



# 2015 Performance Measurement Report

NSD  
Board of Directors  
April 20, 2016

## Performance Measurement Report



Calendar Year  
2015

Performance Measurements Using the  
"Effective Utility Management" Framework



Issue Date: April 20, 2016

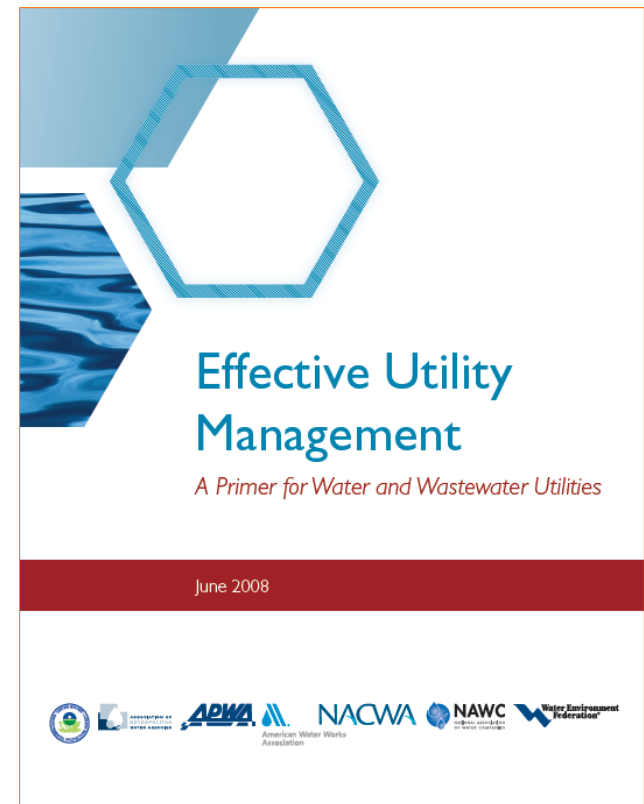
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# Effective Utility Management

## *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

- ★ • 51 (81%) “Satisfactory”

- ◆ • 7 (11%) “Watch”

- ▲ • 2 (3%) “Unsatisfactory”

- ⊘ • 3 (5%) “No Measure / No Data”



# Product Quality

Attribute	Measurement	2015	Trend	Page
1. Product Quality	1-Treatment for BOD and TSS Removal	★	★	15
	2-Total Allowable BOD and TSS	★	★	16
	3-Sanitary Sewer Overflows (SSOs)	★	★	17
	4-Volume of Sewage Overflow	★	★	18
	5-Plugged Main Lines	★	★	19
	6-Recycled Water Service Availability	★	★	20
	7-Recycled Water Reuse by Customers	★	★	21
	8-Biosolids Put to Beneficial Reuse	★	★	22





# Customer Service

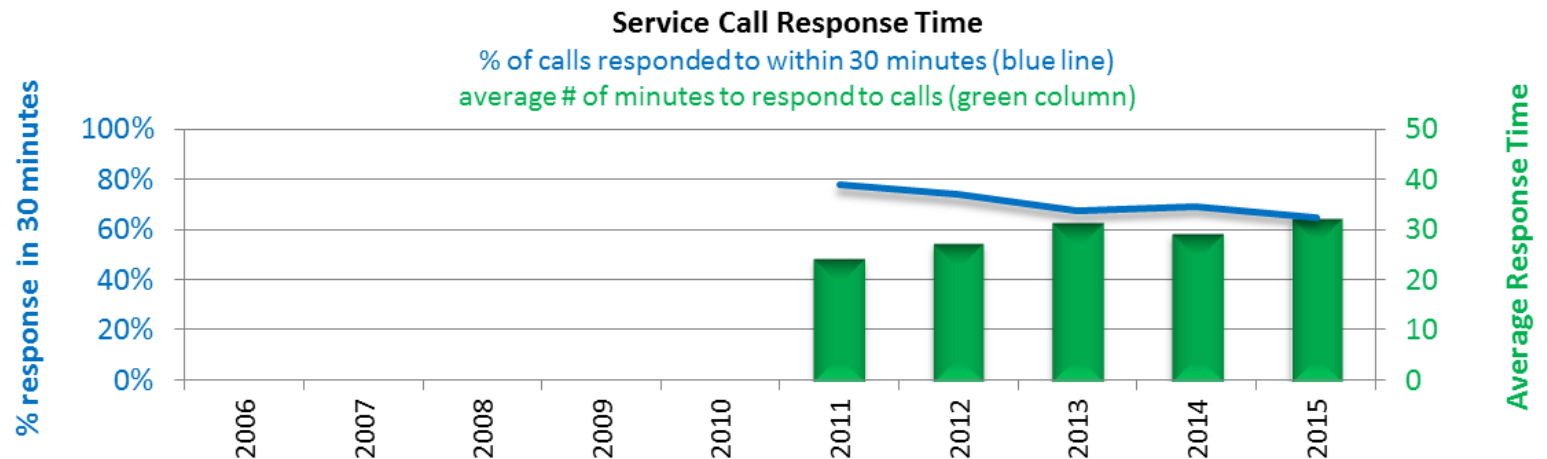
Attribute	Measurement	2015	Trend	Page
2. Customer Service	1-Service Calls for District Plugged Laterals	★	★	23
	2-Service Call Response Time	◆	◆	24
	3-Development Review Response Time	★	★	25
	4-Customer Satisfaction	★	★	26



# Customer Service

- Service Call Response Time

Rating	
Current Year	10-Year Trend
 Watch	 Watch

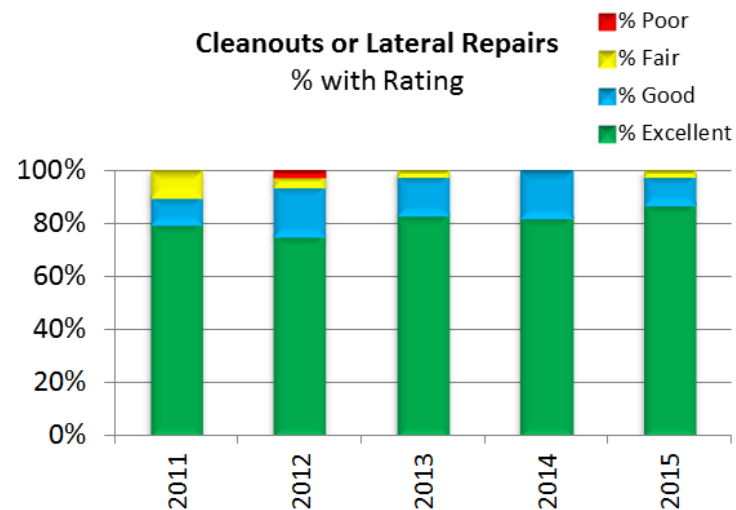
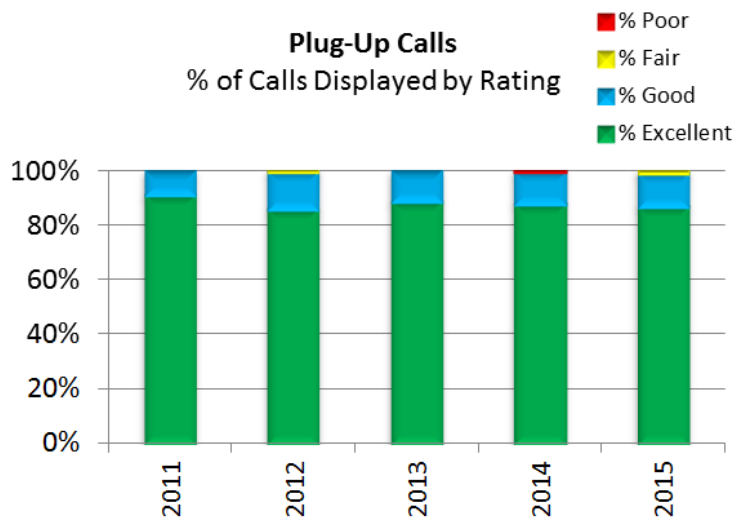




# Customer Service

- Customer Satisfaction

Rating	
Current Year	5-Year Trend
 Satisfactory	 Satisfactory





# Employee & Leadership Development

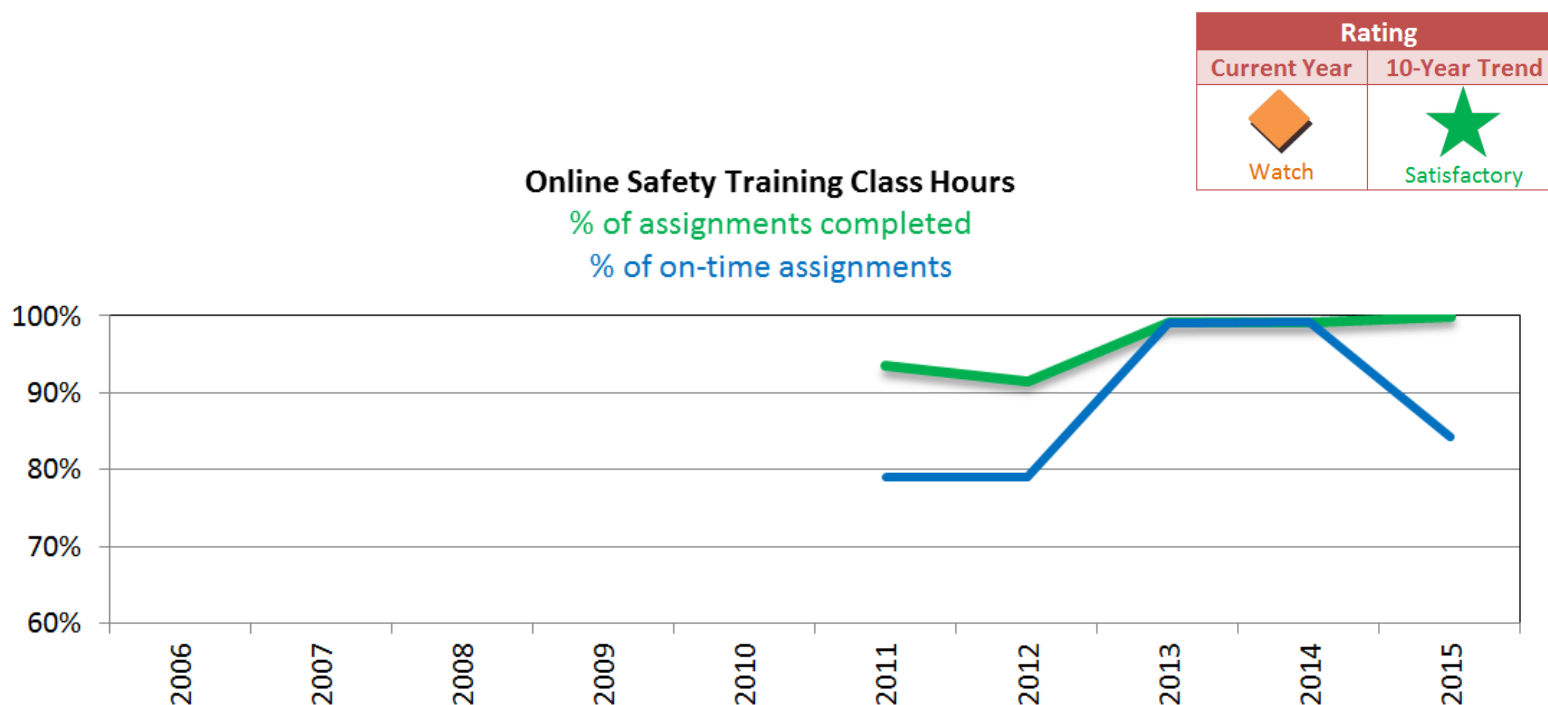
Attribute	Measurement	2015	Trend	Page
3. Employee and Leadership Development	1-Experience Turnover Rate	★	★	27
	2-Employee Satisfaction	⊘	★	28
	3-Total Training Hours	⊘	⊘	29
	4-Online Safety Training Hours	◆	★	30
	5-Succession Planning	★	★	31
	6-Institutional Knowledge Capture	⊘	★	32





# Employee & Leadership Development

- Online Safety Training Hours





# Operational Optimization

Attribute	Measurement	2015	Trend	Page
4. Operational Optimization	1-Electricity Consumption by Source	★	★	33
	2-Electricity Consumption Efficiency	★	★	34
	3-Chemical Consumption	★	★	35



# Financial Viability

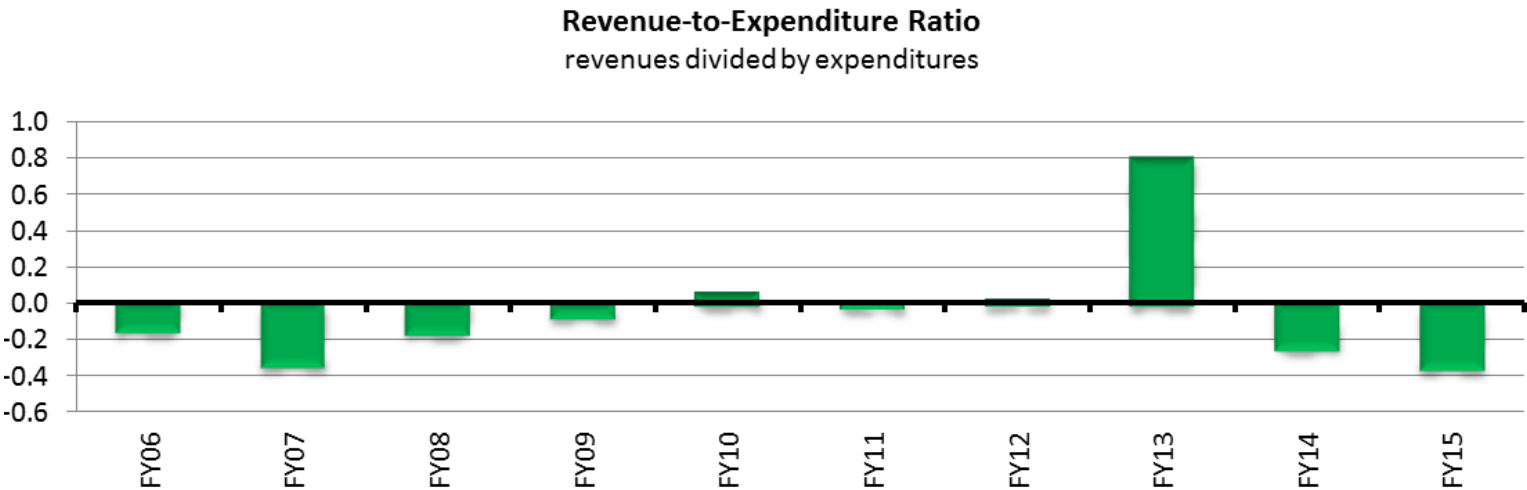
Attribute	Measurement	2015	Trend	Page
5. Financial Viability	1-Revenue-to-Expenditure Ratio	▲	◆	36
	2-Capital Expenses Compared to Operating Expenses	★	★	37
	3-Debt Service Coverage Ratio	★	★	38
	4-Financial Procedure Integrity	★	★	39
	5-Bond Rating	★	★	40
	6-Sewer Service Charges Compared to Inflation	★	★	41
	7-Rates Based on Life-cycle Cost	◆	◆	42
	8-Rate Stabilization Reserve	★	★	43



# Financial Viability

- Revenue-to-Expenditure Ratio

Rating	
Current Year	10-Year Trend
	
Unsatisfactory	Watch





# Infrastructure Stability

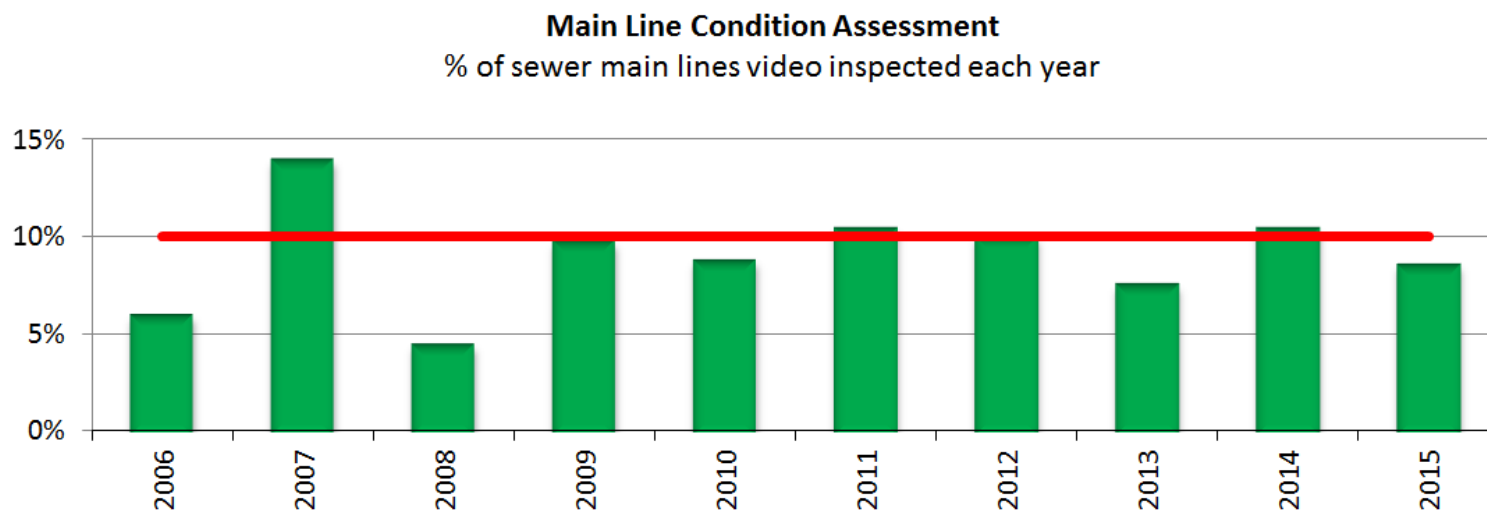
Attribute	Measurement	2015	Trend	Page
6. Infrastructure Stability	1-Asset Inventory	◆	◆	44
	2-Sewer Main Condition Assessment	◆	★	45
	3-Renewal & Replacement of Assets	★	★	46
	4-Sewer Main Renewal and Replacement	★	◆	47
	5-Lower Sewer Lateral Renewal and Replacement	★	★	48
	6-Collection System Failure Rate	★	★	49
	7-Plant Planned Maintenance Ratio	★	★	50
	8-Collections Planned Maintenance Ratio	★	★	51
	9-Sewer Main Line Cleaning	★	★	52
	10-Pollution Prevention Inspections	★	★	53



# Infrastructure Stability

- Sewer Main Condition Assessment

Rating	
Current Year	10-Year Trend
 Watch	 Satisfactory

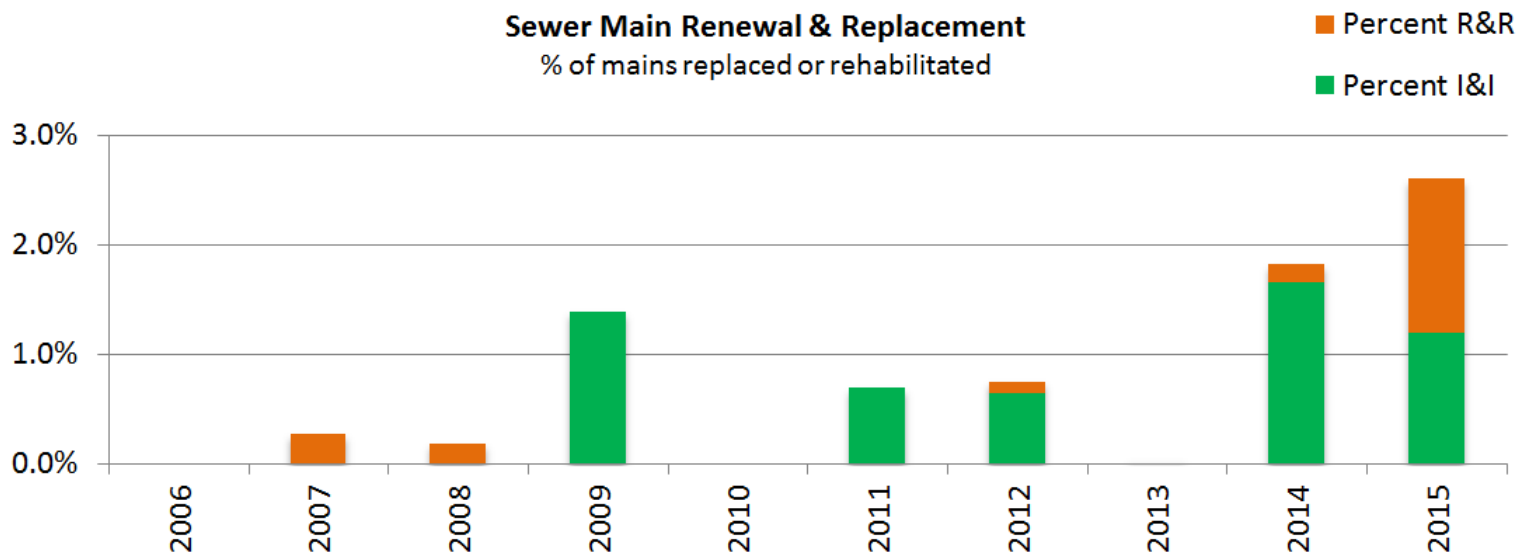




# Infrastructure Stability

- Sewer Main Rehabilitation

Rating	
Current Year	10-Year Trend
 Satisfactory	 Watch



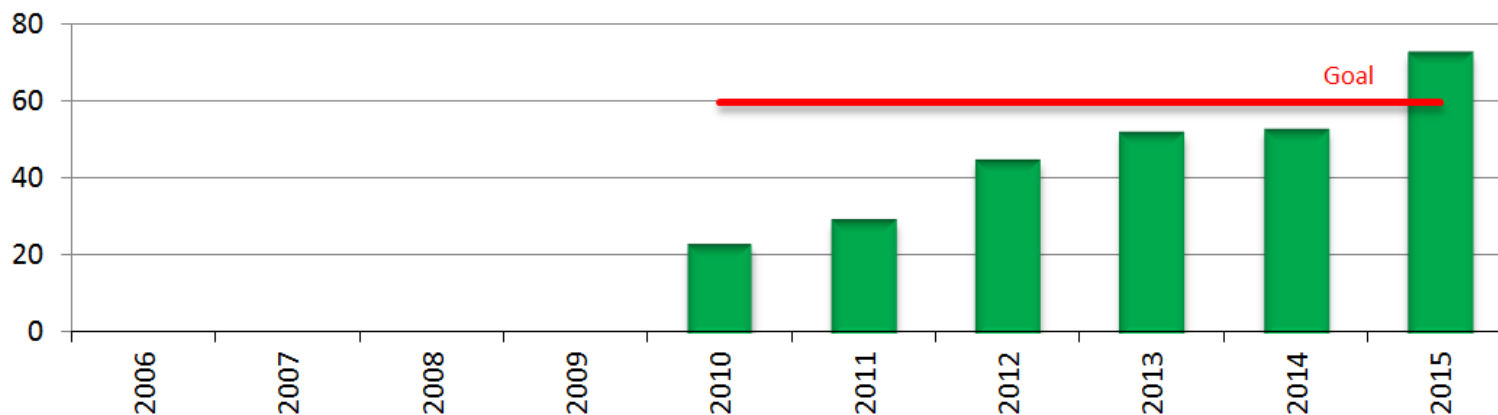


# Infrastructure Stability

- Lower Sewer Lateral R&R

Rating	
Current Year	10-Year Trend
 Satisfactory	 Satisfactory

Lower Lateral Renewal & Replacement  
# of laterals replaced or rehabilitated







# Operational Resiliency

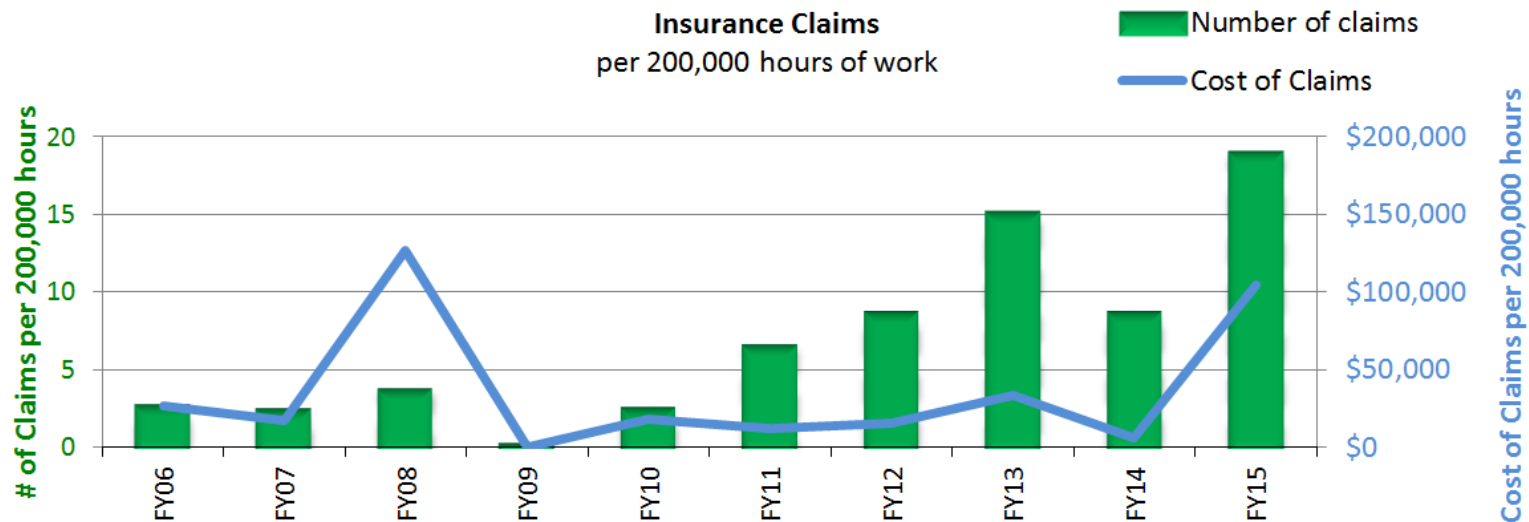
Attribute	Measurement	2015	Trend	Page
7. Operational Resiliency	1-Total Recordable Incident Rate	★	★	54
	2-Lost Time Hours	★	★	55
	3-Insurance Claims	▲	◆	56
	4-Experience Modification (XMOD) Rate	★	★	57
	5-Emergency Response Plans	★	★	58
	6-Emergency Response Plan Training	★	★	59
	7-Uptime for Cogeneration Engine	★	★	60
	8-Uptime for Pumps at IPS	★	★	61
	9-Resiliency Under Emergency Conditions: Power	★	★	62
	10-Resiliency Under Emergency Conditions: Critical Parts and Equipment Resiliency	★	★	63
	11-Resiliency Under Emergency Conditions: Staff	★	★	64
	12-Treatment Operations Resiliency	★	★	65



# Operational Resiliency

- Insurance Claims

Rating	
Current Year	10-Year Trend
	
Unsatisfactory	Watch

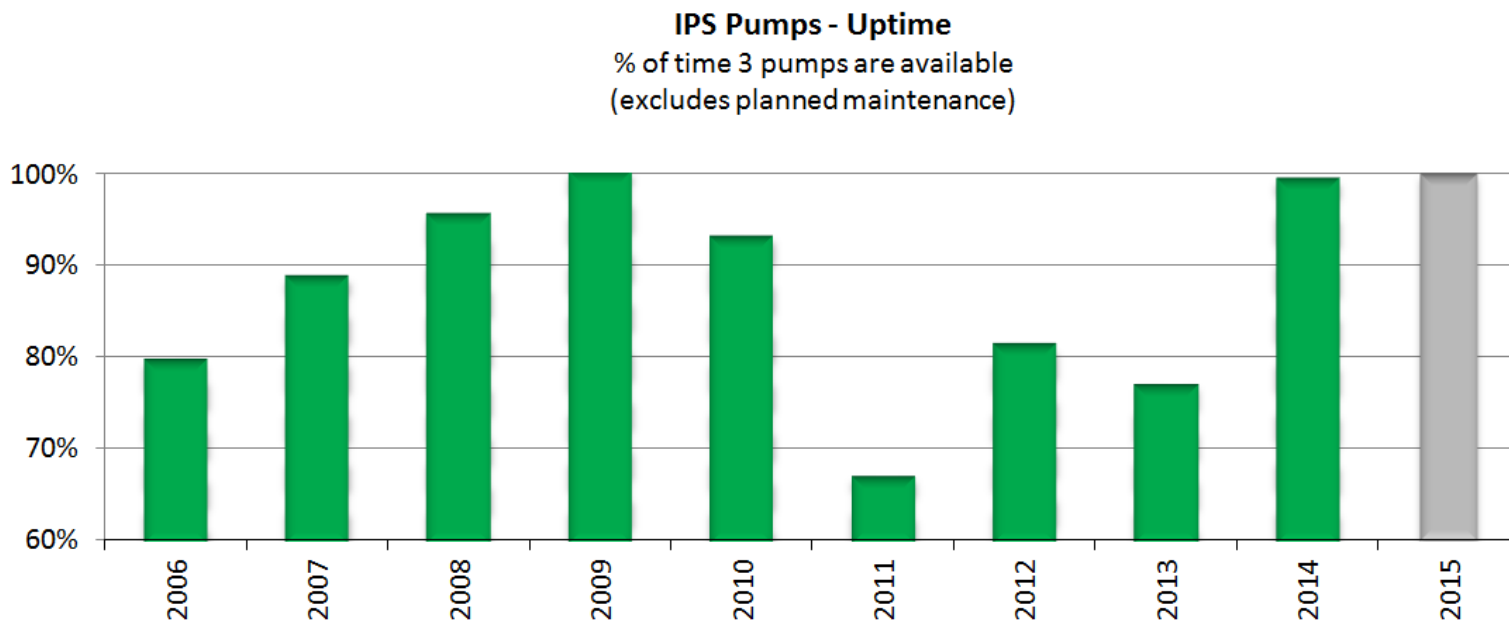




# Operational Resiliency

- Influent Pump Station

Rating	
Current Year	10-Year Trend
★ Satisfactory	★ Satisfactory





# Community Sustainability

Attribute	Measurement	2015	Trend	Page
8. Community Sustainability	1-Watershed-based Infrastructure Planning	★	★	66
	2-Green Infrastructure – Programs	★	★	67
	3-Green Infrastructure – New Infrastructure	★	★	68
	4-Greenhouse Gas Emissions – Purchased Energy	★	★	69
	5-Digester Gas Beneficial Reuse	★	★	70
	6-Sewer Service Charge Affordability	★	★	71
	7-Low Income Billing Assistance	★	★	72



# Water Resource Adequacy

Attribute	Measurement	2015	Trend	Page
9. Water Resource Adequacy	1-Short-term Water Supply Adequacy	★	★	73
	2-Long-term Water Supply Adequacy	◆	◆	74





# Stakeholder Understanding & Support

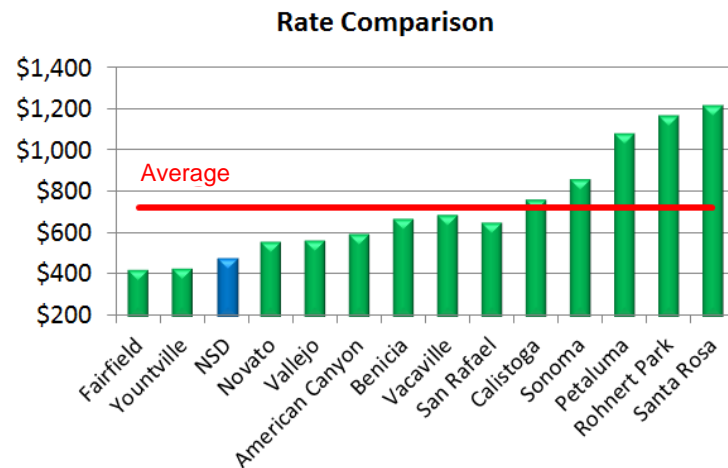
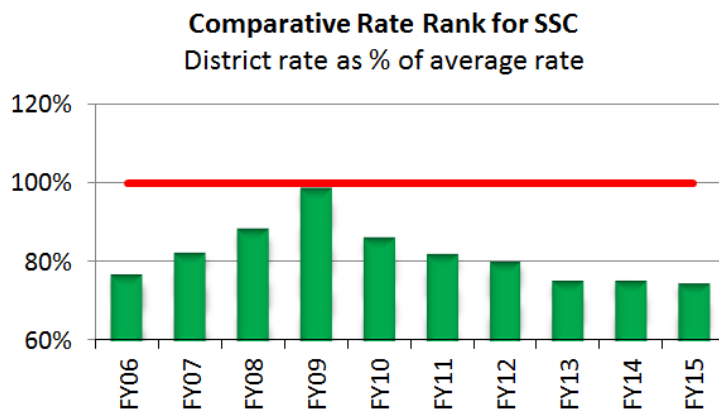
Attribute	Measurement	2015	Trend	Page
10. Stakeholder Understanding & Support	1-Stakeholder Consultation	★	★	76
	2-Comparative Rate Rank	◆	◆	77
	3-Media/Press Coverage	★	★	78



# Stakeholder Understanding & Support

- Comparative Rate Rank

Rating	
Current Year	10-Year Trend
 Watch	 Watch





# Changes from Prior Year

	<u>2014</u>	<u>2015</u>
Service Call Response Time	★	◆
Online Safety Training Hours	★	◆
Revenue-to-Expenditure Ratio	★	▲
Rates Based on Life-cycle Cost	★	◆
Sewer Main Condition Assessment	★	◆
Lower Sewer Lateral R&R	◆	★
Insurance Claims	◆	▲
IPS	▲	★





# Questions / Comments

## Performance Measurement Report



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