429.163936
95	49.79802583	448.3516455	49.94786944	449.2501458
100	52.0065394	468.235781	52.16302848	469.1741293
105	54.19810513	487.9673284	54.3611887	488.9452188
110	56.37365167	507.5546484	56.54328152	508.571792
115	58.53401695	527.0052855	58.71014739	528.0614083
120	60.67996061	546.326079	60.86254926	547.4209208
125	62.81217429	565.5232558	63.00117782	566.6565929
130	64.93129014	584.6025078	65.12667015	585.7740559
135	67.0378881	603.569056	67.23960692	604.7788133
140	69.1325019	622.4277061	69.34052347	623.6750562
145	71.21562432	641.1828947	71.42991406	642.4678304
150	73.28771162	659.8387296	73.50823633	661.1610517
155	75.34918734	678.3990243	75.57591509	679.7585414
160	77.40044568	696.8673277	77.63334571	698.2638554
165	79.44185432	715.2469504	79.68089701	716.680311
170	81.47375703	733.5409873	81.71891377	735.0110093
175	83.4964758	751.7523375	83.74771895	753.2588552
180	85.51031285	769.8837221	85.7676157	771.4265752
185	87.51555237	787.9376996	87.77888904	789.5167331
190	89.51246202	805.9166799	89.78180744	807.5317434
195	91.5012943	823.8229365	91.77662417	825.4738842
200	93.4822878	841.6586173	93.76357854	843.3453079
205	95.45566829	859.4257552	95.74289698	861.1480513
210	97.42164968	877.126276	97.71479407	878.8840441
215	99.38043495	894.7620072	99.67947337	896.5551174
220	101.3322169	912.3346847	101.6371283	914.1630107
225	103.2771789	929.8459596	103.5879427	931.7093784
230	105.2154956	947.2974042	105.5320919	949.1957958
235	107.1473335	964.6905172	107.4697427	966.6237647
240	109.0728514	982.0267286	109.4010545	983.994718
245	110.9922009	999.3074044	111.3261795	1001.310024
250	112.9055273	1016.533851	113.2452631	1018.570993
255	114.8129693	1033.707318	115.1584446	1035.778875
260	116.7146598	1050.829002	117.0658574	1052.934872
265	118.6107263	1067.900051	118.9676292	1070.040131
270	120.5012912	1084.921567	120.8638829	1087.095758
275	122.3864718	1101.894606	122.754736	1104.102811
280	124.266381	1118.820184	124.6403019	1121.062308
285	126.1411272	1135.699278	126.5206893	1137.975228
290	128.0108149	1152.532827	128.3960029	1154.842512
295	129.8755446	1169.321738	130.2663436	1171.665068
300	131.7354131	1186.066882	132.1318085	1188.44377
305	133.5905138	1202.7691	133.9924913	1205.179458
310	135.4409368	1219.429202	135.8484823	1221.872948
315	137.2867691	1236.047972	137.6998687	1238.525022
320	139.1280947	1252.626167	139.5467349	1255.13644
325	140.9649947	1269.164516	141.3891622	1271.707932
330	142.7975477	1285.663727	143.2272294	1288.240207
335	144.6258295	1302.124483	145.0610125	1304.733951
340	146.4499136	1318.547446	146.8905854	1321.189825
345	148.2698713	1334.933256	148.7160193	1337.608473
350	150.0857713	1351.282535	150.5373835	1353.990516
355	151.8976807	1367.595883	152.3547449	1370.336556
360	153.7056641	1383.873884	154.1681686	1386.647179
365	155.5097844	1400.117105	155.9777176	1402.922951
370	157.3101027	1416.326094	157.7834531	1419.184423
375	159.1066781	1432.501385	159.5854344	1435.372129
380	160.8995683	1448.643495	161.3837194	1451.546589
385	162.688829	1464.752929	163.1783641	1467.698306

WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS  
FRESHWATER AQUATIC LIFE - NICKEL

390	164.4745147	1480.830175	164.969423	1483.797771
395	166.2566782	1496.875709	166.756949	1499.87546
400	168.0353708	1512.889994	168.5409938	1515.921838

**WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS**  
**FRESHWATER AQUATIC LIFE - ZINC**



Hardness (mg/l)	Criteria	Criteria	Criteria	Criteria
25	36.49789406	36.20176511	37.01611974	37.01611974
30	42.5949464	42.24934846	43.1997428	43.1997428
35	48.53802387	48.14420623	49.22720474	49.22720474
40	54.35239273	53.91139969	55.12413056	55.12413056
45	60.06652507	59.56925103	60.90925463	60.90925463
50	66.66448184	65.13170714	66.59683757	66.59683757
55	71.18730368	70.60971907	72.19807676	72.19807676
60	76.6387591	76.01210004	77.72198368	77.72198368
65	82.0114941	81.34608644	83.17595751	83.17595751
70	87.32624906	86.61771966	88.56617552	88.56617552
75	92.58329763	91.83211469	93.89786778	93.89786778
80	97.7870586	96.99365448	99.17551583	99.17551583
85	102.9413579	102.1061339	104.4029999	104.4029999
90	108.0495382	107.1728686	109.5837102	109.5837102
95	113.1145436	112.1967786	114.7206325	114.7206325
100	118.1389855	117.1804541	119.8164153	119.8164153
105	123.1251946	122.1262073	124.8734226	124.8734226
110	128.0752638	127.0361136	129.8937767	129.8937767
115	132.9910813	131.9120461	134.8793928	134.8793928
120	137.8743591	136.7557031	139.8320072	139.8320072
125	142.7266561	141.5686305	144.7532009	144.7532009
130	147.5493971	146.3522418	149.644419	149.644419
135	152.3438894	151.1079335	154.5069872	154.5069872
140	157.111336	155.836599	159.3421257	159.3421257
145	161.8528478	160.5396401	164.1509613	164.1509613
150	166.5694535	165.2179772	168.934537	168.934537
155	171.2621078	169.8725572	173.6938213	173.6938213
160	175.9316996	174.5042619	178.4297156	178.4297156
165	180.5790579	179.1139134	183.1430607	183.1430607
170	185.2049577	183.7022806	187.8346427	187.8346427
175	189.8101252	188.2700836	192.505198	192.505198
180	194.3952418	192.8179985	197.1554176	197.1554176
185	198.9609484	197.3466608	201.7859517	201.7859517
190	203.5078486	201.8566693	206.3974123	206.3974123
195	208.0365118	206.3485887	210.990377	210.990377
200	212.5474761	210.822953	215.5653916	215.5653916
205	217.0412507	215.2802669	220.1229723	220.1229723
210	221.5183181	219.7210093	224.6636086	224.6636086
215	225.9791361	224.145634	229.1877648	229.1877648
220	230.4241395	228.5545725	233.6958819	233.6958819
225	234.8537421	232.9482351	238.1883794	238.1883794
230	239.2683377	237.3270125	242.6656569	242.6656569
235	243.6683018	241.6912771	247.1280952	247.1280952
240	248.0539928	246.0413843	251.5760576	251.5760576
245	252.4257529	250.3776737	256.0098913	256.0098913
250	256.7839093	254.7004699	260.4299283	260.4299283
255	261.1287753	259.0100834	264.8364861	264.8364861
260	265.4606507	263.3068118	269.2298689	269.2298689
265	269.7798233	267.5909404	273.6103685	273.6103685
270	274.0865689	271.8627428	277.9782646	277.9782646
275	278.3811525	276.1224819	282.333826	282.333826
280	282.6638285	280.37041	286.6773109	286.6773109
285	286.9348418	284.6067701	291.0089674	291.0089674
290	291.194428	288.8317958	295.3290345	295.3290345
295	295.4428139	293.045712	299.6377423	299.6377423
300	299.6802181	297.2487356	303.9353125	303.9353125
305	303.9068512	301.4410755	308.2219586	308.2219586
310	308.1229166	305.6229335	312.497887	312.497887
315	312.3286106	309.7945042	316.7632967	316.7632967
320	316.5241226	313.9559755	321.0183799	321.0183799
325	320.7096359	318.1075293	325.2633224	325.2633224
330	324.8853275	322.2493411	329.4983038	329.4983038
335	329.051369	326.381581	333.7234979	333.7234979
340	333.207926	330.5044134	337.939073	337.939073
345	337.3551592	334.6179976	342.1451919	342.1451919
350	341.4932242	338.7224881	346.3420123	346.3420123
355	345.6222718	342.8180343	350.5296874	350.5296874
360	349.7424483	346.9047813	354.7083654	354.7083654
365	353.8538955	350.98287	358.8781901	358.8781901
370	357.9567512	355.0524368	363.0393014	363.0393014
375	362.051149	359.1136143	367.1918347	367.1918347
380	366.1372189	363.1665315	371.3359218	371.3359218
385	370.2150869	367.2113134	375.4716906	375.4716906

WATER QUALITY THRESHOLDS FOR CONSTITUENTS AND PARAMETERS  
FRESHWATER AQUATIC LIFE - ZINC

390	374.2848759	371.2480818	379.5992656	379.5992656
395	378.346705	375.2769549	383.7187677	383.7187677
400	382.4006903	379.2980478	387.8303147	387.8303147