

# Minneapolis Water Works

## Monthly Plant Effluent Water Analysis for: July 2023

### Physical and Chemical Water Quality

|  | <u>Plant Effluent Average Value</u> |
|--|-------------------------------------|
| Temperature, River Water Average (°C)                  | 28.4                                |
| Total Organic Carbon (ppm* as C)                       | 2.88                                |
| Total Dissolved Solids (ppm)                           | 164                                 |
| Turbidity (NTU)  | 0.05                                |
| Alkalinity-Total (ppm as CaCO <sub>3</sub> )           | 48                                  |
| Ammonia Nitrogen (ppm as N)                            | 0.98                                |
| Total Chloramine Residual (ppm as NH <sub>2</sub> Cl)  | 3.9                                 |
| Fluoride-F (ppm as F)                                  | 0.71                                |
| pH   | 9.07                                |
| Nitrate - NO <sub>3</sub> (ppm as N)                   | 0.22                                |
| Nitrite - NO <sub>2</sub> (ppm as N)                   | <0.015                              |
| Phosphate-PO <sub>4</sub> (ppm as PO <sub>4</sub> )    | 0.79                                |
| Sulfate - SO <sub>4</sub> (ppm as SO <sub>4</sub> )    | 25.2                                |
| Total Hardness (grains per gallon) EDTA method         | 4.50                                |
| Total Hardness (ppm as CaCO <sub>3</sub> ) EDTA method | 77                                  |

### Chemical Water Quality - Inorganic Metals

| <u>Chemical Element</u>              | <u>Plant Effluent Average Value</u> |
|--------------------------------------|-------------------------------------|
| Aluminum-Al (ppm as Al)              | 0.04                                |
| Arsenic-As (ppm as As)               | Not Detected                        |
| Cadmium-Cd (ppm as Cd)               | Not Detected                        |
| Calcium-Ca (ppm as Ca)               | 25.5                                |
| Chloride-Cl (ppm as Cl)              | 29.3                                |
| Chromium (ppm as Cr)                 | <0.01                               |
| Copper-Cu (ppm as Cu)                | <0.01                               |
| Iron-Fe (ppm as Fe)                  | Not Detected                        |
| Lead-Pb (ppm as Pb)                  | Not Detected                        |
| Magnesium-Mg (ppm as Mg)             | 2.57                                |
| Manganese-Mn (ppm as Mn)             | <0.01                               |
| Silica-Si (ppm as SiO <sub>2</sub> ) | 6.0                                 |
| Sodium-Na (ppm as Na)                | 18.7                                |
| Zinc-Zn (ppm as Zn)                  | <0.01                               |

\*ppm = parts per million