

Appendix A

Table 4 – Medium-Specific Concentrations (MSCs) for Inorganic Regulated Substances in Soil  
B. Soil to Groundwater Numeric Values<sup>1</sup>

| REGULATED SUBSTANCE  | CASRN       | Used Aquifers   |               |              |               |                 |               |               |                 | Nonuse Aquifers |                 |                 |                   | Soil Buffer Distance (feet) |
|----------------------|-------------|-----------------|---------------|--------------|---------------|-----------------|---------------|---------------|-----------------|-----------------|-----------------|-----------------|-------------------|-----------------------------|
|                      |             | TDS ≤ 2500 mg/L |               |              |               | TDS > 2500 mg/L |               |               |                 | 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               | [59] 45       | [4] 2.9      | [160] 130     | [130] 100       | [5,900] 4,500 | [350] 290     | [16,000] 13,000 | [1,300] 1,000   | [59,000] 45,000 | [3,500] 2,900   | [160,000] 130,000 | 15                          |
| COPPER               | 7440-50-8   | [NA] 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                     |
| 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         | 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   | [8] 6.9         | [2,500] 2,100 | [23] 19      | [6,900] 5,700 | [830] 690       | 190,000       | [2,300] 1,900 | 190,000         | [8,300] 6,900   | 190,000         | [23,000] 19,000 | 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          | 0.17          | 150             | 17            | 150           | 17              | 1,500           | 170             | 1,500           | 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                          |
| 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                          |

<sup>1</sup>For 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 Values<sup>1</sup>**

| REGULATED SUBSTANCE | CASRN     | Used Aquifers                  |               |                                |               |                 |               |              |               | Nonuse Aquifers |               |              |               | Soil Buffer Distance (feet) |
|---------------------|-----------|--------------------------------|---------------|--------------------------------|---------------|-----------------|---------------|--------------|---------------|-----------------|---------------|--------------|---------------|-----------------------------|
|                     |           | TDS ≤ 2500 mg/L                |               |                                |               | TDS > 2500 mg/L |               |              |               | 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 |                             |
| 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            | 0.2                            | 14            | 20              | 1,400         | 20           | 1,400         | 200             | 14,000        | 200          | 14,000        | 15                          |
| TIN                 | 7440-31-5 | <b>[2,500]</b><br><b>2,100</b> | 190,000       | <b>[7,000]</b><br><b>5,800</b> | 190,000       | 190,000         | 190,000       | 190,000      | 190,000       | 190,000         | 190,000       | 190,000      | 190,000       | 10                          |
| VANADIUM            | 7440-62-2 | 0.29                           | 290           | 0.82                           | 820           | 29              | 29,000        | 82           | 82,000        | 290             | 190,000       | 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                          |

<sup>1</sup>For other options see Section 250.308

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