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 2019 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 *(NEW in 2019)*
- Employee Vacancies *(NEW in 2019)*
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 (NEW in 2019)
  Severity of Insurance Claims (NEW in 2019)
  Average Severity
System Inspection (%)
System Renewal/Replacement (%)
Triple-Bottom-Line Index (%)
Sustainability
  Nutrient Recovery
  Biosolids Reuse (%)
  Nonportable consumptive use (%)
  Habitat/watershed protection goals
  Green Infrastructure planning
  Energy Optimization planning
Risk and Resiliency (NEW in 2019)
  Risk Assessment & Response Preparedness (NEW in 2019)
  Emergency Response Plan (NEW in 2019)
  Recovery and Mitigation (NEW in 2019)
  Cybersecurity Preparedness (NEW in 2019)

Customer Service

Service Complaints
  Customer Service Complaints/1,000 accounts
  Customer Service Complaints/population served (NEW in 2019)
  Technical Service Complaints/1,000 accounts
  Technical Service Complaints/population served (NEW in 2019)
Call Center Indicators
  Average Talk Time (minutes)
  Average Wait Time (minutes)
  Abandoned Calls (%)
  Average Calls per Call Center Representative
  First Call resolution
Customer Service Cost per Account ($/account)
Residential Service Charges
- Residential Cost of Water Service ($/month)
- Residential Cost of Wastewater Service ($/month)
- Residential Cost of Stormwater Service ($/month)

Billing Accuracy (errors/10,000 billings)
- Frequency of Billing \((NEW \text{ in 2019})\)
- Estimated Billing Rate \((NEW \text{ in 2019})\)
- Metering Prevalence \((NEW \text{ in 2019})\)
- Metering: Frequency of Meter Reads \((NEW \text{ in 2019})\)
- Metering: Read Success Rate \((NEW \text{ in 2019})\)

Per Capita Consumption (gal/person/day)

Service Affordability
- Water Service Affordability (%)
- Wastewater Service Affordability (%)
- 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
- 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)
- Average Time to Address Water Service Disruptions (hr)
- Disruption Frequency of Water Service

Wastewater Service Disruptions
- 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)
- Average Time to Address Wastewater Service Disruptions (hr)
- 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)