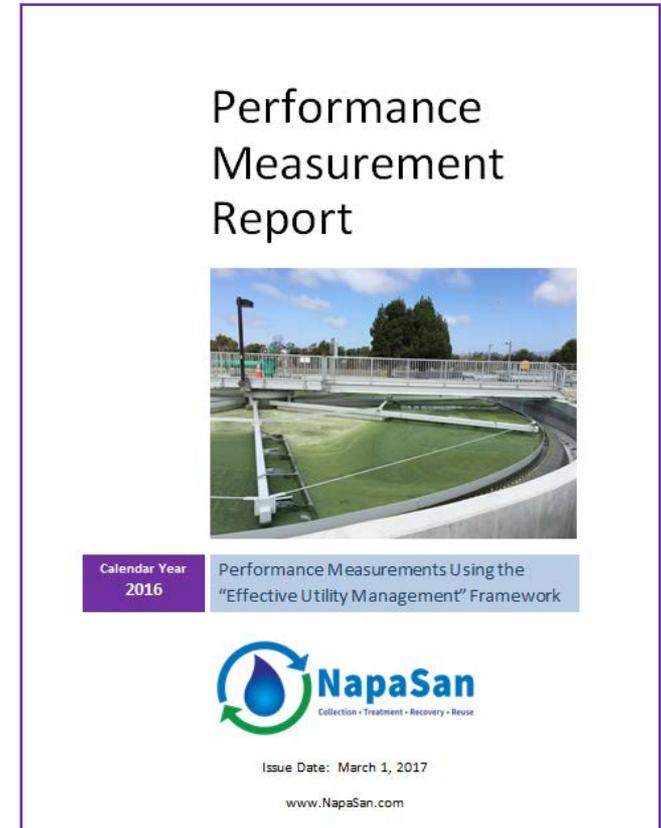




2016 Performance Measurement Report

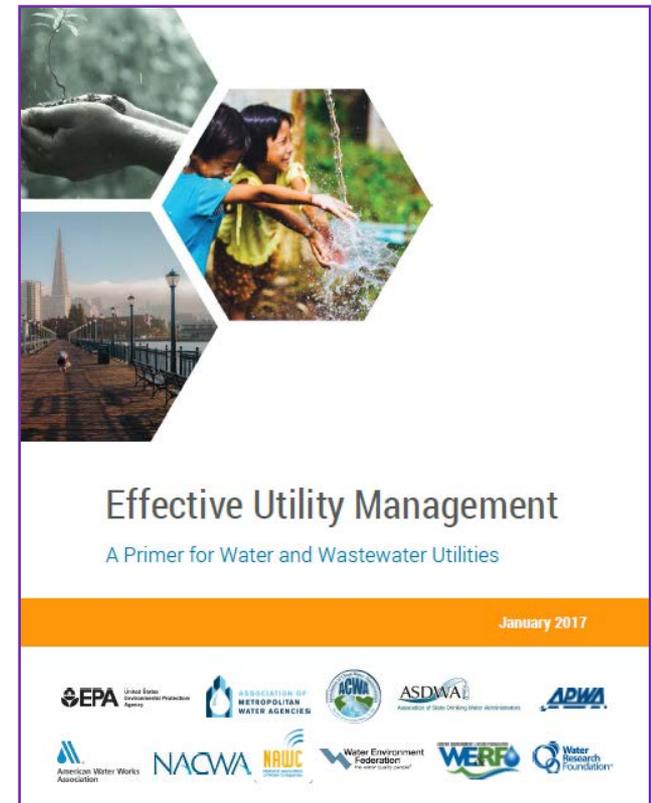
NapaSan
Board of Directors
March 1, 2017



Effective Utility Management

10 Attributes of Effectively Managed Water Utilities

- Product Quality
- Customer Service
- Employee Leadership and Development
- Operational Optimization
- Financial Viability
- Infrastructure Stability
- Operational Resiliency
- Community Sustainability
- Water Resource Adequacy
- Stakeholder Understanding & Support



Summary

- 63 Performance Measures
 - ★ • 52 (83%) “Satisfactory”
 - ◆ • 7 (11%) “Watch”
 - ▲ • 3 (5%) “Unsatisfactory”
 - ⊘ • 1 (2%) “No Measure / No Data”

Percentages do not add to 100% due to rounding



Product Quality

Attribute	Measurement	2016	Trend	Page
1. Product Quality	1-NPDES Compliance: Treatment for BOD and TSS Removal	★	★	17
	2-NPDES Compliance: Total Allowable BOD and TSS	★	★	18
	3-Sanitary Sewer Overflows (SSOs)	★	★	19
	4-Volume of Sewage Overflow	★	★	20
	5-Plugged Main Lines	★	★	21
	6-Recycled Water Quality	◆	◆	22



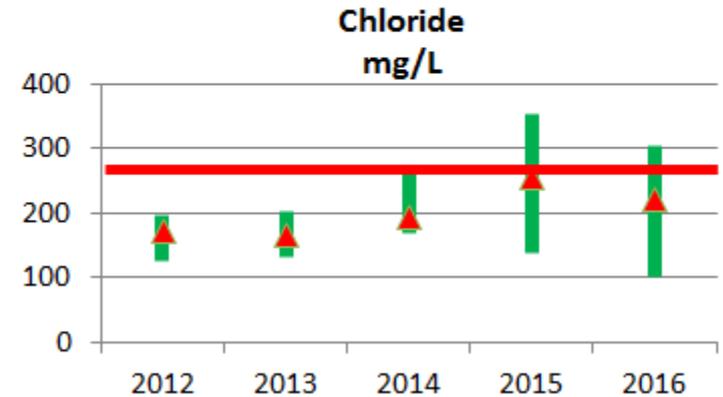
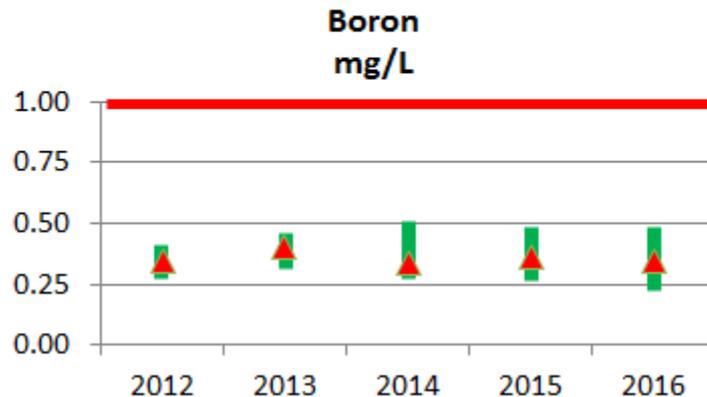
Product Quality

- Recycled Water Quality

Rating	
Current Year	5-Year Trend
 Watch	 Watch

Performance Data

-  Indicates the range within the year
-  indicates annual average
-  Indicates the maximum concentration for sensitive grape species





Customer Service

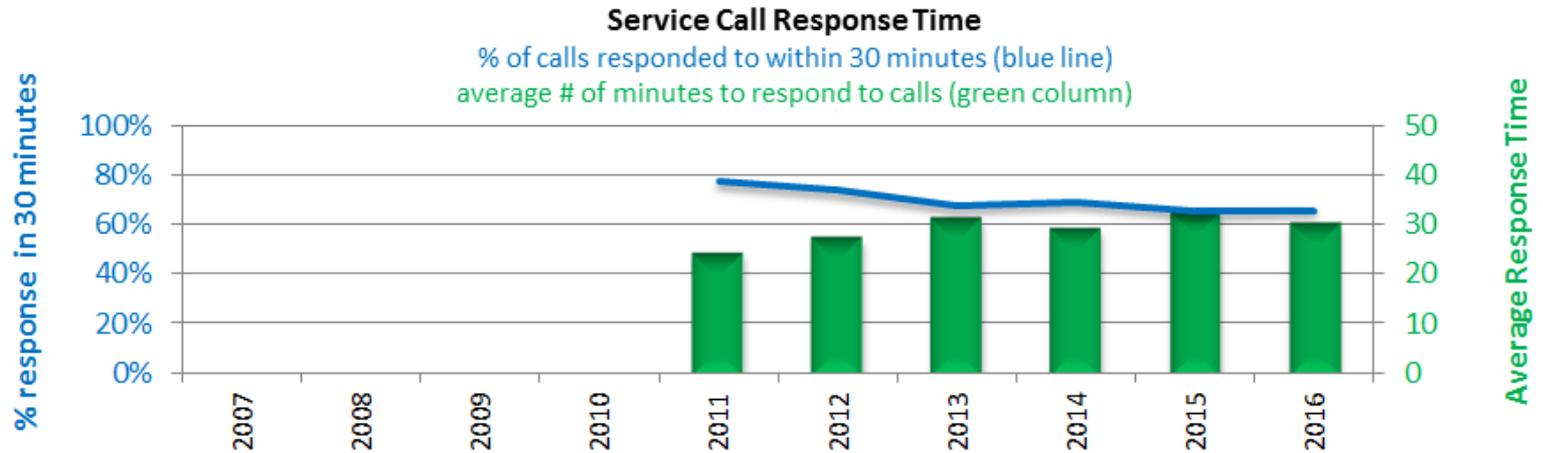
Attribute	Measurement	2016	Trend	Page
2. Customer Service	1-Service Calls for District Plugged Laterals	★	★	25
	2-Service Call Response Time	★	◆	26
	3-Development Review Response Time	★	★	27
	4-Customer Satisfaction	★	★	28



Customer Service

- Service Call Response Time

Rating	
Current Year	10-Year Trend
 Satisfactory	 Watch

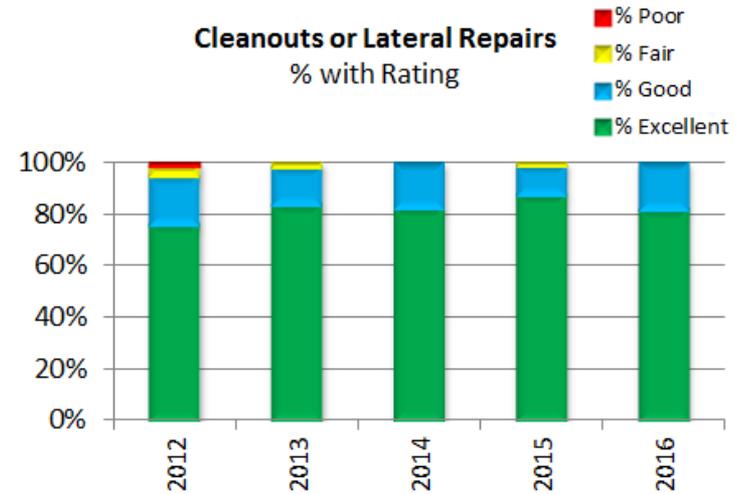
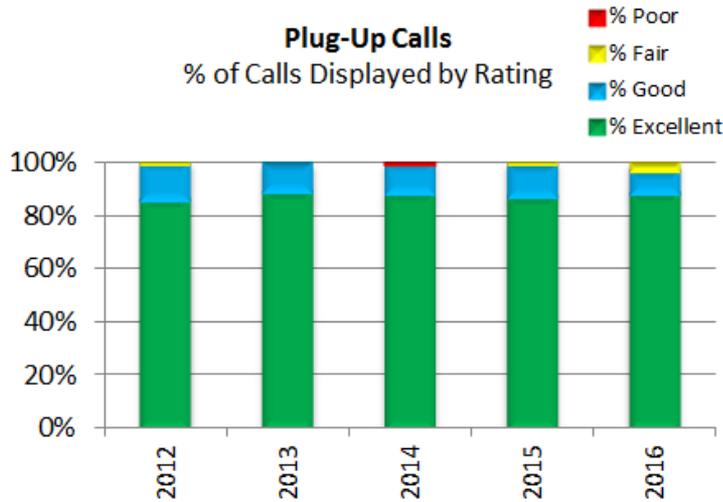




Customer Service

- Customer Satisfaction

Rating	
Current Year	5-Year Trend
★ Satisfactory	★ Satisfactory





Employee & Leadership Development

Attribute	Measurement	2016	Trend	Page
3. Employee and Leadership Development	1-Experience Turnover Rate	★	★	31
	2-Employee Satisfaction	★	★	32
	3-Total Training Hours	⊘	⊘	33
	4-Online Safety Training Hours	★	★	34
	5-Succession Planning	★	★	35
	6-Institutional Knowledge Capture	★	★	36



Operational Optimization

Attribute	Measurement	2016	Trend	Page
4. Operational Optimization	1-Electricity Self-Generation	★	★	39
	2-Electricity Consumption Efficiency	★	★	40
	3-Chemical Consumption	★	★	41
	4-Planned Maintenance Ratio-Collections	★	★	42
	5-Planned Maintenance Ratio-Treatment Plant	★	★	43

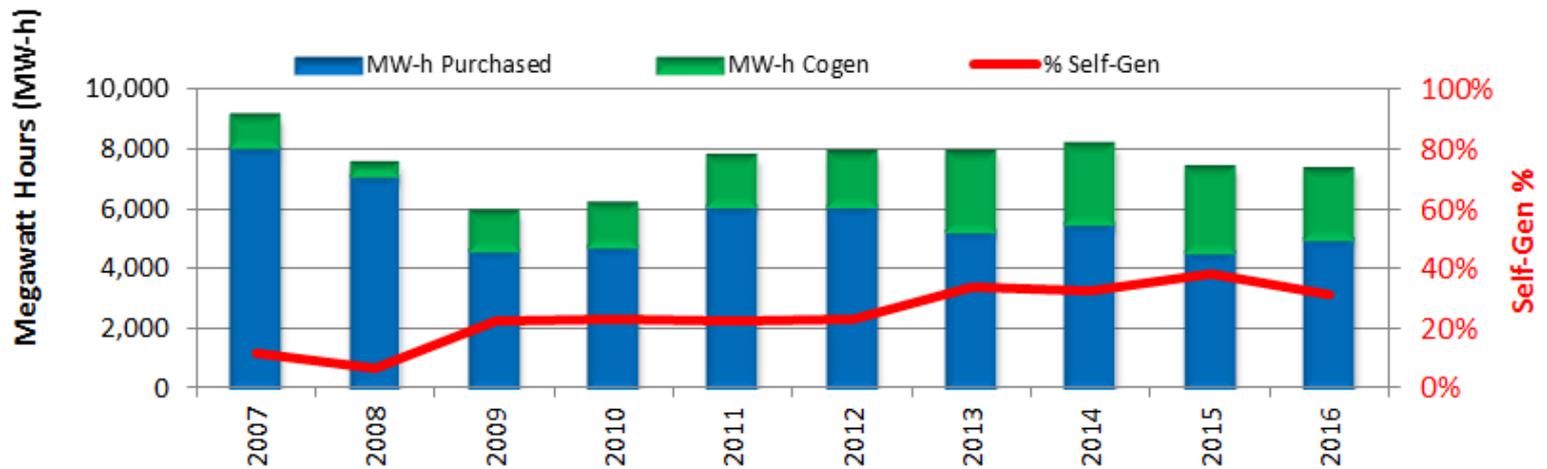


Operational Optimization

- Electricity Self-Generation

Rating	
Current Year	10-Year Trend
★ Satisfactory	★ Satisfactory

Electricity Consumed by Source
in MW-h, and Cogeneration as a % of total electricity used





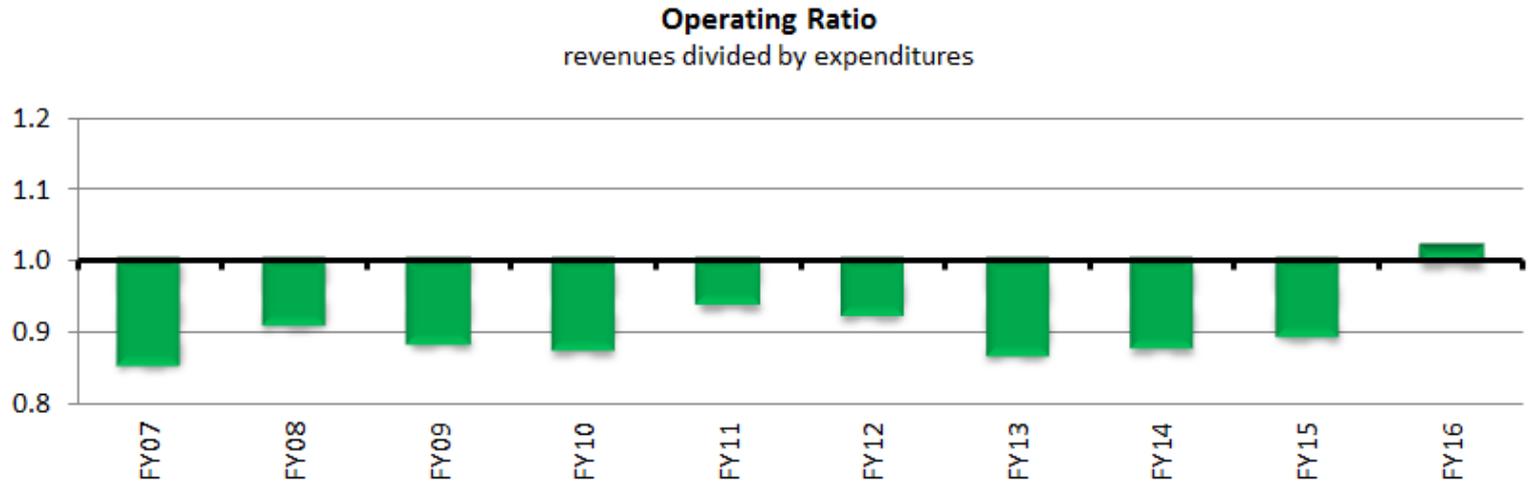
Financial Viability

Attribute	Measurement	2016	Trend	Page
5. Financial Viability	1-Operating Ratio	★	▲	47
	2-Current Ratio and Days Cash on Hand	★	★	48
	3-Capital Expenses Compared to Operating Expenses	★	★	49
	4-Debt Service Coverage Ratio	★	★	50
	5-Financial Procedure Integrity	★	★	51
	6-Bond Rating	★	★	52
	7-Financial Reserves	★	★	53

Financial Viability

- Operating Ratio

Rating	
Current Year	10-Year Trend
★ Satisfactory	▲ Unsatisfactory

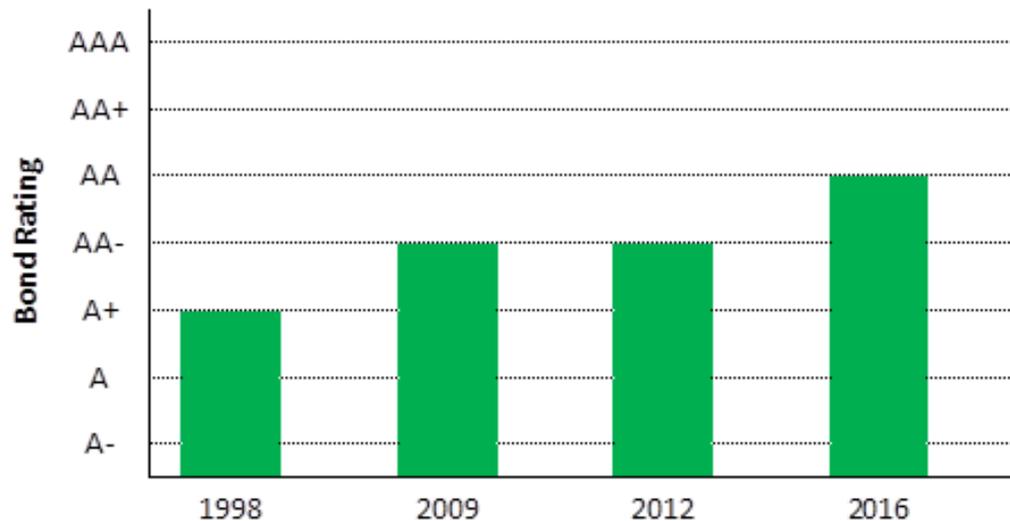




Financial Viability

- Bond Rating

Rating	
Current Year	10-Year Trend
★ Satisfactory	★ Satisfactory





Infrastructure Stability

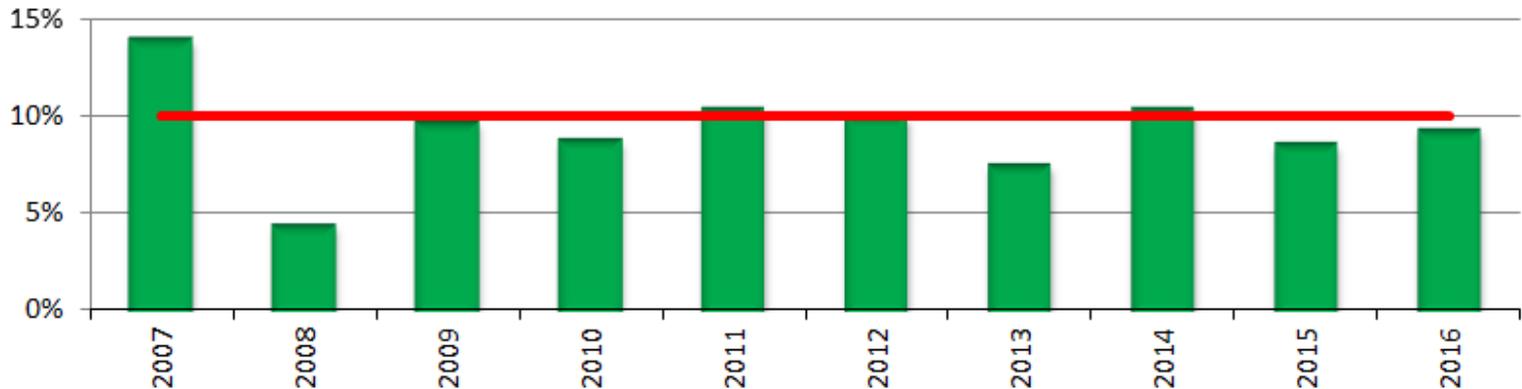
Attribute	Measurement	2016	Trend	Page
6. Infrastructure Stability	1-Asset Inventory			57
	2-Renewal & Replacement of Assets			58
	3-Sewer Main Condition Assessment			59
	4-Sewer Main Line Cleaning			60
	5-Food Service Establishment Inspections			61
	6-Sewer Main Renewal and Replacement			62
	7-Lower Sewer Lateral Renewal and Replacement			63
	8-Sewer Partial or Total Collapse Rate			64
	9-Recycled Water Service Availability			65

Infrastructure Stability

- Sewer Main Condition Assessment

Rating	
Current Year	10-Year Trend
 Watch	 Satisfactory

Main Line Condition Assessment
 % of sewer main lines video inspected each year

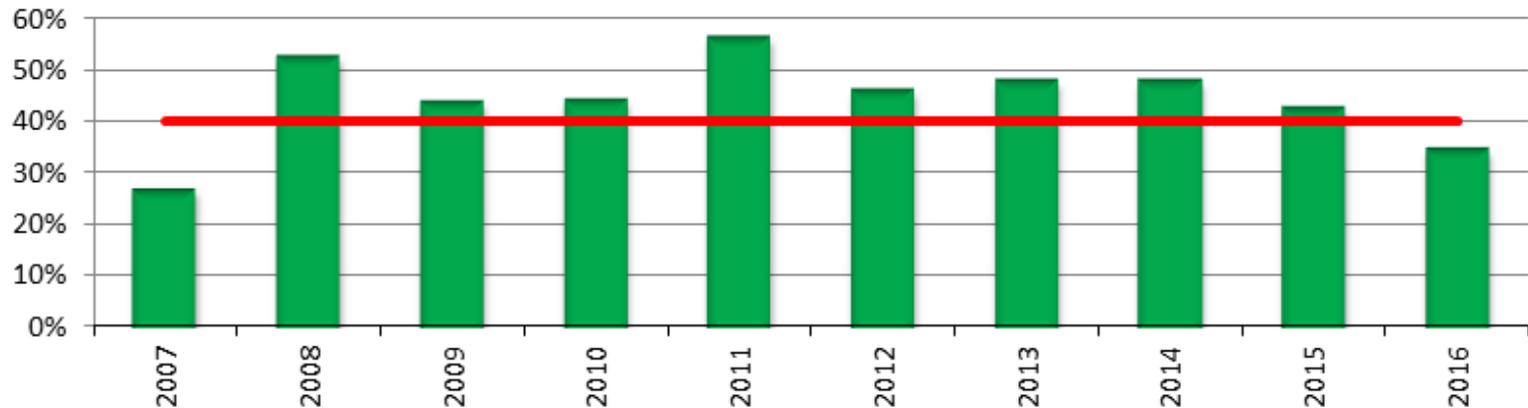


Infrastructure Stability

- Sewer Main Line Cleaning

Rating	
Current Year	10-Year Trend
▲ Unsatisfactory	★ Satisfactory

Sewer Main Line Cleaning
% of line cleaned each year



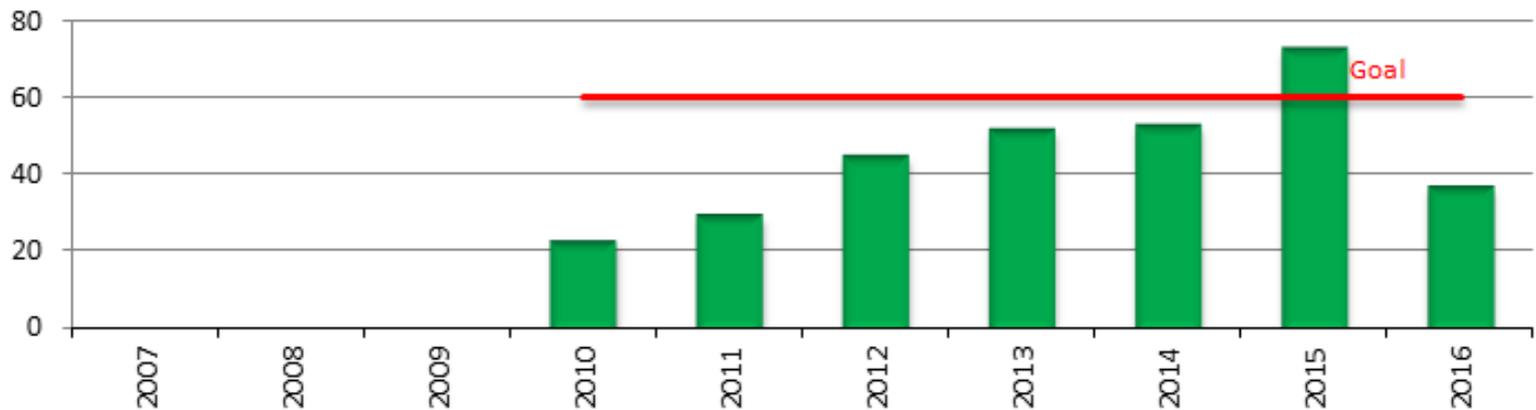


Infrastructure Stability

- Lower Sewer Lateral R&R

Rating	
Current Year	10-Year Trend
	
Unsatisfactory	Satisfactory

Lower Lateral Renewal & Replacement
of laterals replaced or rehabilitated





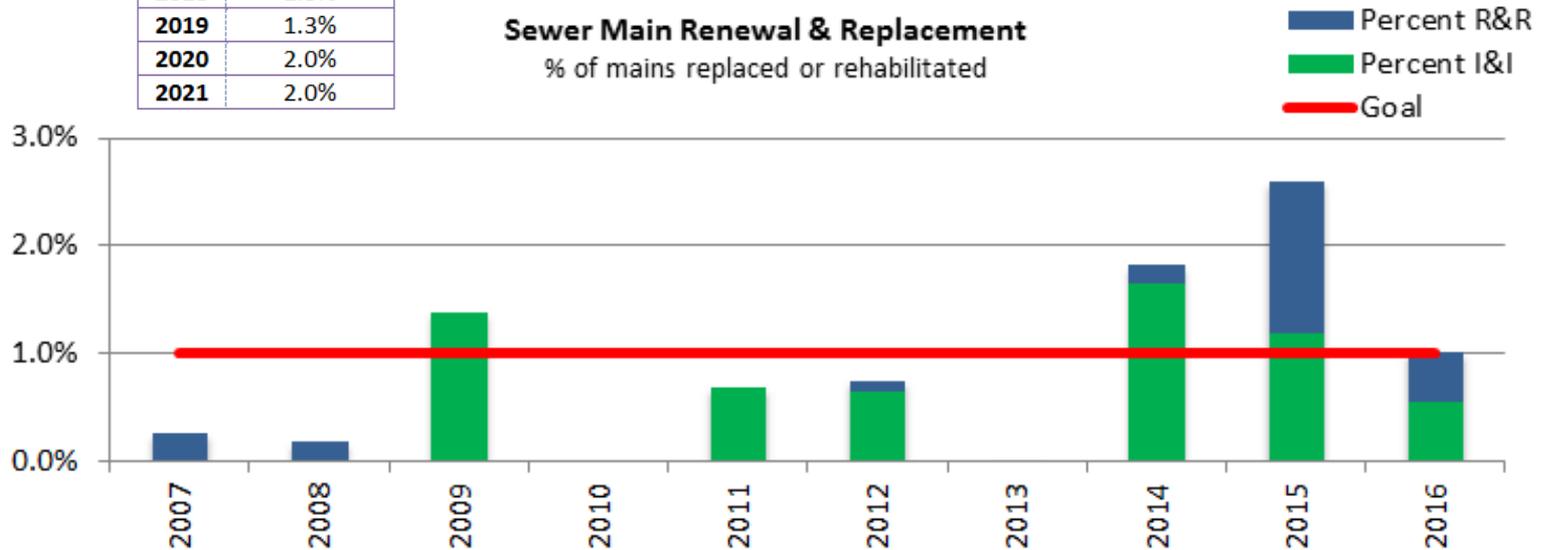
Infrastructure Stability

- Sewer Main Rehabilitation

Year	Replacement Goal
2016	1.0%
2017	1.3%
2018	1.3%
2019	1.3%
2020	2.0%
2021	2.0%

Rating	
Current Year	10-Year Trend
★ Satisfactory	★ Satisfactory

Sewer Main Renewal & Replacement
% of mains replaced or rehabilitated





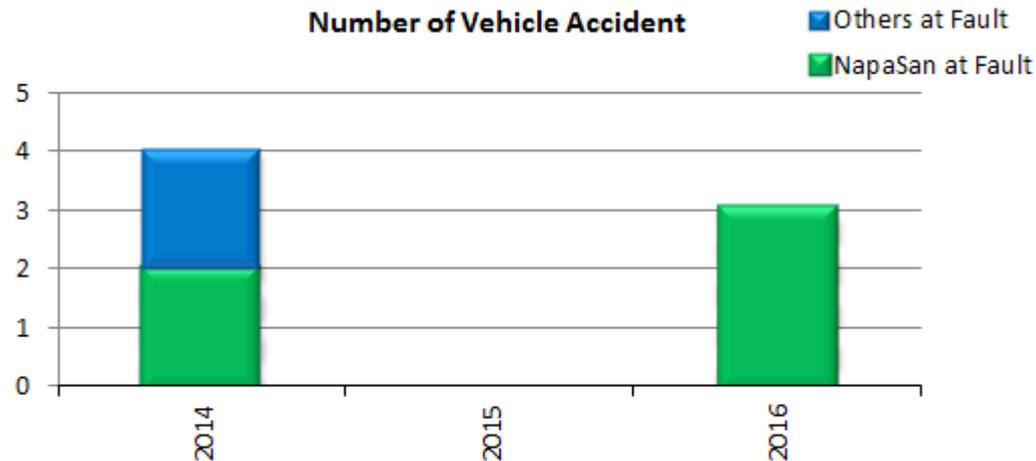
Operational Resiliency

Attribute	Measurement	2016	Trend	Page
7. Operational Resiliency	1-Total Recordable Incident Rate			69
	2-Vehicle Accident Rate			70
	3-Lost Time Hours			71
	4-Insurance Claims			72
	5-Experience Modification (XMOD) Rate			73
	6-Emergency Response Plans			74
	7-Uptime for Cogeneration Engine			75
	8-Uptime for Pumps at Pump Stations			76
	9-Resiliency Under Emergency Conditions: Power			77
	10-Resiliency Under Emergency Conditions: Staff			78
	11-Treatment Plant Capacity			79

Operational Resiliency

- Vehicle Accident Rate

Rating	
Current Year	3-Year Trend
 Watch	 Watch

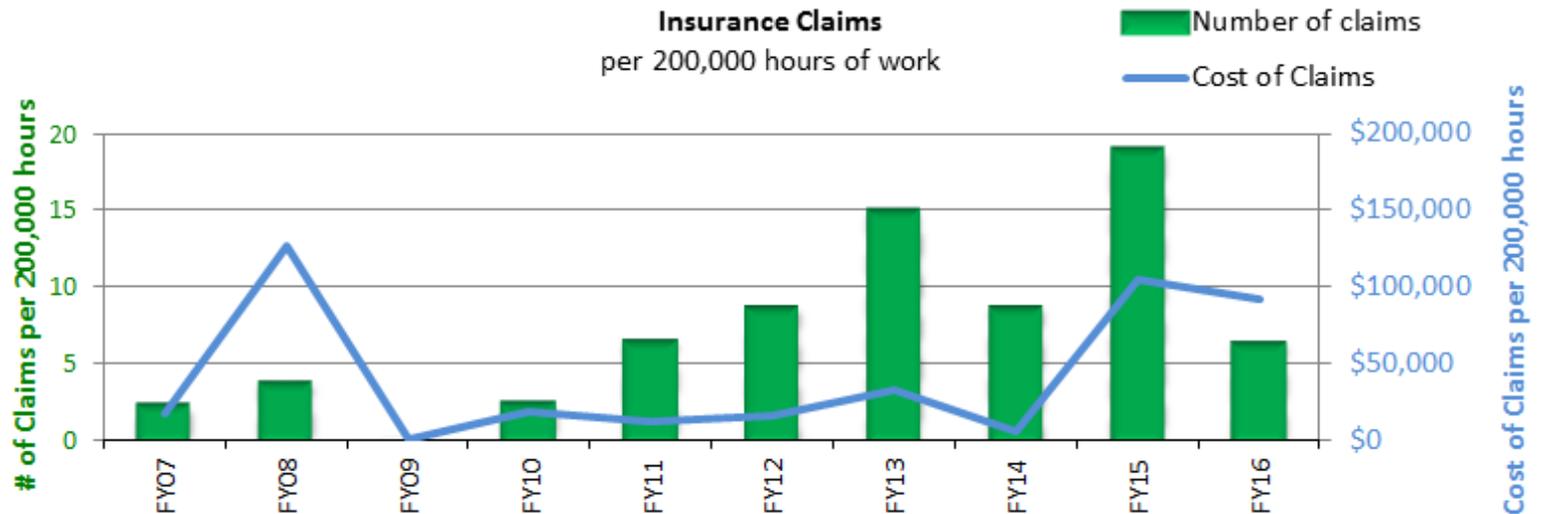




Operational Resiliency

- Insurance Claims

Rating	
Current Year	10-Year Trend
	
Watch	Watch





Community Sustainability

Attribute	Measurement	2016	Trend	Page
8. Community Sustainability	1-Watershed-based Infrastructure Planning	★	★	83
	2-Green Infrastructure – Programs	★	★	84
	3-Green Infrastructure – New Infrastructure	★	★	85
	4-Greenhouse Gas Emissions – Purchased Energy	★	★	86
	5-Digester Gas Beneficial Reuse	★	★	87
	6-Recycled Water Beneficial Reuse	★	★	88
	7-Biosolids Beneficial Reuse	★	★	89
	8-Sewer Service Charges - Affordability	★	★	90
	9-Low Income Billing Assistance	★	★	91

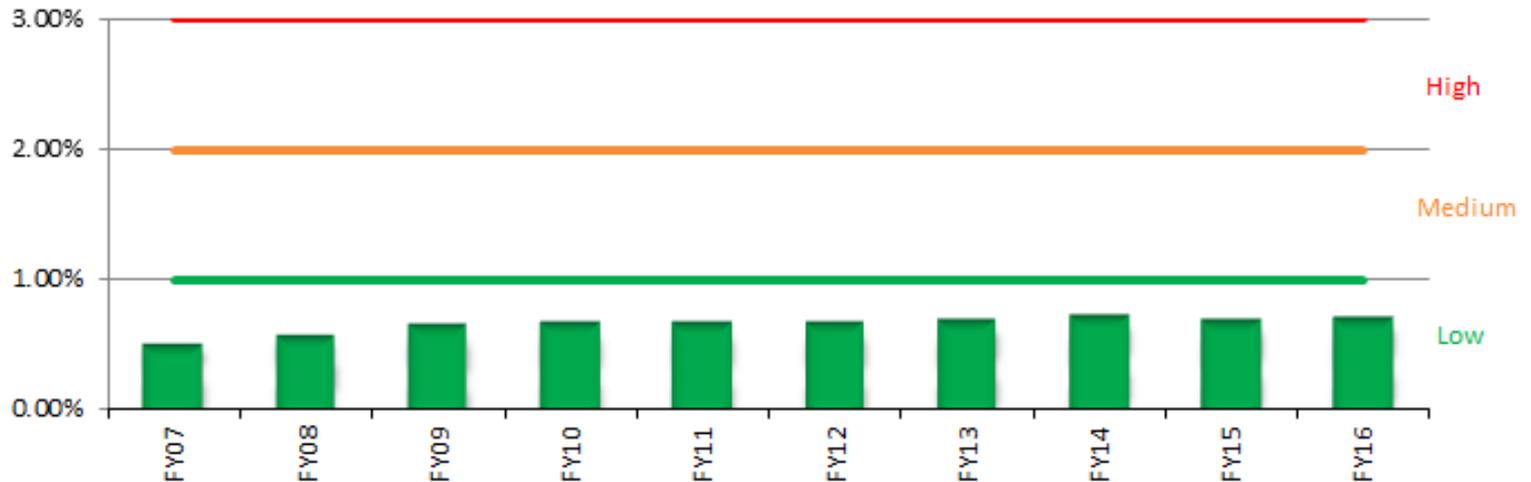


Community Sustainability

- Sewer Service Charge Affordability

Rating	
Current Year	10-Year Trend
★ Satisfactory	★ Satisfactory

Affordability of Sewer Service Charges (SSCs)
SSCs as a % of median household income
(lower is better)



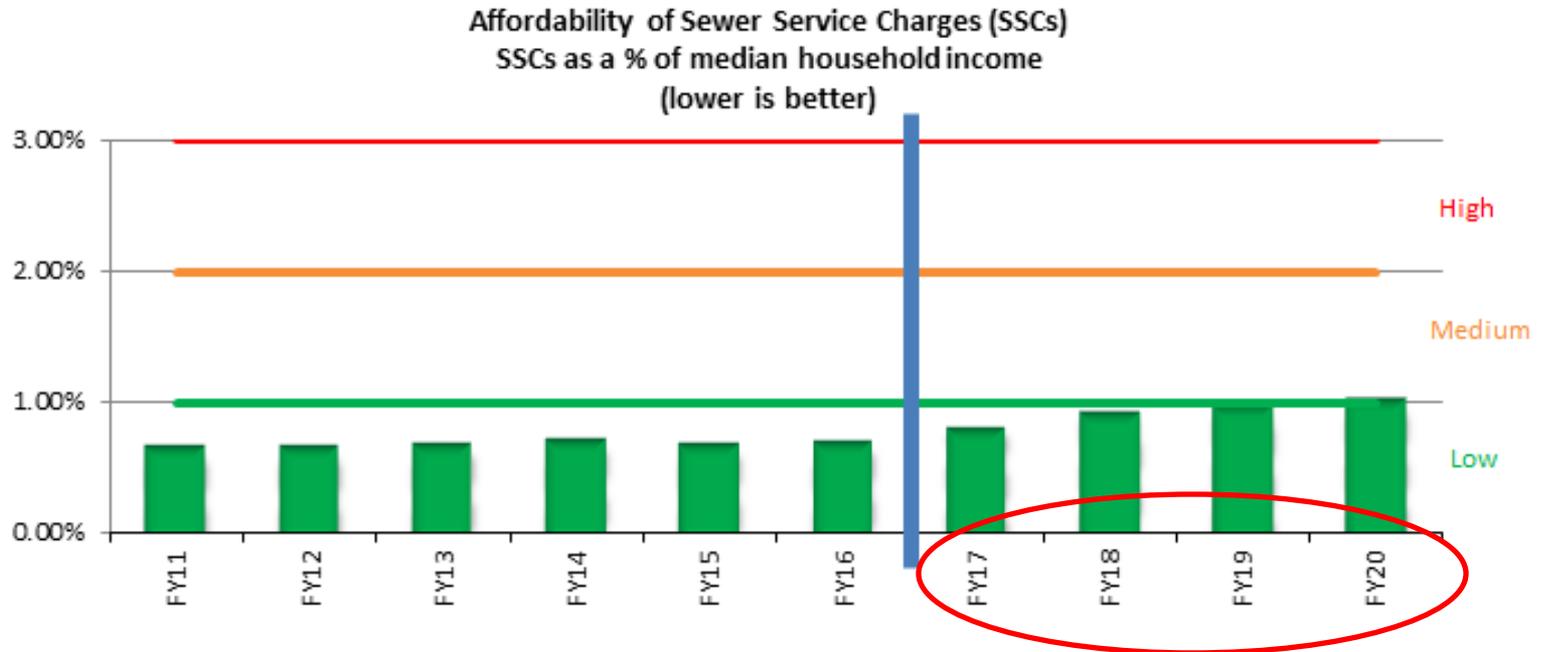


Community Sustainability

- Sewer Service Charge Affordability

Projection is compared against current MHI

Rating	
Current Year	10-Year Trend
★ Satisfactory	★ Satisfactory





Water Resource Adequacy

Attribute	Measurement	2016	Trend	Page
9. Water Resource Adequacy	1-Recycled Water Supply Adequacy	★	★	95



Stakeholder Understanding & Support

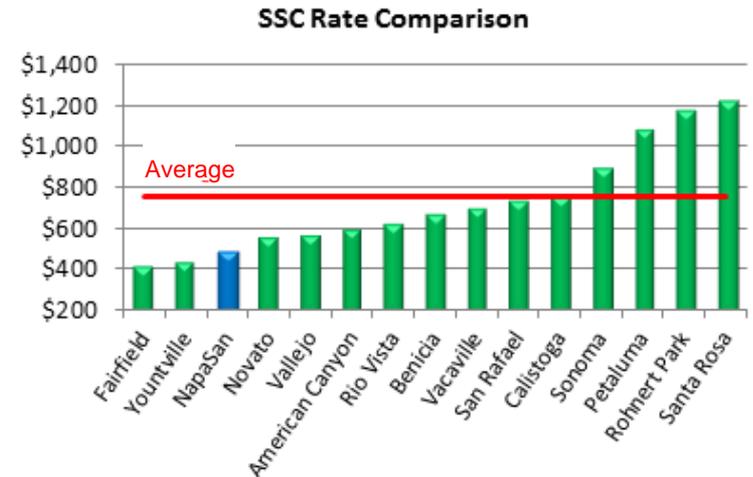
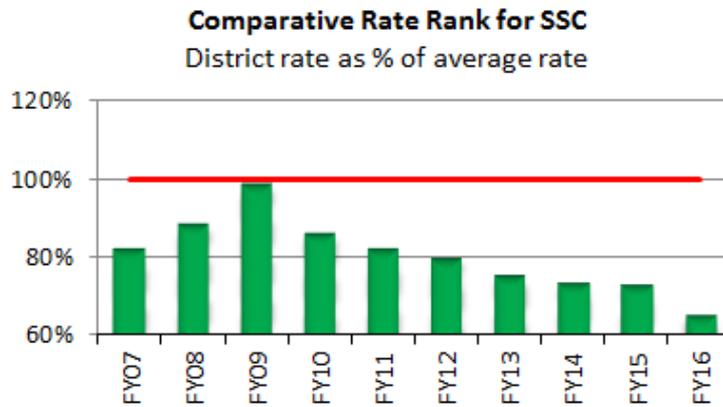
Attribute	Measurement	2016	Trend	Page
10. Stakeholder Understanding & Support	1-Stakeholder Consultation	★	★	99
	2-Public Education Presentations	★	★	100
	3-SSC Comparative Rate Rank	◆	◆	101
	4-Recycled Water Comparative Rate Rank	★	★	102
	5-Media/Press Coverage	▲	★	103



Stakeholder Understanding & Support

- Comparative Rate Rank

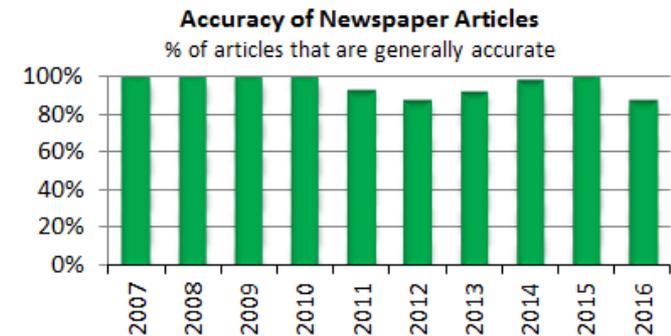
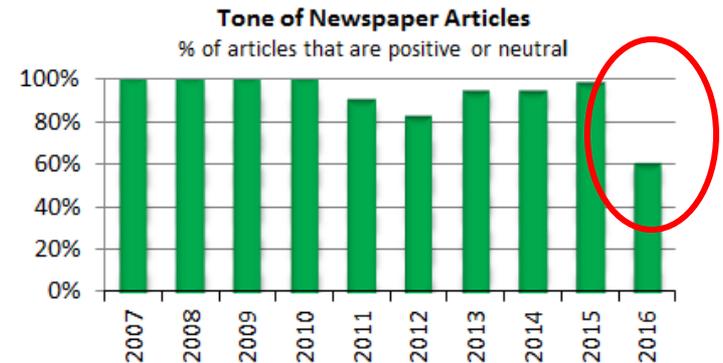
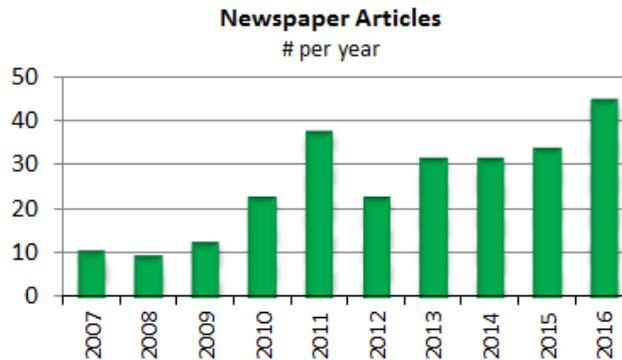
Rating	
Current Year	10-Year Trend
 Watch	 Watch



Stakeholder Understanding & Support

- Media / Press Coverage

Rating	
Current Year	10-Year Trend
▲	★
Unsatisfactory	Satisfactory



Questions / Comments

Performance Measurement Report



Calendar Year
2016

Performance Measurements Using the
“Effective Utility Management” Framework



Issue Date: March 1, 2017

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