

Water Utility & Distribution



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| Goal | KPI | Applicable System Type | Applicable Metering Level | Breakdown | Units |
|--|---|---------------------------|-----------------------------|---|------------------------------------|
| Ensure Adequate Capacity | Hours of water storage capacity at ADD | Integrated | All Levels | Water storage capacity at ADD | # |
| | | | | | |
| Have Satisfied and Informed Customers | Percent Attainment of After Working Hours Emergency Target | All Systems | All Levels | % Attainment of After Working Hours Emergency Target | % |
| | Percent Attainment of After Working Hours Non-Emergency Target | All Systems | All Levels | % Attainment of After Working Hours Non-Emergency Target | % |
| | Percent Attainment of During Working Hours Emergency Target | All Systems | All Levels | % Attainment of During Working Hours Emergency Target | % |
| | Percent Attainment of During Working Hours Non-Emergency Target | All Systems | All Levels | % Attainment of During Working Hours Non-Emergency Target | % |
| | Water Pressure Complaints by Customers | All Systems | All Levels | Water Pressure Complaints | # / 1,000 People Served |
| | Water Quality Customer Complaints | All Systems | All Levels | Colour | # / 1,000 People Served |
| | | | | Other or unknown causes | # / 1,000 People Served |
| | | | | Taste and odour | # / 1,000 People Served |
| | | | | Temperature | # / 1,000 People Served |
| | | | | | |
| Meet Service Requirements with Economic Efficiency | Average Unit Cost of Meters Replaced | Integrated & Distribution | Universal | Unit Cost | \$ / meter |
| | Cost of Customer Billing | Integrated & Distribution | Universal | Cost of Customer Billing | \$ / Number of Service Connections |
| | Cost of Fire Hydrant O&M | Integrated & Distribution | All Levels | Cost of Fire Hydrant O&M | \$ / hydrant |
| | Cost of Main Break Repairs / Total O&M Cost | All Systems | All Levels | Cost of Main Break Repairs / Total O&M Cost | % |
| | Cost of Performing Locates | All Systems | All Levels | Cost of Performing Locates | \$ / km |
| | Cost of Water Quality Monitoring | Integrated | All Levels | Cost of Water Quality Monitoring | \$ / capita |
| | Cost to Provide Water | Integrated & Distribution | All Levels | Capital Cost | \$ / Population Served |
| | | | | Debt Servicing | \$ / Population Served |
| | | | | Indirect Cost | \$ / Population Served |
| | | | | O&M Cost | \$ / Population Served |
| | | | | Regional Water Purchased | \$ / Population Served |
| | | | | Water Customer Billing | \$ / Population Served |
| | FTEs | All Systems | All Levels | Laboratory | # / 100 km Length |
| | | | | O&M | # / 100 km Length |
| | | | | Program Support and Clerical | # / 100 km Length |
| | | | | Supervisor/ Management | # / 100 km Length |
| | | | | Technical/ Engineering | # / 100 km Length |
| | Indirect Costs | All Systems | All Levels | Administrative Overheads | \$ / Population Served |
| | | | | Conservation Area Charges | \$ / Population Served |
| | | | | Dividends Paid to City | \$ / Population Served |
| Property Taxes | | | | \$ / Population Served | |
| Inhouse Metering Field FTEs | Integrated & Distribution | Universal | Inhouse Metering Field FTEs | # / 1,000 meters | |
| Metering O&M Cost | Integrated & Distribution | Universal | Metering O&M Cost | ('000 \$) / meter | |

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| Meet Service Requirements with Economic Efficiency | O&M Cost | All Systems | All Levels | Energy | ('000 \$) / km Length |
| | | | | Equipment and Materials | ('000 \$) / km Length |
| | | | | External Contracted Services | ('000 \$) / km Length |
| | | | | Internal Contracted Services | ('000 \$) / km Length |
| | | | | Other | ('000 \$) / km Length |
| | | | | Staff Training | ('000 \$) / km Length |
| | | | | Wages | ('000 \$) / km Length |
| | O&M Cost + Capital Reinvestment | All Systems | All Levels | Capital Reinvestment | ('000 \$) / km Length |
| | | | | O&M | ('000 \$) / km Length |
| | Pipe and Pump O&M Cost | All Systems | All Levels | Pipe | ('000 \$) / km Length |
| | | | | Pump Station | ('000 \$) / km Length |
| | Pipe O&M Cost | All Systems | All Levels | Energy | ('000 \$) / km Length |
| | | | | Equipment and Materials | ('000 \$) / km Length |
| | | | | External Contracted Services | ('000 \$) / km Length |
| Internal Contracted Services | | | | ('000 \$) / km Length | |
| Other | | | | ('000 \$) / km Length | |
| Staff Training | | | | ('000 \$) / km Length | |
| Wages | | | | ('000 \$) / km Length | |
| Pump Station Energy Consumed | All Systems | All Levels | Diesel | ('000 kWh) / Total PS HP | |
| | | | Electricity | ('000 kWh) / Total PS HP | |
| | | | Natural Gas | ('000 kWh) / Total PS HP | |
| Pump Station O&M Cost | All Systems | All Levels | Energy | \$ / HP | |
| | | | Equipment and Materials | \$ / HP | |
| | | | External Contracted Services | \$ / HP | |
| | | | Internal Contracted Services | \$ / HP | |
| | | | Other | \$ / HP | |
| | | | Staff Training | \$ / HP | |
| | | | Wages | \$ / HP | |
| Water Charge for a Typical Size Residential Connection Using Canadian Average Consumption Rate (210m ³ /year) | Integrated & Distribution | All Levels | Water Charge for a Typical Size Residential Connection Using Canadian Average Consumption Rate (210m ³ /year) | \$ | |
| Water Charge for an Average Residence Using Local Consumption Rate | Integrated & Distribution | All Levels | Water Charge for an Average Residence Using Local Consumption Rate | \$ | |
| Protect Public Health and Safety | Average value for THMs | All Systems | All Levels | Average THMs | mg / L |
| | Average Value for Turbidity | All Systems | All Levels | Average Turbidity | NTU |
| | Boil Water Advisory Days | All Systems | All Levels | Boil Water Advisory Days | # |
| | Connections Affected by Boil Water Advisory | All Systems | All Levels | Connections Affected by Boil Water Advisory | # / 1,000 Service Connections |
| | Cumulative Length Cleaned / System Length | All Systems | All Levels | Cumulative Length Cleaned / System Length | % |
| | Days with Total Coliform | All Systems | All Levels | Days with Total Coliform | # |
| Protect the Environment | Average Residential Daily Consumption | Integrated & Distribution | All Levels | Average Residential Daily Consumption | L / Cap / day |
| | Cost of Water Conservation Program | All Systems | All Levels | Cost of Water Conservation Program | \$ / capita |
| | Days of Water Restrictions | All Systems | All Levels | Days of Water Restrictions | # |
| | Peaking Factor | All Systems | All Levels | Peaking Factor | MDD / ADD |
| | Percent Metered | Integrated & Distribution | All Levels | Percent Metered | % |

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|---|--|---------------------------|--------------------------------|--|---------------------------------------|
| Provide a Safe and Productive Workplace | Cost of Overtime Hours | All Systems | All Levels | Cost of Overtime Hours | \$ / O&M FTE |
| | Distribution of Workforce by Age | All Systems | All Levels | 20-30 yrs | % |
| | | | | 31-40 yrs | % |
| | | | | 41-50 yrs | % |
| | | | | 51-60 yrs | % |
| | | | | 61-70 yrs | % |
| | Field Accidents with Lost Time | All Systems | All Levels | Accidents with Lost Time | # / 1,000 O&M Labour Hours |
| | Lost Hours due to Field Accidents | All Systems | All Levels | Lost Hours | # / 1,000 O&M Labour Hours |
| | Sick Days Taken | All Systems | All Levels | Sick Days Taken | # / O&M Employee |
| | Total Available O&M Hours / Total Paid O&M Hours | All Systems | All Levels | Total Available Hours | % |
| | Total Overtime Hours / Total Paid O&M Hours | All Systems | All Levels | Total Overtime Hours / Total Paid O&M Hours | % |
| | Unavailable O&M Hours / Total Paid O&M Hours | All Systems | All Levels | Expended Banked Time | % |
| | | | | Long Term Leave | % |
| Other | | | | % | |
| Other Training | | | | % | |
| Safety Training | | | | % | |
| Sick Time | | | | % | |
| Union Time | | | | % | |
| Vacation | | | | % | |
| Provide Reliable Service and Infrastructure | # Service Connection Repairs & Replacements / # of Service Connections | All Systems | All Levels | Emergency Repairs | % |
| | | | | Planned Repairs | % |
| | Capital Reinvestment / Replacement Value | All Systems | All Levels | Capital Reinvestment / Replacement Value | % |
| | Customer Days Without Service | All Systems | All Levels | Customer Days without Service | Days / Total # of Service Connections |
| | Hydrants Inspected | All Systems | All Levels | Hydrants Inspected | % |
| | Hydrants Winterized | All Systems | All Levels | Hydrants Winterized | % |
| | Infrastructure Leakage Index | Integrated & Distribution | Universal | ILI | |
| | Inoperable or Leaking Hydrants | All Systems | All Levels | Inoperable or Leaking Hydrants | % |
| | Inoperable or Leaking Valves | All Systems | All Levels | Inoperable or Leaking Valves | % |
| | Main Breaks | All Systems | All Levels | Main Breaks | # / 100 km Length |
| | Main Length Replaced or Relined | All Systems | All Levels | Main Length Relined | % |
| | | | | Main Length Replaced | % |
| | Metallic Main Breaks | All Systems | All Levels | Metallic Mains Breaks | # / 100 km of Metallic Mains |
| | Non Metallic Main Breaks | All Systems | All Levels | Non Metallic Main Breaks | # / 100 km of Non Metallic Mains |
| | Non-Revenue Water | Integrated & Distribution | Universal | Apparent Losses | L / Cap / day |
| | | | | Real Losses | L / Cap / day |
| | | | | Unbilled Authorized Consumption | L / Cap / day |
| | Preventative and Corrective Maintenance Hours | All Systems | All Levels | Corrective Hours | Hours / km Length |
| | | | | Preventative Hours | Hours / km Length |
| | System Length Tested for Leakage / km Length | All Systems | All Levels | System Length Tested for Leakage / km Length | % |
| | Total Corrective Maintenance Hours / Total Maintenance Hours | All Systems | All Levels | Total Corrective Maintenance Hours / Total Maintenance Hours | % |
| Unplanned System Interruptions | All Systems | All Levels | Unplanned System Interruptions | # / 100km Length | |
| Valves Cycled | All Systems | All Levels | Valves Cycled | % | |

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