

## NARRATIVE FEDERAL GUIDELINES

### Cyanobacteria, total

#### Livestock

Livestock should not be watered from lakes, ponds or streams that contain heavy growths of blue-green algae, especially if these waters have a history of blue-green algal toxicity.

### Colour

#### Freshwater Aquatic Life

**True colour:** The mean absorbance of filtered water samples at 456 nm shall not be significantly higher than the seasonally adjusted expected value for the system under consideration.

**Apparent Colour :** The mean percent transmission of white light per metre shall not be significantly less than the seasonally adjusted expected value for the system under consideration.

#### Livestock

Livestock, especially cattle, are not very sensitive to, or influenced by, the colour of the water they consume. Livestock producers, however, will find coloured water suspect and may object to supplying it to their livestock. Most producers will have the same water colour standards for themselves as for their livestock. Therefore, the guideline value for livestock, 15 mg-L<sup>-1</sup> Pt, is the same as that for drinking water. This value is based on human aesthetic considerations (Health Canada 1996).

### Suspended sediments

#### Freshwater Aquatic Life

**Clear flow:** Maximum increase of 25 mg/L from background levels for any short-term exposure (e.g., 24-h period). Maximum average increase of 5 mg/L from background levels for longer term exposures (e.g., inputs lasting between 24 h and 30 d).

**High flow:** Maximum increase of 25 mg/L from background levels at any time when background levels are between 25 and 250 mg/L. Should not increase more than 10% of background levels when background is  $\geq$  250 mg/L.

### Temperature

#### Freshwater Aquatic Life

**Thermal Stratification:** Thermal additions to receiving waters should be such that thermal stratification and subsequent turnover dates are not altered from those existing prior to the addition of heat from artificial origins

**Maximum Weekly Average Temperature:** Thermal additions to receiving waters should be such that the maximum weekly average temperature is not exceeded

**Short-term Exposure to Extreme Temperature:** Thermal additions to receiving waters should be such that the short-term exposures to maximum temperatures are not exceeded. Exposures should not be so lengthy or frequent as to adversely affect the important species.

### Turbidity

#### Freshwater Aquatic Life

#### **clear flow**

Maximum increase of 8 NTUs from background levels for a short-term exposure (e.g., 24-h period). Maximum average increase of 2 NTUs from background levels for a longer term exposure (e.g., 30-d period).

#### **high flow or turbid waters**

Maximum increase of 8 NTUs from background levels at any one time when background levels are between 8 and 80 NTUs. Should not increase more than 10% of background levels when background is  $>$  80 NTUs.

### Molybdenum (Mo)

#### Irrigation

The concentration should not exceed 10  $\mu$ g/L for continuous use on all soils, or 50  $\mu$ g/L for short-term use on acidic soils