

APPENDIX K

Summary of 1995-97 Data

**Trace Elements in Mussel, Clam, Oyster, Shore Crab,
and Sand Worm
(ppm, dry weight)**

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State Mussel Watch Program

Summary of 1995-97 Data: Trace Elements in Mussel, Clam, Oyster, Shore Crab, and Sand Worm (ppm, dry weight)

| Station Number | Station Name | Sample Type* | Sample Date | Aluminum | Arsenic | Cadmium | Chromium | Copper | Lead | Manganese | Mercury | Nickel | Selenium | Silver | Zinc |
|----------------|------------------------------------|--------------|-------------|----------|---------|---------|----------|--------|--------|-----------|---------|--------|----------|--------|-------|
| 1.0 | Crescent City Harbor | RCM | 04/09/97 | 967.0 | NA | 2.61 | 9.00 | 52.7 | 1.31 | 21.7 | 0.357 | NA | NA | 0.110 | 467.0 |
| 2.0 | Crescent City/STP Outfall | RCM | 04/09/97 | 1170.0 | NA | 4.50 | 17.40 | 14.9 | 2.13 | 18.8 | 0.636 | NA | NA | 2.650 | 185.0 |
| 2.2 | Crescent City Harbor/Inner Jetty | RCM | 04/09/97 | 736.0 | NA | 2.21 | 7.09 | 13.7 | 1.06 | 15.9 | 0.173 | NA | NA | 0.078 | 178.0 |
| 3.0 | Crescent City/Control | RCM | 04/10/97 | 748.0 | NA | 5.72 | 9.73 | 13.1 | 0.63 | 14.7 | 0.258 | NA | NA | 0.024 | 175.0 |
| 100.0 | Mad River Slough | OYS | 04/10/97 | 2260.0 | NA | 3.67 | 5.60 | 198.0 | 0.42 | 81.6 | 0.271 | NA | NA | 1.230 | 658.0 |
| 101.4 | Arcata Bay/Jolly Giant Slough | PAC | 04/18/96 | 1540.0 | ND | 0.09 | 7.20 | 65.4 | 1.30 | 155.0 | 0.174 | 4.9 | ND | 0.582 | 96.0 |
| 101.8 | Humboldt Bay/Halberson Shoreline | GLY | 04/17/96 | 1280.0 | 17.3 | 0.41 | 5.30 | 9.5 | 0.92 | 447.0 | 0.023 | 5.5 | 0.9 | 0.198 | 114.0 |
| 101.8 | Humboldt Bay/Halberson Shoreline | PAC | 04/17/96 | 2340.0 | ND | 0.11 | 8.00 | 56.2 | 9.72 | 158.0 | 0.063 | 7.4 | ND | 0.238 | 99.0 |
| 101.8 | Humboldt Bay/Halberson Shoreline | RBM-s | 04/17/96 | 5280.0 | 10.2 | 2.87 | 17.10 | 13.3 | 3.05 | 69.8 | 0.270 | 12.8 | 1.7 | 0.148 | 321.0 |
| 102.6 | Humboldt Bay/J Street | GLY | 04/17/96 | 3180.0 | 1.1 | 0.47 | 21.10 | 14.5 | 4.84 | 56.6 | 0.138 | 16.9 | 0.9 | 0.141 | 171.0 |
| 102.6 | Humboldt Bay/J Street | PAC | 04/17/96 | 1020.0 | 2.0 | 0.18 | 5.10 | 68.1 | 1.33 | 67.8 | 0.144 | 3.5 | ND | 0.252 | 88.0 |
| 102.6 | Humboldt Bay/J Street | RBM | 04/17/96 | 2800.0 | 14.3 | 7.65 | 52.60 | 7.6 | 1.98 | 40.7 | 0.288 | 38.3 | 2.3 | 0.043 | 374.0 |
| 102.6 | Humboldt Bay/J Street | RBM-s | 04/17/96 | 4870.0 | 13.8 | 2.67 | 33.40 | 8.4 | 3.60 | 65.0 | 0.386 | 27.6 | 2.5 | 0.107 | 348.0 |
| 102.6 | Humboldt Bay/J Street | TCM | 04/10/97 | 1570.0 | NA | 4.29 | 7.31 | 14.7 | 1.54 | 23.2 | 0.195 | NA | NA | 0.031 | 102.0 |
| 102.7 | Humboldt Bay/H Street | GLY | 04/17/96 | 296.0 | 55.9 | 1.64 | 12.80 | 74.2 | 10.30 | 18.8 | 0.099 | 10.8 | 0.3 | 0.914 | 321.0 |
| 102.7 | Humboldt Bay/H Street | PAC | 04/17/96 | 1360.0 | 1.6 | 0.49 | 7.60 | 114.0 | 34.90 | 138.0 | 0.109 | 4.8 | ND | 0.143 | 170.0 |
| 102.7 | Humboldt Bay/H Street | RBM-s | 04/17/96 | 5990.0 | 23.7 | 2.14 | 15.50 | 30.2 | 152.00 | 199.0 | 0.188 | 12.8 | 2.7 | 0.225 | 651.0 |
| 103.3 | Humboldt Bay/E Street | TCM | 04/10/97 | 1940.0 | NA | 4.20 | 13.00 | 12.7 | 1.41 | 25.6 | 0.187 | NA | NA | 0.018 | 142.0 |
| 103.5 | Humboldt Bay/Clark Slough | TCM | 04/10/97 | 1770.0 | NA | 4.19 | 7.37 | 15.9 | 1.38 | 29.9 | 0.172 | NA | NA | 0.085 | 144.0 |
| 202.0 | Bodega Head | RCM | 09/11/95 | 150.0 | 9.4 | 8.70 | 3.50 | 26.0 | 0.90 | 6.6 | 0.120 | 4.4 | 1.5 | 0.054 | 140.0 |
| 202.0 | Bodega Head | RCM | 08/29/96 | 163.0 | 9.6 | 8.11 | 2.32 | 5.5 | 0.81 | 6.0 | 0.145 | 2.3 | 2.2 | 0.028 | 126.0 |
| 203.0 | Tomales Bay | RBM | 04/14/97 | 2850.0 | NA | 6.38 | 14.60 | 18.7 | 0.63 | 106.0 | 0.373 | NA | NA | 0.095 | 168.0 |
| 203.0 | Tomales Bay | TCM | 04/14/97 | 1190.0 | NA | 3.01 | 5.54 | 7.2 | 1.00 | 150.0 | 0.184 | NA | NA | 0.077 | 147.0 |
| 203.1 | Tomales Bay/Vincent Landing | TCM | 04/14/97 | 281.0 | NA | 4.19 | 3.90 | 10.0 | 0.94 | 9.0 | 0.192 | NA | NA | 0.062 | 179.0 |
| 203.3 | Tomales Bay/Walker Creek Mouth 1 | TCM | 04/14/97 | 1230.0 | NA | 4.31 | 5.05 | 9.8 | 1.29 | 20.6 | 0.270 | NA | NA | 0.164 | 193.0 |
| 203.5 | Tomales Bay/Walker Creek Mouth 2 | TCM | 04/14/97 | 1060.0 | NA | 4.45 | 4.98 | 10.3 | 1.32 | 20.7 | 0.267 | NA | NA | 0.066 | 203.0 |
| 203.7 | Tomales Bay/Walker Creek Mouth 3 | TCM | 04/14/97 | 1270.0 | NA | 4.19 | 6.06 | 10.2 | 1.40 | 27.4 | 0.328 | NA | NA | 0.097 | 170.0 |
| 203.9 | Tomales Bay/Nicks Cove | TCM | 04/14/97 | 514.0 | NA | 4.42 | 4.48 | 11.0 | 1.23 | 11.0 | 0.200 | NA | NA | 0.061 | 173.0 |
| 205.0 | Bodega Harbor/Spud Point Marina | TCM | 03/21/97 | 1410.0 | NA | 10.70 | 5.44 | 19.1 | 3.57 | 14.4 | 0.364 | NA | NA | ND | 339.0 |
| 205.1 | Bodega Bay/Porto Bodega | RBM | 03/21/97 | 1130.0 | NA | 5.98 | 5.60 | 42.1 | 0.81 | 15.8 | 0.419 | NA | NA | 0.020 | 309.0 |
| 205.3 | Bodega Bay/Mason's Marina | TCM | 03/21/97 | 1600.0 | NA | 5.57 | 6.75 | 15.9 | 2.34 | 16.0 | 0.300 | NA | NA | 0.023 | 236.0 |
| 205.5 | Bodega Bay/Back Marsh | RBM | 03/21/97 | 2000.0 | NA | 4.87 | 7.29 | 12.8 | 0.94 | 17.7 | 0.317 | NA | NA | 0.024 | 216.0 |
| 210.1 | Walker Creek/Mine Creek | TFC | 01/17/97 | NA | NA | NA | NA | NA | NA | NA | 5.690 | NA | NA | NA | NA |
| 210.3 | Walker Creek/mid stream | TFC | 01/17/97 | NA | NA | NA | NA | NA | NA | NA | 1.500 | NA | NA | NA | NA |
| 211.1 | Lagunitas Creek/Bridge 1 | TFC | 01/17/97 | NA | NA | NA | NA | NA | NA | NA | 0.487 | NA | NA | NA | NA |
| 211.3 | Lagunitas Creek/Bridge 2 | TFC | 01/17/97 | NA | NA | NA | NA | NA | NA | NA | 0.459 | NA | NA | NA | NA |
| 280.0 | Russian River/S Goat Rock | RCM | 03/21/97 | 1910.0 | NA | 10.10 | 13.20 | 11.6 | 1.03 | 30.6 | 0.266 | NA | NA | 0.100 | 222.0 |
| 329.0 | Guadalupe Creek/Almaden Expressway | TFC | 12/16/96 | NA | NA | NA | NA | NA | NA | NA | 0.705 | NA | NA | NA | NA |
| 329.2 | Guadalupe Creek/Hicks Road | TFC | 12/16/96 | NA | NA | NA | NA | NA | NA | NA | 0.748 | NA | NA | NA | NA |
| 329.4 | Alamitos Creek/Almaden Road | TFC | 12/16/96 | NA | NA | NA | NA | NA | NA | NA | 0.898 | NA | NA | NA | NA |

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TFC = Transplanted Freshwater Clam

OYS = Oyster (*Crassostrea gigas*)

PAC = Shore Crab (*Pachygrapsus crassipes*)

GLY = Sand Worm (*Glycera* spp.)

NA = Not Analyzed

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| Station Number | Station Name | Sample Type* | Sample Date | Aluminum | Arsenic | Cadmium | Chromium | Copper | Lead | Manganese | Mercury | Nickel | Selenium | Silver | Zinc |
|----------------|------------------------------------|--------------|-------------|----------|---------|---------|----------|--------|-------|-----------|---------|--------|----------|--------|-------|
| 400.6 | Santa Cruz/Natural Bridges | RCM | 06/09/97 | 860.0 | NA | 4.45 | 3.06 | 14.7 | 0.75 | 10.6 | 0.085 | NA | NA | 0.120 | 155.0 |
| 400.7 | Santa Cruz Harbor/Inner | TCM | 03/25/96 | 2400.0 | NA | 18.00 | 120.00 | 96.0 | 6.10 | 33.0 | 0.620 | NA | NA | 0.120 | 700.0 |
| 401.0 | Santa Cruz Harbor | TCM | 03/25/96 | 1500.0 | NA | 11.00 | 19.00 | 66.0 | 4.50 | 17.0 | 0.490 | NA | NA | 0.087 | 480.0 |
| 403.0 | Elkhorn Slough/Highway 1 Bridge | TCM | 03/12/97 | 1620.0 | NA | 10.40 | 9.08 | 15.7 | 1.94 | 15.9 | 0.271 | 8.8 | NA | 0.053 | 205.0 |
| 404.0 | Sandholdt Bridge | TCM | 02/16/96 | 1500.0 | NA | 9.50 | 6.10 | 11.0 | 2.20 | 84.0 | 0.340 | NA | NA | 0.017 | 290.0 |
| 404.0 | Sandholdt Bridge | TCM | 03/04/97 | 2400.0 | 5.8 | 7.88 | 8.69 | 16.5 | 3.06 | 26.3 | 0.335 | 8.1 | 2.1 | 0.038 | 246.0 |
| 414.0 | Pacific Grove | RCM | 03/07/96 | 510.0 | NA | 7.30 | 5.70 | 6.5 | 1.50 | 8.5 | 0.240 | NA | NA | 0.160 | 200.0 |
| 414.0 | Pacific Grove | RCM | 04/25/97 | 213.0 | 11.6 | 7.35 | 2.71 | 17.0 | 1.85 | 6.4 | 0.133 | 4.1 | 0.6 | 0.080 | 218.0 |
| 420.3 | Monterey Harbor/C G Jetty/Inner | TCM | 02/13/96 | NA | NA | NA | NA | NA | 13.00 | NA | NA | NA | NA | NA | NA |
| 420.4 | Monterey Harbor/C G Jetty/Inner 2 | TCM | 02/13/96 | NA | NA | NA | NA | NA | 11.00 | NA | NA | NA | NA | NA | NA |
| 420.5 | Monterey Harbor/C G Jetty/Inner 3 | TCM | 02/13/96 | NA | NA | NA | NA | NA | 9.30 | NA | NA | NA | NA | NA | NA |
| 421.0 | Monterey Harbor/Slag Pile | TCM | 02/13/96 | NA | NA | NA | NA | NA | 28.00 | NA | NA | NA | NA | NA | NA |
| 601.0 | LA Harbor/National Steel | TCM | 01/18/96 | 970.0 | NA | 11.00 | 14.00 | 27.0 | 7.30 | 27.0 | 0.300 | NA | NA | 0.094 | 370.0 |
| 601.0 | LA Harbor/National Steel | TCM | 01/28/97 | 946.0 | 9.4 | 6.03 | 3.13 | 21.5 | 7.85 | 24.7 | 0.235 | NA | NA | 0.061 | 414.0 |
| 616.0 | LA Harbor/Consolidated Slip | TCM | 01/18/96 | 690.0 | NA | 14.00 | 25.00 | 34.0 | 10.00 | 29.0 | 0.300 | NA | NA | 0.150 | 410.0 |
| 616.0 | LA Harbor/Consolidated Slip | TCM | 01/28/97 | 764.0 | 9.7 | 6.77 | 5.06 | 18.1 | 8.51 | 22.0 | 0.197 | NA | NA | 0.056 | 366.0 |
| 648.0 | Malibu | RBM | 01/17/96 | 1000.0 | NA | 2.70 | 9.10 | 6.3 | 0.54 | 21.0 | 0.066 | NA | NA | 0.097 | 100.0 |
| 648.0 | Malibu | RCM | 11/25/96 | 682.0 | NA | 1.61 | 1.81 | 7.8 | 0.53 | 14.2 | 0.042 | NA | NA | 0.113 | 108.0 |
| 650.0 | Santa Monica | RBM | 01/17/96 | 940.0 | NA | 0.82 | 4.30 | 5.6 | 1.10 | 15.0 | 0.073 | NA | NA | 0.400 | 93.0 |
| 650.0 | Santa Monica | RCM | 11/25/96 | 850.0 | NA | 0.44 | 3.49 | 9.2 | 2.71 | 15.2 | 0.059 | NA | NA | 2.040 | 131.0 |
| 662.0 | Royal Palms | RCM | 01/18/96 | 370.0 | NA | 3.30 | 12.00 | 7.7 | 1.70 | 11.0 | 0.140 | NA | NA | 1.800 | 170.0 |
| 662.0 | Royal Palms | RCM | 11/25/96 | 384.0 | NA | 2.24 | 6.61 | 8.0 | 2.04 | 12.5 | 0.165 | NA | NA | 1.820 | 196.0 |
| 664.0 | Cabrillo Beach | RCM | 01/18/96 | 570.0 | NA | 3.60 | 14.00 | 9.9 | 2.10 | 15.0 | 0.180 | NA | NA | 5.000 | 190.0 |
| 708.0 | Anaheim Bay/Navy Marsh | TCM | 01/27/97 | 1970.0 | 9.6 | 4.50 | 10.90 | 12.2 | 5.32 | 29.4 | 0.118 | 8.9 | 1.8 | 0.053 | 243.0 |
| 713.0 | Huntington Harbour/Edinger Street | TCM | 01/17/96 | 980.0 | 10.0 | 12.00 | 7.90 | 12.0 | 4.60 | 22.0 | 0.270 | 9.6 | 2.1 | 0.084 | 360.0 |
| 713.0 | Huntington Harbour/Edinger Street | TCM | 01/27/97 | 1240.0 | 9.4 | 6.90 | 4.12 | 15.8 | 6.62 | 29.0 | 0.272 | 4.3 | 1.9 | 0.049 | 367.0 |
| 715.0 | Huntington Harbour/Warner Ave Brdg | TCM | 01/17/96 | 810.0 | 11.0 | 14.00 | 7.80 | 20.0 | 9.90 | 32.0 | 0.280 | 9.8 | 2.1 | 0.077 | 590.0 |
| 715.0 | Huntington Harbour/Warner Ave Brdg | TCM | 01/27/97 | 1250.0 | 9.3 | 5.19 | 4.55 | 20.3 | 10.80 | 36.7 | 0.171 | 4.4 | 2.0 | 0.055 | 435.0 |
| 723.4 | Newport Bay/Turning Basin | TCM | 01/17/96 | 700.0 | 10.0 | 13.00 | 8.80 | 26.0 | 5.00 | 24.0 | 0.330 | 9.0 | 1.7 | 0.049 | 430.0 |
| 724.0 | Newport Bay/Highway 1 Bridge | TCM | 01/17/96 | 1400.0 | 11.0 | 10.00 | 7.30 | 20.0 | 3.40 | 23.0 | 0.930 | 7.1 | 2.2 | 0.049 | 410.0 |
| 725.0 | Newport Bay/Crows Nest | TCM | 01/17/96 | 660.0 | 8.9 | 11.00 | 17.00 | 100.0 | 7.40 | 29.0 | 0.580 | 17.2 | 1.5 | 0.062 | 640.0 |
| 725.0 | Newport Bay/Crows Nest | TCM | 01/27/97 | 845.0 | 9.6 | 6.46 | 2.44 | 76.2 | 4.99 | 26.0 | 0.399 | 2.0 | 2.1 | 0.024 | 501.0 |
| 726.4 | Newport Bay/Rhine Channel/End | TCM | 01/17/96 | 440.0 | 11.0 | 14.00 | 14.00 | 130.0 | 6.90 | 62.0 | 0.660 | 15.0 | 2.0 | 0.063 | 870.0 |
| 726.4 | Newport Bay/Rhine Channel/End | TCM | 01/27/97 | 656.0 | 10.6 | 9.59 | 15.80 | 117.0 | 5.89 | 48.6 | 0.463 | 14.2 | 1.6 | ND | 618.0 |
| 726.6 | Newport Bay/Mariners Drive | TCM | 01/27/97 | 816.0 | 10.5 | 10.20 | 6.74 | 7.3 | 2.63 | 29.9 | 0.217 | 7.9 | 2.0 | 0.012 | 321.0 |
| 740.0 | Dana Point Harbor/Boat Yard | TCM | 01/27/97 | 1720.0 | 9.8 | 5.94 | 6.78 | 69.3 | 3.45 | 14.6 | 0.231 | 5.9 | ND | ND | 396.0 |
| 750.0 | Oceanside | RCM | 09/30/96 | 1510.0 | 5.4 | 1.32 | 5.16 | 13.2 | 0.69 | 19.3 | 0.051 | 3.7 | 2.1 | 0.051 | 127.0 |
| 882.2 | 24Th St Maritime Terminal/North | TCM | 01/18/96 | 1400.0 | NA | 9.10 | 6.70 | 58.0 | 4.40 | 56.0 | 0.300 | NA | NA | 0.330 | 540.0 |
| 882.7 | San Diego Bay/Sampson Street Pier | TCM | 01/18/96 | 750.0 | NA | 10.00 | 15.00 | 64.0 | 4.90 | 20.0 | 0.400 | NA | NA | 0.300 | 500.0 |
| 883.1 | San Diego Bay/Chollas Creek | TCM | 01/28/97 | 983.0 | 9.1 | 8.82 | 7.02 | 27.8 | 9.06 | 19.5 | 0.273 | 5.5 | 1.7 | 0.129 | 420.0 |

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|----------------|-----------------------------------|--------------|-------------|----------|---------|---------|----------|--------|-------|-----------|---------|--------|----------|--------|-------|
| 883.2 | San Diego Bay/Chollas Creek/Mouth | TCM | 01/28/97 | 1270.0 | 8.2 | 5.84 | 6.59 | 46.7 | 6.46 | 54.1 | 0.224 | 5.9 | ND | 0.162 | 466.0 |
| 883.3 | San Diego Bay/Chollas Creek/End | TCM | 01/28/97 | 957.0 | 9.1 | 8.84 | 8.36 | 26.8 | 8.92 | 27.2 | 0.220 | 6.4 | 1.8 | 0.121 | 506.0 |
| 883.5 | San Diego Bay/Tuna Docks | TCM | 01/28/97 | 828.0 | 9.2 | 6.10 | 7.79 | 31.5 | 6.47 | 25.6 | 0.230 | 4.8 | 2.0 | 0.119 | 432.0 |
| 883.6 | San Diego Bay/7th Street Channel | TCM | 01/18/96 | 2200.0 | NA | 9.30 | 25.00 | 54.0 | 8.70 | 29.0 | 0.240 | NA | NA | 0.400 | 520.0 |
| 883.6 | San Diego Bay/7th Street Channel | TCM | 01/28/97 | 1350.0 | 9.1 | 5.36 | 8.11 | 59.7 | 6.14 | 42.1 | 0.211 | 6.3 | 3.7 | 0.170 | 552.0 |
| 883.8 | San Diego Bay/Switzer Creek | TCM | 01/28/97 | 710.0 | 10.2 | 8.93 | 12.50 | 23.4 | 5.34 | 20.3 | 0.260 | 4.6 | ND | 0.085 | 406.0 |
| 885.1 | San Diego Bay/Paletta Creek/End | TCM | 01/28/97 | 1240.0 | 8.5 | 6.59 | 4.15 | 38.9 | 20.80 | 35.3 | 0.180 | 3.4 | 2.2 | 0.162 | 651.0 |
| 885.3 | San Diego Bay/7th Street Ch/Mid | TCM | 01/28/97 | 1550.0 | 7.0 | 5.93 | 8.80 | 50.9 | 16.80 | 50.0 | 0.206 | 5.7 | 1.9 | 0.150 | 547.0 |
| 886.0 | San Diego Bay/NASSCO | TCM | 01/18/96 | 870.0 | NA | 15.00 | 25.00 | 57.0 | 5.90 | 29.0 | 0.250 | NA | NA | 0.210 | 530.0 |
| 888.0 | San Diego Bay/Coronado Bridge | RBM | 01/28/97 | 1250.0 | 7.8 | 6.46 | 4.15 | 21.3 | 4.84 | 48.1 | 0.178 | 2.9 | 1.9 | 0.091 | 346.0 |
| 894.0 | SD Bay/Harbor Is/E Basin/Storm Dr | TCM | 01/28/97 | 1110.0 | 9.2 | 9.34 | 13.20 | 43.4 | 27.60 | 16.9 | 0.194 | 4.3 | 2.8 | 0.402 | 480.0 |

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