

APPENDIX A

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

| REGULATED SUBSTANCE | CASRN | Used Aquifers | | | | | | | | Non-use 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 | [5] 1 | [150] 29 | [5] 1 | [150] 29 | [500] 100 | [15,000] 2,900 | [500] 100 | [15,000] 2,900 | [5,000] 1,000 | [150,000] 29,000 | [5,000] 1,000 | [150,000] 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 | [60] 600 | [6.7] 190 | [60] 600 | [6.7] 190 | [6,000] 60,000 | [670] 190,000 | [6,000] 60,000 | [670] 190,000 | [60,000] 190,000 | [6,700] 190,000 | [60,000] 190,000 | [6,700] 190,000 | [NA] 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 | [73] 1 | [8.1] 50 | [200] 3 | [22] 140 | [7,300] 110 | [810] 5,000 | [20,000] 310 | [2,200] 14,000 | [73,000] 1,100 | [8,100] 50,000 | [190,000] 3,100 | [22,000] 140,000 | [NA] 15 |
| COPPER | 7440-50-8 | 100 | [36,000] 43,000 | 100 | [36,000] 43,000 | 10,000 | 190,000 | 10,000 | 190,000 | 100,000 | 190,000 | 100,000 | 190,000 | 10 |
| 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 | 4,400 | 190,000 | 44,000 | 190,000 | 44,000 | |
| 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 | 2,200 | 20 | 6,000 | 730 | 190,000 | 2,000 | 190,000 | 7,300 | 190,000 | 20,000 | 190,000 | 10 |
| MANGANESE | 7439-96-5 | [NA] 30 | [NA] 2,000 | [NA] 30 | [NA] 2,000 | [NA] 3,000 | [NA] 190,000 | [NA] 3,000 | [NA] 190,000 | [NA] 30,000 | [NA] 190,000 | [NA] 30,000 | [NA] 190,000 | [NA] 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 | [2.6] 1.5 | [0.29] 0.17 | [7.2] 1.5 | [0.8] 0.2 | [260] 150 | [29] 17 | [720] 150 | [80] 17 | [2,600] 1,500 | [290] 170 | [7,200] 1,500 | [800] 170 | NA |
| SELENIUM | 7782-49-2 | 5 | 26 | 5 | 26 | 500 | 2,600 | 500 | 2,600 | 5,000 | 26,000 | 5,000 | 26,000 | 20 |

¹ For other options see Section 250.308

All concentrations in mg/kg

R – Residential

NR – Non-Residential

[G – Ingestion]

[H – Inhalation]

[C – Cap]

[U – UBK Model]

[S – SEGH Model]

NA - Not Applicable

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|---------------------|-----------|---------------|-------------------------|--------------|-------------------------|--------------|----------------------------|--------------|----------------------------|------------------|---------------|--------------|---------------|-----------------------------|
| | | 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 | |
| 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 |
| THALLIUM | 7440-28-0 | 0.2 | 14 | 0.2 | 14 | 20 | 1,400 | 20 | 1,400 | 200 | 14,000 | 200 | 14,000 | 15 |
| TIN | 7440-31-5 | 2,200 | [240] 190,000 | 6,100 | [680] 190,000 | 190,000 | [24,000] 190,000 | 190,000 | [68,000] 190,000 | 190,000 | 190,000 | 190,000 | 190,000 | [NA] 10 |
| VANADIUM | 7440-62-2 | 26 | 26,000 | 72 | 72,000 | 2,600 | 190,000 | 7,200 | 190,000 | 26,000 | 190,000 | 72,000 | 190,000 | 5 |
| ZINC | 7440-66-6 | 200 | 12,000 | 200 | 12,000 | 20,000 | 190,000 | 20,000 | 190,000 | 190,000 | 190,000 | 190,000 | 190,000 | 15 |

¹ For other options see Section 250.308

All concentrations in mg/kg

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