Introduction

AWWA’s Utility Benchmarking Program continuously tracks utility performance indicators developed and applied by water industry professionals to provide a framework for improving both operational efficiency and managerial effectiveness for all utilities. The basis of this program is a system of well-defined and time-tested performance indicators specific to the water sector. These indicators were designed to help utilities providing water and/or wastewater services improve their operational efficiency and managerial effectiveness.

Survey questions collect utility performance data, i.e., metrics, which are used to calculate performance indicators categorized in the following five areas:

- Organizational Development
- Business Operations
- Customer Service
- Water Operations
- Wastewater Operations.

The full list of indicators in each category are as follows, new indicators to be reported in 2020 are highlighted below:

Organizational Development
- Organizational Best Practices
- Staffing Levels
  - Total FTEs
  - FTEs by Job Category (%)
- Training (hours per employee)
- Emergency Response Readiness Training (hours per employee)
- Customer Accounts (accounts per employee)
- Employee Turnover (%)
- Retirement Eligibility (%)
- Employee Health & Safety Severity Rate
- Recordable Incidents of injury or illnesses
- Near Misses
- Strategic Workforce Planning
- Employee Vacancies

Business Operations
- Debt Ratio (%)
- Return on Assets (%)
- Days of Cash on Hand
- Debt-Service Coverage Ratio
- Days of working capital
- Operating Ratio (%)
- Bond Rating
- Insurance Claims
  - Severity of Insurance Claims
    - Average Severity
- System Inspection (%)
- System Renewal/Replacement (%)
- Triple-Bottom-Line Index (%)


• Sustainability
  o Nutrient Recovery
  o Biosolids Reuse (%)
  o Nonportable consumptive use (%)
  o Habitat/watershed protection goals
  o Green Infrastructure planning
  o Energy Optimization planning

Customer Service
• Service Complaints
  o Customer Service Complaints/1,000 accounts
  o Customer Service Complaints/population served
  o Technical Service Complaints/1,000 accounts
  o Technical Service Complaints/population served
• Call Center Indicators
  o Average Talk Time (minutes)
  o Average Wait Time (minutes)
  o Abandoned Calls (%)
  o Average Calls per Call Center Representative
  o First Call resolution
• Customer Service Cost per Account ($/account)
• Residential Service Charges
  o Residential Cost of Water Service ($/month)
  o Residential Cost of Wastewater Service ($/month)
  o Residential Cost of Stormwater Service ($/month)
• Billing Accuracy (errors/10,000 billings)
  o Frequency of Billing
  o Estimated Billing Rate
  o Metering Prevalence
  o Metering: Frequency of Meter Reads
  o Metering: Read Success Rate
• Per Capita Consumption (gal/person/day)

• Risk and Resiliency
  o Risk Assessment & Response Preparedness
  o Emergency Response Plan
  o Recovery and Mitigation
  o Cybersecurity Preparedness
  o Use of EPA Report: Baseline Information (NEW in 2020)
  o Use of AWWA Cybersecurity Tool (NEW in 2020)

• Service Affordability
  o Water Service Affordability (%)
  o Wastewater Service Affordability (%)
  o Stormwater Service Affordability (%)
• Delinquency rate
• Low-income assistance program offered
• Low-income billing assistance rate
• Stakeholder Outreach Index
• Customer Service – Preferred Method of Contact
• Water Service Disruptions
  o Disruptions of Water Service (outages/1,000 accounts)
    ▪ Planned by Event Duration (< 4 hr, 4–12 hr, > 12 hr)
    ▪ Unplanned by Event Duration (< 4 hr, 4–12 hr, > 12 hr)
  o Average Time to Address Water Service Disruptions (hr)
  o Disruption Frequency of Water Service
• Wastewater Service Disruptions
  o Disruptions of Wastewater Service (outages/1,000 accounts)
    ▪ Planned by Event Duration (< 4 hr, 4–12 hr, > 12 hr)
    ▪ Unplanned by Event Duration (< 4 hr, 4–12 hr, > 12 hr)
  o Average Time to Address Wastewater Service Disruptions (hr)
  o Disruption Frequency of Wastewater Service
Water Operations

- Regulatory Compliance—Water (%)
- Water Produced (MGD per employee)
- Water Supply
  - Current Water Demand (%)
  - Available Water Supply (years)
- Water Distribution System Integrity
  - Leaks/100 miles of pipe
  - Breaks/100 miles of pipe
  - Combined Leaks and Breaks
- Hydrant effectiveness / out of service rate
- O&M Costs for Water Services
  - ($/account)
  - ($/MG)
  - ($/100 miles of pipe)
  - Treatment O&M costs
  - Distribution O&M Costs ($/100 miles of pipe)
- O&M Percentage of Water Services
- Maintenance—Water
  - Planned Maintenance (%) [Overall, Linear, Vertical Ratios]
  - Corrective Maintenance to Production (hr/MG)
  - Planned Maintenance to Production (hr/MG)
  - Corrective Maintenance to Distribution System Length (hr/100 miles of pipe)
  - Planned Maintenance to Distribution System Length (hr/100 miles of pipe)
- Energy Consumption—Water (kBTU/year/MG)
- AWWA Water Audit Software

Wastewater Operations

- Wastewater Compliance Rate (modified reporting)
  - Wastewater Treatment Operations (%) (NEW in 2019)
  - Collection System Operations (%) (NEW in 2019)
- Wastewater Processed per Employee
- Non-Capacity Sewer Overflow ow Rate (per 100 miles of pipe)
- Capacity Sewer Overflow Rate (per 100 miles of pipe)
- Collection System Integrity (failures/100 miles of pipe)
- O&M Costs for Wastewater Service
  - ($/account)
  - ($/MG)
  - ($/100 miles of pipe)
  - Collection O&M Costs ($/100 miles of pipe)
  - Treatment O&M Cost ($/MG)
  - O&M Percentage of Wastewater Services
  - O&M Percentage of Stormwater Services
- Maintenance—Wastewater
  - Planned Maintenance (%) [Overall, Linear, Vertical Ratios]
  - Corrective Maintenance to Treatment (hr/MG)
  - Planned Maintenance to Treatment (hr/MG)
  - Corrective Maintenance to Collection (hr/100 miles of pipe)
  - Planned Maintenance to Collection (hr/100 miles of pipe)
- Energy Consumption—Wastewater (kBTU/year/MG)