

*Weekly Average Mass Loading:*

$$\begin{aligned}M_{\text{Weekly}} &= Q_{\text{Weekly}} \text{ (MGD)} \times [C]_{\text{Monthly}} \text{ (mg/L or ppm)} \times 8.34 \text{ (lbs/gal)} \\&= 0.125 \times 5.2 \times 8.34 \\&= 5.4 \text{ lbs/day}\end{aligned}$$

#### **4.7.8 Total Phosphorus**

*Weekly Average Concentration:*

$$\begin{aligned}[C]_{\text{Weekly}} &= [C]_{\text{Monthly}} \text{ (mg/L)} \times 1.5 \\&= 5.0 \times 1.5 \\&= 7.5 \text{ mg/L}\end{aligned}$$

*Monthly Average Mass Loading:*

$$\begin{aligned}M_{\text{Monthly}} &= Q_{\text{Monthly}} \text{ (MGD)} \times [C]_{\text{Monthly}} \text{ (mg/L or ppm)} \times 8.34 \text{ (lbs/gal)} \\&= 0.1 \times 5.0 \times 8.34 \\&= 4.2 \text{ lbs/day}\end{aligned}$$

*Weekly Average Mass Loading:*

$$\begin{aligned}M_{\text{Weekly}} &= Q_{\text{Weekly}} \text{ (MGD)} \times [C]_{\text{Monthly}} \text{ (mg/L or ppm)} \times 8.34 \text{ (lbs/gal)} \\&= 0.125 \times 5.0 \times 8.34 \\&= 5.2 \text{ lbs/day}\end{aligned}$$

#### **4.7.9 Total Nitrogen**

*Monthly average concentration:*

$$\begin{aligned}[C]_{\text{Monthly}} &= [C]_{\text{Annual}} \text{ (mg/L)} \times 1.25 \\&= 20 \times 1.25 \\&= 25 \text{ mg/L}\end{aligned}$$

*Weekly Average Concentration:*

$$\begin{aligned}[C]_{\text{Weekly}} &= [C]_{\text{Monthly}} \text{ (mg/L)} \times 1.5 \\&= 25 \times 1.5 \\&= 37.5 \text{ mg/L}\end{aligned}$$