

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)
May-02	R1	18.7	9.1125	7	0.1404795	9.2612956	0.758307753
May-02	R2	18.9	9.205	14.5	0.2932193	9.2790134	0.668663851
May-02	R3	20.2	9.2025	14.3	0.2891159	9.2785374	0.630241766
May-02	R4	20.5	9.1725	4.4	0.0880696	9.2552161	0.627469466
May-02	L5	20.1	9.18	5.2	0.1041664	9.2570833	0.634181421
Jun-02	R1	20.9	8.9475	2.9	0.0579581	9.2517231	0.870617555
Jun-02	R2	21.1	9.1875	2.5	0.0499437	9.2507935	0.593703623
Jun-02	R3	22.3	9.22	2.7	0.0539501	9.2512582	0.539361841
Jun-02	R4	22.1	9.2075	2.8	0.0559539	9.2514907	0.55321908
Jun-02	L5	22.1	8.9275	2.4	0.0479412	9.2505612	0.841860397
Jul-02	R1	23	9.302	5.7	0.1142401	9.2582519	0.477651552
Jul-02	R2	23.5	9.444	4.7	0.0941029	9.2559159	0.402048693
Jul-02	R3	23.4	9.46	7.2	0.1445224	9.2617646	0.399379777
Jul-02	R4	22.9	9.494	4	0.080031	9.2542836	0.389971122
Jul-02	L5	23.6	9.398	4.7	0.0941029	9.2559159	0.419539914
Aug-02	R1	20	8.3066667	2.6	0.0519467	9.2510258	3.210533891
Aug-02	R2	19.8	8.3666667	2.3	0.045939	9.2503289	2.861088054
Aug-02	R3	20.8	8.4266667	2.5	0.0499437	9.2507935	2.359688985
Aug-02	R4	21.6	8.4266667	2.1	0.0419358	9.2498646	2.232192811
Aug-02	L5	21.9	8.3466667	2.6	0.0519467	9.2510258	2.58965387
Sep-02	R1	19.3	8.34	2.6	0.0519467	9.2510258	3.138385196
Sep-02	R2	19.9	8.68	13.8	0.2788647	9.2773483	1.582229775
Sep-02	R3	21.1	8.715	13.5	0.2727191	9.2766354	1.369298521
Sep-02	R4	22.1	8.725	5.9	0.1182724	9.2587196	1.221954144
Sep-02	L5	21.4	8.78	2.2	0.0439372	9.2500967	1.132981543
Oct-02	R1	17.6	9.062	4.2	0.0840495	9.2547497	0.863969647
Oct-02	R2	18	9.06	8.7	0.1748969	9.265288	0.863356988
Oct-02	R3	18.3	9.078	8.5	0.1708416	9.2648176	0.823739504
Oct-02	R4	18.4	9.024	6.7	0.1344181	9.2605925	0.890553113
Oct-02	L5	18.1	9.086	3.6	0.0719988	9.2533519	0.806337495
May-03	R1	18.9	7.79	2.9	0.0579581	9.2517231	10.87103056
May-03	R2	18.7	7.74	10.7	0.2155402	9.2700027	12.86932684
May-03	R3	17.1	7.7966667	15.9	0.3219899	9.2823508	13.09010329
May-03	R4	18.6	7.74	2.2	0.0439372	9.2500967	12.39359868
May-03	L5	18.3	7.9333333	4.3	0.0860593	9.2549829	8.291012476
Jun-03	R1	21.1	7.8033333	1.7	0.0339344	9.2489364	8.931814821
Jun-03	R2	20.9	7.84	7.8	0.1566611	9.2631727	8.61813034
Jun-03	R3	18.4	7.87	15	0.303485	9.2802043	10.0401451
Jun-03	R4	18.5	7.9333333	4.3	0.0860593	9.2549829	8.171671617
Jun-03	L5	19.1	7.91	3.2	0.0639731	9.2524209	8.196039638
Jul-03	R1	20.5	8.538	2.2	0.0439372	9.2500967	1.913327887
Jul-03	R2	20.5	8.63	10	0.2012962	9.2683504	1.650906791
Jul-03	R3	20.6	8.674	8.1	0.162736	9.2638774	1.491735987
Jul-03	R4	20.6	8.67	3.8	0.0760141	9.2538176	1.474294702
Jul-03	L5	20.4	8.63	3.7	0.0740062	9.2535847	1.613772373
Aug-03	R1	22.2	8.2675	2.3	0.045939	9.2503289	2.993866623

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Aug-03	R2	21.1	8.305	8.9	0.1789538	9.2657586	3.081496366
Aug-03	R3	20.1	8.325	8.4	0.1688146	9.2645825	3.156075315
Aug-03	R4	20.7	8.3225	2.6	0.0519467	9.2510258	2.957852778
Aug-03	L5	20.7	8.345	2.6	0.0519467	9.2510258	2.820277683
Sep-03	R1	18.2	8.165	3.5	0.0699918	9.253119	4.974737199
Sep-03	R2	18.1	7.86	9.1	0.1830124	9.2662294	10.17074655
Sep-03	R3	18.8	7.646	10.3	0.2073983	9.2690582	15.77247511
Sep-03	R4	21.9	7.426	1.8	0.0359342	9.2491684	19.78112054
Sep-03	L5	19.8	7.558	1.9	0.0379343	9.2494004	17.11321743
Oct-03	R1	18.7	9.04	4.2	0.0840495	9.2547497	0.844459827
Oct-03	R2	18.7	8.88	4.4	0.0880696	9.2552161	1.117777897
Oct-03	R3	19.2	8.81	4.2	0.0840495	9.2547497	1.233386185
Oct-03	R4	19.3	8.52	5	0.1001398	9.2566162	2.177438046
Oct-03	L5	19.9	8.7833333	4.4	0.0880696	9.2552161	1.243695538
May-04	R1	20.3	8.6475	1.7	0.0339344	9.2489364	1.554946271
May-04	R2	18.6	8.65	5.8	0.1162561	9.2584857	1.758260219
May-04	R3	20.1	8.6375	5.1	0.1021529	9.2568497	1.631322172
May-04	R4	21.9	8.595	1.2	0.0239416	9.2477772	1.55342542
May-04	L5	21.5	8.6425	2.7	0.0539501	9.2512582	1.46229199
Jun-04	R1	21.1	8.545	3.8	0.0760141	9.2538176	1.827684091
Jun-04	R2	19.4	8.690	5.9	0.1182724	9.2587196	1.544165318
Jun-04	R3	20.3	8.645	6.3	0.126342	9.2596557	1.595803021
Jun-04	R4	21.5	8.625	3.2	0.0639731	9.2524209	1.516269049
Jun-04	L5	21.4	8.4625	3.6	0.0719988	9.2533519	2.116600281
Jul-04	R1	22.3	9.765	2.4	0.0479412	9.2505612	0.320204246
Jul-04	R2	21.6	9.895	2.7	0.0539501	9.2512582	0.301220517
Jul-04	R3	22.8	9.813	2.3	0.045939	9.2503289	0.308267093
Jul-04	R4	23.1	9.855	2.3	0.045939	9.2503289	0.299739815
Jul-04	L5	23.5	9.713	2.6	0.0519467	9.2510258	0.323078617
Aug-04	R1	20.9	9.615	2.9	0.0579581	9.2517231	0.370107201
Aug-04	R2	21.5	8.640	2.5	0.0499437	9.2507935	1.468066416
Aug-04	R3	22.6	8.556	3.4	0.0679852	9.2528863	1.620211214
Aug-04	R4	23	8.616	2.1	0.0419358	9.2498646	1.397556816
Aug-04	L5	22.9	8.716	2.9	0.0579581	9.2517231	1.168964359
Sep-04	R1	22.2	9.805	2.2	0.0439372	9.2500967	0.313041132
Sep-04	R2	21.2	9.113	2.4	0.0479412	9.2505612	0.657467871
Sep-04	R3	21.9	9.070	5	0.1001398	9.2566162	0.684390961
Sep-04	R4	23.4	9.230	3.2	0.0639731	9.2524209	0.509539273
Sep-04	L5	22.4	9.153	4.9	0.098127	9.2563827	0.591744964
Oct-04	R1	18.7	8.910	4.1	0.08204	9.2545166	1.057394018
Oct-04	R2	18	8.380	8.3	0.166788	9.2643474	3.24355067
Oct-04	R3	17.9	8.305	9.7	0.1951979	9.267643	3.86529856
Oct-04	R4	20.2	8.260	1.9	0.0379343	9.2494004	3.487002206
Oct-04	L5	18	8.320	2.9	0.0579581	9.2517231	3.590543694
May-05	R1	16	7.89	1.3	0.0259394	9.248009	10.63479974
May-05	R2	16.6	7.5933333	11.1	0.2236887	9.2709479	20.99521927

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May-05	R3	16.6	7.9733333	14.1	0.2850142	9.2780616	9.0310724
May-05	R4	17.3	8.0466667	2.9	0.0579581	9.2517231	6.870970994
May-05	L5	15.4	8.3366667	1.3	0.0259394	9.248009	4.122395615
Jun-05	R1	22.6	7.950	2	0.0399349	9.2496324	5.790618855
Jun-05	R2	17	8.070	16.4	0.332285	9.2835451	7.155199133
Jun-05	R3	18.1	8.095	22.2	0.4524825	9.297488	6.449507369
Jun-05	R4	21.2	8.320	2.8	0.0559539	9.2514907	2.876063731
Jun-05	L5						
Jul-05	R1						
Jul-05	R2	20.7	8.400	16	0.3240481	9.2825896	2.684358313
Jul-05	R3	20.3	8.865	19.8	0.4025722	9.2916984	1.117047884
Jul-05	R4	20.9	8.135	1.2	0.0239416	9.2477772	4.336121293
Jul-05	L5						
Aug-05	R1						
Aug-05	R2	21.4	7.7	8.6	0.172869	9.2650528	11.43226949
Aug-05	R3	21.1	8.04	11.7	0.2359238	9.2723672	5.556830166
Aug-05	R4	18.2	7.68	3.3	0.0659789	9.2526536	14.70311528
Aug-05	L5						
Sep-05	R1	18.6	8.2166667	2.9	0.0579581	9.2517231	4.306002841
Sep-05	R2	19.5	8.9066667	5.3	0.1061803	9.2573169	1.020676796
Sep-05	R3	19.4	8.98	6.4	0.1283604	9.2598898	0.907260408
Sep-05	R4	20.3	8.4366667	4.9	0.098127	9.2563827	2.41821154
Sep-05	L5	20.9	7.6333333	1.4	0.0279375	9.2482408	13.27200782
P = 1 atm							
Maxi		23.6	9.895	22.2			20.99521927
Mini		15.4	7.426	1.2			0.299739815

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4-day EPA Objective (expressed as total ammonia)
0.11390889
0.100443068
0.09467151
0.09425507
0.095263304
0.130779461
0.089182948
0.081020019
0.083101578
0.126459716
0.071750233
0.060393581
0.05999267
0.058579353
0.063021017
0.482269039
0.429777175
0.354459719
0.335307933
0.3890038
0.471431253
0.237674001
0.205688619
0.183555344
0.17019036
0.129780848
0.129688818
0.123737694
0.133774073
0.121123658
1.632987423
1.933160684
1.966324528
1.861699373
1.245431059
1.341688922
1.294568935
1.508176302
1.22750432
1.231164753
0.287409768
0.247990291
0.224080513
0.221460578
0.242412159
0.449722454

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4-day EPA Objective (expressed as total ammonia)
0.46288572
0.474088567
0.444312649
0.423646862
0.74727812
1.527794546
2.369255918
2.971412956
2.570654979
0.126850189
0.167906551
0.185272603
0.327082968
0.186821218
0.23357562
0.264116342
0.245048395
0.233347166
0.219657595
0.27454482
0.231956164
0.2397129
0.227765737
0.317944248
0.04809935
0.045247717
0.046306216
0.045025294
0.048531123
0.055595502
0.220524998
0.243379367
0.209933427
0.175595505
0.047023346
0.098761268
0.102805509
0.076540234
0.088888728
0.158836011
0.487228641
0.580624247
0.523798615
0.539352057
1.597502106
3.153788302

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4-day EPA Objective (expressed as total ammonia)
1.356598858
1.032120106
0.619243976
0.86983545
1.07481532
0.96881012
0.432026741
0.40322979
0.167796892
0.651348692
1.717293701
0.834716978
2.208622467
0.646824461
0.153320549
0.136283752
0.363250661
1.993649244
3.153788302
0.045025294