

APPENDIX B

Summary Statistics

December 1992 – June 2008

Appendix B

Summary Statistics

Summary statistics for AMP data for the period December 1992 through June 2008 are presented in this Appendix, Table B-1 through Table B-6. All the parameters listed in Tables 3-1 through 3-6 in Section 3 are included.

For each water quality parameter measured by the AMP, the following statistics were calculated:

- Number of measurements (n)
- Number of measurements for which a measurable quantity was detected
- Percent of measurements for which a measurable quantity was detected
- Mean and standard deviation
- Minimum and maximum detected values
- Minimum and maximum reporting limits for data below detection.

If the data set for a parameter contained no data below the reporting limits, the arithmetic mean and standard deviation were calculated using the complete data set. If 80 to 99 percent of the data were above their respective Ambient Program reporting limits, distribution parameters were estimated using the Robust Lognormal Regression method (see following discussion). If less than 80% of the data were above their Ambient Program reporting limits, the program considered the data set to have insufficient detected data available to reliably estimate the mean and standard deviation, and no additional statistics were calculated.

Split samples submitted as part of the QA/QC program are not used to calculate summary statistics. For cases where parameters were analyzed by more than one method (most commonly 625 and 8260 for volatile organics), the more definitive of the two (or more) results was used for plots and other analyses. This was generally considered to be the result from the method with the lowest detection limit.

Treatment of Values below Reporting Limits

Summary statistics are computed using the Robust Lognormal Regression method (Helsel and Cohn 1988; Helsel 1990) when censored data were reported (i.e. data below program reporting limits). This method fits the detected values to a lognormal distribution, using the censored data to calculate cumulative distribution values for the detected data. Data below detection are assigned values based on the lognormal distribution regression statistics and distributional parameters (means and standard deviations) are calculated directly from the combined data set of detected and synthetic data. In cases where more than 20% of the values are censored, the mean and standard deviation are not calculated because the data set is considered insufficient to accurately estimate these statistics.

Table B-1. Summary Statistics for the Sacramento River at Veterans Bridge

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
Ammonia (as n)	mg/L	51	6%	3	id	id	0.027	0.1	0.1	0.1
Arsenic (dissolved)	ug/L	97	78%	76	1.3	0.46	0.29	2.4	0.15	1
Arsenic (total)	ug/L	166	95%	157	1.72	0.50	0.7	3.63	0.15	1
Cadmium (dissolved)	ug/L	152	53%	80	0.02	0.02	0.003	0.24	0.008	0.02
Cadmium (total)	ug/L	164	88%	145	0.06	0.10	0.008	0.74	0.008	0.1
Chloride	mg/L	101	93%	94	5.5	2.2	2.2	14	2	3
Chromium (dissolved)	ug/L	87	22%	19	0.2	0.2	0.02	1.2	0.03	0.5
Chromium (total)	ug/L	167	89%	149	2.78	2.80	0.03	19.2	0.03	0.51
Copper (dissolved)	ug/L	167	98%	164	1.49	0.56	0.33	5	0.04	0.5
Copper (total)	ug/L	167	100%	167	4.32	2.52	0.72	18.3	0.04	0.51
Cyanide	ug/L	21	10%	2	id	id	1.16	5	3	5
Dissolved organic carbon	mg/L	130	72%	93	2.36	1.38	0.7	10	0.2	1
Dissolved oxygen	mg/L	179	100%	179	9.99	1.43	6.6	17	0.05	1
E. coli	mpn/100 ml	74	97%	72	48	101	2	500	2	2
Electrical conductivity	umhos/cm	189	100%	189	148	43	21.2	260	1	10
Fecal coliform	mpn/100 ml	118	98%	116	119	368	2	2400	2	2
Hardness	mg/L	180	99%	179	60	13	28	120	4	16
Lead (dissolved)	ug/L	148	55%	82	0.05	0.06	0.011	0.4	0.015	0.1
Lead (total)	ug/L	167	97%	162	0.63	0.72	0.04	7.2	0.015	0.31
Mercury (filtered)	ng/L	170	91%	154	1.46	1.16	0.35	7.96	0.0005	0.5
Mercury (unfiltered)	ng/L	171	99%	169	7.96	5.69	0.77	34.9	0.15	0.51
Methyl mercury (filtered)	ng/L	63	63%	40	0.04	0.02	0.026	0.113	0.025	0.056
Methyl mercury (unfiltered)	ng/L	67	85%	57	0.10	0.04	0.047	0.216	0.025	0.056
Molybdenum (dissolved)	ug/L	26	100%	26	0.52	0.20	0.22	1	0.02	0.3
Molybdenum (total)	ug/L	32	97%	31	0.41	0.14	0.18	0.75	0.02	0.3
Nickel (dissolved)	ug/L	146	77%	112	0.79	0.44	0.2	2.8	0.04	0.2
Nickel (total)	ug/L	148	98%	145	4.99	4.50	0.43	28	0.04	0.5
Nitrate (as n)	mg/L	54	69%	37	0.19	0.44	0.035	2.6	0.1	0.5
Nitrite (as n)	mg/L	54	17%	9	id	id	0.0025	0.22	0.1	0.33
Orthophosphate (dissolved)	mg/L	47	23%	11	0.04	0.03	0.015	0.16	0.05	0.1
pH	pH Units	190	100%	190	7.60	0.41	6.2	8.94	0	0.1
Silver (dissolved)	ug/L	27	22%	6	0.01	0.01	0.001	0.049	0.015	0.02
Silver (total)	ug/L	34	26%	9	0.008	0.008	0.004	0.04	0.015	0.1
Temperature	deg C	182	100%	182	15	5	7.09	25	0	0.1
Total coliform	mpn/100 ml	118	100%	118	1664	3070	17	16000	2	2
Total dissolved solids	mg/L	77	97%	75	116	32	63	193	20	20
Total kjeldahl nitrogen	mg/L	54	70%	38	0.36	0.19	0.11	1	0.1	0.1
Total organic carbon	mg/L	124	68%	84	2.35	1.23	0.52	6.6	0.2	1
Total phosphorus	mg/L	48	58%	28	0.08	0.04	0.035	0.19	0.05	0.05
Total suspended solids	mg/L	202	99%	199	39	28	3	200	3	3
Turbidity	NTU	81	100%	81	30.9	37.8	1.5	200	1	1
Uva 254	CM-1	47	98%	46	0.08	0.06	0.028	0.3	0.0001	0.014
Zinc (dissolved)	ug/L	162	59%	96	1.16	2.56	0.04	23	0.1	1
Zinc (total)	ug/L	166	93%	155	7.28	6.21	0.49	39.2	0.1	1

(a) number of samples analyzed

(b) percent of samples in which analyte was detected

(c) number of samples in which analyte was detected

(d) arithmetic mean value; "id" indicates insufficient detected data to calculate value

(e) standard deviation of data; "id" indicates insufficient detected data to calculate value

(f) minimum detected value reported, or ND if no detected values

(g) maximum detected value reported, or ND if no detected values

(h) minimum reporting limit for data below detection, or NA if all data above

(i) maximum reporting limit for data below detection, or NA if all data above reporting limits

Table B-1 Summary Statistics for the Sacramento River at Veterans Bridge

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
2,4,6-trichlorophenol	ng/L	42	0%	0	id	id	ND	ND	100	100
Acenaphthene	ng/L	45	4%	2	id	id	0.34	0.68	2	5
Aldicarb	ug/L	42	0%	0	id	id	ND	ND	0.4	0.4
Aminocarb	ug/L	42	0%	0	id	id	ND	ND	0.4	0.4
Anthracene	ng/L	49	6%	3	id	id	0.18	1.1	2	5
Barban	ug/L	42	0%	0	id	id	ND	ND	3.5	3.5
Benomyl	ug/L	42	0%	0	id	id	ND	ND	0.4	0.4
Benz(a)anthracene	ng/L	45	16%	7	id	id	0.12	0.45	2	5
Benzo(a)pyrene	ng/L	45	9%	4	id	id	0.18	1.1	2	5
Benzo(b)fluoranthene	ng/L	36	3%	1	id	id	2.3	2.3	2	5
Benzo(g,h,i)perylene	ng/L	36	3%	1	id	id	1.3	1.3	2	5
Benzo(k)fluoranthene	ng/L	36	0%	0	id	id	ND	ND	2	5
Bis(2-ethylhexyl) phthalate	ng/L	37	8%	3	id	id	72.3	469	10	125
Carbaryl	ug/L	42	0%	0	id	id	ND	ND	0.07	0.1
Carbofuran	ug/L	43	0%	0	id	id	ND	ND	0.07	0.1
Chlorpropham	ug/L	42	0%	0	id	id	ND	ND	0.8	3.5
Chlorpyrifos	ug/L	77	0%	0	id	id	ND	ND	0.01	0.1
Chrysene	ng/L	45	24%	11	0.48	0.31	0.15	1.3	2	5
Diazinon	ug/L	104	7%	7	id	id	0.011	0.16	0.05	0.1
Dibenz(a,h)anthracene	ng/L	45	0%	0	id	id	ND	ND	2	5
Fluoranthene	ng/L	45	36%	16	1.08	0.99	0.41	5.2	2	5
Fluorene	ng/L	45	13%	6	id	id	0.379	1.7	2	5
Glyphosate	ug/L	17	0%	0	id	id	ND	ND	25	25
Hexachlorobenzene	ng/L	45	2%	1	id	id	1.11	1.11	5	62.5
Indeno(1,2,3-c,d)pyrene	ng/L	45	11%	5	id	id	0.39	1.5	2	5
Malathion	ug/L	75	0%	0	id	id	ND	ND	0.1	0.1
Methiocarb	ug/L	42	0%	0	id	id	ND	ND	0.4	0.4
Methomyl	ug/L	42	0%	0	id	id	ND	ND	0.07	0.1
Methyl parathion	ug/L	75	0%	0	id	id	ND	ND	0.1	0.1
Mexacarbate	ug/L	42	0%	0	id	id	ND	ND	0.8	0.8
Mtbe	ug/L	22	14%	3	id	id	0.51	0.7	0.5	0.5
Naphthalene	ng/L	36	19%	7	id	id	1	15.1	2	5
N-nitroso-di-n-propylamine	ng/L	45	4%	2	id	id	8.6	48.2	62	100
Oxamyl	ug/L	42	0%	0	id	id	ND	ND	0.4	5
Pentachlorophenol	ng/L	45	2%	1	id	id	2.5	2.5	100	100
Phenanthrene	ng/L	36	11%	4	id	id	1	2.1	2	5
Propam	ug/L	42	0%	0	id	id	ND	ND	0.8	3.5
Propoxur	ug/L	42	0%	0	id	id	ND	ND	0.4	0.4

(a) number of samples analyzed

(b) percent of samples in which analyte was detected

(c) number of samples in which analyte was detected

(d) arithmetic mean value; "id" indicates insufficient detected data to calculate value

(e) standard deviation of data; "id" indicates insufficient detected data to calculate value

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Table B-2. Summary Statistics for the Sacramento River at Freeport Marina

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
Ammonia (as n)	mg/L	49	14%	7	id	id	0.017	0.14	0.1	0.1
Arsenic (dissolved)	ug/L	89	74%	66	1.18	0.40	0.6	2.1	0.15	1
Arsenic (total)	ug/L	160	93%	149	1.53	0.41	0.78	3.6	0.15	1
Cadmium (dissolved)	ug/L	147	48%	70	0.01	0.009	0.003	0.06	0.008	0.02
Cadmium (total)	ug/L	158	78%	124	0.055	0.27	0.01	2.5	0.008	0.1
Chloride	mg/L	99	91%	90	5.06	1.90	2.1	11	2	3
Chromium (dissolved)	ug/L	79	24%	19	0.21	0.34	0.11	2.25	0.03	0.5
Chromium (total)	ug/L	159	89%	142	2.68	2.91	0.13	18.5	0.03	0.51
Copper (dissolved)	ug/L	159	99%	157	1.46	0.57	0.27	5.1	0.04	0.5
Copper (total)	ug/L	160	100%	160	4.08	2.75	1.19	20.4	0.04	0.51
Cyanide	ug/L	20	10%	2	id	id	1.34	5	3	5
Dissolved organic carbon	mg/L	125	78%	97	2.31	1.28	1.1	11	0.2	1
Dissolved oxygen	mg/L	175	100%	175	9.95	1.53	6.9	16	0.1	1
E. coli	mpn/100 ml	73	99%	72	82	165	2	800	2	2
Electrical conductivity	umhos/cm	183	100%	183	142	37	54	254	0.1	10
Fecal coliform	mpn/100 ml	118	100%	118	187	937	2	8000	2	2
Hardness	mg/L	173	99%	172	57	13	26	100	4	8
Lead (dissolved)	ug/L	145	59%	85	0.06	0.13	0.006	1.2	0.015	0.1
Lead (total)	ug/L	160	93%	148	0.63	0.58	0.017	3.71	0.015	0.31
Mercury (filtered)	ng/L	171	92%	158	1.52	1.64	0.26	14.92	0.0005	0.5
Mercury (unfiltered)	ng/L	171	98%	168	7.84	9.19	1.2	89.1	0.15	0.51
Methyl mercury (filtered)	ng/L	65	63%	41	0.04	0.03	0.009	0.171	0.025	0.056
Methyl mercury (unfiltered)	ng/L	71	87%	62	0.10	0.06	0.038	0.318	0.025	0.056
Molybdenum (dissolved)	ug/L	26	100%	26	0.51	0.16	0.28	0.85	0.02	0.3
Molybdenum (total)	ug/L	32	97%	31	0.42	0.16	0.11	0.81	0.02	0.3
Nickel (dissolved)	ug/L	138	78%	108	0.75	0.43	0.075	2.5	0.04	0.2
Nickel (total)	ug/L	141	96%	135	4.53	4.56	0.51	30.6	0.04	0.5
Nitrate (as n)	mg/L	52	62%	32	0.13	0.10	0.023	0.42	0.1	0.1
Nitrite (as n)	mg/L	52	13%	7	id	id	0.002	0.1	0.1	0.1
Orthophosphate (dissolved)	mg/L	45	29%	13	0.04	0.03	0.014	0.15	0.05	0.1
pH	pH Units	183	100%	183	7.57	0.40	5.6	8.79	0	0.1
Silver (dissolved)	ug/L	27	7%	2	id	id	0.001	0.002	0.015	0.02
Silver (total)	ug/L	34	26%	9	0.006	0.006	0.003	0.026	0.015	0.1
Temperature	deg C	178	100%	178	15	5	6.2	23.1	0	0.1
Total coliform	mpn/100 ml	119	100%	119	1799	3905	13	30000	2	2
Total dissolved solids	mg/L	75	97%	73	105	27	39	180	20	20
Total kjeldahl nitrogen	mg/L	49	73%	36	0.35	0.20	0.1	0.89	0.05	0.1
Total organic carbon	mg/L	116	75%	87	2.33	1.19	1.2	6.8	0.2	0.5
Total phosphorus	mg/L	46	48%	22	0.07	0.05	0.034	0.24	0.05	0.1
Total suspended solids	mg/L	193	98%	189	33	31	2	210	3	3
Turbidity	NTU	81	100%	81	23.75	34.85	3.2	250	1	1
Uva 254	cm-1	48	94%	45	0.07	0.06	0.024	0.37	0.0001	0.014
Zinc (dissolved)	ug/L	153	69%	106	1.38	2.91	0.12	27	0.1	1
Zinc (total)	ug/L	159	90%	143	6.51	6.05	0.74	39.6	0.1	1

(a) number of samples analyzed

(b) percent of samples in which analyte was detected

(c) number of samples in which analyte was detected

(d) arithmetic mean value; "id" indicates insufficient detected data to calculate value

(e) standard deviation of data; "id" indicates insufficient detected data to calculate value

(f) minimum detected value reported, or ND if no detected values

(g) maximum detected value reported, or ND if no detected values

(h) minimum reporting limit for data below detection, or NA if all data above

(i) maximum reporting limit for data below detection, or NA if all data above reporting limits

Table B-2. Summary Statistics for the Sacramento River at Freeport Marina

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
2,4,6-trichlorophenol	ng/L	44	0%	0	id	id	ND	ND	100	100
Acenaphthene	ng/L	48	12%	6	id	id	0.35	5.2	2	5
Aldicarb	ug/L	44	0%	0	id	id	ND	ND	0.4	0.4
Aminocarb	ug/L	44	0%	0	id	id	ND	ND	0.4	0.4
Anthracene	ng/L	50	12%	6	id	id	0.124	4.8	2	5
Barban	ug/L	44	0%	0	id	id	ND	ND	3.5	3.5
Benomyl	ug/L	44	0%	0	id	id	ND	ND	0.4	0.4
Benz(a)anthracene	ng/L	47	15%	7	id	id	0.182	3.1	2	5
Benzo(a)pyrene	ng/L	47	9%	4	id	id	0.29	2.5	2	5
Benzo(b)fluoranthene	ng/L	36	3%	1	id	id	2.3	2.3	2	5
Benzo(g,h,i)perylene	ng/L	36	6%	2	id	id	2.9	4.4	2	5
Benzo(k)fluoranthene	ng/L	36	3%	1	id	id	2.7	2.7	2	5
Bis(2-ethylhexyl) phthalate	ng/L	37	11%	4	id	id	172	574.8	10	125
Carbaryl	ug/L	44	0%	0	id	id	ND	ND	0.07	0.07
Carbofuran	ug/L	45	0%	0	id	id	ND	ND	0.07	0.07
Chlorpropham	ug/L	44	0%	0	id	id	ND	ND	0.8	3.5
Chlorpyrifos	ug/L	78	1%	1	id	id	0.15	0.15	0.01	0.05
Chrysene	ng/L	47	30%	14	1.01	1.14	0.2	4.8	2	5
Diazinon	ug/L	104	9%	9	id	id	0.011	0.14	0.05	0.06
Dibenz(a,h)anthracene	ng/L	47	4%	2	id	id	2.1	2.6	2	5
Fluoranthene	ng/L	47	49%	23	1.82	1.65	0.54	8.6	2	5
Fluorene	ng/L	47	15%	7	id	id	0.41	7.5	2	5
Glyphosate	ug/L	17	0%	0	id	id	ND	ND	25	25
Hexachlorobenzene	ng/L	47	6%	3	id	id	0.43	1.17	5	62.5
Indeno(1,2,3-c,d)pyrene	ng/L	47	13%	6	id	id	0.38	2.1	2	5
Malathion	ug/L	75	0%	0	id	id	ND	ND	0.1	0.1
Methiocarb	ug/L	44	0%	0	id	id	ND	ND	0.4	0.4
Methomyl	ug/L	44	0%	0	id	id	ND	ND	0.07	0.07
Methyl parathion	ug/L	75	0%	0	id	id	ND	ND	0.1	0.1
Mexacarbate	ug/L	44	0%	0	id	id	ND	ND	0.8	0.8
Mtbe	ug/L	23	17%	4	id	id	0.43	2.3	0.5	0.5
Naphthalene	ng/L	36	31%	11	3.44	5.18	1.5	25.5	2	5
N-nitroso-di-n-propylamine	ng/L	47	2%	1	id	id	12	12	62	100
Oxamyl	ug/L	44	0%	0	id	id	ND	ND	0.4	0.4
Pentachlorophenol	ng/L	46	9%	4	id	id	1.7	26	100	100
Phenanthrene	ng/L	36	22%	8	2.24	1.09	1.5	5.7	2	5
Propam	ug/L	44	0%	0	id	id	ND	ND	0.8	3.5
Propoxur	ug/L	44	0%	0	id	id	ND	ND	0.4	0.4

- (a) number of samples analyzed
- (b) percent of samples in which analyte was detected
- (c) number of samples in which analyte was detected
- (d) arithmetic mean value; "id" indicates insufficient detected data to calculate value
- (e) standard deviation of data; "id" indicates insufficient detected data to calculate value
- (f) minimum detected value reported, or ND if no detected values
- (g) maximum detected value reported, or ND if no detected values
- (h) minimum reporting limit for data below detection, or NA if all data above
- (i) maximum reporting limit for data below detection, or NA if all data above reporting limits

Table B-3. Summary Statistics for the Sacramento River at River Mile 44

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
Ammonia (as n)	mg/L	41	78%	32	0.19	0.11	0.088	0.42	0.1	0.1
Arsenic (dissolved)	ug/L	82	74%	61	1.31	0.39	0.87	2.2	0.15	1
Arsenic (total)	ug/L	144	94%	135	1.55	0.45	0.24	3.07	0.15	1
Cadmium (dissolved)	ug/L	135	56%	76	0.02	0.02	0.003	0.18	0.008	0.02
Cadmium (total)	ug/L	142	84%	119	0.06	0.11	0.007	0.78	0.008	0.1
Chloride	mg/L	91	93%	85	5.75	1.89	2.5	12	2	3
Chromium (dissolved)	ug/L	74	15%	11	id	id	0.13	1.2	0.07	0.5
Chromium (total)	ug/L	144	85%	123	2.50	2.82	0.19	20	0.07	0.51
Copper (dissolved)	ug/L	144	99%	143	1.55	0.67	0.29	6	0.04	0.5
Copper (total)	ug/L	144	100%	144	4.26	2.95	0.69	20.1	0.04	0.51
Cyanide	ug/L	19	16%	3	id	id	0.93	5	3	5
Dissolved organic carbon	mg/L	113	65%	74	2.72	4.34	1.3	38	0.2	1
Dissolved oxygen	mg/L	174	100%	174	9.68	1.37	6.7	14	0.05	1
E. coli	mpn/100 ml	22	100%	22	112	231	4	800	2	2
Electrical conductivity	umhos/cm	182	100%	182	140	42	45	234	0	10
Fecal coliform	mpn/100 ml	27	100%	27	121	208	4	800	2	2
Hardness	mg/L	163	99%	162	58	14	24	110	4	8
Lead (dissolved)	ug/L	131	53%	70	0.05	0.06	0.008	0.3	0.015	0.1
Lead (total)	ug/L	144	98%	141	0.69	0.66	0.1	3.78	0.015	0.31
Mercury (filtered)	ng/L	153	94%	144	1.56	1.38	0.45	11.1	0.0005	0.5
Mercury (unfiltered)	ng/L	154	99%	153	8.36	8.63	1.02	73.41	0.15	0.51
Methyl mercury (filtered)	ng/L	58	69%	40	0.06	0.12	0.023	0.752	0.025	0.05
Methyl mercury (unfiltered)	ng/L	58	86%	50	0.10	0.05	0.0462	0.324	0.025	0.05
Molybdenum (dissolved)	ug/L	15	100%	15	0.54	0.20	0.28	1.02	0.02	0.3
Molybdenum (total)	ug/L	21	95%	20	0.46	0.18	0.18	0.93	0.02	0.3
Nickel (dissolved)	ug/L	122	75%	92	0.77	0.40	0.21	2.3	0.04	0.2
Nickel (total)	ug/L	124	97%	120	4.86	5.95	0.63	42	0.04	0.5
Nitrate (as n)	mg/L	42	60%	25	0.12	0.09	0.026	0.44	0.1	0.1
Nitrite (as n)	mg/L	42	12%	5	id	id	0.0027	0.1	0.1	0.1
Orthophosphate (dissolved)	mg/L	40	38%	15	0.05	0.02	0.027	0.1	0.05	0.1
pH	pH Units	180	100%	180	7.47	0.41	6.14	8.83	0	0.1
Silver (dissolved)	ug/L	16	6%	1	id	id	0.003	0.003	0.015	0.02
Silver (total)	ug/L	23	22%	5	0.008	0.004	0.007	0.018	0.015	0.1
Temperature	deg C	173	100%	173	15	4	7.1	22.86	0	0.1
Total coliform	mpn/100 ml	26	100%	26	2026	4046	130	16000	2	2
Total dissolved solids	mg/L	65	97%	63	107	27	33	170	20	20
Total kjeldahl nitrogen	mg/L	42	83%	35	0.60	0.22	0.28	1.3	0.05	0.1
Total organic carbon	mg/L	108	64%	69	2.33	1.11	0.91	6.6	0.2	0.5
Total phosphorus	mg/L	40	75%	30	0.14	0.54	0.036	2.5	0.05	0.1
Total suspended solids	mg/L	183	98%	180	36	37	2	250	3	3
Turbidity	NTU	71	100%	71	24	38	4.8	260	0.1	1
Uva 254	cm-1	41	95%	39	0.07	0.06	0.025	0.37	0.0001	0.014
Zinc (dissolved)	ug/L	143	61%	87	1.39	2.29	0.12	18	0.1	1
Zinc (total)	ug/L	143	92%	131	8.90	8.77	0.36	52	0.1	1

(a) number of samples analyzed

(b) percent of samples in which analyte was detected

(c) number of samples in which analyte was detected

(d) arithmetic mean value; "id" indicates insufficient detected data to calculate value

(e) standard deviation of data; "id" indicates insufficient detected data to calculate value

(f) minimum detected value reported, or ND if no detected values

(g) maximum detected value reported, or ND if no detected values

(h) minimum reporting limit for data below detection, or NA if all data above

(i) maximum reporting limit for data below detection, or NA if all data above reporting limits

Table B-3. Summary Statistics for the Sacramento River at River Mill 44

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
2,4,6-trichlorophenol	ng/L	32	25%	8	4.5927	6.4655	0.81	19	100	100
Acenaphthene	ng/L	31	19%	6	id	id	0.43	71.5	2	5
Aldicarb	ug/L	28	0%	0	id	id	ND	ND	0.4	0.4
Aminocarb	ug/L	28	0%	0	id	id	ND	ND	0.4	0.4
Anthracene	ng/L	35	11%	4	id	id	0.18	1	2	5
Barban	ug/L	28	0%	0	id	id	ND	ND	3.5	3.5
Benomyl	ug/L	28	0%	0	id	id	ND	ND	0.4	0.4
Benz(a)anthracene	ng/L	31	19%	6	id	id	0.151	0.571	2	5
Benzo(a)pyrene	ng/L	31	13%	4	id	id	0.2	0.51	2	5
Benzo(b)fluoranthene	ng/L	24	4%	1	id	id	1.6	1.6	2	5
Benzo(g,h,i)perylene	ng/L	24	0%	0	id	id	ND	ND	2	5
Benzo(k)fluoranthene	ng/L	24	4%	1	id	id	2.7	2.7	2	5
Bis(2-ethylhexyl) phthalate	ng/L	26	12%	3	id	id	120.6	1260	10	125
Carbaryl	ug/L	28	0%	0	id	id	ND	ND	0.07	0.07
Carbofuran	ug/L	29	0%	0	id	id	ND	ND	0.07	0.07
Chlorpropham	ug/L	28	0%	0	id	id	ND	ND	0.8	3.5
Chlorpyrifos	ug/L	66	2%	1	id	id	0.1	0.1	0.01	0.05
Chrysene	ng/L	31	35%	11	0.81	1.31	0.25	6	2	5
Diazinon	ug/L	89	2%	2	id	id	0.015	0.039	0.05	0.05
Dibenz(a,h)anthracene	ng/L	31	6%	2	id	id	0.4	0.44	2	5
Fluoranthene	ng/L	31	45%	14	1.79	1.99	0.64	9.8	2	5
Fluorene	ng/L	31	23%	7	0.73	0.56	0.407	2.3	2	5
Glyphosate	ug/L	1	0%	0	id	id	ND	ND	25	25
Hexachlorobenzene	ng/L	31	6%	2	id	id	0.28	2.11	5	62.5
Indeno(1,2,3-c,d)pyrene	ng/L	31	13%	4	id	id	0.46	1.05	2	5
Malathion	ug/L	64	0%	0	id	id	ND	ND	0.1	0.1
Methiocarb	ug/L	28	0%	0	id	id	ND	ND	0.4	0.4
Methomyl	ug/L	28	0%	0	id	id	ND	ND	0.07	0.07
Methyl parathion	ug/L	64	0%	0	id	id	ND	ND	0.1	0.1
Mexacarbate	ug/L	28	0%	0	id	id	ND	ND	0.8	0.8
Mtbe	ug/L	23	26%	6	0.54	0.49	0.34	2.1	0.5	0.5
Naphthalene	ng/L	24	21%	5	2.44	2.12	1.5	8.9	2	5
N-nitroso-di-n-propylamine	ng/L	31	3%	1	id	id	17	17	62.5	100
Oxamyl	ug/L	28	0%	0	id	id	ND	ND	0.4	0.4
Pentachlorophenol	ng/L	32	6%	2	id	id	1.5	4.3	100	100
Phenanthrene	ng/L	24	21%	5	2.28	1.46	1.3	6.3	2	5
Propam	ug/L	28	0%	0	id	id	ND	ND	0.8	3.5
Propoxur	ug/L	28	0%	0	id	id	ND	ND	0.4	0.4

(a) number of samples analyzed

(b) percent of samples in which analyte was detected

(c) number of samples in which analyte was detected

(d) arithmetic mean value; "id" indicates insufficient detected data to calculate value

(e) standard deviation of data; "id" indicates insufficient detected data to calculate value

(f) minimum detected value reported, or ND if no detected values

(g) maximum detected value reported, or ND if no detected values

(h) minimum reporting limit for data below detection, or NA if all data above

(i) maximum reporting limit for data below detection, or NA if all data above reporting limits

Table B-4. Summary Statistics for the American River at Nimibus Dam

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
Ammonia (as n)	mg/L	49	12%	6	id	id	0.026	0.2	0.1	0.1
Arsenic (dissolved)	ug/L	83	31%	26	0.32	0.13	0.2	1	0.15	1
Arsenic (total)	ug/L	153	63%	97	0.40	0.34	0.03	2.9	0.15	1
Cadmium (dissolved)	ug/L	136	39%	53	0.009	0.011	0.002	0.07	0.008	0.02
Cadmium (total)	ug/L	150	53%	80	0.06	0.57	0.002	5.1	0.008	0.1
Chloride	mg/L	92	35%	32	1.59	0.97	0.2	3.6	2	3
Chromium (dissolved)	ug/L	85	13%	11	id	id	0.02	0.3	0.03	0.5
Chromium (total)	ug/L	161	60%	97	0.64	4.44	0.02	41	0.03	0.51
Copper (dissolved)	ug/L	160	82%	132	0.58	0.26	0.13	1.9	0.04	0.5
Copper (total)	ug/L	162	94%	152	0.84	0.55	0.24	4.3	0.04	0.51
Cyanide	ug/L	21	10%	2	id	id	1.1	5	3	5
Dissolved organic carbon	mg/L	117	60%	70	1.57	0.46	0.7	3.8	0.2	1
Dissolved oxygen	mg/L	179	100%	179	10.60	2.14	5.8	16	0.05	1
E. coli	mpn/100 ml	72	100%	72	79	167	2	800	2	2
Electrical conductivity	umhos/cm	188	100%	188	56	16	4.3	123	0.1	10
Fecal coliform	mpn/100 ml	115	100%	115	103	215	4	1300	2	2
Hardness	mg/L	174	99%	173	25	9	4	64	1	8
Lead (dissolved)	ug/L	130	40%	52	0.04	0.06	0.004	0.332	0.015	0.1
Lead (total)	ug/L	159	76%	121	0.16	0.24	0.004	1.95	0.015	0.31
Mercury (filtered)	ng/L	168	88%	148	0.87	0.66	0.19	4.43	0.0005	0.5
Mercury (unfiltered)	ng/L	167	97%	162	2.18	2.24	0.42	15.4	0.15	0.5
Methyl mercury (filtered)	ng/L	62	31%	19	0.02	0.05	0.008	0.314	0.025	0.056
Methyl mercury (unfiltered)	ng/L	66	52%	34	0.04	0.06	0.021	0.406	0.025	0.056
Molybdenum (dissolved)	ug/L	25	96%	24	0.21	0.05	0.15	0.31	0.02	0.3
Molybdenum (total)	ug/L	31	94%	29	0.22	0.06	0.14	0.46	0.02	0.3
Nickel (dissolved)	ug/L	84	51%	43	0.42	0.32	0.07	1.9	0.04	0.2
Nickel (total)	ug/L	142	77%	109	1.17	3.14	0.21	30	0.04	0.5
Nitrate (as n)	mg/L	52	27%	14	0.08	0.19	0.015	1.1	0.1	0.1
Nitrite (as n)	mg/L	52	12%	6	id	id	0.0018	0.1	0.1	0.1
Orthophosphate (dissolved)	mg/L	45	13%	6	id	id	0.012	0.05	0.05	0.1
pH	pH Units	190	100%	190	7.26	0.58	5.82	9.4	0.1	0.1
Silver (dissolved)	ug/L	26	12%	3	id	id	0.002	0.002	0.015	0.02
Silver (total)	ug/L	33	15%	5	id	id	0.001	0.071	0.015	0.1
Temperature	deg C	183	100%	183	14	4	7.04	23	0	0.1
Total coliform	mpn/100 ml	116	100%	116	561	805	13	3000	2	2
Total dissolved solids	mg/L	75	95%	71	51	22	13	150	20	20
Total kjeldahl nitrogen	mg/L	51	69%	35	0.28	0.23	0.1	1.1	0.1	0.1
Total organic carbon	mg/L	114	59%	67	1.76	0.70	0.93	6.4	0.2	1
Total phosphorus	mg/L	46	20%	9	id	id	0.05	0.11	0.05	0.05
Total suspended solids	mg/L	187	58%	109	4	7	1	68	3	3
Turbidity	NTU	72	97%	70	3.7	5.3	0.3	33	1	1
Uva 254	CM-1	47	96%	45	0.04	0.02	0.023	0.14	0.0001	0.014
Zinc (dissolved)	ug/L	157	57%	90	0.63	1.24	0.04	6.8	0.1	1
Zinc (total)	ug/L	158	72%	113	2.9	8.0	0.1	60	0.1	1

(a) number of samples analyzed

(b) percent of samples in which analyte was detected

(c) number of samples in which analyte was detected

(d) arithmetic mean value; "id" indicates insufficient detected data to calculate value

(e) standard deviation of data; "id" indicates insufficient detected data to calculate value

(f) minimum detected value reported, or ND if no detected values

(g) maximum detected value reported, or ND if no detected values

(h) minimum reporting limit for data below detection, or NA if all data above

(i) maximum reporting limit for data below detection, or NA if all data above reporting limits

Table B-4. Summary Statistics for the American River at Nimbus Dam

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
2,4,6-trichlorophenol	ng/L	44	0%	0	id	id	ND	ND	100	100
Acenaphthene	ng/L	44	5%	2	id	id	0.56	1.5	2	5
Aldicarb	ug/L	41	0%	0	id	id	ND	ND	0.4	0.4
Aminocarb	ug/L	41	0%	0	id	id	ND	ND	0.4	0.4
Anthracene	ng/L	47	4%	2	id	id	0.28	0.36	2	5
Barban	ug/L	41	0%	0	id	id	ND	ND	3.5	3.5
Benomyl	ug/L	41	0%	0	id	id	ND	ND	0.4	0.4
Benz(a)anthracene	ng/L	44	7%	3	id	id	0.25	2.4	2	5
Benzo(a)pyrene	ng/L	44	0%	0	id	id	ND	ND	2	5
Benzo(b)fluoranthene	ng/L	35	0%	0	id	id	ND	ND	2	5
Benzo(g,h,i)perylene	ng/L	35	6%	2	id	id	2	2.4	2	5
Benzo(k)fluoranthene	ng/L	35	0%	0	id	id	ND	ND	2	5
Bis(2-ethylhexyl) phthalate	ng/L	36	17%	6	id	id	108.9	148000	10	125
Carbaryl	ug/L	40	0%	0	id	id	ND	ND	0.07	0.07
Carbofuran	ug/L	42	0%	0	id	id	ND	ND	0.07	0.07
Chlorpropham	ug/L	41	0%	0	id	id	ND	ND	0.8	3.5
Chlorpyrifos	ug/L	74	0%	0	id	id	ND	ND	0.01	0.1
Chrysene	ng/L	44	11%	5	id	id	0.35	1.8	2	5
Diazinon	ug/L	101	2%	2	id	id	0.012	0.09	0.05	0.1
Dibenz(a,h)anthracene	ng/L	44	2%	1	id	id	0.35	0.35	2	5
Fluoranthene	ng/L	44	32%	14	2.30	10.90	0.317	53.1	2	5
Fluorene	ng/L	44	16%	7	id	id	0.219	1.3	2	5
Glyphosate	ug/L	18	0%	0	id	id	ND	ND	4.6	25
Hexachlorobenzene	ng/L	44	5%	2	id	id	0.27	1.1	5	62.5
Indeno(1,2,3-c,d)pyrene	ng/L	44	7%	3	id	id	0.22	2.3	2	5
Malathion	ug/L	72	0%	0	id	id	ND	ND	0.1	0.1
Methiocarb	ug/L	41	0%	0	id	id	ND	ND	0.4	0.4
Methomyl	ug/L	41	0%	0	id	id	ND	ND	0.07	0.07
Methyl parathion	ug/L	72	0%	0	id	id	ND	ND	0.1	0.1
Mexacarbate	ug/L	41	0%	0	id	id	ND	ND	0.8	0.8
Mtbe	ug/L	22	18%	4	id	id	0.26	0.85	0.5	0.5
Naphthalene	ng/L	35	26%	9	2.82	1.81	1.7	7.2	2	5
N-nitroso-di-n-propylamine	ng/L	44	0%	0	id	id	ND	ND	62	100
Oxamyl	ug/L	41	0%	0	id	id	ND	ND	0.4	0.4
Pentachlorophenol	ng/L	46	4%	2	id	id	4.5	4.6	100	100
Phenanthrene	ng/L	35	14%	5	id	id	1	3.5	2	5
Propham	ug/L	41	0%	0	id	id	ND	ND	0.8	3.5
Propoxur	ug/L	41	0%	0	id	id	ND	ND	0.4	0.4

(a) number of samples analyzed

(b) percent of samples in which analyte was detected

(c) number of samples in which analyte was detected

(d) arithmetic mean value; "id" indicates insufficient detected data to calculate value

(e) standard deviation of data; "id" indicates insufficient detected data to calculate value

(f) minimum detected value reported, or ND if no detected values

(g) maximum detected value reported, or ND if no detected values

(h) minimum reporting limit for data below detection, or NA if all data above

(i) maximum reporting limit for data below detection, or NA if all data above reporting limits

Table B-5. Summary Statistics for the American River at Discovery Park

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
Ammonia (as n)	mg/L	50	10%	5	id	id	0.029	0.1	0.1	0.1
Arsenic (dissolved)	ug/L	87	33%	29	0.40	0.28	0.16	1.82	0.15	1
Arsenic (total)	ug/L	158	63%	100	0.41	0.30	0.02	2.9	0.15	1
Cadmium (dissolved)	ug/L	147	44%	65	0.009	0.011	0.002	0.1	0.008	0.02
Cadmium (total)	ug/L	155	56%	87	0.05	0.34	0.003	3.3	0.008	0.02
Chloride	mg/L	95	36%	34	2.06	0.66	1	3.7	2	3
Chromium (dissolved)	ug/L	89	15%	13	id	id	0.02	0.23	0.03	0.5
Chromium (total)	ug/L	164	60%	98	0.46	0.66	0.03	6.4	0.03	0.51
Copper (dissolved)	ug/L	163	87%	142	0.66	0.30	0.28	1.9	0.04	0.5
Copper (total)	ug/L	165	97%	160	1.01	0.66	0.4	5.5	0.04	0.51
Cyanide	ug/L	20	10%	2	id	id	0.88	5	3	5
Dissolved organic carbon	mg/L	119	61%	73	1.847	0.53	0.9	4.4	0.2	1
Dissolved oxygen	mg/L	188	100%	188	10.2	1.67	6.18	18	0.1	1
E. coli	mpn/100 ml	74	100%	74	432	2368	2	16000	2	2
Electrical conductivity	umhos/cm	189	100%	189	61	55	17	644	0	10
Fecal coliform	mpn/100 ml	117	100%	117	524	2067	2	16000	2	2
Hardness	mg/L	178	99%	176	26	8	14	66	2	16
Lead (dissolved)	ug/L	146	50%	73	0.04	0.06	0.01	0.5	0.015	0.1
Lead (total)	ug/L	163	93%	152	0.27	0.33	0.03	2.36	0.015	0.31
Mercury (filtered)	ng/L	166	88%	146	1.12	1.21	0.07	11.3	0.0005	0.5
Mercury (unfiltered)	ng/L	170	98%	166	3.62	13.98	0.56	139	0.15	0.51
Methyl mercury (filtered)	ng/L	64	55%	35	0.033	0.017	0.0122	0.0767	0.025	0.056
Methyl mercury (unfiltered)	ng/L	68	82%	56	0.075	0.101	0.027	0.714	0.025	0.056
Molybdenum (dissolved)	ug/L	27	93%	25	0.24	0.13	0.15	0.69	0.02	0.2
Molybdenum (total)	ug/L	33	94%	31	0.21	0.07	0.06	0.43	0.02	0.2
Nickel (dissolved)	ug/L	88	48%	42	0.43	0.21	0.09	1.1	0.04	0.2
Nickel (total)	ug/L	147	78%	115	0.97	1.07	0.18	8	0.04	0.2
Nitrate (as n)	mg/L	54	31%	17	0.06	0.08	0.0025	0.46	0.1	0.5
Nitrite (as n)	mg/L	54	17%	9	id	id	0.0023	0.42	0.1	0.328
Orthophosphate (dissolved)	mg/L	46	13%	6	id	id	0.012	0.64	0.05	0.1
pH	pH Units	190	100%	190	7.43	0.44	6.37	8.62	0	0.1
Silver (dissolved)	ug/L	28	14%	4	id	id	0.001	0.016	0.015	0.02
Silver (total)	ug/L	35	11%	4	id	id	0.001	0.004	0.015	0.02
Temperature	deg C	188	100%	188	14.12	4.03	7.56	24.4	0	0.1
Total coliform	mpn/100 ml	118	100%	118	3419	18750	17	160000	2	2
Total dissolved solids	mg/L	76	96%	73	53	23	16	140	20	20
Total kjeldahl nitrogen	mg/L	52	62%	32	0.27	0.19	0.1	0.97	0.05	0.1
Total organic carbon	mg/L	117	59%	69	2.08	1.04	1.1	9.6	0.2	0.5
Total phosphorus	mg/L	47	26%	12	0.04	0.02	0.036	0.092	0.05	0.1
Total suspended solids	mg/L	197	68%	133	5.3	7.7	1	50.5	2	3
Turbidity	NTU	78	100%	78	5	5	0.2	25	1	1
Uva 254	CM-1	47	100%	47	0.044	0.014	0.022	0.0873	0.0001	0.014
Zinc (dissolved)	ug/L	161	58%	93	0.88	1.46	0.03	11	0.1	1
Zinc (total)	ug/L	165	72%	118	5.2	23.4	0.15	230	0.1	1

- (a) number of samples analyzed
- (b) percent of samples in which analyte was detected
- (c) number of samples in which analyte was detected
- (d) arithmetic mean value; "id" indicates insufficient detected data to calculate value
- (e) standard deviation of data; "id" indicates insufficient detected data to calculate value
- (f) minimum detected value reported, or ND if no detected values
- (g) maximum detected value reported, or ND if no detected values
- (h) minimum reporting limit for data below detection, or NA if all data above
- (i) maximum reporting limit for data below detection, or NA if all data above reporting limits

Table B-5. Summary Statistics for the American River at Discovery Park

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
2,4,6-trichlorophenol	ng/L	42	2%	1	id	id	0.29	0.29	100	100
2,4,6-trichlorophenol (second)	ng/L	1	0%	0	id	id	ND	ND	0	0
Acenaphthene	ng/L	45	7%	3	id	id	0.72	1.5	2	5
Aldicarb	ug/L	42	0%	0	id	id	ND	ND	0.4	0.4
Aminocarb	ug/L	42	0%	0	id	id	ND	ND	0.4	0.4
Anthracene	ng/L	49	10%	5	id	id	0.3	1.6	2	5
Barban	ug/L	42	0%	0	id	id	ND	ND	3.5	3.5
Benomyl	ug/L	42	0%	0	id	id	ND	ND	0.4	0.4
Benz(a)anthracene	ng/L	45	24%	11	0.58	0.79	0.11	3.2	2	5
Benzo(a)pyrene	ng/L	45	9%	4	id	id	0.27	3.4	2	5
Benzo(b)fluoranthene	ng/L	36	6%	2	id	id	2.3	3.4	2	5
Benzo(g,h,i)perylene	ng/L	36	3%	1	id	id	2.4	2.4	2	5
Benzo(k)fluoranthene	ng/L	36	3%	1	id	id	4	4	2	5
Bis(2-ethylhexyl) phthalate	ng/L	37	8%	3	id	id	140.5	160	10	125
Carbaryl	ug/L	42	0%	0	id	id	ND	ND	0.07	0.07
Carbofuran	ug/L	43	0%	0	id	id	ND	ND	0.07	0.07
Chlorpropham	ug/L	42	0%	0	id	id	ND	ND	0.8	3.5
Chlorpyrifos	ug/L	74	0%	0	id	id	ND	ND	0.01	0.05
Chrysene	ng/L	45	33%	15	1.21	1.19	0.29	5	2	5
Diazinon	ug/L	100	12%	12	id	id	0.013	0.1	0.05	0.05
Dibenz(a,h)anthracene	ng/L	45	4%	2	id	id	0.33	0.57	2	5
Fluoranthene	ng/L	45	49%	22	2.20	2.06	0.519	8.6	2	5
Fluorene	ng/L	45	18%	8	id	id	0.32	2.9	2	5
Glyphosate	ug/L	18	0%	0	id	id	ND	ND	25	25
Hexachlorobenzene	ng/L	45	7%	3	id	id	0.81	1.3	5	62.5
Indeno(1,2,3-c,d)pyrene	ng/L	45	11%	5	id	id	0.36	1.9	2	5
Malathion	ug/L	72	0%	0	id	id	ND	ND	0.1	0.1
Methiocarb	ug/L	42	0%	0	id	id	ND	ND	0.4	0.4
Methomyl	ug/L	42	0%	0	id	id	ND	ND	0.07	0.07
Methyl parathion	ug/L	71	0%	0	id	id	ND	ND	0.1	0.1
Mexacarbate	ug/L	42	0%	0	id	id	ND	ND	0.8	0.8
Mtbe	ug/L	22	14%	3	id	id	0.47	0.55	0.5	0.5
Naphthalene	ng/L	36	19%	7	id	id	1.2	10.7	2	5
N-nitroso-di-n-propylamine	ng/L	45	2%	1	id	id	13	13	62	100
Oxamyl	ug/L	42	0%	0	id	id	ND	ND	0.4	5
Pentachlorophenol	ng/L	44	9%	4	id	id	0.95	26	100	100
Phenanthrene	ng/L	36	19%	7	id	id	1.5	6.6	2	5
Propham	ug/L	42	0%	0	id	id	ND	ND	0.8	3.5
Propoxur	ug/L	42	0%	0	id	id	ND	ND	0.4	0.4

(a) number of samples analyzed

(b) percent of samples in which analyte was detected

(c) number of samples in which analyte was detected

(d) arithmetic mean value; "id" indicates insufficient detected data to calculate value

(e) standard deviation of data; "id" indicates insufficient detected data to calculate value

(f) minimum detected value reported, or ND if no detected values

(g) maximum detected value reported, or ND if no detected values

(h) minimum reporting limit for data below detection, or NA if all data above

(i) maximum reporting limit for data below detection, or NA if all data above reporting limits

Table B-6. Summary Statistics for the American River at Business 80 Overpass

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
Ammonia (as n)	mg/L	18	11%	2	id	id	0.17	0.24	0.1	0.1
Arsenic (dissolved)	ug/L	17	94%	16	0.37	0.23	0.24	1.08	0.15	0.15
Arsenic (total)	ug/L	17	94%	16	0.47	0.41	0.28	1.71	0.15	0.15
Cadmium (dissolved)	ug/L	17	12%	2	id	id	0.009	0.031	0.008	0.02
Cadmium (total)	ug/L	17	47%	8	0.02	0.03	0.01	0.097	0.008	0.02
Chloride	mg/L	17	59%	10	2.06	0.80	2	3.8	2	3
Chromium (dissolved)	ug/L	16	62%	10	0.12	0.06	0.09	0.22	0.03	0.1
Chromium (total)	ug/L	17	82%	14	0.59	0.60	0.1	2.03	0.03	0.1
Copper (dissolved)	ug/L	16	100%	16	0.89	0.48	0.49	2.18	0.04	0.1
Copper (total)	ug/L	17	100%	17	1.69	1.82	0.62	7.2	0.04	0.1
Cyanide	ug/L	8	0%	0	id	id	ND	ND	5	5
Dissolved organic carbon	mg/L	16	100%	16	2.23	1.18	1.2	5.5	0.2	1
Dissolved oxygen	mg/L	19	100%	19	12.03	2.36	8.6	19	0.05	0.1
E. coli	mpn/100 ml	17	100%	17	305	657	2	2300	2	2
Electrical conductivity	umhos/cm	20	100%	20	67	15	49	110	0.1	1
Fecal coliform	mpn/100 ml	17	100%	17	452	795	4	2300	2	2
Hardness	mg/L	18	94%	17	25	8	16	46	4	8
Lead (dissolved)	ug/L	17	47%	8	0.07	0.12	0.009	0.399	0.015	0.04
Lead (total)	ug/L	17	94%	16	0.75	1.52	0.047	5.39	0.015	0.04
Mercury (filtered)	ng/L	17	76%	13	0.80	0.36	0.44	1.32	0.0005	0.5
Mercury (unfiltered)	ng/L	17	94%	16	2.99	3.01	0.5	11.7	0.15	1.01
Methyl mercury (filtered)	ng/L	3	33%	1	0	0	0.57	0.57	0.025	0.025
Methyl mercury (unfiltered)	ng/L	17	71%	12	0.07	0.06	0.034	0.236	0.025	0.056
Molybdenum (dissolved)	ug/L	16	100%	16	0.27	0.23	0.14	0.94	0.02	0.06
Molybdenum (total)	ug/L	17	100%	17	0.26	0.23	0.1	0.93	0.02	0.06
Nickel (dissolved)	ug/L	17	94%	16	0.49	0.21	0.2	0.87	0.04	0.1
Nickel (total)	ug/L	17	94%	16	1.03	0.71	0.28	2.55	0.04	0.1
Nitrate (as n)	mg/L	18	50%	9	0.08	0.08	0.012	0.22	0.1	0.1
Nitrite (as n)	mg/L	18	22%	4	0.01	0.03	0.0018	0.1	0.1	0.1
Orthophosphate (dissolved)	mg/L	18	11%	2	id	id	0.032	0.12	0.05	0.1
pH	pH Units	20	100%	20	7.65	0.34	6.8	8.3	0.1	0.1
Silver (dissolved)	ug/L	17	12%	2	id	id	0.001	0.004	0.015	0.02
Silver (total)	ug/L	17	18%	3	id	id	0.001	0.02	0.015	0.02
Temperature	deg C	20	100%	20	12.8	3.9	8.53	20.6	0.1	0.1
Total coliform	mpn/100 ml	17	94%	16	4977	9226	50	30000	2	2
Total dissolved solids	mg/L	18	83%	15	61	16	44	90	20	20
Total kjeldahl nitrogen	mg/L	18	83%	15	0.33	0.24	0.1	0.84	0.1	0.1
Total organic carbon	mg/L	16	94%	15	2.30	1.47	1.3	6.2	0.2	1
Total phosphorus	mg/L	18	33%	6	0.06	0.06	0.072	0.22	0.05	0.05
Total suspended solids	mg/L	18	67%	12	8	9	3	30	3	3
Turbidity	NTU	19	95%	18	7.6	7.4	1.2	27	1	1
Uva 254	cm-1	17	88%	15	0.05	0.03	0.032	0.145	0.0001	0.014
Zinc (dissolved)	ug/L	17	76%	13	1.87	3.10	0.2	10.7	0.1	0.2
Zinc (total)	ug/L	17	94%	16	5.52	10.75	0.42	38.2	0.1	0.2

(a) number of samples analyzed

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(e) standard deviation of data; "id" indicates insufficient detected data to calculate value

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(g) maximum detected value reported, or ND if no detected values

(h) minimum reporting limit for data below detection, or NA if all data above

(i) maximum reporting limit for data below detection, or NA if all data above reporting limits

Table B-6. Summary Statistics for the American River at Business 80

Parameter	Unit	n (a)	% det. (b)	n det. (c)	mean (d)	std dev (e)	min det. (f)	max det. (g)	min reporting limit (h)	max reporting limit (i)
2,4,6-trichlorophenol	ng/L	16	0%	0	id	id	ND	ND	100	100
Acenaphthene	ng/L	18	11%	2	id	id	1.5	13.4	2	5
Aldicarb	ug/L	18	0%	0	id	id	ND	ND	0.4	0.4
Aminocarb	ug/L	17	0%	0	id	id	ND	ND	0.4	0.4
Anthracene	ng/L	18	0%	0	id	id	ND	ND	2	5
Barban	ug/L	18	0%	0	id	id	ND	ND	3.5	3.5
Benomyl	ug/L	18	0%	0	id	id	ND	ND	0.4	0.4
Benz(a)anthracene	ng/L	18	28%	5	2.89	6.61	2	22.5	2	5
Benzo(a)pyrene	ng/L	18	17%	3	id	id	1.4	5.2	2	5
Benzo(b)fluoranthene	ng/L	18	28%	5	4.86	11.01	2.6	37.8	2	5
Benzo(g,h,i)perylene	ng/L	18	22%	4	4.15	11.60	3.1	39.4	2	5
Benzo(k)fluoranthene	ng/L	18	28%	5	4.18	8.14	2.6	29.2	2	5
Bis(2-ethylhexyl) phthalate	ng/L	19	32%	6	156.1	259.5	104.1	788	10	125
Carbaryl	ug/L	18	0%	0	id	id	ND	ND	0.07	0.07
Carbofuran	ug/L	18	0%	0	id	id	ND	ND	0.07	0.07
Chlorpropham	ug/L	18	0%	0	id	id	ND	ND	0.8	3.5
Chlorpyrifos	ug/L	21	0%	0	id	id	ND	ND	0.01	0.1
Chrysene	ng/L	18	39%	7	5.4	11.4	1.7	39.9	2	5
Diazinon	ug/L	21	0%	0	id	id	ND	ND	0.05	0.1
Dibenz(a,h)anthracene	ng/L	18	0%	0	id	id	ND	ND	2	5
Fluoranthene	ng/L	18	44%	8	5.9	8.8	3.9	32.6	2	5
Fluorene	ng/L	18	6%	1	id	id	1.7	1.7	2	5
Glyphosate	ug/L	18	0%	0	id	id	ND	ND	25	25
Hexachlorobenzene	ng/L	18	0%	0	id	id	ND	ND	5	62.5
Indeno(1,2,3-c,d)pyrene	ng/L	18	17%	3	id	id	4.4	6.9	2	5
Malathion	ug/L	21	0%	0	id	id	ND	ND	0.1	0.2
Methiocarb	ug/L	18	0%	0	id	id	ND	ND	0.4	0.4
Methomyl	ug/L	18	0%	0	id	id	ND	ND	0.07	0.07
Methyl parathion	ug/L	21	0%	0	id	id	ND	ND	0.1	0.2
Mexacarbate	ug/L	18	0%	0	id	id	ND	ND	0.8	0.8
Mtbe	ug/L	7	0%	0	id	id	ND	ND	0.5	0.5
Naphthalene	ng/L	18	44%	8	3.42	2.48	2	8	2	5
N-nitroso-di-n-propylamine	ng/L	18	0%	0	id	id	ND	ND	62	100
Oxamyl	ug/L	18	0%	0	id	id	ND	ND	0.4	5
Pentachlorophenol	ng/L	17	0%	0	id	id	ND	ND	100	100
Phenanthrene	ng/L	18	44%	8	4.13	4.03	1.3	15.2	2	5
Propam	ug/L	18	0%	0	id	id	ND	ND	0.8	3.5
Propoxur	ug/L	18	0%	0	id	id	ND	ND	0.4	0.4

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