

Attachment M
Ventura Water Reclamation Facility
Projections of Summer Ammonia Concentrations in Receiving Water
(CA0056251, CI-1822)

Date	Station	Temp ¹	pH ²	Salinity	I	pKas	1-hour EPA Objective (expressed as total ammonia)	4-day EPA Objective (expressed as total ammonia)
May-03	R1	18.9	7.79	2.9	0.057958	9.251723	10.87103056	1.632987423
May-03	R2	18.7	7.74	10.7	0.21554	9.270003	12.86932684	1.933160684
May-03	R3	17.1	7.796667	15.9	0.32199	9.282351	13.09010329	1.966324528
May-03	R4	18.6	7.74	2.2	0.043937	9.250097	12.39359868	1.861699373
May-03	L5	18.3	7.933333	4.3	0.086059	9.254983	8.291012476	1.245431059
Jun-03	R1	21.1	7.803333	1.7	0.033934	9.248936	8.931814821	1.341688922
Jun-03	R2	20.9	7.84	7.8	0.156661	9.263173	8.61813034	1.294568935
Jun-03	R3	18.4	7.87	15	0.303485	9.280204	10.0401451	1.508176302
Jun-03	R4	18.5	7.933333	4.3	0.086059	9.254983	8.171671617	1.22750432
Jun-03	L5	19.1	7.91	3.2	0.063973	9.252421	8.196039638	1.231164753
Jul-03	R1	20.5	8.538	2.2	0.043937	9.250097	1.913327887	0.287409768
Jul-03	R2	20.5	8.63	10	0.201296	9.26835	1.650906791	0.247990291
Jul-03	R3	20.6	8.674	8.1	0.162736	9.263877	1.491735987	0.224080513
Jul-03	R4	20.6	8.67	3.8	0.076014	9.253818	1.474294702	0.221460578
Jul-03	L5	20.4	8.63	3.7	0.074006	9.253585	1.613772373	0.242412159
Aug-03	R1	22.2	8.2675	2.3	0.045939	9.250329	2.993866623	0.449722454
Aug-03	R2	21.1	8.305	8.9	0.178954	9.265759	3.081496366	0.46288572
Aug-03	R3	20.1	8.325	8.4	0.168815	9.264582	3.156075315	0.474088567
Aug-03	R4	20.7	8.3225	2.6	0.051947	9.251026	2.957852778	0.444312649
Aug-03	L5	20.7	8.345	2.6	0.051947	9.251026	2.820277683	0.423646862
Sep-03	R1	18.2	8.165	3.5	0.069992	9.253119	4.974737199	0.74727812
Sep-03	R2	18.1	7.86	9.1	0.183012	9.266229	10.17074655	1.527794546
Sep-03	R3	18.8	7.646	10.3	0.207398	9.269058	15.77247511	2.369255918
Sep-03	R4	21.9	7.426	1.8	0.035934	9.249168	19.78112054	2.971412956
Sep-03	L5	19.8	7.558	1.9	0.037934	9.2494	17.11321743	2.570654979
Oct-03	R1	18.7	9.04	4.2	0.084049	9.25475	0.844459827	0.126850189
Oct-03	R2	18.7	8.88	4.4	0.08807	9.255216	1.117777897	0.167906551
Oct-03	R3	19.2	8.81	4.2	0.084049	9.25475	1.233386185	0.185272603
Oct-03	R4	19.3	8.52	5	0.10014	9.256616	2.177438046	0.327082968
Oct-03	L5	19.9	8.783333	4.4	0.08807	9.255216	1.243695538	0.186821218
May-04	R1	20.3	8.6475	1.7	0.033934	9.248936	1.554946271	0.23357562
May-04	R2	18.6	8.65	5.8	0.116256	9.258486	1.758260219	0.264116342
May-04	R3	20.1	8.6375	5.1	0.102153	9.25685	1.631322172	0.245048395
May-04	R4	21.9	8.595	1.2	0.023942	9.247777	1.55342542	0.233347166
May-04	L5	21.5	8.6425	2.7	0.05395	9.251258	1.46229199	0.219657595
Jun-04	R1	21.1	8.545	3.8	0.076014	9.253818	1.827684091	0.27454482
Jun-04	R2	19.4	8.690	5.9	0.118272	9.25872	1.544165318	0.231956164
Jun-04	R3	20.3	8.645	6.3	0.126342	9.259656	1.595803021	0.2397129
Jun-04	R4	21.5	8.625	3.2	0.063973	9.252421	1.516269049	0.227765737
Jun-04	L5	21.4	8.4625	3.6	0.071999	9.253352	2.116600281	0.317944248
Jul-04	R1	22.3	9.765	2.4	0.047941	9.250561	0.320204246	0.04809935
Jul-04	R2	21.6	9.895	2.7	0.05395	9.251258	0.301220517	0.045247717
Jul-04	R3	22.8	9.813	2.3	0.045939	9.250329	0.308267093	0.046306216
Jul-04	R4	23.1	9.855	2.3	0.045939	9.250329	0.299739815	0.045025294
Jul-04	L5	23.5	9.713	2.6	0.051947	9.251026	0.323078617	0.048531123
Aug-04	R1	20.9	9.615	2.9	0.057958	9.251723	0.370107201	0.055595502
Aug-04	R2	21.5	8.640	2.5	0.049944	9.250793	1.468066416	0.220524998

04/06/2007

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Date	Station	Temp ¹	pH ²	Salinity	I	pKas	1-hour EPA Objective (expressed as total ammonia)	4-day EPA Objective (expressed as total ammonia)
Aug-04	R3	22.6	8.556	3.4	0.067985	9.252886	1.620211214	0.243379367
Aug-04	R4	23	8.616	2.1	0.041936	9.249865	1.397556816	0.209933427
Aug-04	L5	22.9	8.716	2.9	0.057958	9.251723	1.168964359	0.175595505
Sep-04	R1	22.2	9.805	2.2	0.043937	9.250097	0.313041132	0.047023346
Sep-04	R2	21.2	9.113	2.4	0.047941	9.250561	0.657467871	0.098761268
Sep-04	R3	21.9	9.070	5	0.10014	9.256616	0.684390961	0.102805509
Sep-04	R4	23.4	9.230	3.2	0.063973	9.252421	0.509539273	0.076540234
Sep-04	L5	22.4	9.153	4.9	0.098127	9.256383	0.591744964	0.088888728
Oct-04	R1	18.7	8.910	4.1	0.08204	9.254517	1.057394018	0.158836011
Oct-04	R2	18	8.380	8.3	0.166788	9.264347	3.24355067	0.487228641
Oct-04	R3	17.9	8.305	9.7	0.195198	9.267643	3.86529856	0.580624247
Oct-04	R4	20.2	8.260	1.9	0.037934	9.2494	3.487002206	0.523798615
Oct-04	L5	18	8.320	2.9	0.057958	9.251723	3.590543694	0.539352057
May-05	R1	16	7.89	1.3	0.025939	9.248009	10.63479974	1.597502106
May-05	R2	16.6	7.593333	11.1	0.223689	9.270948	20.99521927	3.153788302
May-05	R3	16.6	7.973333	14.1	0.285014	9.278062	9.0310724	1.356598858
May-05	R4	17.3	8.046667	2.9	0.057958	9.251723	6.870970994	1.032120106
May-05	L5	15.4	8.336667	1.3	0.025939	9.248009	4.122395615	0.619243976
Jun-05	R1	22.6	7.950	2	0.039935	9.249632	5.790618855	0.86983545
Jun-05	R2	17	8.070	16.4	0.332285	9.283545	7.155199133	1.07481532
Jun-05	R3	18.1	8.095	22.2	0.452482	9.297488	6.449507369	0.96881012
Jun-05	R4	21.2	8.320	2.8	0.055954	9.251491	2.876063731	0.432026741
Jun-05	L5							
Jul-05	R1							
Jul-05	R2	20.7	8.400	16	0.324048	9.28259	2.684358313	0.40322979
Jul-05	R3	20.3	8.865	19.8	0.402572	9.291698	1.117047884	0.167796892
Jul-05	R4	20.9	8.135	1.2	0.023942	9.247777	4.336121293	0.651348692
Jul-05	L5							
Aug-05	R1							
Aug-05	R2	21.4	7.7	8.6	0.172869	9.265053	11.43226949	1.717293701
Aug-05	R3	21.1	8.04	11.7	0.235924	9.272367	5.556830166	0.834716978
Aug-05	R4	18.2	7.68	3.3	0.065979	9.252654	14.70311528	2.208622467
Aug-05	L5							
Sep-05	R1	18.6	8.216667	2.9	0.057958	9.251723	4.306002841	0.646824461
Sep-05	R2	19.5	8.906667	5.3	0.10618	9.257317	1.020676796	0.153320549
Sep-05	R3	19.4	8.98	6.4	0.12836	9.25989	0.907260408	0.136283752
Sep-05	R4	20.3	8.436667	4.9	0.098127	9.256383	2.41821154	0.363250661
Sep-05	L5	20.9	7.633333	1.4	0.027938	9.248241	13.27200782	1.993649244
P = 1 atm								
Maxi		23.5	9.895	22.2			20.99521927	3.153788302
Mini		15.4	7.426	1.2			0.299739815	0.045025294

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Date	Station	Temp ¹	pH ²	Salinity	I	pKas	1-hour EPA Objective (expressed as total ammonia)	4-day EPA Objective (expressed as total ammonia)
Jan-03	R1	18.6	7.85	4.6	0.092091	9.255683	9.794826025	1.471325798
Jan-03	R2							
Jan-03	R3	16.4	7.9175	16.1	0.326107	9.282828	10.50057054	1.577338922
Jan-03	R4	17.1	7.8625	9.6	0.193166	9.267407	10.90795923	1.638534648
Jan-03	L5	17	7.95	4.9	0.098127	9.256383	8.804992101	1.322638298
Feb-03	R1	18.2	7.8875	7.4	0.148567	9.262234	9.406862163	1.413047964
Feb-03	R2	18	7.9025	20.5	0.417104	9.293384	9.897571265	1.486759632
Feb-03	R3	15.9	7.9075	25.5	0.521513	9.305495	11.72339712	1.761025318
Feb-03	R4	16.4	7.9375	10.1	0.20333	9.268586	9.722112252	1.460403128
Feb-03	L5	17.1	8.0275	6.9	0.138459	9.261061	7.427823998	1.115767553
Mar-03	R1	18.5	7.67	5.2	0.104166	9.257083	14.86088676	2.232322045
Mar-03	R2	18.7	7.7375	16.2	0.328166	9.283067	13.33040968	2.002422055
Mar-03	R3	17	7.7675	17.4	0.352907	9.285937	14.20106455	2.133207122
Mar-03	R4	17.2	7.785	7.9	0.158686	9.263408	12.78250125	1.920118213
Mar-03	L5	17.4	7.815	7.5	0.15059	9.262468	11.74649723	1.764495293
Apr-03	R1	18.4	7.9	2.7	0.05395	9.251258	8.795420473	1.3212005
Apr-03	R2	18.2	7.93	10.3	0.207398	9.269058	8.683387771	1.304371554
Apr-03	R3	16	7.965	11.4	0.229804	9.271657	9.47480556	1.423254054
Apr-03	R4	16.5	7.93	3.4	0.067985	9.252886	9.475416786	1.423345869
Apr-03	L5	16.9	7.9825	3.6	0.071999	9.253352	8.190761789	1.230371942
Nov-03	R1	13.8	7.823333	2.2	0.043937	9.250097	14.59265497	2.192029716
Nov-03	R2	13.7	7.926667	8.7	0.174897	9.265288	12.04278643	1.809002253
Nov-03	R3	13.9	7.913333	12.8	0.258394	9.274974	12.50120193	1.877862951
Nov-03	R4	15	8.086667	11.2	0.225727	9.271184	7.749534624	1.164093184
Nov-03	L5	12.6	8.163333	6.9	0.138459	9.261061	7.594886121	1.140862722
Dec-03	R1	13.1	8.6075	5	0.10014	9.256616	2.757510533	0.41421832
Dec-03	R2	11.8	8.5	7.5	0.15059	9.262468	3.84418777	0.577453099
Dec-03	R3	11.6	8.5575	5.4	0.108195	9.257551	3.40777038	0.511896838
Dec-03	R4	11.4	8.645	5.2	0.104166	9.257083	2.86463191	0.430309514
Dec-03	L5	12.1	8.6975	5.4	0.108195	9.257551	2.448705645	0.36783132
Jan-04	R1	12.6	8.2575	2.5	0.049944	9.250793	6.021348939	0.904494476
Jan-04	R2							
Jan-04	R3	12.6	8.065	9.6	0.193166	9.267407	9.601465871	1.442280281
Jan-04	R4	11.7	8.175	6.7	0.134418	9.260593	7.889216214	1.185075397
Jan-04	L5	11.9	8.28	3	0.059963	9.251956	6.03927044	0.907186547
Feb-04	R1	12.9	7.6375	1.4	0.027938	9.248241	23.69050569	3.558659654
Feb-04	R2	11.4	7.8475	2.5	0.049944	9.250793	16.50478948	2.479260223
Feb-04	R3	11.7	7.83	2.2	0.043937	9.250097	16.77234878	2.519451533
Feb-04	R4	11.9	7.885	1.9	0.037934	9.2494	14.56616058	2.188049873
Feb-04	L5	13.6	7.645	1	0.019947	9.247314	22.06907688	3.315097385
Mar-04	R1	16.5	7.705	1	0.019947	9.247314	15.55139148	2.33604593
Mar-04	R2	16.9	7.7475	2.2	0.043937	9.250097	13.80162347	2.073205242
Mar-04	R3	16.1	7.8975	6.2	0.124324	9.259422	10.65092088	1.599923737
Mar-04	R4	15.8	7.8375	3.9	0.078022	9.254051	12.31476008	1.849856664
Mar-04	L5	16.7	7.81	1.3	0.025939	9.248009	12.10238293	1.817954517
Apr-04	R1	19.5	9.326667	0.6	0.011964	9.246388	0.525024246	0.078866303
Apr-04	R2	19.7	8.5525	1.3	0.025939	9.248009	1.949827546	0.29289255

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Date	Station	Temp ¹	pH ²	Salinity	I	pKas	1-hour EPA Objective (expressed as total ammonia)	4-day EPA Objective (expressed as total ammonia)
Apr-04	R3	18.5	8.4575	2.4	0.047941	9.250561	2.583495713	0.388078755
Apr-04	R4	18.7	8.61	1.3	0.025939	9.248009	1.853418374	0.278410485
Apr-04	L5	19.9	9.0075	0.9	0.017951	9.247082	0.824997539	0.123926669
Nov-04	R1	14.6	9.265	4.8	0.096115	9.256149	0.72914604	0.109528375
Nov-04	R2	14.8	8.906	2.3	0.045939	9.250329	1.335323437	0.200585066
Nov-04	R3	14.3	8.63	3.7	0.074006	9.253585	2.409532178	0.361946894
Nov-04	R4	15.5	8.292	2	0.039935	9.249632	4.52769389	0.680125692
Nov-04	L5	15.5	8.768	3.6	0.071999	9.253352	1.680610183	0.252452173
Dec-04	R1	16	9.063	4.9	0.098127	9.256383	0.944457438	0.141871289
Dec-04	R2	17.6	8.510	4.5	0.09008	9.255449	2.485724289	0.373392061
Dec-04	R3	12.2	8.440	8.6	0.172869	9.265053	4.281314487	0.64311591
Dec-04	R4	13.1	8.523	3.5	0.069992	9.253119	3.278650191	0.492501102
Dec-04	L5	13.5	8.338	3.3	0.065979	9.252654	4.75420635	0.714151168
Jan-05	R1	14.8	7.693	0.9	0.017951	9.247082	18.08673477	2.71689149
Jan-05	R2	11.2	8.035	4.1	0.08204	9.254517	11.050791	1.659990064
Jan-05	R3	11.6	8.095	6.2	0.124324	9.259422	9.481756052	1.424298119
Jan-05	R4	14.9	7.855	1.8	0.035934	9.249168	12.50480455	1.878404118
Jan-05	L5	11.6	8.040	0.7	0.013959	9.246619	10.425506	1.566063133
Feb-05	R1	11.4	8.070	0.5	0.009969	9.246156	9.877910607	1.483806314
Feb-05	R2	11.6	8.073	4.7	0.094103	9.255916	9.895236662	1.486408941
Feb-05	R3	12.5	7.945	7.2	0.144522	9.261765	12.51490921	1.879921985
Feb-05	R4	16	7.818	1.5	0.029936	9.248473	12.53773048	1.883350072
Feb-05	L5	11.6	7.988	0.3	0.00598	9.245694	11.71071453	1.759120208
Mar-05	R1	15	7.73	0.8	0.015955	9.246851	16.38962927	2.461961479
Mar-05	R2	13.7	7.936	1.2	0.023942	9.247777	11.33491509	1.702669649
Mar-05	R3	14.2	8.082	2.2	0.043937	9.250097	7.915757702	1.189062316
Mar-05	R4	14.6	7.956	1.2	0.023942	9.247777	10.14673826	1.52418815
Mar-05	L5	13.6	8.272	0.4	0.007974	9.245925	5.37090087	0.806787684
Apr-05	R1	15.5	7.9	1.4	0.027938	9.248241	10.79000002	1.620815453
Apr-05	R2	12.7	8.063333	8.1	0.162736	9.263877	9.492024302	1.42584056
Apr-05	R3	14.3	8.23	8.9	0.178954	9.265759	5.855623581	0.879600109
Apr-05	R4	13.9	8.336667	2.9	0.057958	9.251723	4.620297094	0.694036044
Apr-05	L5	15	8.18	3.1	0.061968	9.252188	6.036477069	0.906766942
P = 1 atm								
Maxi		19.9					23.69050569	3.558659654
Mini		11.2					0.525024246	0.078866303