

Upper CLP collaborative water quality monitoring program parameter list.

| | Rationale | Notes |
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| Field Parameters | | |
| Conductance | Indicator of total dissolved solids. | Profile at Seaman Reservoir |
| Dissolved Oxygen | Profile indicates stratification, importance for aquatic life and chemical processes. | Profile at Seaman Reservoir |
| Secchi Disk | Measure of transparency. | Seaman Reservoir only |
| Temperature | Reflects seasonality; affects biological and chemical processes; water quality standard. | Profile at Seaman Reservoir |
| pH | Measure of acidity. | |
| General & Miscellaneous Parameters | | |
| Alkalinity | Indicator of carbonate species concentrations; Acid neutralizing capacity of water; treatment implications. | |
| Chlorophyll-a | Reflects algal biomass. | Seaman Reservoir only |
| Discharge | Necessary for flow dependant analysis and load estimation. | Measured during sampling at NRC, RCM, SCM, PCM, PJW, SFM |
| Hardness | Treatment implications. Hard water causes scaling and soft water is considered corrosive. | |
| Total Dissolved Solids (TDS) | Indicator of overall water quality; includes both ionic and non-ionic species. | |
| Total Organic Carbon (TOC) | Important parameter for water treatment; precursor of disinfection byproducts. | |
| Turbidity | Indicator of suspended material; important for water treatment. | |
| Nutrients | | |
| Nitrogen, Ammonia | Primary source of nitrogen to algae, indicator of pollution by sewage, septic tanks, agriculture; water quality standard. | |
| Nitrate | Primary source of nitrogen to algae; indicator of pollution by sewage, septic tanks, agriculture; water quality standard. | |
| Nitrite | Toxic inorganic nitrogen species; rarely encountered at significant concentrations; water quality standard. | |
| Total Kjeldahl Nitrogen | Sum of organic nitrogen and ammonia. | |
| Ortho-Phosphorus (Soluble Reactive Phosphorus) | Form of phosphorous (dissolved PO_4^{-3}) most available to algae; indicator of pollution by sewage, septic tanks, agriculture. | |

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| Total Phosphorus | Includes dissolved and adsorbed, organic and inorganic forms of phosphorus, indicator of pollution by sewage, septic tanks, agriculture. | |
| Major Ions | | |
| Calcium | Major ion. | Monitor for two years at half frequency (6x/yr) |
| Chloride | Major ion. | Monitor for two years at half frequency (6x/yr) |
| Magnesium | Major ion. | Monitor for two years at half frequency (6x/yr) |
| Potassium | Major ion, minor importance as a nutrient. | Monitor for two years at half frequency (6x/yr) |
| Sodium | Major ion. | Monitor for two years at half frequency (6x/yr) |
| Sulfate | Major ion. | Monitor for two years at half frequency (6x/yr) |
| Microbiological Constituents | | |
| <i>E. Coli</i> | Indicator of human or animal waste contamination; water quality standard. | Only from Rustic downstream, NFL, NFG, SER |
| Total Coliform | Indicator of human or animal waste contamination. | Only from Rustic downstream, NFL, NFG, SER |
| <i>Cryptosporidium</i> | Pathogen, indicator of human or animal waste contamination. | Above and below Halligan Reservoir, and below Seaman Reservoir |
| <i>Giardia</i> | Pathogen, Indicator of human or animal waste contamination. | Above and below Halligan Reservoir, and below Seaman Res |
| Algal Species Composition | Shows presence of nuisance species and trophic state. | Seaman Reservoir surface sample only |
| Metals | | |
| Cadmium, dissolved | Indicator of pollution from mining activity at elevated levels; water quality standard. | Only PNF & NFG (2x/yr) |
| Chromium, dissolved | Water quality standard. | Only PNF & NFG (2x/yr) |
| Copper, dissolved | Water quality standard. | Only PNF & NFG (2x/yr) |
| Iron, Total | Affects aesthetic quality of treated water. | Only PNF & NFG (2x/yr) |
| Iron, dissolved | Affects aesthetic quality of treated water. | Only PNF & NFG (2x/yr) |
| Lead, dissolved | Indicator of pollution from mining activity at elevated levels; water quality standard. | Only PNF & NFG (2x/yr) |
| Nickel, dissolved | Indicator of pollution from mining activity at elevated levels; water quality standard. | Only PNF & NFG (2x/yr) |
| Silver, dissolved | Indicator of pollution from mining activity at elevated levels. | Only PNF & NFG (2x/yr) |
| Zinc, dissolved | Indicator of pollution from mining activity at elevated levels. | Only PNF & NFG (2x/yr) |
| Mercury, Low Level | Accumulates in fish tissue even when present in very low concentrations. | Sample every 3 to 5 yrs. |