

Appendix A

**Table 4 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values¹**

| REGULATED SUBSTANCE | CASRN | Used Aquifers | | | | | | | | Nonuse Aquifers | | | | Soil Buffer Distance (feet) |
|----------------------|------------|---------------|---------------|--------------|---------------|--------------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------------------|-----------------------------|
| | | TDS < = 2500 | | | | TDS > 2500 | | | | R | | NR | | |
| | | R | | NR | | R | | NR | | R | | NR | | |
| | | 100 X GW MSC | Generic Value | 100 X GW MSC | Generic Value | 100 X GW MSC | Generic Value | 100 X GW MSC | Generic Value | 100 X GW MSC | Generic Value | 100 X GW MSC | Generic Value | |
| ALUMINUM | 7429-90-5 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| ANTIMONY | 7440-36-0 | 0.6 | 27 | 0.6 | 27 | 60 | 2,700 | 60 | 2,700 | 600 | 27,000 | 600 | 27,000 | 15 |
| ARSENIC | 7440-38-2 | 1 | 29 | 1 | 29 | 100 | 2,900 | 100 | 2,900 | 1,000 | 29,000 | 1,000 | 29,000 | 15 |
| BARIUM AND COMPOUNDS | 7440-39-3 | 200 | 8,200 | 200 | 8,200 | 20,000 | 190,000 | 20,000 | 190,000 | 190,000 | 190,000 | 190,000 | 190,000 | 15 |
| BERYLLIUM | 7440-41-7 | 0.4 | 320 | 0.4 | 320 | 40 | 32,000 | 40 | 32,000 | 400 | 190,000 | 400 | 190,000 | 10 |
| BORON AND COMPOUNDS | 7440-42-8 | 600 | 1,900 | 600 | 1,900 | 60,000 | 190,000 | 60,000 | 190,000 | 190,000 | 190,000 | 190,000 | 190,000 | 30 |
| CADMIUM | 7440-43-9 | 0.5 | 38 | 0.5 | 38 | 50 | 3,800 | 50 | 3,800 | 500 | 38,000 | 500 | 38,000 | 15 |
| CHROMIUM (III) | 16065-83-1 | 10 | 190,000 | 10 | 190,000 | 1,000 | 190,000 | 1,000 | 190,000 | 10,000 | 190,000 | 10,000 | 190,000 | 5 |
| CHROMIUM (VI) | 18540-29-9 | 10 | 190 | 10 | 190 | 1,000 | 19,000 | 1,000 | 19,000 | 10,000 | 190,000 | 10,000 | 190,000 | 15 |
| COBALT | 7440-48-4 | 1 | [50] 59 | [3] 4 | [140] 160 | [110] 130 | [5,000] 5,900 | [310] 350 | [14,000] 16,000 | [1,100] 1,300 | [50,000] 59,000 | [3,100] 3,500 | [140,000] 160,000 | 15 |
| COPPER | 7440-50-8 | [100] NA | [43,000] NA | [100] NA | [43,000] NA | [10,000] NA | [190,000] NA | [10,000] NA | [190,000] NA | [100,000] NA | [190,000] NA | [100,000] NA | [190,000] NA | [10] NA |
| CYANIDE, FREE | 57-12-5 | 20 | 200 | 20 | 200 | 2,000 | 20,000 | 2,000 | 20,000 | 20,000 | 190,000 | 20,000 | 190,000 | 20 |
| FLUORIDE | 16984-48-8 | 400 | 44 | 400 | 44 | 40,000 | 4,400 | [44,000] 40,000 | 4,400 | 190,000 | 44,000 | 190,000 | 44,000 | NA |
| IRON | 7439-89-6 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| LEAD | 7439-92-1 | 0.5 | 450 | 0.5 | 450 | 50 | 45,000 | 50 | 45,000 | 500 | 190,000 | 500 | 190,000 | 10 |
| LITHIUM | 7439-93-2 | [7] 8 | [2,200] 2,500 | [20] 23 | [6,000] 6,900 | [730] 830 | 190,000 | [2,000] 2,300 | 190,000 | [7,300] 8,300 | 190,000 | [20,000] 23,000 | 190,000 | 10 |
| MANGANESE | 7439-96-5 | 30 | 2,000 | 30 | 2,000 | 3,000 | 190,000 | 3,000 | 190,000 | 30,000 | 190,000 | 30,000 | 190,000 | 15 |
| MERCURY | 7439-97-6 | 0.2 | 10 | 0.2 | 10 | 20 | 1,000 | 20 | 1,000 | 200 | 10,000 | 200 | 10,000 | 15 |
| MOLYBDENUM | 7439-98-7 | 4 | 650 | 4 | 650 | 400 | 65,000 | 400 | 65,000 | 4,000 | 190,000 | 4,000 | 190,000 | 15 |
| NICKEL | 7440-02-0 | 10 | 650 | 10 | 650 | 1,000 | 65,000 | 1,000 | 65,000 | 10,000 | 190,000 | 10,000 | 190,000 | 15 |
| PERCHLORATE | 7790-98-9 | 1.5 | 0.17 | 1.5 | [0.2] 0.17 | 150 | 17 | 150 | 17 | 1,500 | 170 | 1,500 | 170 | NA |

¹For other options see Section 250.308

All concentrations in mg/kg

R - Residential

NR - Non-Residential

NA - Not Applicable

Appendix A

**Table 4 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil
B. Soil to Groundwater Numeric Values¹**

| REGULATED SUBSTANCE | CASRN | Used Aquifers | | | | | | | | Nonuse Aquifers | | | | Soil Buffer Distance (feet) |
|---------------------|------------------|--------------------------------|-------------------------------|--------------------------------|-------------------------------|-----------------------------|-----------------------------------|-----------------------------|-----------------------------------|-------------------------------|---------------|-------------------------------|---------------|-----------------------------|
| | | TDS < = 2500 | | | | TDS > 2500 | | | | R | | NR | | |
| | | R | | NR | | R | | NR | | R | | NR | | |
| | | 100 X GW MSC | Generic Value | 100 X GW MSC | Generic Value | 100 X GW MSC | Generic Value | 100 X GW MSC | Generic Value | 100 X GW MSC | Generic Value | 100 X GW MSC | Generic Value | |
| SELENIUM | 7782-49-2 | 5 | 26 | 5 | 26 | 500 | 2,600 | 500 | 2,600 | 5,000 | 26,000 | 5,000 | 26,000 | 20 |
| SILVER | 7440-22-4 | 10 | 84 | 10 | 84 | 1,000 | 8,400 | 1,000 | 8,400 | 10,000 | 84,000 | 10,000 | 84,000 | 20 |
| STRONTIUM | 7440-24-6 | 400 | 44 | 400 | 44 | 40,000 | 4,400 | 40,000 | 4,400 | 190,000 | 44,000 | 190,000 | 44,000 | NA |
| THALLIUM | 7440-28-0 | 0.2 | 14 | <u>[0.20]</u> 0.2 | 14 | 20 | 1,400 | 20 | 1,400 | 200 | 14,000 | 200 | 14,000 | 15 |
| TIN | 7440-31-5 | <u>[2,200]</u> 2,500 | 190,000 | <u>[6,100]</u> 7,000 | 190,000 | 190,000 | 190,000 | 190,000 | 190,000 | 190,000 | 190,000 | 190,000 | 190,000 | 10 |
| VANADIUM | 7440-62-2 | <u>[26]</u> 0.29 | <u>[26,000]</u> 290 | <u>[72]</u> 0.82 | <u>[72,000]</u> 820 | <u>[2,600]</u> 29 | <u>[190,000]</u> 29,000 | <u>[7,200]</u> 82 | <u>[190,000]</u> 82,000 | <u>[26,000]</u> 290 | 190,000 | <u>[72,000]</u> 820 | 190,000 | 5 |
| ZINC | 440-66-6 | 200 | 12,000 | 200 | 12,000 | 20,000 | 190,000 | 20,000 | 190,000 | 190,000 | 190,000 | 190,000 | 190,000 | 15 |

¹For other options see Section 250.308

All concentrations in mg/kg

R - Residential

NR - Non-Residential

NA - Not Applicable