APPENDIX B

Summary of Groundwater Quality for the Central Valley SNMP

Content:

- **Groundwater Basins/Subbasins in the Central Valley Floor**
  - **Figure B – 1** DWR Bulletin 118 (2003) Groundwater Basins/Subbasins in the Central Valley Floor

- **Final Assessment Water Quality Data**
  - **Tables B – 1** and **B – 2** contain average and median Nitrate and TDS concentration for wells defined in the Upper or Lower Zones in the Central Valley floor groundwater basin/subbasins
  - **Tables B – 3** and **B – 4** contain average and median Nitrate and TDS concentration for wells in groundwater basins/subbasins outside the Central Valley floor
  - **Table B – 5** contains aggregate (volume-weighted) ambient concentrations of Nitrate and TDS in the Lower, Upper, and Production Zones in Central Valley floor groundwater basins/subbasins
  - **Figures B – 2** and **B – 3** illustrates ambient conditions for Nitrate in the Upper and Production Zones of groundwater basin/subbasins in the Central Valley floor, respectively.
  - **Figures B – 4** and **B – 5** illustrates ambient conditions for TDS in the Upper and Production Zones of groundwater basins/subbasins in the Central Valley floor, respectively.
  - **Tables B – 6 and B – 7** contain Region 5: DWR Bulletin 118 (2003) groundwater basins/subbasins Nitrate and TDS concentration statistics, respectively.

- **Assimilative Capacity Water Quality Data**
  - **Table B - 8** contains estimated assimilative capacity for Nitrate and TDS in the Lower, Upper, and Production Zones in Central Valley groundwater basins/subbasins
  - **Figures B - 6** and **B - 7** illustrates the estimated assimilative capacity for Nitrate in the Upper Zone and Production Zone of Central Valley floor groundwater basins/subbasins, respectively
  - **Figures B - 8** and **B - 9** illustrates the estimated assimilative capacity for TDS in the Upper Zone and Production Zone of Central Valley floor groundwater basins/subbasins, respectively

- **Initial Analysis Zones Water Quality Data**
  - **Tables B – 9** through **B – 16** contain ambient Nitrate and TDS concentrations and trends in the Northern Central Valley, Middle Central Valley, and Southern Central Valley Initial Analysis Zones
  - **Tables B – 17** through **B – 22** contain Nitrate and TDS concentration statistics in the Northern Central Valley, Middle Central Valley, and Southern Central Valley Initial Analysis Zones
  - **Table A – 23** contains aggregate (volume-weighted) ambient concentrations of Nitrate and TDS in the Northern Central Valley, Middle Central Valley, and Southern Central Valley Initial Analysis Zones

DRAFT

- **Figures B – 10** through **B – 21** illustrates average Nitrate and TDS mass and the starting, net change, and final Nitrate and TDS mass in the Northern Central Valley, Middle Central Valley, and Southern Central Valley Initial Analysis Zones

Data and detailed analyses utilized in the development of tables and figures can be found in the final CV-SALTS Salt and Nitrate Management Plan (CV-SALTS SNMP 2016) at: https://www.cvsalinity.org/docs/central-valley-snmp/final-snmp.html

DRAFT

Figure B - 1. DWR Bulletin 118 Groundwater Basins/Subbasins in the Central Valley Floor

Table B - 1. Average and Median Nitrate Concentration Statistics for Wells Defined in Upper or Lower Zones in Central Valley Floor Groundwater Basins/Subbasins[1]

DWR Bulletin 118 Groundwater Basin		Aquifer Zone	Number of Wells	Average (mg/L as N)	Median (mg/L as N)
Northern Central Valley	5-6.01	Upper Zone	7	2.17	0.92
		Lower Zone	80	1.10	0.81
	5-6.02	Lower Zone	2	4.97	4.97
	5-6.03	Upper Zone	115	0.83	0.28
		Lower Zone	67	1.09	1.01
	5-6.04	Upper Zone	45	0.66	0.23
		Lower Zone	32	1.76	1.32
	5-6.05	Upper Zone	3	0.65	0.64
		Lower Zone	6	1.87	1.37
	5-6.06	Lower Zone	4	0.94	0.97
	5-21.50	Upper Zone	78	3.42	0.94
		Lower Zone	164	1.35	0.92
	5-21.51	Upper Zone	181	2.25	0.66
		Lower Zone	49	3.37	2.22
	5-21.52	Upper Zone	279	3.53	0.90
		Lower Zone	203	3.10	1.72
	5-21.53	Lower Zone	36	2.98	2.34
	5-21.54	Upper Zone	6	2.25	2.48
		Lower Zone	22	3.26	3.28
	5-21.55	Upper Zone	2	2.87	2.87
		Lower Zone	45	1.92	1.74
	5-21.56	Lower Zone	60	2.18	1.99
	5-21.57	Upper Zone	30	3.76	3.30
		Lower Zone	97	3.12	1.92
	5-21.58	Upper Zone	41	3.42	0.32
		Lower Zone	63	1.85	0.76
	5-21.59	Upper Zone	96	1.69	0.43
		Lower Zone	49	2.55	1.52
	5-21.60	Upper Zone	66	2.08	0.37
		Lower Zone	21	2.23	0.94
	5-21.61	Upper Zone	79	4.22	2.61
		Lower Zone	66	2.05	0.43
	5-21.62	Upper Zone	66	7.78	0.23
		Lower Zone	73	2.99	0.87
	5-21.64	Upper Zone	236	13.83	1.32
		Lower Zone	252	1.56	1.28
	5-21.67	Upper Zone	431	36.78	1.90
		Lower Zone	120	3.50	3.45
	5-21.68	Lower Zone	3	6.87	7.55
Middle Central Valley	2-3	Upper Zone	5	3.18	0.41
		Lower Zone	16	3.67	2.24
	2-4	Lower Zone	4	1.03	0.94

DRAFT

Table B - 1. Average and Median Nitrate Concentration Statistics for Wells Defined in Upper or Lower Zones in Central Valley Floor Groundwater Basins/Subbasins[1]

DWR Bulletin 118 Groundwater Basin		Aquifer Zone	Number of Wells	Average (mg/L as N)	Median (mg/L as N)
Middle Central Valley	5-21.65	Upper Zone	440	3.35	0.68
		Lower Zone	213	2.06	1.54
	5-21.66	Upper Zone	197	14.16	2.66
		Lower Zone	130	2.45	0.88
	5-22.01	Upper Zone	1012	22.43	3.12
		Lower Zone	589	5.28	2.71
	5-22.02	Upper Zone	440	9.58	5.20
		Lower Zone	109	4.51	3.31
	5-22.03	Upper Zone	925	17.87	11.95
		Lower Zone	126	7.86	3.67
	5-22.04	Upper Zone	355	11.30	5.20
		Lower Zone	108	4.58	3.40
	5-22.05	Upper Zone	114	9.78	7.33
		Lower Zone	14	7.73	4.43
	5-22.06	Upper Zone	44	8.41	6.79
		Lower Zone	165	4.02	2.50
	5-22.07	Upper Zone	478	13.67	7.07
		Lower Zone	109	4.71	2.22
	5-22.15	Upper Zone	331	7.43	2.64
		Lower Zone	120	2.16	0.53
	5-22.16	Upper Zone	106	3.85	2.63
		Lower Zone	163	2.74	1.60
Southern Central Valley	5-22.08	Upper Zone	390	11.24	6.24
		Lower Zone	796	6.29	3.56
	5-22.09	Upper Zone	4	0.91	0.51
		Lower Zone	22	5.58	0.28
	5-22.10	Upper Zone	9	1.15	0.23
		Lower Zone	2	0.18	0.18
	5-22.11	Upper Zone	329	18.20	12.20
		Lower Zone	304	13.75	9.93
	5-22.12	Upper Zone	140	10.32	4.13
		Lower Zone	106	8.58	2.03
	5-22.13	Upper Zone	176	9.92	7.15
		Lower Zone	191	10.24	6.80
	5-22.14	Upper Zone	198	9.79	1.12
		Lower Zone	383	2.93	1.42

[1] Nitrate statistics based on arithmetic averages of well data; no spatial averaging was conducted.

DRAFT

Table B - 2. Average and Median TDS Concentration Statistics[1] for Wells Defined in Upper or Lower Zones in Central Valley Floor Groundwater Basins/Subbasins

DWR Bulletin 118 Groundwater Basin		Aquifer Zone	Number of Wells	Average (mg/L)	Median (mg/L)
Northern Central Valley	5-6.01	Upper Zone	7	164	134
		Lower Zone	74	199	184
	5-6.02	Lower Zone	2	215	215
	5-6.03	Upper Zone	22	169	172
		Lower Zone	45	143	139
	5-6.04	Upper Zone	11	667	172
		Lower Zone	21	169	161
	5-6.05	Lower Zone	4	176	175
	5-6.06	Lower Zone	4	282	221
	5-21.50	Upper Zone	24	627	229
		Lower Zone	135	217	183
	5-21.51	Upper Zone	112	343	300
		Lower Zone	25	226	214
	5-21.52	Upper Zone	145	516	370
		Lower Zone	139	461	361
	5-21.53	Lower Zone	32	333	300
	5-21.54	Upper Zone	6	283	269
		Lower Zone	12	271	266
	5-21.55	Upper Zone	2	323	323
		Lower Zone	37	211	203
	5-21.56	Lower Zone	50	206	206
	5-21.57	Upper Zone	17	216	201
		Lower Zone	59	206	189
	5-21.58	Upper Zone	33	473	403
		Lower Zone	51	238	199
	5-21.59	Upper Zone	64	339	242
		Lower Zone	46	281	223
	5-21.60	Upper Zone	41	351	320
		Lower Zone	18	246	216
	5-21.61	Upper Zone	74	529	330
		Lower Zone	57	339	272
	5-21.62	Upper Zone	50	849	521
		Lower Zone	54	766	519
	5-21.64	Upper Zone	177	957	410
		Lower Zone	239	256	234
	5-21.67	Upper Zone	194	1,488	1,050
		Lower Zone	87	539	543
Middle Central Valley	2-3	Upper Zone	4	1,062	717
		Lower Zone	9	555	634
	2-4	Lower Zone	2	722	722
	5-21.65	Upper Zone	175	646	405
		Lower Zone	149	211	172

DRAFT

Table B - 2. Average and Median TDS Concentration Statistics[1] for Wells Defined in Upper or Lower Zones in Central Valley Floor Groundwater Basins/Subbasins

DWR Bulletin 118 Groundwater Basin		Aquifer Zone	Number of Wells	Average (mg/L)	Median (mg/L)
Middle Central Valley	5-21.66	Upper Zone	169	1,868	765
		Lower Zone	94	508	425
	5-22.01	Upper Zone	451	2,418	740
		Lower Zone	232	304	249
	5-22.02	Upper Zone	186	602	489
		Lower Zone	79	273	206
	5-22.03	Upper Zone	117	506	488
		Lower Zone	53	285	225
	5-22.04	Upper Zone	80	498	392
		Lower Zone	62	289	211
	5-22.05	Upper Zone	21	625	623
		Lower Zone	5	370	208
	5-22.06	Upper Zone	22	500	518
		Lower Zone	126	234	194
	5-22.07	Upper Zone	241	1,234	1,080
		Lower Zone	76	922	809
	5-22.15	Upper Zone	288	1,714	1,260
		Lower Zone	86	801	720
	5-22.16	Upper Zone	35	380	167
		Lower Zone	53	218	166
Southern Central Valley	5-22.08	Upper Zone	260	637	504
		Lower Zone	654	267	214
	5-22.09	Upper Zone	2	1,305	1,305
		Lower Zone	19	1,058	894
	5-22.10	Upper Zone	9	4,056	3,200
		Lower Zone	2	934	934
	5-22.11	Upper Zone	124	936	672
		Lower Zone	141	365	306
	5-22.12	Upper Zone	57	4,006	1,196
		Lower Zone	28	423	280
	5-22.13	Upper Zone	86	708	500
		Lower Zone	90	330	302
	5-22.14	Upper Zone	171	2,418	710
		Lower Zone	341	388	259

[1] Nitrate statistics based on arithmetic averages of well data; no spatial averaging was conducted.

DRAFT

Table B - 3. Average and Median Nitrate Concentration Statistics[1] for Wells Groundwater Basins/Subbasins Outside the Central Valley Floor

Area	DWR Bulletin 118 Groundwater Basin	Number of Wells	Average (mg/L as N))	Median (mg/L as N))
Northern Central Valley	**5-2.01**	43	0.76	0.50
	5-2.02	19	0.60	0.39
	5-4	29	0.56	0.23
	5-5	8	1.08	0.23
	5-7	12	0.25	0.21
	5-9	31	0.32	0.23
	5-10	32	0.34	0.24
	5-11	12	0.67	0.42
	5-12.01	44	0.54	0.23
	5-12.02	6	0.95	0.33
	5-13	15	1.09	0.48
	5-14	46	0.87	0.23
	5-15	26	1.35	0.23
	5-16	5	0.23	0.23
	5-17	14	1.33	0.70
	5-18	5	1.76	1.94
	5-19	13	0.56	0.23
	5-30	7	1.58	0.34
	5-35	9	1.49	0.59
	5-46	2	0.23	0.23
	5-50	4	0.88	0.17
	5-56	2	0.38	0.38
	5-60	29	0.69	0.25
	5-62	5	0.34	0.24
	5-63	4	0.18	0.18
	5-66	3	0.27	0.23
	5-68	2	0.23	0.23
	5-87	9	0.22	0.23
Middle Central Valley	**5-69**	5	0.16	0.23
Southern Central Valley	**5-25**	115	3.16	1.65
	5-27	35	4.37	3.92
	5-28	51	6.10	5.48
	5-29	8	3.47	3.91
	5-80	7	2.74	3.88
	5-82	9	3.44	2.77
	5-83	11	3.00	2.28
	5-84	19	1.28	0.48
	5-85	10	0.85	0.75

[1] Nitrate statistics based on arithmetic averages of well data; no spatial averaging was conducted.

DRAFT

Table B - 4. Average and Median TDS Concentration Statistics[1] for Wells Groundwater Basins/Subbasins Outside the Central Valley Floor

Area	DWR Bulletin 118 Groundwater Basin	Number of Wells	Average (mg/L)	Median (mg/L)
Northern Central Valley	5-2.01	14	310	250
	5-2.02	12	252	234
	5-4	8	234	193
	5-5	4	184	153
	5-7	11	93	89
	5-9	17	129	132
	5-10	20	107	80
	5-11	6	178	188
	5-12.01	25	254	170
	5-13	9	207	163
	5-14	7	165	139
	5-15	22	394	365
	5-16	4	621	665
	5-17	4	327	311
	5-18	5	299	318
	5-19	40	1,084	384
	5-30	6	408	442
	5-35	3	42	39
	5-50	3	112	100
	5-60	12	140	155
	5-63	4	258	256
	5-66	4	280	271
	5-68	2	568	568
	5-87	3	167	175
Middle Central Valley	5-69	5	33	32
Southern Central Valley	5-25	106	325	326
	5-27	39	381	356
	5-28	50	393	330
	5-29	6	577	570
	5-80	8	325	346
	5-82	8	664	705
	5-83	9	632	675
	5-84	13	470	410
	5-85	9	528	552

[1] Nitrate statistics based on arithmetic averages of well data; no spatial averaging was conducted.

DRAFT

Table B - 5. Volume-Weighted Ambient Concentrations of Nitrate and TDS in the Lower, Upper, and Production Zones Central Valley Floor Groundwater Basins/Subbasins.

Area	DWR B118 Groundwater Basin Code	Nitrate (mg/L as N)			TDS (mg/L)		
		Lower Zone*	Upper Zone	Production Zone	Lower Zone*	Upper Zone	Production Zone
Northern Central Valley	**5-6.01**	1.05	1.04	1.05	178	164	172
	5-6.02	1.36	0.95	1.16	202	149	176
	5-6.03	1.21	1.03	1.12	147	190	168
	5-6.04	1.45	0.99	1.22	159	258	198
	5-6.05	1.76	0.92	1.28	160	148	154
	5-6.06	0.89	0.85	0.87	192	162	176
	5-21.50	1.88	1.37	1.67	238	238	238
	5-21.51	2.34	1.78	2.16	264	289	272
	5-21.52	2.87	3.29	3.06	472	613	533
	5-21.53	2.20	1.23	1.77	262	234	250
	5-21.54	3.06	1.92	2.66	297	361	320
	5-21.55	1.91	1.59	1.80	223	226	224
	5-21.56	1.36	2.42	1.67	181	200	186
	5-21.57	2.08	2.83	2.28	192	204	195
	5-21.58	1.38	2.62	1.80	313	403	343
	5-21.59	0.99	1.93	1.31	310	338	320
	5-21.60	2.35	2.19	2.28	295	349	317
	5-21.61	1.90	2.91	2.30	365	430	391
	5-21.62	1.15	2.37	1.67	918	992	950
	5-21.64	1.58	3.67	2.37	298	446	353
	5-21.67	3.59	12.27	7.63	523	790	647
	5-21.68	6.03	2.66	4.58	635	1069	823
Middle Central Valley	**2-3**	3.47	3.48	3.47	564	1400	900
	2-4	1.07	4.82	2.68	671	2896	1628
	5-21.65	1.55	2.13	1.78	222	343	270
	5-21.66	2.68	4.46	3.36	504	935	669
	5-22.01	3.69	6.07	4.72	293	506	385
	5-22.02	3.74	7.58	5.53	217	352	280
	5-22.03	4.63	10.97	7.74	211	439	322
	5-22.04	3.46	6.48	4.85	261	418	334
	5-22.05	6.64	8.88	8.21	540	874	774
	5-22.06	3.78	4.65	4.09	275	417	325
	5-22.07	3.32	5.84	5.01	928	1307	1184
	5-22.15	2.30	3.64	3.04	890	1255	1091
	5-22.16	1.48	2.65	1.87	227	206	220
Southern Central Valley	**5-22.08**	6.62	7.12	6.84	391	560	464
	5-22.09	2.86	1.26	1.80	1165	2038	1744
	5-22.10	0.43	2.32	1.37	846	3218	2025
	5-22.11	13.38	11.88	12.64	419	514	465
	5-22.12	1.36	5.33	3.23	740	1659	1173
	5-22.13	8.29	8.31	8.30	382	588	465
	5-22.14	3.29	5.54	3.76	561	2313	1177

* Above the Corcoran Clay where present.

DRAFT

Figure B - 2. Ambient Conditions for Nitrate (mg/L as N) in the Upper Zone of Groundwater Basins/Subbasins in the Central Valley Floor

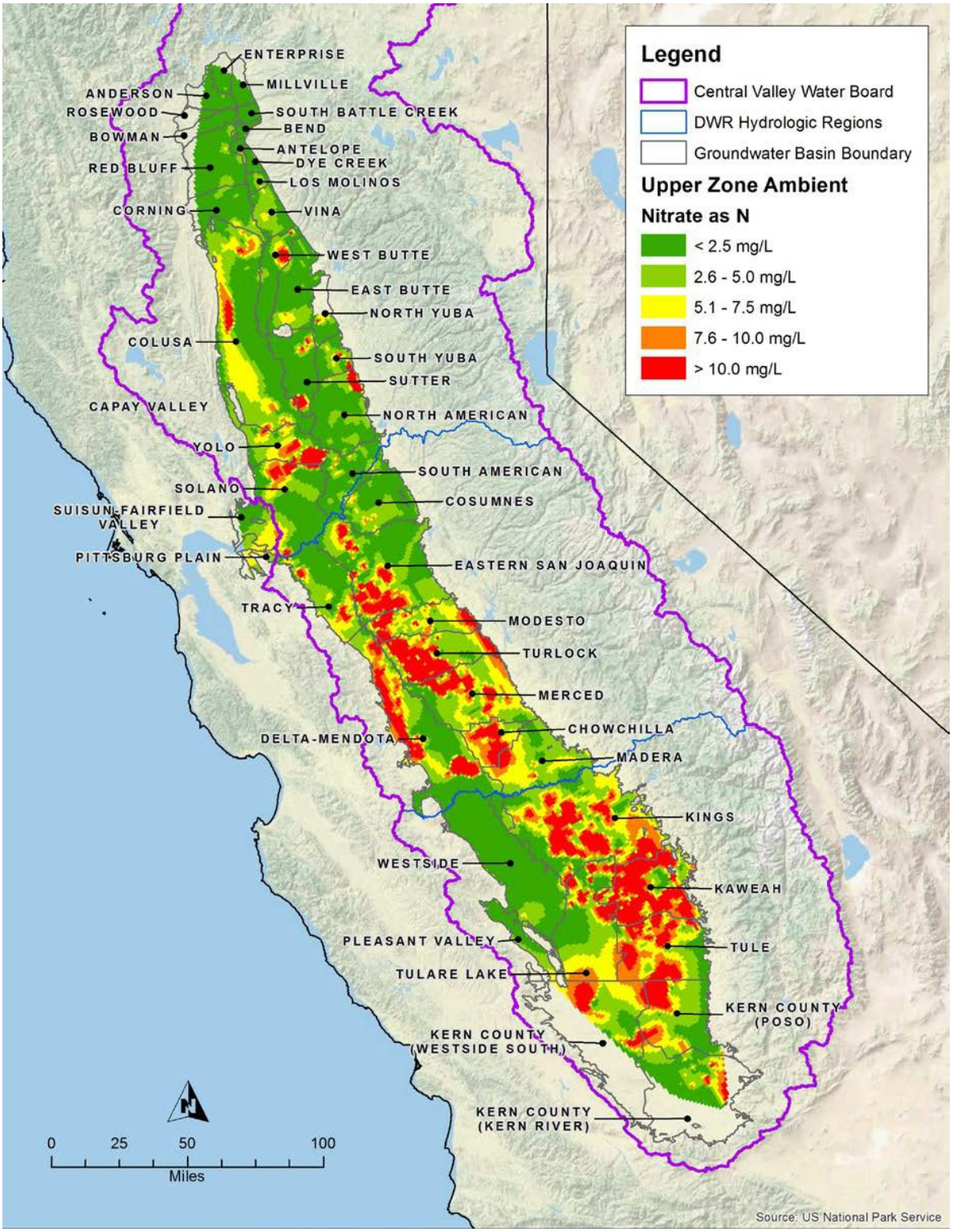

Figure B - 3. Ambient Conditions for Nitrate (mg/L as N) in the Production Zone of Groundwater Basins/Subbasins in the Central Valley Floor (above Corcoran Clay where present)

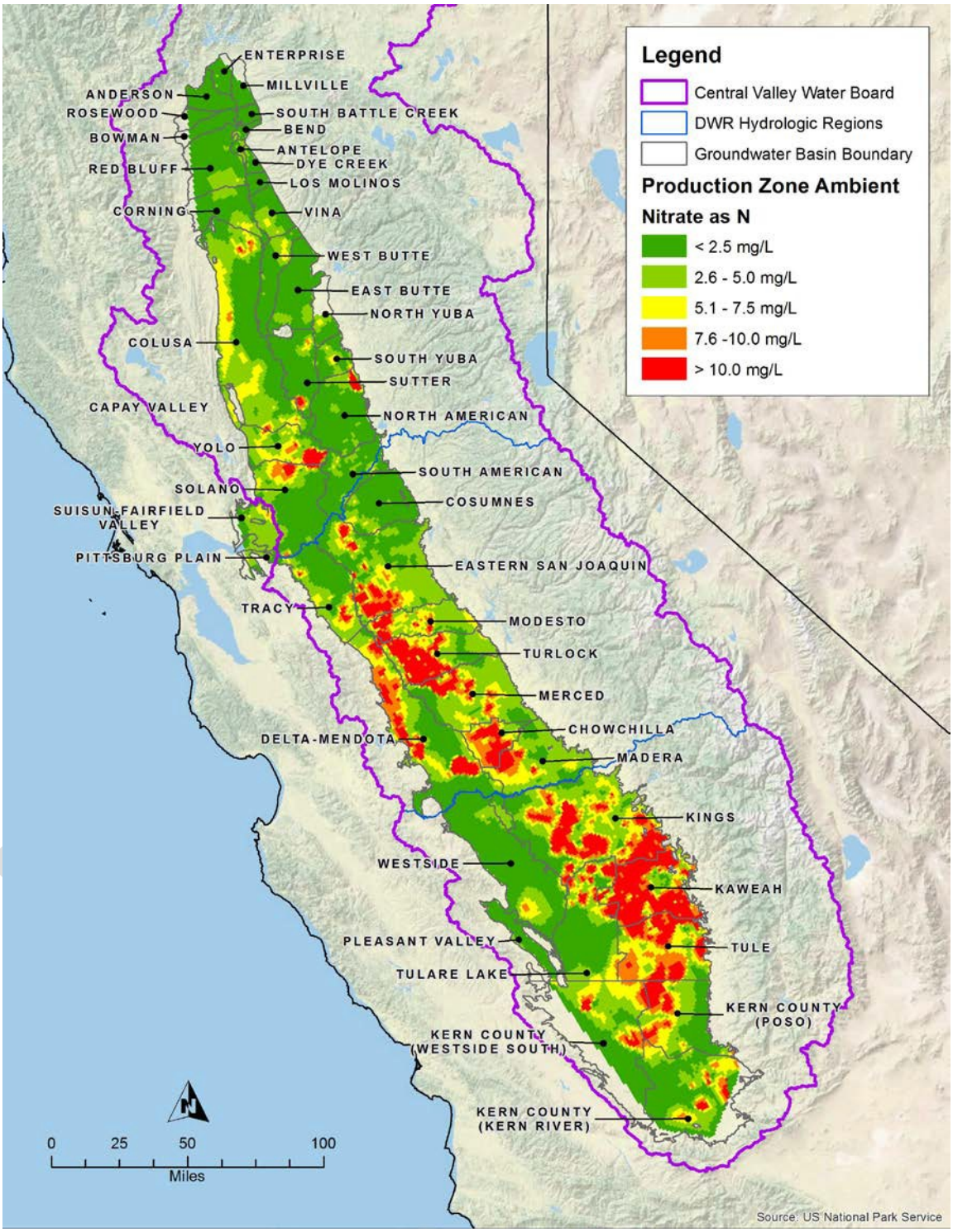

Figure B - 4. Ambient Conditions for TDS (mg/L) in the Upper Zone of Groundwater Basins/Subbasins in the Central Valley Floor

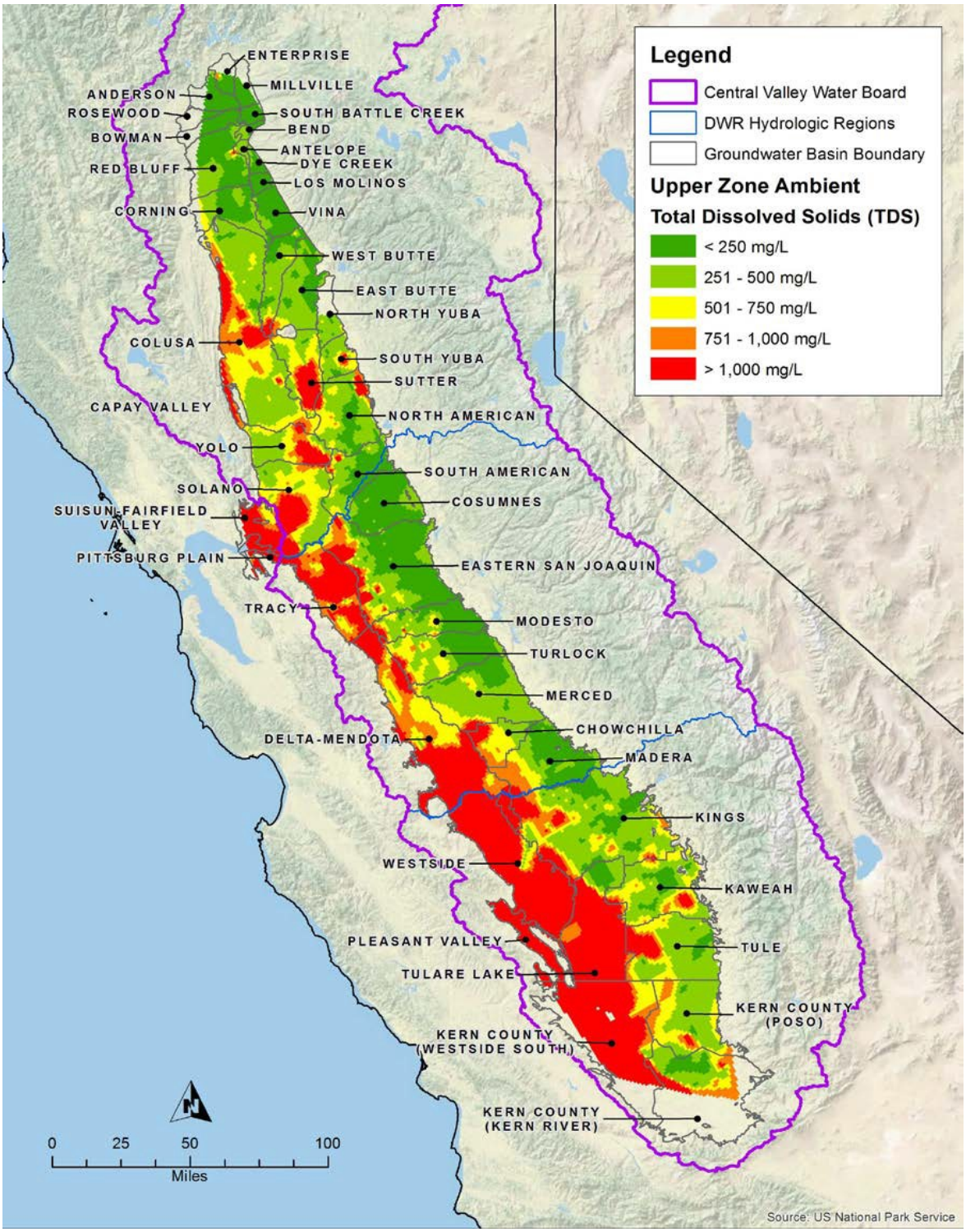

Figure B - 5. Ambient Conditions for TDS (mg/L) in the Production Zone of Groundwater Basins/Subbasins in the Central Valley Floor (above Corcoran Clay where present)

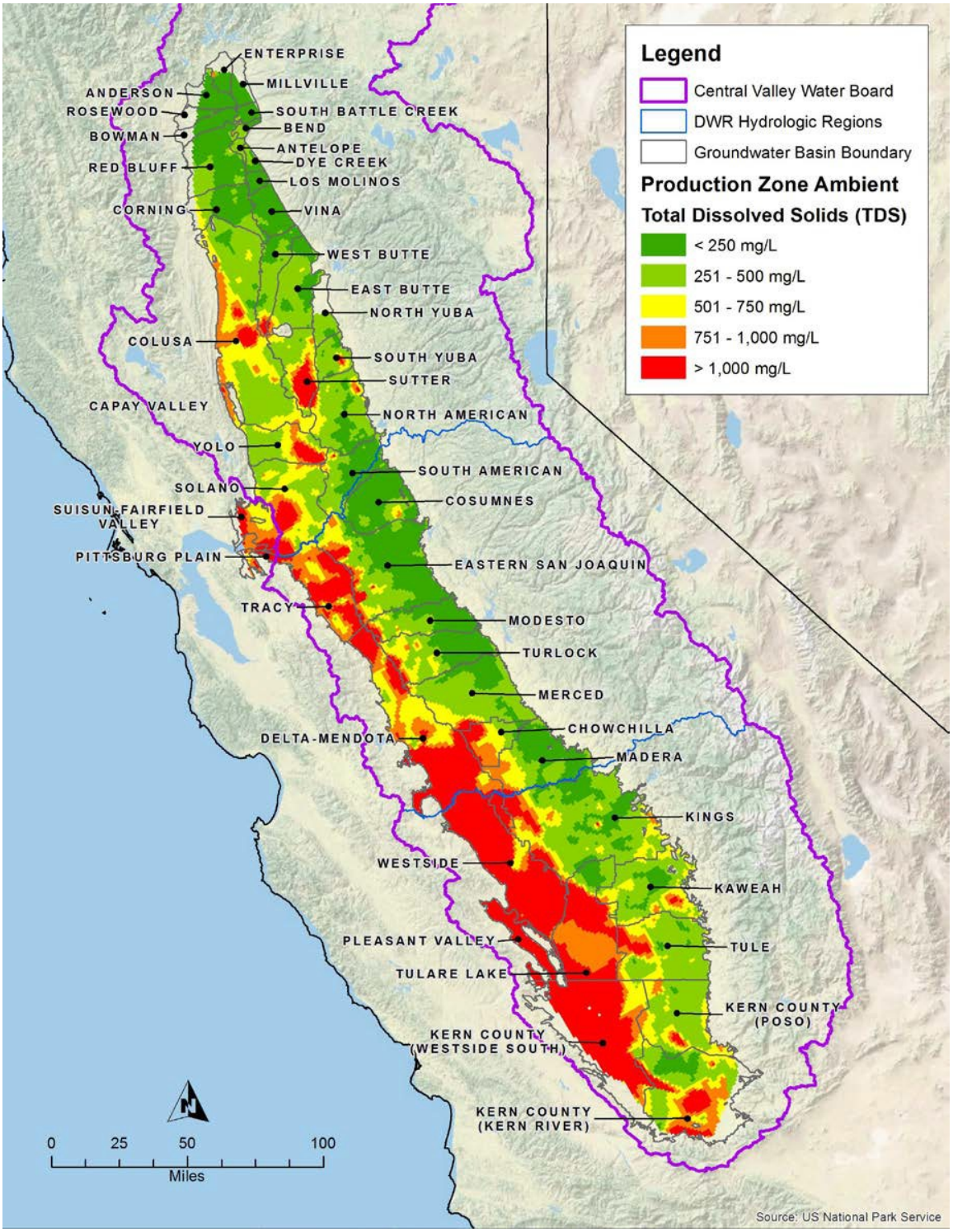

Table B - 6. Region 5: DWR Bulletin 118 Groundwater Basins/Subbasins Nitrate Concentration Statistics

		Average Well Nitrate Concentration Statistics				
DWR B118 Groundwater Basin Code	Aquifer Zone	Number of Wells	Minimum	Average	Median	Maximum
2-3	Upper Zone	5	0.19	3.18	0.41	9.40
	Lower Zone	16	0.23	3.67	2.24	10.87
	Unknown	4	0.24	1.59	0.68	4.75
2-4	Lower Zone	4	0.23	1.03	0.94	2.03
	Below Production Zone	4	2.10	3.75	3.28	6.32
	Outside Valley Floor	2	1.90	2.60	2.60	3.30
5-21.50	Upper Zone	78	0.11	3.42	0.94	94.28
	Upper and Lower Zone	19	0.19	1.35	1.01	3.33
	Lower Zone	164	0.23	1.35	0.92	10.80
	Below Production Zone	5	0.23	0.63	0.62	1.23
	Unknown	11	0.23	2.56	1.64	6.62
5-21.51	Upper Zone	181	0.00	2.25	0.66	31.74
	Upper and Lower Zone	10	0.43	2.26	2.37	4.68
	Lower Zone	49	0.17	3.37	2.22	10.40
	Below Production Zone	2	0.23	0.23	0.23	0.23
	Unknown	17	0.09	3.65	2.12	12.44
5-21.52	Upper Zone	279	0.02	3.53	0.90	78.27
	Upper and Lower Zone	26	0.23	2.82	1.94	9.94
	Lower Zone	203	0.03	3.10	1.72	22.00
	Unknown	42	0.08	3.92	3.09	19.19
5-21.53	Lower Zone	36	0.23	2.98	2.34	13.55
5-21.54	Upper Zone	6	0.24	2.25	2.48	5.03
	Upper and Lower Zone	6	0.23	1.96	1.23	5.51
	Lower Zone	22	0.23	3.26	3.28	7.84
	Unknown	42	0.16	5.22	4.04	14.18
5-21.55	Upper Zone	2	0.74	2.87	2.87	4.99
	Upper and Lower Zone	2	0.67	0.75	0.75	0.83
	Lower Zone	45	0.21	1.92	1.74	5.07
5-21.56	Upper and Lower Zone	2	0.83	0.94	0.94	1.06
	Lower Zone	60	0.23	2.18	1.99	7.45
5-21.57	Upper Zone	30	0.07	3.76	3.30	20.92
	Upper and Lower Zone	17	0.20	1.67	0.96	4.65
	Lower Zone	97	0.12	3.12	1.92	20.81
	Below Production Zone	2	0.54	1.45	1.45	2.35
	Unknown	5	0.12	8.28	5.07	21.83
5-21.58	Upper Zone	41	0.04	3.42	0.32	24.40
	Upper and Lower Zone	11	0.13	1.29	1.02	3.66
	Lower Zone	63	0.04	1.85	0.76	10.27
	Unknown	21	0.03	2.85	0.29	18.61
5-21.59	Upper Zone	96	0.02	1.69	0.43	27.49
	Upper and Lower Zone	19	0.25	1.82	1.52	4.70
	Lower Zone	49	0.09	2.55	1.52	14.99
	Unknown	7	0.01	2.33	1.20	10.11
	Outside Valley Floor	3	0.23	0.81	0.82	1.39
5-21.60	Upper Zone	66	0.02	2.08	0.37	19.31
	Upper and Lower Zone	8	0.35	1.26	1.17	2.36
	Lower Zone	21	0.23	2.23	0.94	19.08
	Unknown	14	0.20	1.68	0.46	10.46
	Outside Valley Floor	28	0.23	3.33	1.79	11.26
5-21.61	Upper Zone	79	0.11	4.22	2.61	32.36
	Upper and Lower Zone	10	0.23	0.69	0.24	2.97
	Lower Zone	66	0.11	2.05	0.43	19.20
	Below Production Zone	3	0.23	0.23	0.23	0.23
	Unknown	27	0.08	1.79	0.70	8.59

DRAFT

Table B - 6. Region 5: DWR Bulletin 118 Groundwater Basins/Subbasins Nitrate Concentration Statistics

		Average Well Nitrate Concentration Statistics				
DWR B118 Groundwater Basin Code	Aquifer Zone	Number of Wells	Minimum	Average	Median	Maximum
	Outside Valley Floor	5	0.23	5.24	6.10	8.79
5-21.62	Upper Zone	66	0.02	7.78	0.23	97.29
	Upper and Lower Zone	27	0.09	3.09	1.06	10.81
	Lower Zone	73	0.13	2.99	0.87	15.51
	Unknown	18	0.02	2.48	0.23	22.42
5-21.64	Upper Zone	236	0.02	13.83	1.32	1219.84
	Upper and Lower Zone	109	0.22	1.65	1.52	5.88
	Lower Zone	252	0.07	1.56	1.28	6.88
	Below Production Zone	4	0.23	0.99	0.23	3.27
	Unknown	19	0.17	1.38	0.84	3.69
	Outside Valley Floor	4	0.23	0.23	0.23	0.23
5-21.65	Upper Zone	440	0.07	3.35	0.68	81.32
	Upper and Lower Zone	91	0.02	1.97	1.62	7.17
	Lower Zone	213	0.07	2.06	1.54	18.10
	Below Production Zone	13	0.21	0.22	0.23	0.23
	Unknown	3	1.48	1.92	1.94	2.34
5-21.66	Upper Zone	197	0.10	14.16	2.66	218.39
	Upper and Lower Zone	25	0.22	1.68	0.57	7.91
	Lower Zone	130	0.20	2.45	0.88	17.40
	Below Production Zone	5	0.23	0.62	0.58	1.11
	Unknown	8	0.20	3.29	1.63	14.02
5-21.67	Upper Zone	431	0.06	36.78	1.90	1541.75
	Upper and Lower Zone	21	0.23	4.19	4.40	9.21
	Lower Zone	120	0.09	3.50	3.45	18.91
	Below Production Zone	8	0.23	0.46	0.26	1.11
	Unknown	11	0.23	2.36	0.25	8.52
5-21.68	Lower Zone	3	2.82	6.87	7.55	10.23
5-22.01	Upper Zone	1012	0.05	22.43	3.12	1920.68
	Upper and Lower Zone	183	0.10	2.85	2.02	40.90
	Lower Zone	589	0.05	5.28	2.71	67.30
	Below CC Zone	24	0.23	3.49	2.69	13.30
	Below Production Zone	6	0.23	0.66	0.23	2.32
	Unknown	42	0.15	3.74	2.40	18.75
5-22.02	Upper Zone	440	0.06	9.58	5.20	85.80
	Upper and Lower Zone	96	0.87	4.34	3.98	12.39
	Lower Zone	109	0.23	4.51	3.31	21.70
	Below CC Zone	123	0.23	6.17	3.96	54.20
5-22.03	Upper Zone	925	0.15	17.87	11.95	282.28
	Upper and Lower Zone	23	1.24	7.32	6.48	30.34
	Lower Zone	126	0.23	7.86	3.67	59.40
	Below CC Zone	221	0.20	13.15	6.00	127.30
5-22.04	Upper Zone	355	0.10	11.30	5.20	179.61
	Upper and Lower Zone	15	0.98	5.26	5.26	12.66
	Lower Zone	108	0.23	4.58	3.40	24.60
	Below CC Zone	191	0.10	7.52	3.00	71.00
5-22.05	Upper Zone	114	0.23	9.78	7.33	46.40
	Lower Zone	14	0.23	7.73	4.43	19.40
	Below CC Zone	141	0.20	8.24	4.32	65.00
5-22.06	Upper Zone	44	0.22	8.41	6.79	38.61
	Upper and Lower Zone	27	0.23	3.05	2.78	10.68
	Lower Zone	165	0.22	4.02	2.50	43.30
	Below CC Zone	8	0.85	7.61	6.22	19.30
	Outside Valley Floor	2	5.00	5.08	5.08	5.17
	Upper Zone	478	0.03	13.67	7.07	602.30

DRAFT

Table B - 6. Region 5: DWR Bulletin 118 Groundwater Basins/Subbasins Nitrate Concentration Statistics

		Average Well Nitrate Concentration Statistics				
DWR B118 Groundwater Basin Code	Aquifer Zone	Number of Wells	Minimum	Average	Median	Maximum
5-22.07	Upper and Lower Zone	36	0.23	4.71	4.63	14.15
	Lower Zone	109	0.19	4.71	2.22	49.00
	Below CC Zone	62	0.03	5.97	4.06	24.19
	Unknown	21	0.07	6.61	5.20	18.98
5-22.08	Upper Zone	390	0.03	11.24	6.24	111.46
	Upper and Lower Zone	163	0.23	4.36	3.87	13.94
	Lower Zone	796	0.10	6.29	3.56	63.05
	Below CC Zone	14	0.23	15.13	13.45	59.60
	Below Production Zone	15	0.23	2.79	2.46	7.34
	Outside Valley Floor	7	0.75	10.75	2.21	35.58
5-22.09	Upper Zone	4	0.27	0.91	0.51	2.34
	Upper and Lower Zone	4	0.05	3.11	2.61	7.16
	Lower Zone	22	0.05	5.58	0.28	79.06
5-22.09	Below CC Zone	4	0.23	2.41	0.35	8.69
	Unknown	74	0.02	23.90	0.93	284.63
5-22.10	Upper Zone	9	0.23	1.15	0.23	6.56
	Lower Zone	2	0.13	0.18	0.18	0.23
	Outside Valley Floor	2	0.23	1.04	1.04	1.85
5-22.11	Upper Zone	329	0.10	18.20	12.20	269.38
	Upper and Lower Zone	103	0.22	4.83	3.63	27.37
	Lower Zone	304	0.15	13.75	9.93	74.50
	Below CC Zone	136	0.22	7.22	3.08	55.85
	Outside Valley Floor	11	1.49	6.22	4.78	11.65
5-22.12	Upper Zone	140	0.10	10.32	4.13	104.36
	Upper and Lower Zone	11	0.12	0.25	0.23	0.50
	Lower Zone	106	0.10	8.58	2.03	63.20
	Below CC Zone	38	0.21	2.56	0.23	57.10
5-22.13	Upper Zone	176	0.10	9.92	7.15	54.18
	Upper and Lower Zone	54	0.21	4.84	3.35	28.58
	Lower Zone	191	0.15	10.24	6.80	54.89
	Below CC Zone	71	0.23	7.29	3.44	37.65
	Below Production Zone	3	0.32	3.54	2.98	7.32
	Outside Valley Floor	3	0.23	3.45	3.49	6.63
5-22.14	Upper Zone	198	0.04	9.79	1.12	556.46
	Upper and Lower Zone	125	0.16	3.13	2.01	19.42
	Lower Zone	383	0.07	2.93	1.42	29.55
	Below CC Zone	117	0.23	5.37	4.95	29.40
	Below Production Zone	3	0.21	0.48	0.22	1.00
	Outside Valley Floor	2	0.23	3.21	3.21	6.20
5-22.15	Upper Zone	331	0.06	7.43	2.64	501.15
	Upper and Lower Zone	41	0.20	2.32	0.23	13.99
	Lower Zone	120	0.16	2.16	0.53	15.65
	Below CC Zone	59	0.17	2.59	1.72	18.50
	Unknown	11	0.14	5.14	4.18	14.62
	Outside Valley Floor	3	0.23	2.15	0.23	5.99
5-22.16	Upper Zone	106	0.21	3.85	2.63	30.10
	Upper and Lower Zone	13	0.26	1.56	1.47	3.90
	Lower Zone	163	0.16	2.74	1.60	22.10
	Unknown	24	0.23	2.59	1.49	15.38
5-6.01	Upper Zone	7	0.38	2.17	0.92	5.87
	Upper and Lower Zone	10	0.31	0.88	0.90	1.27
	Lower Zone	80	0.23	1.10	0.81	7.00
5-6.02	Lower Zone	2	3.39	4.97	4.97	6.55
	Upper Zone	115	0.00	0.83	0.28	4.73

DRAFT

Table B - 6. Region 5: DWR Bulletin 118 Groundwater Basins/Subbasins Nitrate Concentration Statistics

		Average Well Nitrate Concentration Statistics				
DWR B118 Groundwater Basin Code	Aquifer Zone	Number of Wells	Minimum	Average	Median	Maximum
5-6.03	Upper and Lower Zone	11	0.23	1.31	1.23	2.58
	Lower Zone	67	0.07	1.09	1.01	3.52
	Below Production Zone	4	0.49	0.95	0.77	1.76
	Unknown	5	0.80	1.26	1.03	2.17
5-6.04	Upper Zone	45	0.08	0.66	0.23	2.93
	Upper and Lower Zone	7	0.77	1.67	1.72	2.34
	Lower Zone	32	0.07	1.76	1.32	6.53
	Below Production Zone	5	0.23	0.45	0.23	1.34
	Unknown	5	0.16	1.41	1.37	3.18
5-6.05	Upper Zone	3	0.57	0.65	0.64	0.73
	Upper and Lower Zone	2	1.01	1.07	1.07	1.13
	Lower Zone	6	0.29	1.87	1.37	4.38
	Unknown	4	0.72	2.76	2.47	5.39
5-6.06	Lower Zone	4	0.32	0.94	0.97	1.49
5-35	Outside Valley Floor	9	0.23	1.49	0.59	3.31
5-46	Outside Valley Floor	2	0.23	0.23	0.23	0.23
5-50	Outside Valley Floor	4	0.12	0.88	0.17	3.05
5-56	Outside Valley Floor	2	0.21	0.38	0.38	0.54
5-60	Outside Valley Floor	29	0.11	0.69	0.25	5.54
5-62	Outside Valley Floor	5	0.23	0.34	0.24	0.75
5-63	Outside Valley Floor	4	0.16	0.18	0.18	0.21
5-66	Outside Valley Floor	3	0.23	0.27	0.23	0.36
5-68	Outside Valley Floor	2	0.23	0.23	0.23	0.23
5-69	Outside Valley Floor	5	0.07	0.16	0.23	0.23
5-80	Outside Valley Floor	7	0.23	2.74	3.88	4.94
5-82	Outside Valley Floor	9	2.06	3.44	2.77	4.92
5-83	Outside Valley Floor	11	0.23	3.00	2.28	7.00
5-84	Outside Valley Floor	19	0.21	1.28	0.48	5.79
5-85	Outside Valley Floor	10	0.21	0.85	0.75	2.24
5-87	Outside Valley Floor	9	0.16	0.22	0.23	0.29
5-4	Outside Valley Floor	29	0.12	0.56	0.23	2.91
5-5	Outside Valley Floor	8	0.11	1.08	0.23	6.16
5-7	Outside Valley Floor	12	0.06	0.25	0.21	0.48
5-9	Outside Valley Floor	31	0.02	0.32	0.23	1.46
5-10	Outside Valley Floor	32	0.18	0.34	0.24	0.96
5-11	Outside Valley Floor	12	0.04	0.67	0.42	1.72
5-13	Outside Valley Floor	15	0.23	1.09	0.48	3.87
5-14	Outside Valley Floor	46	0.16	0.87	0.23	5.74
5-15	Outside Valley Floor	26	0.07	1.35	0.23	14.40
5-16	Outside Valley Floor	5	0.23	0.23	0.23	0.23
5-17	Outside Valley Floor	14	0.12	1.33	0.70	5.03
5-18	Outside Valley Floor	5	1.04	1.76	1.94	2.16
5-19	Outside Valley Floor	13	0.12	0.56	0.23	2.46
5-25	Outside Valley Floor	115	0.06	3.16	1.65	21.92
5-27	Outside Valley Floor	35	0.23	4.37	3.92	9.97

DRAFT

Table B - 6. Region 5: DWR Bulletin 118 Groundwater Basins/Subbasins Nitrate Concentration Statistics

		Average Well Nitrate Concentration Statistics				
DWR B118 Groundwater Basin Code	Aquifer Zone	Number of Wells	Minimum	Average	Median	Maximum
5-28	Outside Valley Floor	51	0.21	6.10	5.48	19.09
5-29	Outside Valley Floor	8	1.94	3.47	3.91	4.36
5-30	Outside Valley Floor	7	0.23	1.58	0.34	4.08
5-12.01	Outside Valley Floor	44	0.03	0.54	0.23	4.66
5-12.02	Outside Valley Floor	6	0.22	0.95	0.33	2.39
5-2.01	Outside Valley Floor	43	0.06	0.76	0.50	2.85
5-2.02	Outside Valley Floor	19	0.23	0.60	0.39	3.35
Outside B118 Basins	Outside Valley Floor	4018	0.00	1.92	0.30	646.63
	Lower Zone	11	0.23	1.77	0.81	6.78
	Below Production Zone	2	0.23	4.49	4.49	8.76
	Unknown	4	3.28	4.25	3.77	6.17
	Upper Zone	14	0.23	60.41	1.00	452.82

DRAFT

Table B - 7. Region 5: DWR Bulletin 118 Groundwater Basins/Subbasins TDS Concentration Statistics

		Average Well TDS Concentration Statistics				
DWR B118 Groundwater Basin Code	Aquifer Zone	Number of Wells	Minimum	Average	Median	Maximum
2-3	Upper Zone	4	550	1,062	717	2,264
	Lower Zone	9	327	555	634	790
	Unknown	4	349	896	667	1,901
2-4	Lower Zone	2	722	722	722	723
	Below Production Zone	3	686	739	714	816
	Outside Valley Floor	2	971	1,047	1,047	1,123
5-21.50	Upper Zone	24	155	627	229	8,904
	Upper and Lower Zone	19	117	207	200	425
	Lower Zone	135	81	217	183	679
	Below Production Zone	5	118	201	198	356
	Unknown	11	145	233	179	403
5-21.51	Upper Zone	112	123	343	300	987
	Upper and Lower Zone	11	165	235	217	332
	Lower Zone	25	94	226	214	381
	Unknown	17	130	307	265	535
5-21.52	Upper Zone	145	154	516	370	4,855
	Upper and Lower Zone	28	179	344	319	794
	Lower Zone	139	45	461	361	3,274
	Unknown	42	129	425	359	998
5-21.53	Lower Zone	32	82	333	300	652
5-21.54	Upper Zone	6	200	283	269	413
	Upper and Lower Zone	3	167	284	326	361
	Lower Zone	12	86	271	266	577
	Unknown	30	123	316	323	608
5-21.55	Upper Zone	2	253	323	323	394
	Upper and Lower Zone	2	168	193	193	219
	Lower Zone	37	100	211	203	395
5-21.56	Upper and Lower Zone	3	176	191	193	206
	Lower Zone	50	90	206	206	340
5-21.57	Upper Zone	17	119	216	201	418
	Upper and Lower Zone	15	146	201	191	275
	Lower Zone	59	59	206	189	464
	Below Production Zone	2	151	222	222	292
	Unknown	5	102	269	220	495
5-21.58	Upper Zone	33	133	473	403	1,410
	Upper and Lower Zone	9	172	233	217	402
	Lower Zone	51	63	238	199	1,450
	Unknown	21	192	366	344	893
5-21.59	Upper Zone	64	74	339	242	1,600
	Upper and Lower Zone	17	105	211	222	375
	Lower Zone	46	112	281	223	1,444
	Unknown	7	120	312	210	682
	Outside Valley Floor	2	60	175	175	291
5-21.60	Upper Zone	41	142	351	320	822
	Upper and Lower Zone	2	264	302	302	339
	Lower Zone	18	42	246	216	486
	Unknown	14	111	269	227	550
	Outside Valley Floor	26	141	318	229	1,210
5-21.61	Upper Zone	74	88	529	330	5,720
	Upper and Lower Zone	11	149	360	260	1,548
	Lower Zone	57	35	339	272	2,402
	Below Production Zone	3	344	360	364	371
	Unknown	27	126	345	268	1,525

DRAFT

Table B - 7. Region 5: DWR Bulletin 118 Groundwater Basins/Subbasins TDS Concentration Statistics

		Average Well TDS Concentration Statistics				
DWR B118 Groundwater Basin Code	Aquifer Zone	Number of Wells	Minimum	Average	Median	Maximum
	Outside Valley Floor	9	209	300	299	367
5-21.62	Upper Zone	50	121	849	521	8,282
	Upper and Lower Zone	24	204	527	432	1,366
	Lower Zone	54	115	766	519	8,579
	Unknown	18	159	864	437	5,726
5-21.64	Upper Zone	177	93	957	410	10,240
5-21.64	Upper and Lower Zone	103	80	249	231	667
	Lower Zone	239	58	256	234	691
	Below Production Zone	5	175	372	333	678
	Unknown	20	106	268	260	449
5-21.65	Upper Zone	175	76	646	405	27,276
	Upper and Lower Zone	88	77	217	179	670
	Lower Zone	149	80	211	172	867
	Below Production Zone	13	129	151	150	192
	Unknown	3	169	186	169	220
5-21.66	Upper Zone	169	164	1,868	765	56,500
	Upper and Lower Zone	24	138	394	385	954
	Lower Zone	94	54	508	425	1,600
	Below Production Zone	6	284	335	303	423
	Unknown	8	290	1,170	562	5,387
5-21.67	Upper Zone	194	100	1,488	1,050	6,657
	Upper and Lower Zone	17	262	528	461	1,510
	Lower Zone	87	110	539	543	1,510
	Below Production Zone	8	313	421	346	841
	Unknown	11	184	465	505	720
5-22.01	Upper Zone	451	74	2,418	740	178,909
	Upper and Lower Zone	175	83	335	292	1,230
	Lower Zone	232	35	304	249	1,911
	Below CC Zone	14	186	343	297	718
	Below Production Zone	6	132	1,045	594	3,406
	Unknown	41	92	308	214	957
5-22.02	Upper Zone	186	81	602	489	3,811
	Upper and Lower Zone	94	67	312	270	1,121
	Lower Zone	79	67	273	206	1,700
	Below CC Zone	108	92	465	323	5,974
	Below Production Zone	2	160	178	178	196
5-22.03	Upper Zone	117	37	506	488	1,758
	Upper and Lower Zone	26	74	394	393	1,176
	Lower Zone	53	74	285	225	1,136
	Below CC Zone	104	144	377	260	1,819
5-22.04	Upper Zone	80	111	498	392	1,951
	Upper and Lower Zone	13	125	249	246	354
	Lower Zone	62	111	289	211	2,005
	Below CC Zone	74	90	268	224	1,035
	Below Production Zone	2	246	280	280	314
5-22.05	Upper Zone	21	117	625	623	1,117
	Lower Zone	5	165	370	208	841
	Below CC Zone	45	132	412	198	3,923
5-22.06	Upper Zone	22	94	500	518	1,049
	Upper and Lower Zone	26	62	207	189	380
	Lower Zone	126	51	234	194	1,048
	Below CC Zone	5	125	333	282	621
	Outside Valley Floor	2	163	164	164	164

DRAFT

Table B - 7. Region 5: DWR Bulletin 118 Groundwater Basins/Subbasins TDS Concentration Statistics

		Average Well TDS Concentration Statistics				
DWR B118 Groundwater Basin Code	Aquifer Zone	Number of Wells	Minimum	Average	Median	Maximum
5-22.07	Upper Zone	241	207	1,234	1,080	4,462
	Upper and Lower Zone	34	194	833	793	3,255
	Lower Zone	76	185	922	809	3,242
	Below CC Zone	46	387	1,165	1,015	4,314
	Unknown	21	276	989	1,033	2,665
5-22.08	Upper Zone	260	69	637	504	5,266
	Upper and Lower Zone	181	74	286	231	1,916
	Lower Zone	654	10	267	214	9,268
	Below CC Zone	8	125	321	323	601
	Below Production Zone	20	109	588	186	8,096
	Outside Valley Floor	5	319	472	411	703
5-22.09	Upper Zone	2	313	1,305	1,305	2,297
	Upper and Lower Zone	4	849	1,036	968	1,360
	Lower Zone	19	305	1,058	894	2,980
	Below CC Zone	4	563	923	939	1,249
5-22.09	Unknown	75	279	1,917	906	8,816
5-22.10	Upper Zone	9	2,666	4,056	3,200	6,900
	Lower Zone	2	753	934	934	1,114
	Outside Valley Floor	2	6,788	7,061	7,061	7,333
5-22.11	Upper Zone	124	97	936	672	6,663
	Upper and Lower Zone	99	91	254	204	1,572
	Lower Zone	141	63	365	306	1,221
	Below CC Zone	93	86	180	148	608
	Outside Valley Floor	11	158	337	314	677
5-22.12	Upper Zone	57	76	4,006	1,196	36,000
	Upper and Lower Zone	9	158	476	358	905
	Lower Zone	28	61	423	280	1,083
	Below CC Zone	38	151	392	377	922
5-22.13	Upper Zone	86	111	708	500	5,550
	Upper and Lower Zone	53	117	274	261	617
	Lower Zone	90	130	330	302	742
	Below CC Zone	48	124	228	191	704
	Below Production Zone	3	342	477	371	717
5-22.14	Upper Zone	171	142	2,418	710	26,500
	Upper and Lower Zone	126	10	372	236	3,154
	Lower Zone	341	10	388	259	3,213
	Below CC Zone	114	132	519	351	9,475
	Below Production Zone	3	144	353	393	522
	Outside Valley Floor	15	210	4,360	780	32,283
5-22.15	Upper Zone	288	226	1,714	1,260	18,456
	Upper and Lower Zone	25	90	938	837	4,222
	Lower Zone	86	10	801	720	4,272
	Below CC Zone	50	62	911	741	3,690
	Unknown	11	615	5,099	1,112	25,684
	Outside Valley Floor	2	18,560	18,560	18,560	18,560
5-22.16	Upper Zone	35	83	380	167	5,088
	Upper and Lower Zone	15	105	195	204	262
	Lower Zone	53	34	218	166	1,760
	Unknown	24	105	182	166	434
5-6.01	Upper Zone	7	116	164	134	262
	Upper and Lower Zone	9	107	145	144	189
	Lower Zone	74	118	199	184	961
5-6.02	Lower Zone	2	207	215	215	222
	Upper Zone	22	93	169	172	229

DRAFT

Table B - 7. Region 5: DWR Bulletin 118 Groundwater Basins/Subbasins TDS Concentration Statistics

		Average Well TDS Concentration Statistics				
DWR B118 Groundwater Basin Code	Aquifer Zone	Number of Wells	Minimum	Average	Median	Maximum
5-6.03	Upper and Lower Zone	10	128	145	137	180
	Lower Zone	45	91	143	139	235
	Below Production Zone	2	110	141	141	173
	Unknown	5	95	146	148	195
5-6.04	Upper Zone	11	141	667	172	2,564
	Upper and Lower Zone	7	98	139	145	164
	Lower Zone	21	90	169	161	307
	Below Production Zone	4	161	192	190	227
	Unknown	5	126	151	161	166
5-6.05	Upper and Lower Zone	2	124	128	128	133
	Lower Zone	4	126	176	175	227
	Unknown	4	143	206	205	270
5-6.06	Lower Zone	4	157	282	221	528
5-35	Outside Valley Floor	3	36	42	39	49
5-50	Outside Valley Floor	3	95	112	100	139
5-60	Outside Valley Floor	12	69	140	155	210
5-63	Outside Valley Floor	4	237	258	256	282
5-66	Outside Valley Floor	4	215	280	271	363
5-68	Outside Valley Floor	2	567	568	568	569
5-69	Outside Valley Floor	5	30	33	32	38
5-80	Outside Valley Floor	8	54	325	346	451
5-82	Outside Valley Floor	8	540	664	705	743
5-83	Outside Valley Floor	9	292	632	675	928
5-84	Outside Valley Floor	13	295	470	410	877
5-85	Outside Valley Floor	9	399	528	552	680
5-87	Outside Valley Floor	3	150	167	175	177
5-4	Outside Valley Floor	8	144	234	193	560
5-5	Outside Valley Floor	4	128	184	153	302
5-7	Outside Valley Floor	11	74	93	89	128
5-9	Outside Valley Floor	17	27	129	132	240
5-10	Outside Valley Floor	20	61	107	80	361
5-11	Outside Valley Floor	6	93	178	188	244
5-13	Outside Valley Floor	9	115	207	163	421
5-14	Outside Valley Floor	7	124	165	139	227
5-15	Outside Valley Floor	22	172	394	365	816
5-16	Outside Valley Floor	4	478	621	665	675
5-17	Outside Valley Floor	4	198	327	311	489
5-18	Outside Valley Floor	5	231	299	318	375
5-19	Outside Valley Floor	40	62	1,084	384	7,361
5-25	Outside Valley Floor	106	10	325	326	686
5-27	Outside Valley Floor	39	185	381	356	626
5-28	Outside Valley Floor	50	245	393	330	935
5-29	Outside Valley Floor	6	539	577	570	624
5-30	Outside Valley Floor	6	298	408	442	500
5-12.01	Outside Valley Floor	25	132	254	170	724

DRAFT

Table B - 7. Region 5: DWR Bulletin 118 Groundwater Basins/Subbasins TDS Concentration Statistics

		Average Well TDS Concentration Statistics				
DWR B118 Groundwater Basin Code	**Aquifer Zone**	**Number of Wells**	**Minimum**	**Average**	**Median**	**Maximum**
5-2.01	Outside Valley Floor	14	174	310	250	772
5-2.02	Outside Valley Floor	12	200	252	234	350
Outside B118 Basins	Outside Valley Floor	2439	5	560	206	120,000
	Lower Zone	10	153	512	532	1,091
	Unknown	4	447	713	734	939
	Upper Zone	28	228	2,029	336	12,522
	Upper and Lower Zone	1	777	777	777	777

DRAFT

Table B-8. Estimated Assimilative Capacity for Nitrate and TDS in the Lower, Upper, and Production Zones in Central Valley Groundwater Basins/Subbasins.

Area	DWR B118 Groundwater Basin Code	Nitrate (mg/L as N) (Based on 10 mg/L as N)			TDS (mg/L) (Based on 1,000 mg/L)		
		Lower Zone*	Upper Zone	Production Zone	Lower Zone*	Upper Zone	Production Zone
Northern Central Valley	**5-6.01**	8.95	8.96	8.95	822	836	828
	5-6.02	8.64	9.05	8.84	798	851	824
	5-6.03	8.79	8.97	8.88	853	810	832
	5-6.04	8.55	9.01	8.78	841	742	802
	5-6.05	8.24	9.08	8.72	840	852	846
	5-6.06	9.11	9.15	9.13	808	838	824
	5-21.50	8.12	8.63	8.33	762	762	762
	5-21.51	7.66	8.22	7.84	736	711	728
	5-21.52	7.13	6.71	6.94	528	387	467
	5-21.53	7.80	8.77	8.23	738	766	750
	5-21.54	6.94	8.08	7.34	703	639	680
	5-21.55	8.09	8.41	8.20	777	774	776
	5-21.56	8.64	7.58	8.33	819	800	814
	5-21.57	7.92	7.17	7.72	808	796	805
	5-21.58	8.62	7.38	8.20	687	597	657
	5-21.59	9.01	8.07	8.69	690	662	680
	5-21.60	7.65	7.81	7.72	705	651	683
	5-21.61	8.10	7.09	7.70	635	570	609
	5-21.62	8.85	7.63	8.33	82	8	50
	5-21.64	8.42	6.33	7.63	702	554	647
	5-21.67	6.41	0.00	2.37	477	210	353
	5-21.68	3.97	7.34	5.42	365	0	177
Middle Central Valley	**2-3**	6.53	6.52	6.53	436	0	100
	2-4	8.93	5.18	7.32	329	0	0
	5-21.65	8.45	7.87	8.22	778	657	730
	5-21.66	7.32	5.54	6.64	496	65	331
	5-22.01	6.31	3.93	5.28	707	494	615
	5-22.02	6.26	2.42	4.47	783	648	720
	5-22.03	5.37	0.00	2.26	789	561	678
	5-22.04	6.54	3.52	5.15	739	582	666
	5-22.05	3.36	1.12	1.79	460	126	226
	5-22.06	6.22	5.35	5.91	725	583	675
	5-22.07	6.68	4.16	4.99	72	0	0
	5-22.15	7.70	6.36	6.96	110	0	0
	5-22.16	8.52	7.35	8.13	773	794	780
Southern Central Valley	**5-22.08**	3.38	2.88	3.16	609	440	536
	5-22.09	7.14	8.74	8.20	0	0	0
	5-22.10	9.57	7.68	8.63	154	0	0
	5-22.11	0.00	0.00	0.00	581	486	535
	5-22.12	8.64	4.67	6.77	260	0	0
	5-22.13	1.71	1.69	1.70	618	412	535
	5-22.14	6.71	4.46	6.24	439	0	0

* Above the Corcoran Clay where present.

DRAFT

Figure B - 6. Estimated Assimilative Capacity for Nitrate (mg/L as N) in the Upper Zone of Central Valley Floor Groundwater Basins/Subbasins.

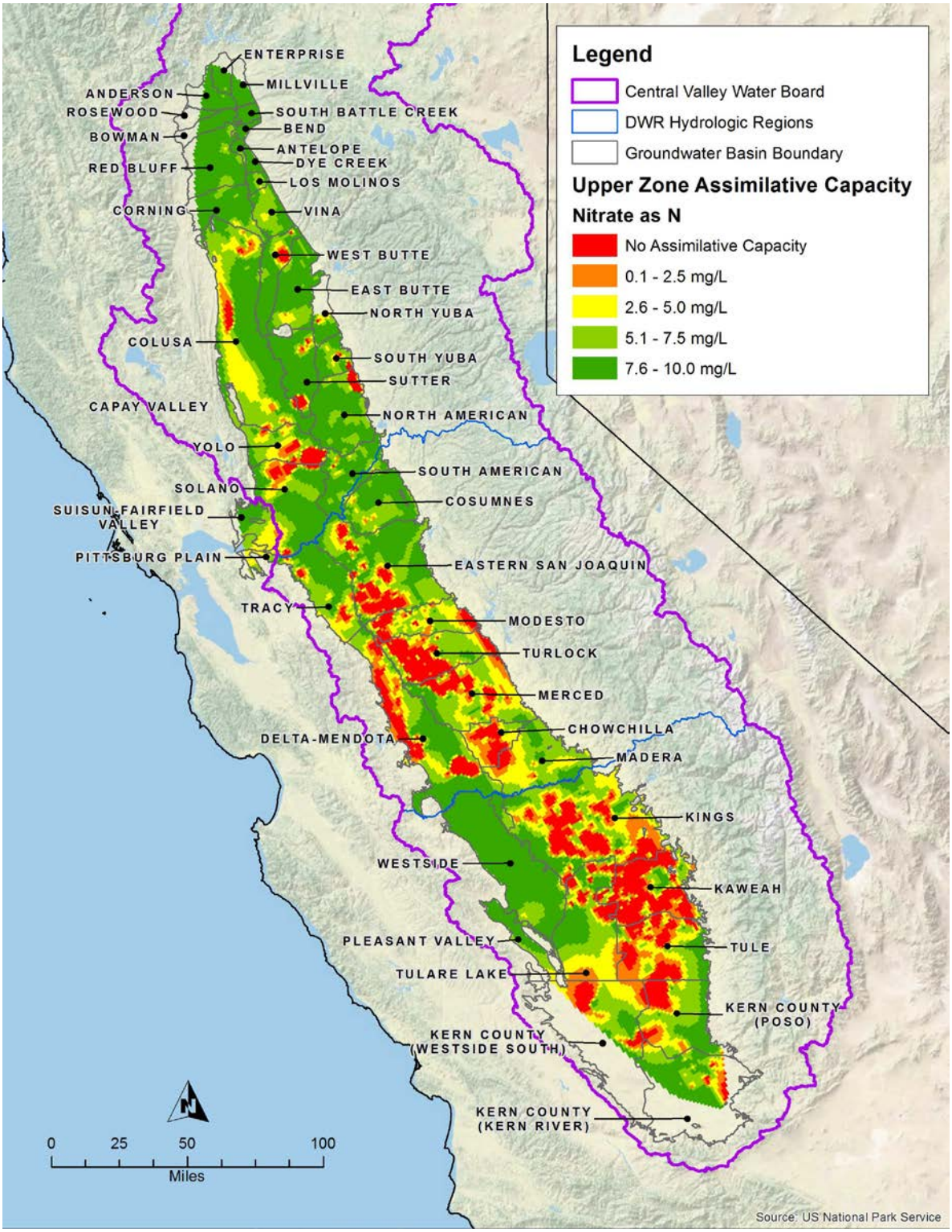

Figure B - 7. Estimated Assimilative Capacity for Nitrate (mg/L as N) in the Production Zone of Central Valley Floor Groundwater Basins/Subbasins (above Corcoran Clay where present).

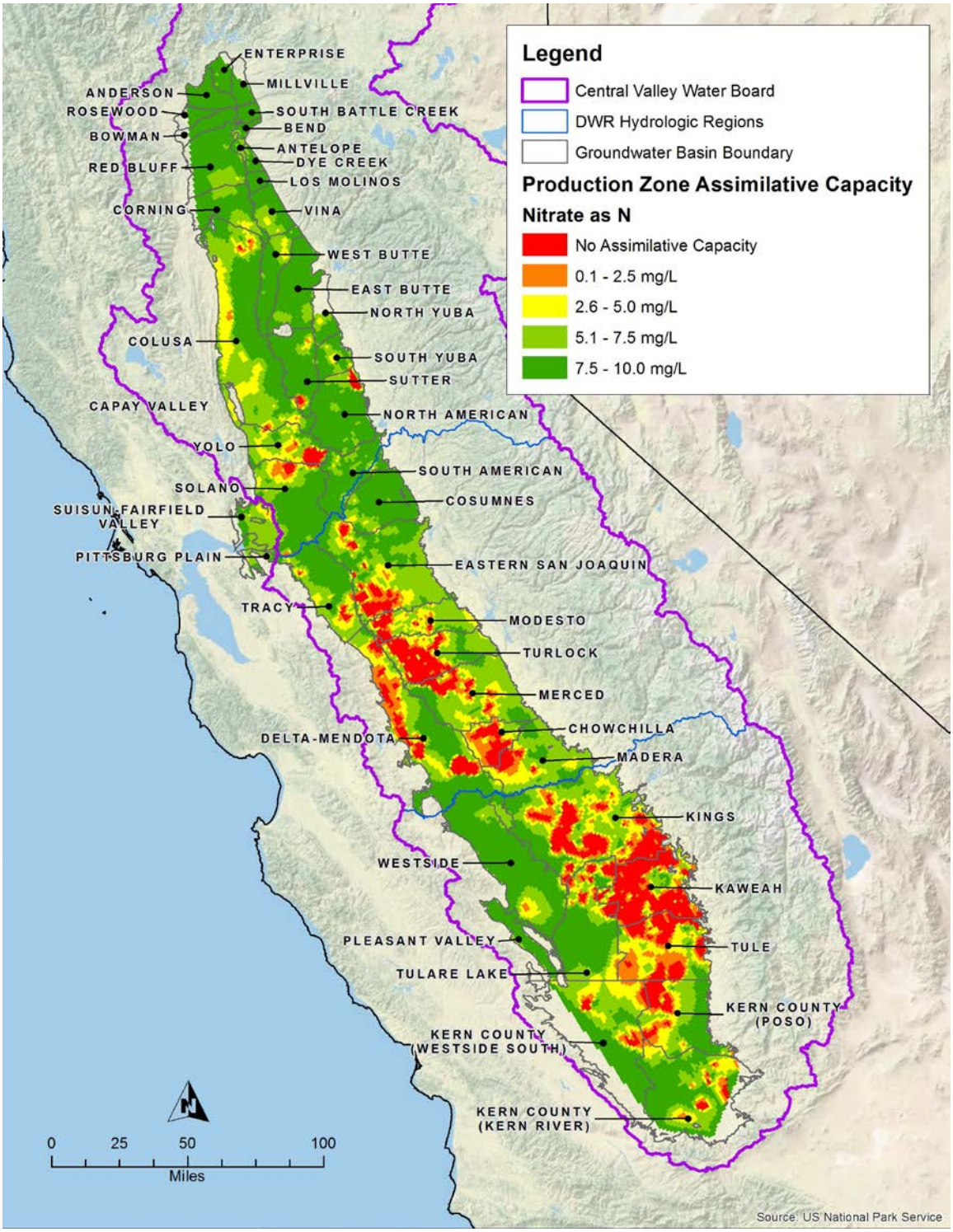

Figure B - 8. Estimated Assimilative Capacity for TDS (mg/L) in the Upper Zone of Central Valley Floor Groundwater Basins/Subbasins

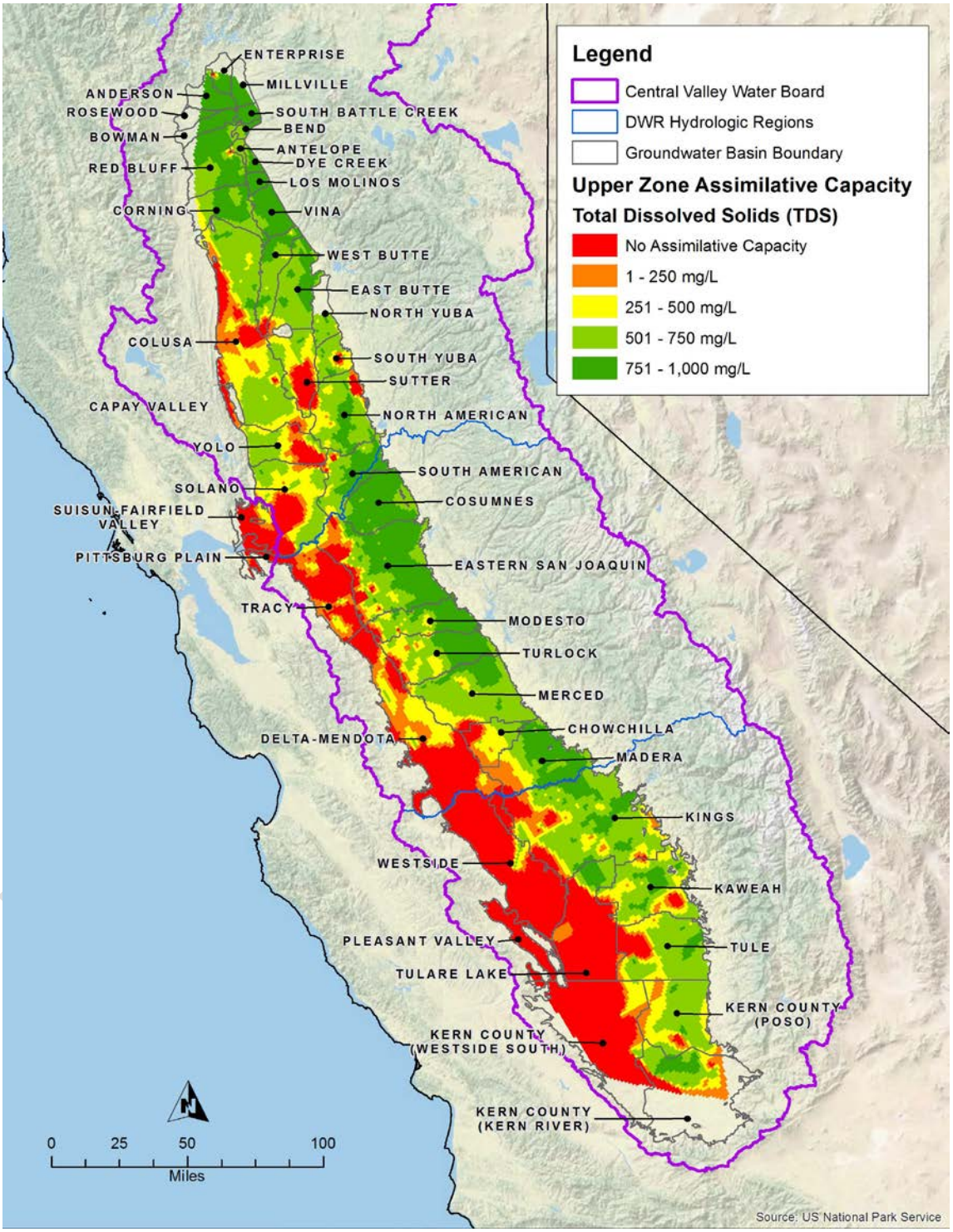

Figure B - 9. Estimated Assimilative Capacity for TDS (mg/L) in the Production Zone of Central Valley Floor Groundwater Basins/Subbasins (above Corcoran Clay where present).

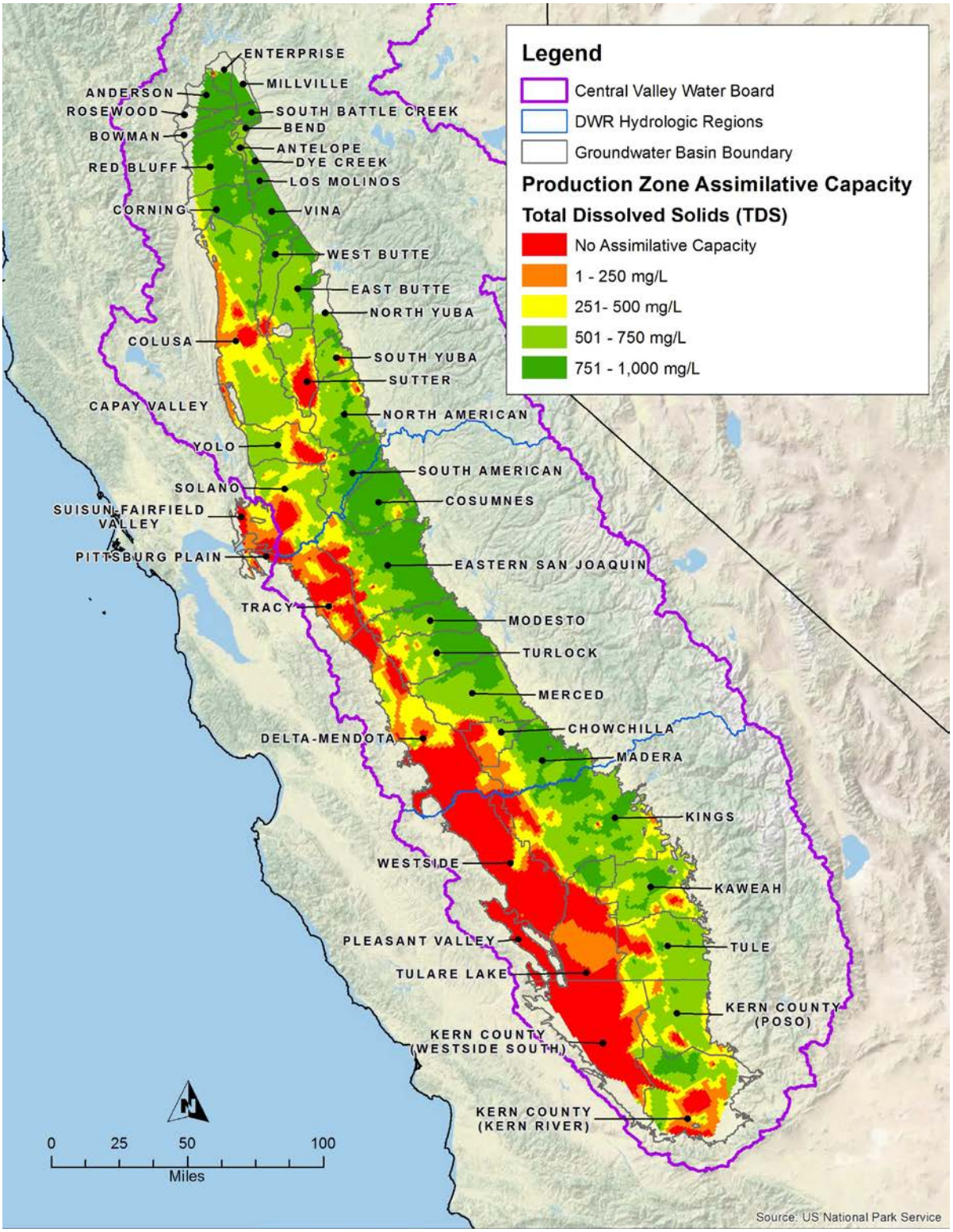

Figure B – 10. IAZ Map of Initial Analysis Zones (IAZs) in the Central Valley

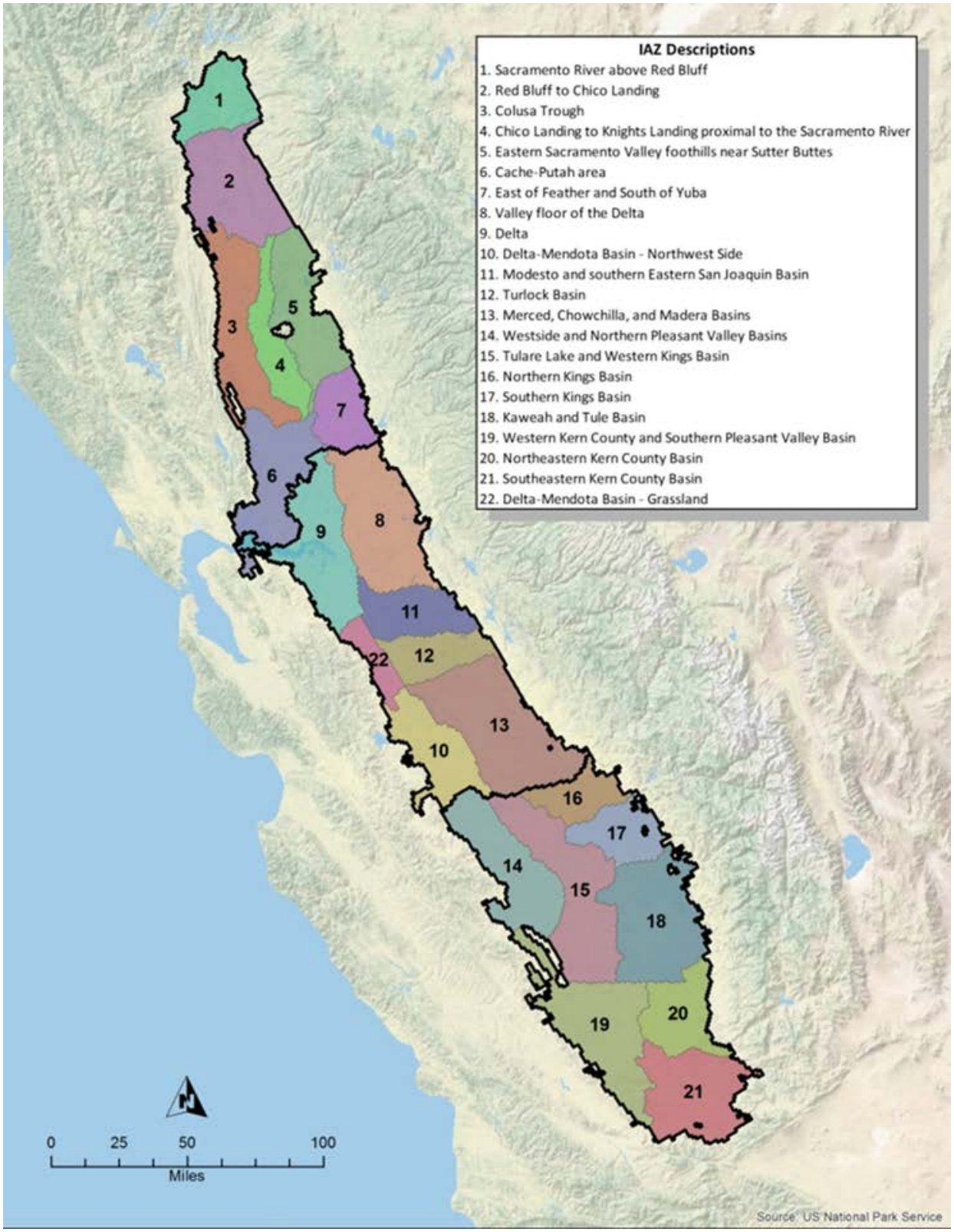

Table B – 9. Ambient Nitrate Concentrations in Northern Central Valley IAZs

	Ambient Nitrate Concentrations - Northern Central Valley									
	Percent of CVHM Grid Cells Containing A Well Over 10 mg/L (NO_3-N) Within an IAZ				Shallow Concentrations (2003-2012)			Deep Concentrations (1980-2012)		
IAZ	Before 1960	1960-1979	1980-1999	2000-2012	25th Percentile	Shallow Median (mg/L NO_3-N)	75th Percentile	Lower 95% Confidence Interval	Estimated 2003 Deep Concentration (mg/L NO_3-N)	Upper 95% Confidence Interval
1	2%	0%	0%	1%	0.1	0.1	0.4	0.7	0.8	0.8
2	5%	5%	11%	12%	0.1	0.6	2.0	1.4	1.4	1.5
3	1%	2%	7%	13%	0.4	0.9	1.9	1.3	1.5	1.6
4	0%	2%	4%	4%	0.2	2.8	27.0	0.2	0.2	0.2
5	7%	9%	12%	16%	0.1	0.4	1.5	0.8	0.9	0.9
6	6%	10%	13%	29%	0.1	0.6	2.8	1.9	2.0	2.2
7	3%	0%	1%	4%	0.1	0.7	1.6	1.1	1.1	1.2

Table B - 8. Ambient TDS Concentrations in Northern Central Valley IAZs

	Ambient TDS Concentrations - Northern Central Valley									
	Percent of CVHM Grid Cells Containing A Well Over 500 mg/L (TDS) Within an IAZ				Shallow Concentrations (2003-2012)			Deep Concentrations (1980-2012)		
IAZ	Before 1960	1960-1979	1980-1999	2000-2012	25th Percentile	Shallow Median (mg/L)	75th Percentile	Lower 95% Confidence Interval	Estimated 2003 Deep Concentration (mg/L)	Upper 95% Confidence Interval
1	13%	3%	1%	3%	200	370	1095	153	158	164
2	5%	4%	5%	6%	164	201	323	218	223	227
3	31%	25%	36%	38%	497	583	1843	347	381	418
4	24%	28%	29%	36%	545	761	2548	322	363	410
5	7%	15%	20%	26%	253	329	495	269	281	293
6	59%	59%	58%	57%	835	1060	1398	449	461	473
7	4%	9%	10%	21%	292	398	743	236	241	247

Table B - 9. Ambient Nitrate Concentrations in Middle Central Valley IAZs

	Ambient Nitrate Concentrations - Middle Central Valley									
	Percent of CVHM Grid Cells Containing A Well Over 10 mg/L (NO_3-N) Within an IAZ				Shallow Concentrations (2003-2012)			Deep Concentrations (1980-2012)		
IAZ	Before 1960	1960-1979	1980-1999	2000-2012	25th Percentile	Shallow Median (mg/L NO_3-N)	75th Percentile	Lower 95% Confidence Interval	Estimated 2003 Deep Concentration (mg/L NO_3-N)	Upper 95% Confidence Interval
8	1%	3%	3%	24%	0.3	1.2	3.4	1.1	1.1	1.2
9	8%	18%	24%	22%	0.1	0.4	3.0	0.4	0.5	0.5
10	6%	11%	30%	40%	1.2	2.7	7.6	3.8	4.2	4.6
11	4%	10%	21%	46%	1.8	4.9	9.6	3.1	3.2	3.3
12	5%	13%	32%	62%	2.7	10.4	22.6	2.8	3.0	3.2
13	2%	4%	7%	33%	2.5	6.1	10.2	2.1	2.2	2.3
22	3%	9%	43%	38%	1.8	7.4	12.4	1.6	1.9	2.2

Table B - 10. Ambient TDS Concentrations in Middle Central Valley IAZs

	Ambient TDS Concentrations - Middle Central Valley									
	Percent of CVHM Grid Cells Containing A Well Over 500 mg/L (TDS) Within an IAZ				Shallow Concentrations (2003-2012)			Deep Concentrations (1980-2012)		
IAZ	Before 1960	1960-1979	1980-1999	2000-2012	25th Percentile	Shallow Median (mg/L)	75th Percentile	Lower 95% Confidence Interval	Estimated 2003 Deep Concentration (mg/L)	Upper 95% Confidence Interval
8	10%	6%	6%	25%	200	438	620	222	226	231
9	78%	84%	69%	80%	590	961	1375	539	560	583
10	81%	91%	95%	90%	538	842	1140	853	911	972
11	17%	20%	23%	33%	495	565	888	266	273	282
12	30%	31%	27%	29%	432	825	900	255	267	280
13	12%	18%	11%	20%	383	648	785	230	236	242
22	87%	90%	92%	88%	810	1160	1508	591	645	705

Table B - 11. Ambient Nitrate Concentrations in Southern Central Valley IAZs

	Ambient Nitrate Concentrations - Southern Central Valley									
	Percent of CVHM Grid Cells Containing A Well Over 10 mg/L (NO_3-N) Within an IAZ				Shallow Concentrations (2003-2012)			Deep Concentrations (1980-2012)		
IAZ	Before 1960	1960-1979	1980-1999	2000-2012	25th Percentile	Shallow Median (mg/L NO_3-N)	75th Percentile	Lower 95% Confidence Interval	Estimated 2003 Deep Concentration (mg/L NO_3-N)	Upper 95% Confidence Interval
14	4%	4%	59%	6%	0.2	0.4	1.0	0.7	1.0	1.4
15	1%	2%	21%	38%	0.5	3.0	10.2	0.4	0.4	0.5
16	1%	10%	17%	25%	1.4	11.1	19.5	3.0	3.1	3.2
17	0%	23%	26%	35%	2.3	8.5	19.4	2.7	2.9	3.1
18	8%	24%	28%	55%	4.7	10.7	19.2	2.9	3.0	3.2
19	8%	7%	24%	30%	0.1	3.3	7.5	0.9	1.1	1.3
20	8%	27%	27%	39%	0.1	3.4	11.3	1.8	2.0	2.2
21	8%	21%	18%	23%	0.1	0.2	0.5	1.4	1.5	1.6

Table B - 12. Ambient TDS Concentrations in Southern Central Valley IAZs

	Ambient TDS Concentrations - Southern Central Valley									
	Percent of CVHM Grid Cells Containing A Well Over 500 mg/L (TDS) Within an IAZ				Shallow Concentrations (2003-2012)			Deep Concentrations (1980-2012)		
IAZ	Before 1960	1960-1979	1980-1999	2000-2012	25th Percentile	Shallow Median (mg/L)	75th Percentile	Lower 95% Confidence Interval	Estimated 2003 Deep Concentration (mg/L)	Upper 95% Confidence Interval
14	100%	99%	95%	95%	3150	3375	5700	786	966	1187
15	53%	46%	61%	48%	523	1000	1350	314	337	361
16	5%	18%	9%	19%	438	575	771	214	218	223
17	2%	16%	23%	25%	305	520	755	190	199	208
18	15%	25%	20%	31%	479	598	937	207	213	219
19	58%	54%	71%	65%	5075	11300	14500	331	397	475
20	27%	43%	32%	45%	816	870	975	293	309	327
21	44%	51%	40%	34%	240	335	598	254	262	271

Table B - 13. Trends in Ambient Nitrate Concentrations in Central Valley IAZs

(Value count refers to the number of values the calculated median concentration is based on; colors are used to show relative differences in concentration from low [green] to high [red])

Shallow Nitrate Median Concentration (mg/L NO3-N) Through Time														
		1910-1964		1965-1970		1971-1979		1980-1989		1990-2002		2003-2012		Trend
	IAZ	Median	Value Count	Median	Value Count	Median	Value Count	Median	Value Count	Median	Value Count	Median	Value Count	
Nothern Central Valley	1					0.1	1					0.1	41	No apparent trend
	2	1.1	29	1.3	13	2.2	86	3.0	30	2.4	12	0.6	75	No apparent trend
	3	2.3	6	1.2	6	1.3	34	1.3	7	0.7	22	0.9	62	No apparent trend
	4			0.2	7	0.2	11	0.0	2	0.1	7	2.8	17	No apparent trend
	5	1.1	8	1.2	4	1.4	48	2.5	7	0.8	13	0.4	80	No apparent trend
	6			1.8	8	3.6	14	3.4	17	0.2	3	0.6	106	Slightly decreasing
	7	0.8	8	1.2	2	1.5	5	1.8	4	1.7	9	0.7	76	No apparent trend
Middle Central Valley	8	1.1	24	2.5	9	1.9	13	2.4	12	1.5	11	1.2	345	No apparent trend
	9	4.9	8	2.9	4	0.1	7	0.1	7	0.1	10	0.4	218	No apparent trend
	10	3.4	4					2.7	7	2.2	4	2.7	65	No apparent trend
	11			3.2	3	7.5	4	12.6	8	8.1	4	4.9	254	Increasing to decreasing?
	12							0.1	1	3.4	11	10.4	220	Increasing
	13			7.9	3			4.4	8	5.4	21	6.1	195	Slightly increasing
	22	3.4	1					13.1	18	17.5	17	7.4	83	Slightly decreasing
Southern Central Valley	14	3.4	1	2.5	1			23.0	75			0.4	14	No apparent trend
	15							1.2	67	11.3	26	3.0	192	Increasing to decreasing?
	16	5.7	1					8.2	6	7.9	19	11.1	36	Slightly increasing
	17	6.0	2			8.1	1	8.0	10	10.1	33	8.5	100	Slightly increasing
	18							14.5	8	15.0	21	10.7	362	No apparent trend
	19	3.6	3					4.9	40			3.3	42	No apparent trend
	20	0.6	6					1.6	1			3.4	14	Slightly increasing
	21	0.7	8			8.6	1	8.6	23	0.3	5	0.2	45	Increasing to decreasing?

Table B - 14. Trends in Ambient TDS Concentrations in Central Valley IAZs

(Value count refers to the number of values the calculated median concentration is based on; colors are used to show relative differences in concentration from low [green] to high [red])

Shallow TDS Concentrations (mg/L)														
		1910-1964		1965-1970		1971-1979		1980-1989		1990-2002		2003-2012		Trend
	IAZ	Median	Value Count	Median	Value Count	Median	Value Count	Median	Value Count	Median	Value Count	Median	Value Count	
Nothern Central Valley	1					158	39	149.75	52			370	9	Slightly increasing
	2	179.2	33	145.06	16	269.54	92	230	25	195	9	200.5	26	No apparent trend
	3	1022.8	12	571.52	9	347.26	44	398.26	24	588.25	20	583	21	Slightly increasing
	4			852.5	10	486.5	14	806.4	7	625	8	760.5	6	No apparent trend
	5	164	8	183	9	215.5	52	219	12	435	14	329	59	Slightly increasing
	6			381	7	407.68	63	423.04	99	528	5	1060	55	Increasing
	7	167.5	8	177	5	186.24	14	221.44	24	506.25	8	397.5	52	Slightly increasing
Middle Central Valley	8	162.56	27	164	13	187	73	165.76	57	335.5	8	438	231	Increasing
	9	953.5	12	995.2	12	736	31	702.85	24	713.5	5	960.5	147	No apparent trend
	10	473	8	870.4	1	869.5	2	1960	7	838	4	841.5	47	No apparent trend
	11	315	31	173	7	256.64	18	227.24	16	640	4	565	93	Increasing
	12	80	3	895	3			82.75	12	201.25	12	825	7	Increasing
	13	235	5	423	10	180	3	203.5	27	257.5	23	647.5	49	Increasing
	22	962	13	5630	4			2575	22	2410	17	1160	6	No apparent trend
Southern Central Valley	14	942	3	836	1			4310	74			3375	15	Increasing
	15	335.5	10	475	3	315	2	6490	67	782.5	18	1000	63	Increasing
	16	419	4	124	1	303	3	378	7	496.75	15	575.375	8	Slightly increasing
	17	383	5			351.5	6	413	9	393.75	28	520	63	Slightly increasing
	18	160	3			356	1	1555	8	648	18	597.75	82	No apparent trend
	19	1270	5					3370	39			11300	37	Increasing
	20	518	7					290	1			870	9	No apparent trend
	21	359	10			352.5	2	3420	23	419.5	4	335	32	No apparent trend

Table B - 15. Central Valley Floor; Initial Analysis Zones, Nitrate Concentration Statistics

				Well Nitrate (mg/L as N) Concentration Statistics				
		IAZ	Aquifer Zone	Number of Wells	Minimum	Mean	Median	Maximum
Nitrate Results	Northern Central Valley	1	*Upper Zone*	170	0.00	0.83	0.31	5.87
			Upper and Lower Zone	31	0.23	1.20	1.13	2.58
			Lower Zone	204	0.07	1.23	0.85	7.00
			Below Production Zone	10	0.23	0.64	0.45	1.76
			Unknown	15	0.16	1.75	1.37	5.39
		2	*Upper Zone*	324	0.00	2.95	1.08	94.28
			Upper and Lower Zone	58	0.19	1.78	1.14	6.49
			Lower Zone	498	0.12	2.46	1.58	20.81
			Below Production Zone	10	0.23	0.67	0.39	2.35
			Unknown	75	0.09	4.70	3.44	21.83
		3	*Upper Zone*	210	0.02	3.85	1.03	78.27
			Upper and Lower Zone	19	0.23	3.10	2.00	9.94
			Lower Zone	134	0.03	3.40	1.79	22.00
			Unknown	39	0.11	3.85	2.28	19.19
		4	*Upper Zone*	83	0.02	4.57	0.23	97.29
			Upper and Lower Zone	9	0.09	0.38	0.23	0.82
			Lower Zone	47	0.04	0.62	0.23	6.11
			Unknown	23	0.02	1.59	0.18	11.07
		5	*Upper Zone*	314	0.02	2.94	0.79	55.40
			Upper and Lower Zone	71	0.22	2.10	1.07	10.81
			Lower Zone	257	0.09	2.45	0.89	19.20
			Below Production Zone	3	0.23	0.23	0.23	0.23
			Unknown	66	0.01	2.43	0.82	22.42
		6	*Upper Zone*	396	0.10	10.73	3.68	218.39
			Upper and Lower Zone	37	0.22	3.42	3.00	9.21
			Lower Zone	209	0.09	3.75	2.74	18.91
			Below Production Zone	14	0.23	1.24	0.45	8.76
			Unknown	22	0.23	3.39	3.46	14.02
		7	*Upper Zone*	235	0.02	13.89	1.37	1219.84
			Upper and Lower Zone	99	0.23	1.69	1.53	5.88
			Lower Zone	248	0.07	1.58	1.34	7.03
			Below Production Zone	4	0.23	0.99	0.23	3.27
			Unknown	20	0.17	1.74	1.01	8.59

DRAFT

Table B - 16. Central Valley Floor; Initial Analysis Zones, Nitrate Concentration Statistics

				Well Nitrate (mg/L as N) Concentration Statistics				
		IAZ	Aquifer Zone	Number of Wells	Minimum	Mean	Median	Maximum
Nitrate Results	Middle Central Valley	8	*Upper Zone*	825	0.07	6.05	2.02	320.21
			Upper and Lower Zone	229	0.02	2.17	1.65	12.31
			Lower Zone	739	0.05	3.44	1.77	67.30
			Below Production Zone	16	0.21	0.39	0.23	2.32
			Unknown	65	0.15	3.14	1.94	18.75
		9	*Upper Zone*	938	0.05	26.83	0.72	1541.75
			Upper and Lower Zone	82	0.16	1.60	0.23	13.99
			Lower Zone	257	0.11	2.22	0.25	64.00
			Below CC Zone	57	0.17	2.32	1.26	18.50
			Below Production Zone	8	0.23	1.75	0.23	6.32
			Unknown	15	0.14	3.50	0.23	14.62
		10	*Upper Zone*	180	0.13	9.23	8.58	37.48
			Upper and Lower Zone	10	2.98	7.92	7.03	14.15
			Lower Zone	38	0.23	6.25	4.64	45.90
			Below CC Zone	33	0.23	7.41	4.96	20.35
			Unknown	2	3.26	4.18	4.18	5.10
		11	*Upper Zone*	810	0.06	19.40	5.86	1920.68
			Upper and Lower Zone	131	0.23	4.68	3.89	40.90
			Lower Zone	273	0.21	6.20	4.04	62.80
			Below CC Zone	138	0.23	5.84	3.82	54.20
			Unknown	4	2.07	5.16	3.07	12.45
		12	*Upper Zone*	919	0.08	17.87	11.57	282.28
			Upper and Lower Zone	22	1.24	7.55	6.49	30.34
			Lower Zone	127	0.23	7.94	3.80	59.40
			Below CC Zone	227	0.20	12.93	5.98	127.30
		13	*Upper Zone*	495	0.10	10.76	5.98	179.61
			Upper and Lower Zone	43	0.23	3.92	2.95	12.66
			Lower Zone	274	0.22	4.51	2.91	43.30
			Below CC Zone	338	0.10	7.85	3.58	71.00
			Below Production Zone	2	1.03	1.10	1.10	1.17
		22	*Upper Zone*	308	0.03	16.17	5.80	602.30
			Upper and Lower Zone	24	0.23	4.12	4.63	9.20
			Lower Zone	61	0.19	4.45	2.01	49.00
			Below CC Zone	34	0.03	4.59	2.03	24.19
			Unknown	18	0.07	7.49	6.44	18.98

DRAFT

Table B - 17. Central Valley Floor; Initial Analysis Zones, Nitrate Concentration Statistics

				Well Nitrate (mg/L as N) Concentration Statistics				
		IAZ	Aquifer Zone	Number of Wells	Minimum	Mean	Median	Maximum
Nitrate Results	Southern Central Valley	14	*Upper Zone*	17	0.23	49.81	0.91	452.82
			Upper and Lower Zone	5	0.05	2.53	0.23	7.16
			Lower Zone	20	0.05	6.11	0.29	79.06
			Below CC Zone	4	0.23	2.41	0.35	8.69
			Unknown	77	0.02	22.99	0.77	284.63
		15	*Upper Zone*	285	0.03	11.89	4.50	269.38
			Upper and Lower Zone	31	0.12	1.40	0.23	13.22
			Lower Zone	222	0.10	7.45	2.30	63.20
			Below CC Zone	49	0.21	3.41	0.23	57.10
		16	*Upper Zone*	132	0.13	6.98	3.84	37.70
			Upper and Lower Zone	93	0.32	4.40	3.92	13.94
			Lower Zone	454	0.23	4.59	3.44	56.00
			Below Production Zone	12	1.33	2.96	2.31	7.34
		17	*Upper Zone*	126	0.04	17.33	10.23	111.46
			Upper and Lower Zone	54	0.23	4.89	5.11	10.39
			Lower Zone	253	0.11	9.05	4.09	63.05
			Below CC Zone	7	8.50	25.61	22.55	59.60
			Below Production Zone	3	0.23	2.14	2.54	3.66
		18	*Upper Zone*	501	0.10	14.13	9.94	96.30
			Upper and Lower Zone	159	0.21	4.94	3.56	28.58
			Lower Zone	497	0.15	12.27	9.00	74.50
			Below CC Zone	209	0.22	7.11	3.28	55.85
			Below Production Zone	3	0.32	3.54	2.98	7.32
		19	*Upper Zone*	49	0.23	26.91	5.65	556.46
			Upper and Lower Zone	5	0.45	2.51	1.11	7.88
			Lower Zone	21	0.23	4.05	1.70	19.30
			Below CC Zone	12	0.23	3.34	2.50	13.68
		20	*Upper Zone*	34	0.21	6.97	0.81	56.21
			Upper and Lower Zone	15	0.23	5.01	2.13	17.65
			Lower Zone	82	0.22	4.08	1.80	19.39
			Below CC Zone	44	0.81	6.26	5.57	13.17
		21	*Upper Zone*	119	0.04	3.18	0.50	64.04
			Upper and Lower Zone	104	0.16	2.68	1.87	14.32
			Lower Zone	280	0.07	2.37	1.35	29.55
			Below CC Zone	56	0.23	5.12	3.13	29.40
			Below Production Zone	2	0.21	0.22	0.22	0.22

DRAFT

Table B - 18. Central Valley Floor; Initial Analysis Zones, TDS Concentration Statistics

				Well TDS (mg/L) Concentration Statistics				
		IAZ	Aquifer Zone	Number of Wells	Minimum	Mean	Median	Maximum
TDS Results	Northern Central Valley	1	*Upper Zone*	41	93	301	171	2,564
			Upper and Lower Zone	29	98	142	140	189
			Lower Zone	163	82	178	168	961
			Below Production Zone	7	110	170	161	227
			Unknown	15	95	166	162	270
		2	*Upper Zone*	175	119	367	292	8,904
			Upper and Lower Zone	55	117	221	206	425
			Lower Zone	362	59	233	208	679
			Below Production Zone	9	118	209	200	356
			Unknown	63	102	297	273	608
		3	*Upper Zone*	90	154	562	429	3,306
			Upper and Lower Zone	21	196	366	336	794
			Lower Zone	92	45	502	413	3,274
			Unknown	39	129	408	346	968
		4	*Upper Zone*	76	121	627	379	8,282
			Upper and Lower Zone	9	179	287	274	428
			Lower Zone	37	164	670	338	8,579
			Unknown	23	159	461	373	998
		5	*Upper Zone*	248	74	468	321	5,720
			Upper and Lower Zone	59	105	363	260	1,548
			Lower Zone	213	35	355	254	4,288
			Below Production Zone	3	344	360	364	371
			Unknown	66	111	448	246	5,726
		6	*Upper Zone*	307	114	1,676	871	56,500
			Upper and Lower Zone	33	228	494	443	1,510
			Lower Zone	152	54	501	452	1,510
			Below Production Zone	12	284	344	327	507
			Unknown	22	184	593	510	1,901
		7	*Upper Zone*	171	76	952	394	10,240
			Upper and Lower Zone	97	80	251	232	667
			Lower Zone	236	58	256	234	691
			Below Production Zone	5	175	372	333	678
			Unknown	21	106	283	261	584

DRAFT

Table B - 19. Central Valley Floor; Initial Analysis Zones, TDS Concentration Statistics

				Well TDS (mg/L) Concentration Statistics				
		IAZ	Aquifer Zone	Number of Wells	Minimum	Mean	Median	Maximum
TDS Results	Middle Central Valley	8	*Upper Zone*	375	74	639	460	27,276
			Upper and Lower Zone	224	77	255	229	1,230
			Lower Zone	339	34	235	188	1,760
			Below Production Zone	17	129	192	150	773
			Unknown	64	92	256	175	957
		9	*Upper Zone*	511	99	1,547	1,153	18,456
			Upper and Lower Zone	61	90	624	527	4,222
			Lower Zone	176	10	655	587	4,272
			Below CC Zone	45	62	912	737	3,690
			Below Production Zone	8	410	1,072	765	3,406
			Unknown	15	481	4,223	998	25,684
		10	*Upper Zone*	178	207	1,076	972	4,073
			Upper and Lower Zone	8	194	726	676	1,485
			Lower Zone	27	293	956	930	2,196
			Below CC Zone	25	387	1,046	940	4,314
			Unknown	2	417	516	516	615
		11	*Upper Zone*	308	81	2,863	545	178,909
			Upper and Lower Zone	126	67	320	302	1,121
			Lower Zone	134	35	282	221	1,700
			Below CC Zone	119	92	448	311	5,974
			Below Production Zone	2	160	178	178	196
			Unknown	4	180	290	303	373
		12	*Upper Zone*	112	37	541	517	2,143
			Upper and Lower Zone	25	74	402	403	1,176
			Lower Zone	51	74	297	232	1,136
			Below CC Zone	108	144	399	266	1,859
		13	*Upper Zone*	120	94	516	418	1,951
			Upper and Lower Zone	41	62	304	211	3,738
			Lower Zone	182	72	250	202	1,048
			Below CC Zone	124	90	323	220	3,923
			Below Production Zone	2	246	280	280	314
		22	*Upper Zone*	72	269	1,527	1,400	4,210
			Upper and Lower Zone	24	231	827	787	3,255
			Lower Zone	40	185	947	778	3,242
			Below CC Zone	23	440	1,195	1,054	2,536

DRAFT

Table B - 20. Central Valley Floor; Initial Analysis Zones, TDS Concentration Statistics

				Well TDS (mg/L) Concentration Statistics				
		IAZ	Aquifer Zone	Number of Wells	Minimum	Mean	Median	Maximum
TDS Results	Southern Central Valley	14	*Upper Zone*	15	313	4,264	3,233	12,522
			Upper and Lower Zone	5	849	1,053	1,012	1,360
			Lower Zone	17	554	1,176	1,006	2,980
			Below CC Zone	4	563	923	939	1,249
			Unknown	78	279	1,881	906	8,816
		15	*Upper Zone*	126	76	2,295	812	36,000
			Upper and Lower Zone	32	114	599	471	1,916
			Lower Zone	79	61	498	436	1,809
			Below CC Zone	46	140	423	383	1,612
		16	*Upper Zone*	77	69	472	466	1,550
			Upper and Lower Zone	111	74	245	219	570
			Lower Zone	442	10	231	208	1,322
			Below Production Zone	15	132	198	187	354
		17	*Upper Zone*	112	72	557	487	1,600
			Upper and Lower Zone	50	77	284	265	1,184
			Lower Zone	187	68	307	214	9,268
			Below Production Zone	5	109	1,759	177	8,096
		18	*Upper Zone*	219	97	860	601	6,663
			Upper and Lower Zone	153	91	261	223	1,572
			Lower Zone	230	63	354	302	1,221
			Below CC Zone	146	86	201	165	744
			Below Production Zone	3	342	477	371	717
		19	*Upper Zone*	43	800	8,355	6,400	26,500
			Upper and Lower Zone	7	306	1,157	1,254	3,154
			Lower Zone	20	181	859	675	2,758
			Below CC Zone	17	171	1,345	531	9,475
		20	*Upper Zone*	28	167	927	836	3,069
			Upper and Lower Zone	14	135	553	368	1,562
			Lower Zone	73	115	433	366	1,562
			Below CC Zone	40	132	317	290	569
		21	*Upper Zone*	104	142	506	363	1,851
			Upper and Lower Zone	105	10	300	223	1,340
			Lower Zone	250	10	339	234	3,213
			Below CC Zone	52	151	421	380	1,080
			Below Production Zone	2	393	457	457	522

DRAFT

Table B - 21. Central Valley Floor, Initial Analysis Zones Aggregate (Volume Weighted) Ambient Conditions for Nitrate (as N) and TDS

		Nitrate (mg/L as N}			TDS (mg/L}		
	IAZs	Upper	Lower Zone*	Production Zone	Upper Zone	Lower Zone*	Production Zone
Northern Central Valley	1	1.01	1.23	1.12	180	169	159
	2	1.92	2.15	2.07	250	236	240
	3	3.77	3.17	3.42	645	486	551
	4	1.49	0.96	1.20	747	657	698
	5	2.48	1.44	1.81	433	360	386
	6	6.06	3.60	4.58	914	524	682
	7	3.76	1.60	2.40	431	289	342
Middle Central Valley	8	3.29	2.38	2.71	249	222	232
	9	5.23	1.53	3.36	1091	627	858
	10	6.90	6.69	6.82	1087	767	966
	11	9.24	4.71	6.87	479	241	354
	12	10.9	4.61	7.72	446	212	328
	13	6.06	3.78	4.78	505	297	388
	22	6.12	2.36	4.94	1357	984	1240
Southern Central Valley	14	1.26	2.71	1.76	2077	1148	1761
	15	4.96	2.40	3.65	1442	717	1071
	16	6.49	5.46	5.88	373	254	302
	17	10.0	9.36	9.63	413	318	357
	18	9.97	10.51	10.26	569	398	475
	19	6.27	1.43	3.21	3988	841	2573
	20	4.93	4.41	4.54	502	412	436
	21	3.18	2.88	2.93	668	564	593

*Above Corcoran Clay where present.

DRAFT

Figure B - 11. Average Nitrate Mass (Tons) Present for Northern Central Valley IAZs

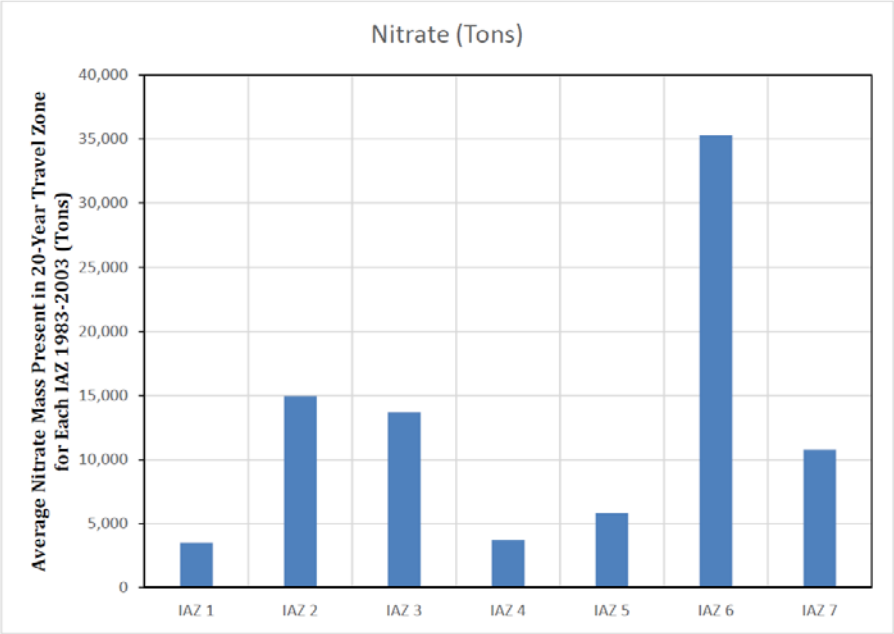

Figure B - 12. Average TDS Mass (Tons) Present for Northern Central Valley IAZs

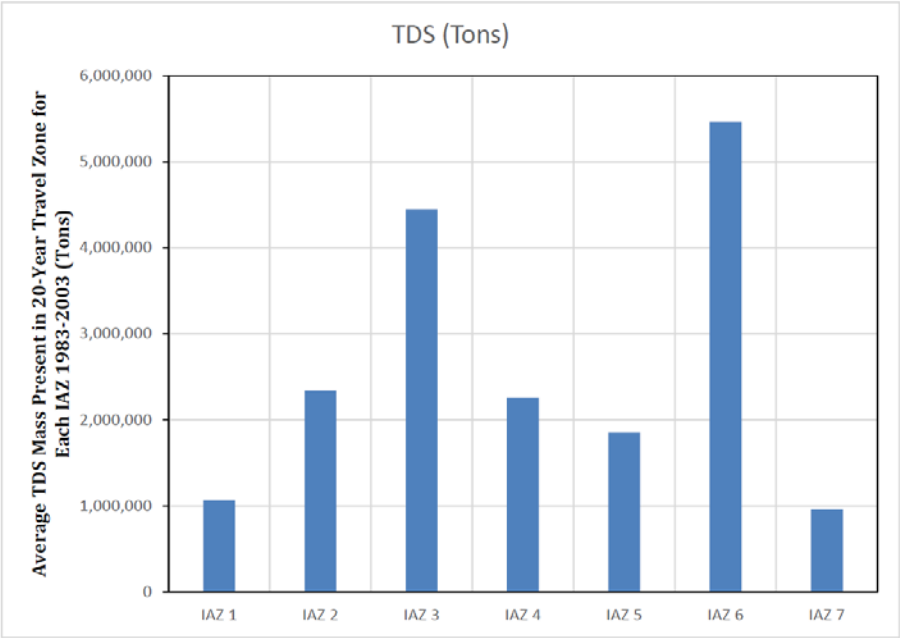

Figure B – 13. Starting, Net Change, and Final Nitrate Mass (Tons) in the 20-Year Travel Zone for Northern Central Valley IAZs (1983-2003)

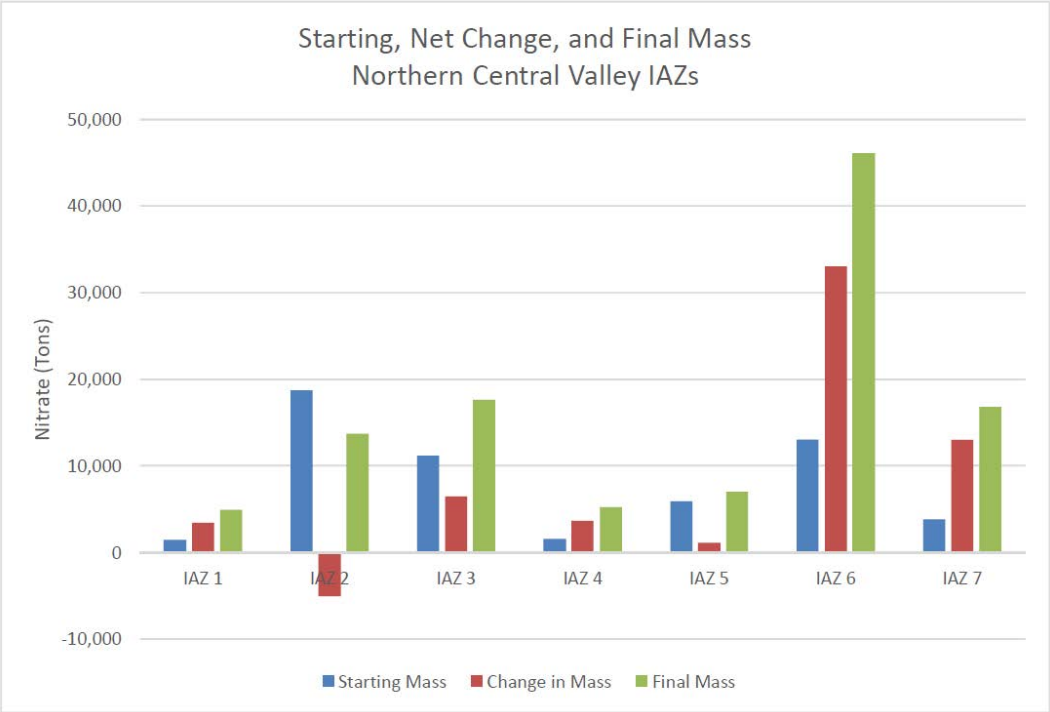

Figure B – 14. Starting, Net Change, and Final TDS Mass (Tons) in the 20-Year Travel Zone for Northern Central Valley IAZs (1983-2003)

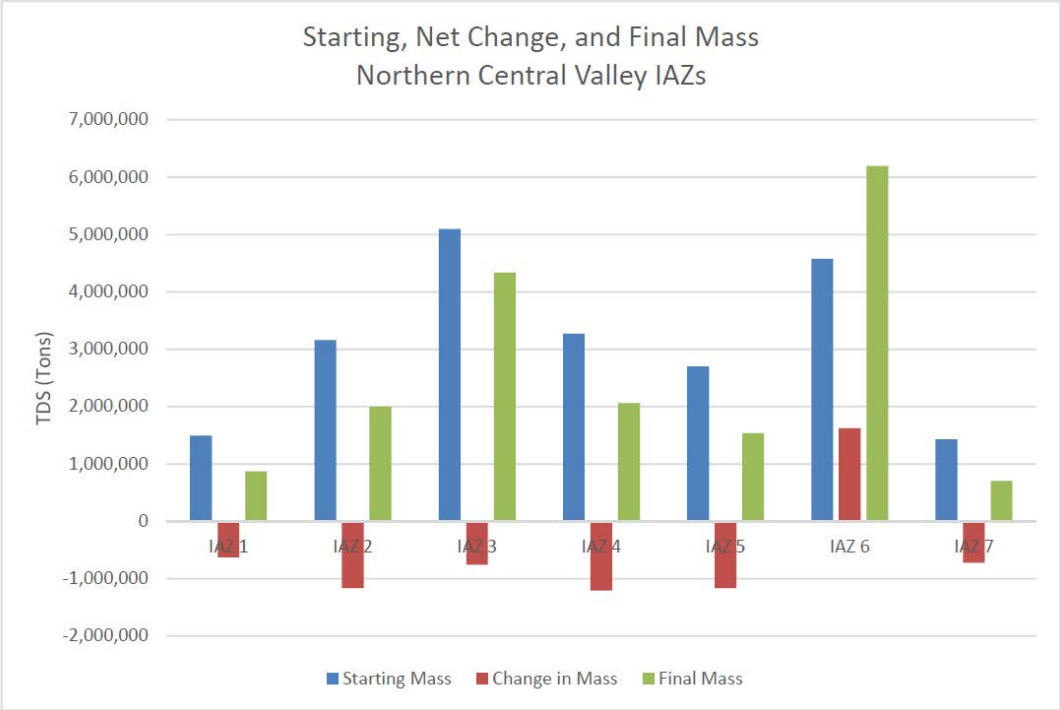

Figure B – 15. Average Nitrate Mass (Tons) Present for Middle Central Valley IAZs

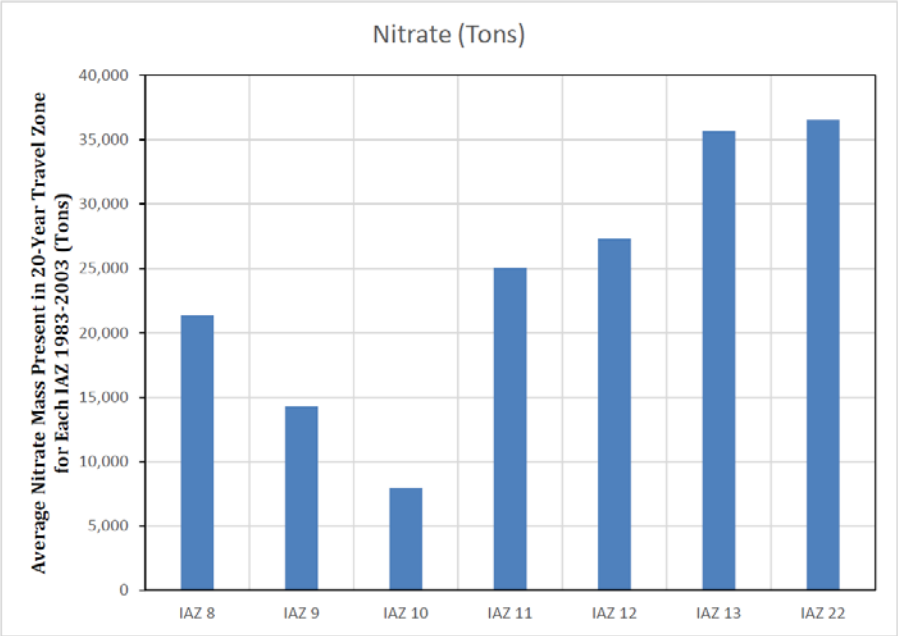

Figure B – 16. Average TDS Mass (Tons) Present for Middle Central Valley IAZs

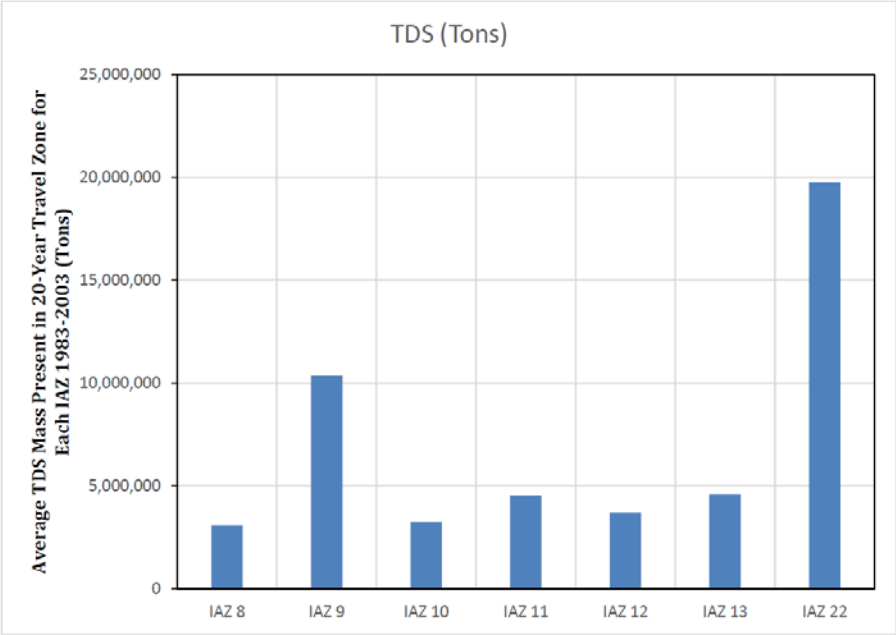

Figure B – 17. Starting, Net Change, and Final Nitrate Mass (Tons) in the 20-Year Travel Zone for Middle Central Valley IAZs (1983-2003)

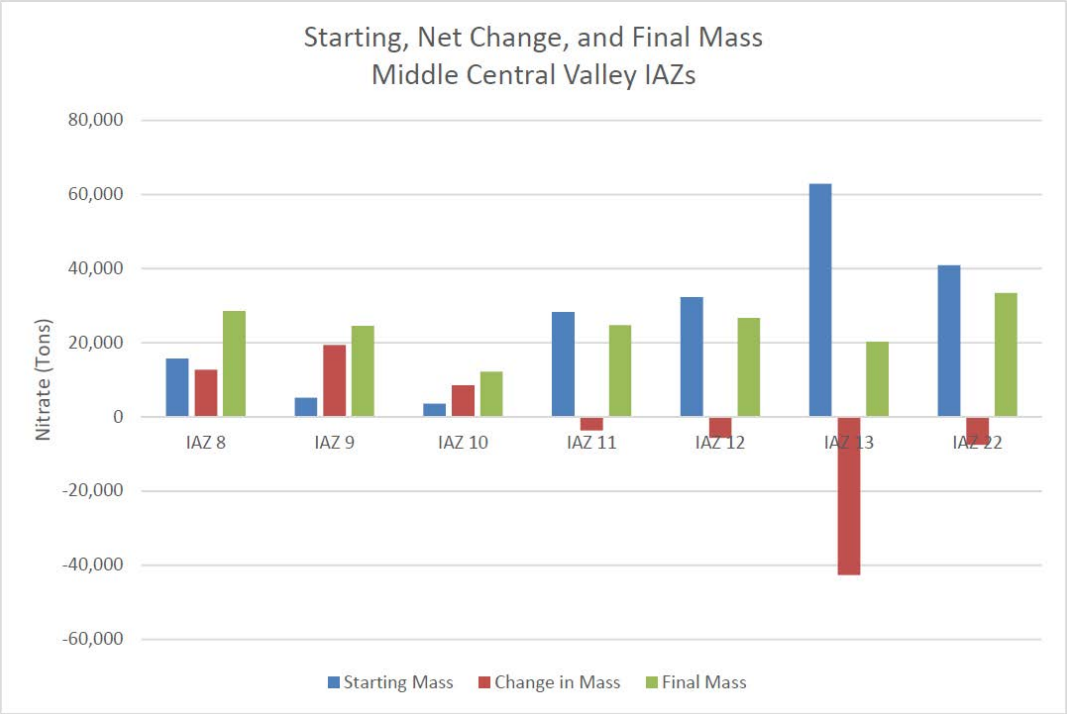

Figure B – 18. Starting, Net Change, and Final TDS Mass (Tons) in the 20-Year Travel Zone for Middle Central Valley IAZs (1983-2003)

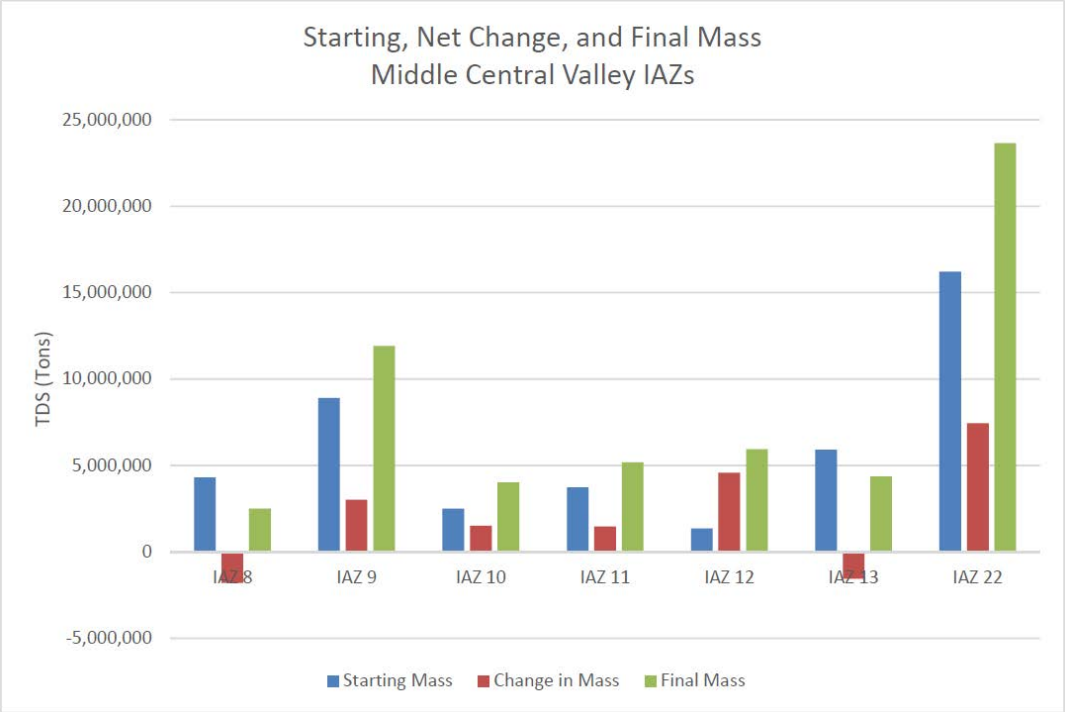

Figure B – 19. Average Nitrate Mass (Tons) Present for Southern Central Valley IAZs

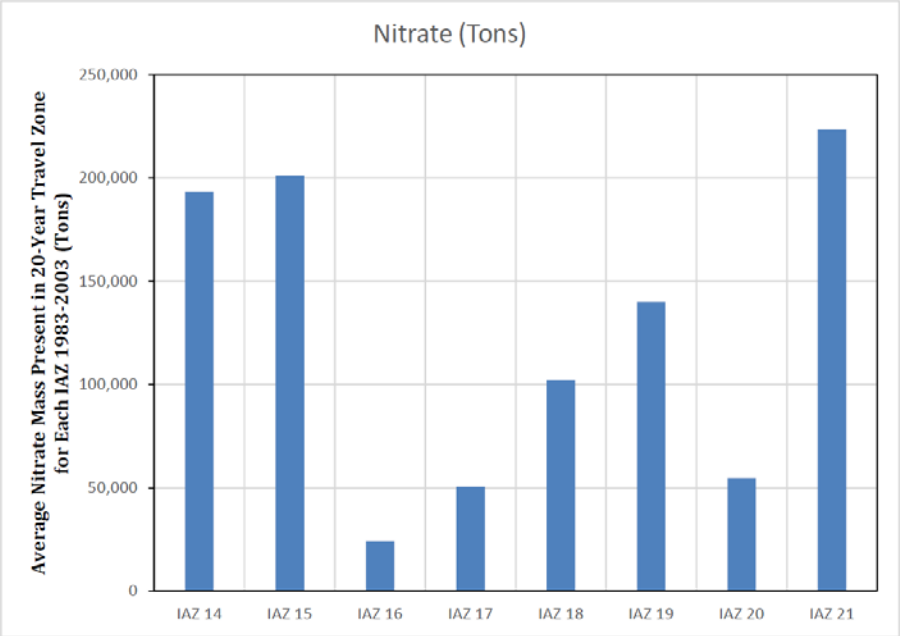

Figure B – 20. Average TDS Mass (Tons) Present for Southern Central Valley IAZs

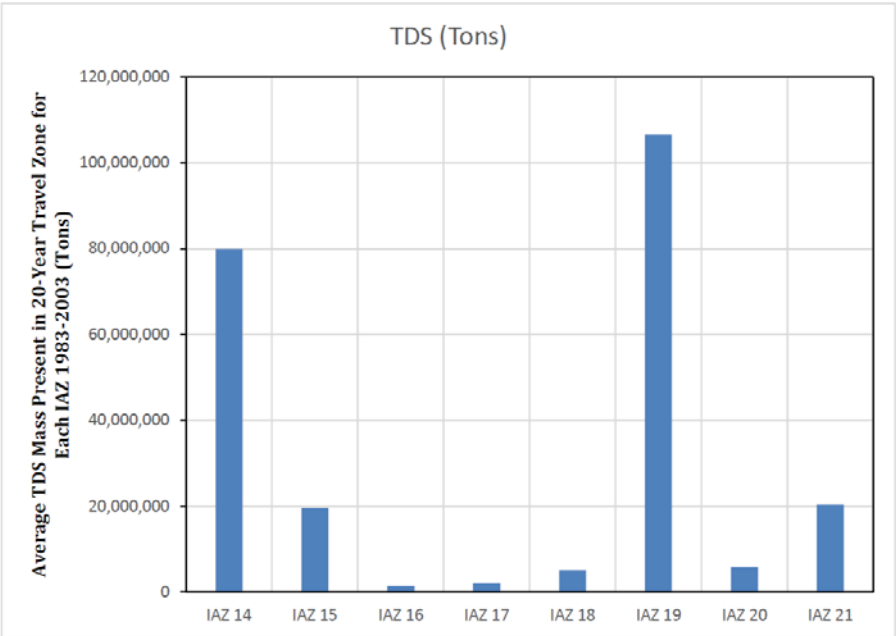

Figure B – 21. Starting, Net Change, and Final Nitrate Mass (Tons) in the 20-Year Travel Zone for Southern Central Valley IAZs (1983-2003)

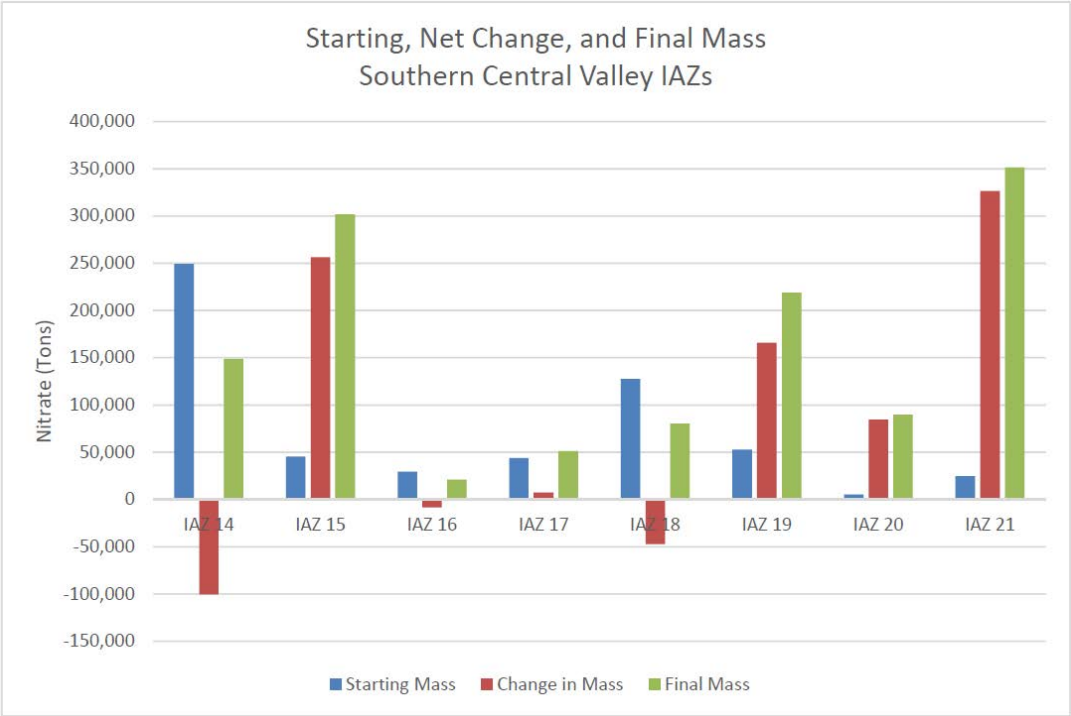
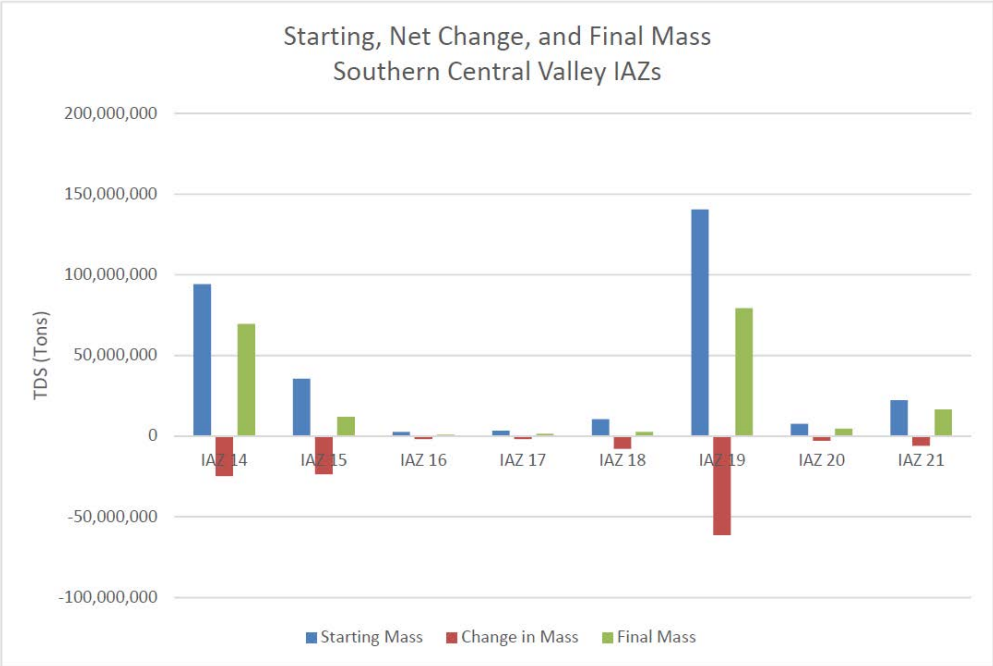
Figure B – 22. Starting, Net Change, and Final TDS Mass (Tons) in the 20-Year Travel Zone for Southern Central Valley IAZs (1983-2003)