

Wastewater Utility Performance Measures	What Do They Measure?
GOAL: Meet Service Requirements with Economic Efficiency	
(Total Wastewater Operating Cost + Regional Wastewater Operating Cost) / Population Served - Wastewater Utilities with Collection Systems	Operating Cost Effectiveness
(Total Wastewater Operating Cost + Regional Wastewater Operating Cost) / Volume Treated - Wastewater Utilities with Collection Systems	Operating Cost Effectiveness
Sewer Rate for a Typical Size Residential Connection using 330m ³ of water /year - Wastewater Utilities with Collection Systems	Operating Cost Effectiveness

Wastewater Collection Performance Measures	What Do They Measure?
GOAL: Provide Reliable Service and Infrastructure	
# of Blocked Sewers / 100 km Length	System Reliability
# of Blocked Sewers / 100km Length Due to Different Causes	System Reliability
% of Blocked Sewers that were Repeat Occurrences	System Reliability
% of Length Cleaned / Length that Can be Cleaned	Preventative Maintenance
% Sewer Cleaned Hydraulically and Mechanically	Preventative Maintenance
% of Manholes Visually Inspected	Preventative Maintenance
# of Pump Station Failures / # of Pump Stations	Pump Station Reliability
5-year Average # of Sewer Repairs (Planned & Emergency) / 100 km Length	Planned: Preventative Maintenance Emergency: System Condition / Reliability
% of Length CCTV Inspected	Preventative Maintenance
Breakdown of Length CCTV Inspected / Length that can be Inspected	Preventative Maintenance
5 Year Running Average Capital Reinvestment / Replacement Value	Level of Infrastructure Reinvestment
% of Sewer Length Replaced	Level of Infrastructure Reinvestment



Wastewater Collection Performance Measures	What Do They Measure?
% of Sewer Length Replaced and Relined	Level of Infrastructure Reinvestment
# of Planned & Emergency Service Connection Repairs / 1,000 Service Connections	Planned: Preventative Maintenance Emergency: System Condition / Reliability
Volume of CSOs as % of Total Wastewater Volume – Combined Systems	Combined System Reliability
GOAL: Provide Adequate Capacity	
# of Blocked Service Connections / 1000 Service Connections	System Reliability
# of Connections with Sanitary Flooding / 1,000 Service Connections	Sufficiency of System to Prevent Damage to Property
Breakdown of Connections with Sanitary Flooding by Causes / 1,000 Service Connections	Sufficiency of System to Prevent Damage to Property
# of Reported Overflows due to Capacity / 100 km length	Sufficiency of Pipe Capacity
GOAL: Meet Service Requirements with Economic Efficiency	
# of O&M FTEs / 100 km Length	O&M Staffing Levels
# of Field FTEs / 100 km Length	Field Staffing Levels
# of Linear FTEs / 100 km Length	Field Staffing Levels
Breakdown of O&M FTEs / 100km Length	O&M Staffing Levels
Total Operating Cost with Actual Indirect Charge-back ('000) / km Length	Cost Effectiveness
O&M Cost ('000) / km Length	Cost Effectiveness
O&M Cost ('000) as % of System Replacement Value	Cost Effectiveness
(O&M Cost + Capital Reinvestment ('000)) / km Length	Cost Effectiveness
Indirect Costs as % of Total Operating Cost	Cost Effectiveness
Pump Station O&M Cost / Pump Station Horsepower	Cost Effectiveness
Pipes O&M Cost ('000) / km Length	Cost Effectiveness
Unscheduled Maintenance Hours / Total Maintenance Hours	Maintenance Productivity
Cost of CCTV / Length CCTV Inspected	CCTV Productivity



Wastewater Collection Performance Measures	What Do They Measure?
Cost of Cleaning Hydraulically / Length Cleaned	Cleaning Productivity
Cost of Cleaning Mechanically / Length Cleaned	Cleaning Productivity
GOAL: Protect the Environment	
Breakdown of # Reported Overflows by cause / 100 km Length	Environmental Impacts due to Inadequacies in System Capacity and Reliability
GOAL: Provide a Safe and Productive Workplace	
Sick Days Taken per Field Employee	Indicator of Staff Morale & Absenteeism
Total Available Field Hours/ Total Paid Field Hours	Staff Availability for Work
Breakdown of Unavailable Field Hours / Total Paid Field Hours	Staff Availability for Work
Total Overtime Hours / Total Paid Field Hours	Indicator of Additional Staff Resource Requirements
# of Field Accidents with Lost Time / 1,000 Field Labour Hours	Field Accident Frequency
# of Lost Hours due to Field Accidents / 1,000 Field Labour Hours	Field Injury Severity
# of Field Employees per Age Category	Succession Planning Requirements
# of Field Employees Eligible for Retirement per Year Category	Succession Planning Requirements
GOAL: Provide Good Customer Service	
# of Wastewater Related Customer Complaints / 1,000 People Served	Customer Satisfaction
% of Calls for Service resolved within the Defined Level of Service	Customer Satisfaction



WWTP Performance Measures	What Do They Measure?
GOAL: Provide Reliable Service and Infrastructure	
Total of Unscheduled Maintenance Work/ Total Maintenance Work	Level of Reactive Maintenance
5 years Running Average Capital Reinvestment / Replacement Value	Level of Infrastructure Reinvestment
% of Time WWTP Operates with No Remaining System Redundancy	% of time WWTP operates while vulnerable to failure
GOAL: Provide Adequate Capacity	
% of Design AAF Capacity Utilized	Sufficiency of Plant Treatment Capacity
GOAL: Meet Service Requirements with Economic Efficiency	
# of O&M FTEs / 1,000 ML Treated	O&M Staffing Levels
# of Field FTEs / 1,000 ML Treated	Field Staffing Levels
Breakdown of O&M FTE's / 1,000ML Volume Treated	O&M Staffing Levels
Breakdown of O&M FTEs / 1,000,000 kg TSS removed – Primary WWTPs	O&M Staffing Levels
Liquid Train OM Costs / ML treated	Efficiency of Liquid Train
O&M Cost / ML Treated	Cost Effectiveness
O&M Cost ('000) as % of WWTP Replacement Value	Cost Effectiveness
(O&M Cost + Capital Reinvestment) / ML Treated	Cost Effectiveness
Total Operating Cost with Actual Indirect Charge-back / ML Treated	Cost Effectiveness
Indirect Costs as % of Total Operating Cost	Cost Effectiveness
Energy Consumed kWh / ML Treated	Energy Consumption
Cost of Purchased Energy / ML Treated	Energy Cost (Accounts for Energy Recovery)
Breakdown of Energy Consumed kWh / ML	Energy Consumption
Biosolids Thickening and Dewatering Cost / Dry Tonnes Dewatered	Cost and Dewatering Effectiveness
Biosolids Storage & Disposal Cost / Dry Tonnes Remaining after Processing	Cost and Storage & Disposal Effectiveness
Biosolids Management Cost / Mass Delivered for Processing	Cost Effectiveness



WWTP Performance Measures	What Do They Measure?
Regional Biosolids Management Cost / Mass Delivered for Processing	Cost Effectiveness
Total of Unscheduled Maintenance Work/ Total Maintenance Work	Maintenance Efficiency
GOAL: Protect the Environment	
# of Non-Compliances	Environmental Compliance
kg of BOD Discharged to Environment per Capita	BOD Discharged to the Environment
# of Bypasses in year	Environmental Compliance
GOAL: Provide a Safe and Productive Workplace	
Sick Days Taken per Field Employee	Indicator of Staff Morale & Absenteeism
Total Available Field Hours / Total Paid Field Hours	Staff Availability for Work
Breakdown of Unavailable Hours / Total Paid Hours	Staff Availability for Work
Total Overtime Hours / Total Paid Hours	Indicator of Additional Staff Resource Requirements
# of Field Accidents with Lost Time / 1,000 Field Labor Hours	Field Accident Frequency
# of Lost Hours due to Field Accidents / 1,000 Field Labour Hours	Field Injury Severity
# of Field Employees per Age Category	Succession Planning Requirements
# of Field Employees Eligible for Retirement per Year Category	Succession Planning Requirements
GOAL: Provide Good Customer Service	
# of Odour Complaints / 1,000 People Served	Customer Satisfaction

