



Asset Management Workshop

April 21, 2015

Weston&Sampson

Presentation Outline

- What is Asset Management?
- Present results of facilities evaluation
- Discuss funding scenarios
- Effort funded with 50% grant from NHDES

Preface

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What is Asset Management?

- Determine the current state of system assets
- Identify assets that are critical to system operation
- Determine asset life-cycle costs
- Develop long-term funding strategy
- Maintain desired level of service
- Living document
- EPA and NHDES driven methodology to replace “utilize to failure/bond for capital improvements” approach

Preface

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Benefits of Asset Management

- Increase Asset Life
 - Focus on asset rehabilitation and repair
- Identify Critical Components
- Analyze Rate Structure
 - Fund future improvements & operating expenses
- System Sustainability
 - Paradigm shift - funds needed in present vs. future
 - Meet level of service & improve system knowledge

Preface

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Draft Level of Service Statement

- *The Ashland Water & Sewer Department (the Department) has steadily improved the quality, quantity and reliability of the water supply and system under their management. The level of service the Department strives for is providing its water customers with the best water quality and service possible with the water system and funds available to them. Water quality is of paramount importance and shall be held to the following standards:*
 - *Meet all National and State Primary Drinking Water Regulations 100% of the time.*
 - *Meet secondary, non-regulated drinking water standards when possible.*
- *To achieve a high standard of water quality, the water system needs to be properly funded through customers' water rates. Water rates should be set to not only cover the current costs, repairs and maintenance of the water system but should also include an appropriation to fund future water system capital improvements.*

Level of Service



Project Timeline

- November 2013
 - Applied for NHDES Grant (1 of 10 recipients)
- July 2014
 - NHDES grant award
- November 2014
 - Town contracted Weston & Sampson
- February 2014
 - Level of service determination meeting / Facilities Walkthrough
- March – April 2015
 - Asset management database development
 - Financial planning analysis

Schedule



Facilities Walkthrough

- February 17, 2015
 - Asset condition
 - Service history
 - Importance to system
 - Redundancy
 - Criticality

Thanks Eli & Rusty!

Database Development



Asset Management Database

Asset	Year Constructed	Condition	Service History	Expected Useful Life	Revised Useful Life	Age	Remaining Useful Life
Treatment Building							
Building Condition	1997	Good		30	40	18	22
Electrical	1997	Good	Flow meter calibrated in 2014	20	20	18	2
Generator (CAT)	1997	Good	ATS is due for general service, oil changed annually	30	30	18	12
Instrumentation	1997	Good		15	20	18	2
Chemical Feed (25% NaOH)							
Pumps (2)	2011	Good		10	10	4	6
Transfer Pump	2015	Excellent	Replaced in 2015	15	15	0	15
Bulk Tank	1997	Fair		20	20	18	2
Day Tank	1997	Fair		20	20	18	2
Chemical Feed (12.5% Chlorine)							
Pump	2014	Good		10	10	1	9
Day Tank	2009	Good		20	20	6	14
Chemical Feed (poly phosphate)							
Pump	2003	Good		10	15	12	3

Database Development



Asset Management Database

Asset	Remaining Useful Life	Importance	Redundancy	Criticality (1 is high)
Treatment Building				
Building Condition	22	Shelter for system components	None	4
Electrical	2	Needed for service	Generator	4
Generator (CAT)	12	Required for emergency power	None - sole function provides redundancy	5
Instrumentation	2	Required for control	None - system can be run in manual	4
Chemical Feed (25% NaOH)				
Pumps (2)	6	pH adjustment	Spare LMI pump as well as rebuild kits on site	6
Transfer Pump	15	pH adjustment	Spare LMI pump as well as rebuild kits on site	6
Bulk Tank	2	pH adjustment	None	6
Day Tank	2	pH adjustment	None	6
Chemical Feed (12.5% Chlorine)				
Pump	9	Disinfection	Spare LMI pump as well as rebuild kits on site	6
Day Tank	14	Disinfection	None	6
Chemical Feed (poly phosphate)				
Pump	3	Corrosion control	Spare LMI pump as well as rebuild kits on site	6

Database Development



Database Interpretation

- Condition Assessment
 - Overall, assets are in good condition
- Remaining Useful Life
 - Treatment building chemical tanks
 - Electrical & instrumentation update

Database Development



Database Interpretation

- Redundancy
 - Most major components have redundant units
 - Only one storage tank
 - Redundancy of wells vs. adjacent location
- Criticality
 - Few items receiving high criticality rankings
 - Positive aspect!

Database Development



Financial Planning

- Expense and Revenue Assessment
 - Fiscal years 2011-2013
- Current Rate Structure Analysis
- Long-Term Funding Strategy

Financial Planning



Expense & Revenue Assessment

	2011	2012	2013
Payments to Suppliers	\$102,075	\$121,741	\$116,887
Payments to Employees	\$22,950	\$22,557	\$17,833
Total Expenses:	\$125,025	\$144,298	\$134,720
Receipts from Customers	\$167,281	\$185,344	\$179,325
Total Revenues:	\$167,281	\$185,344	\$179,325
Net Income:	\$42,256	\$41,046	\$44,605

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Expense & Revenue Assessment

- Major Findings
 - Revenues/Expenses are consistent
- Depreciation was not included when considering water system expenses
 - Cash-based vs. accrual-based accounting

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Additional Reserve Funding

- Annual valuation of ~\$55,000 for all system assets
 - Total cost to replace asset vs. remaining useful life
- 2011-2013 average net income: ~\$42,500
- Additional funding up to ~\$12,500/year
 - To provide an economy of scale for total system value

Financial Planning

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Water Rate Structure

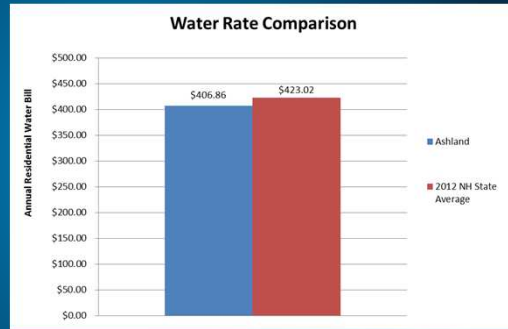
- Current Rate Structure (Residential User)
 - \$60 base charge, annually
 - \$3.85 per 1,000 gallons usage charge
- 2012 NHDES Water Rate Survey
 - 67,389 gallons/year residential usage
 - \$423.02 average annual water bill – NH residential customer

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Rate Structure

- Comparison to State Average:
 - \$406.86 Town of Ashland
 - \$423.02 NH State Average



Financial Planning

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Long-Term Funding Strategy

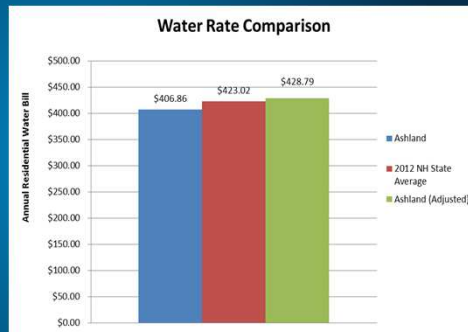
- Grants & outside funding
 - State Revolving Fund (SRF)
 - NH Community Development Finance Authority
 - U.S. Economic Development Administration
 - USDA – Rural Development
 - NHDES - Water Supply Land Acquisition Grants
- System buildout costs
 - New fees for connection & system extension
- Rate adjustment

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Long-Term Funding Strategy

- Rate adjustment (cont.)
 - \$12,500/year to reserve fund
 - 570 service connections
 - Additional annual cost of \$21/service connection
 - Comparable to 2012 NH state average



Financial Planning

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Summary

- Asset Management Plan
 - Increase asset life
 - Focus on asset rehabilitation and replacement
 - Identify critical components
 - Sustainably fund future improvements
 - Meet level of service & improved system knowledge
- Living Document
 - To be updated and improved whenever possible

Conclusion

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Summary

- Asset Inventory
 - Good asset condition
 - Relatively high remaining useful life
 - System redundancy reduces number of critical assets

Conclusion

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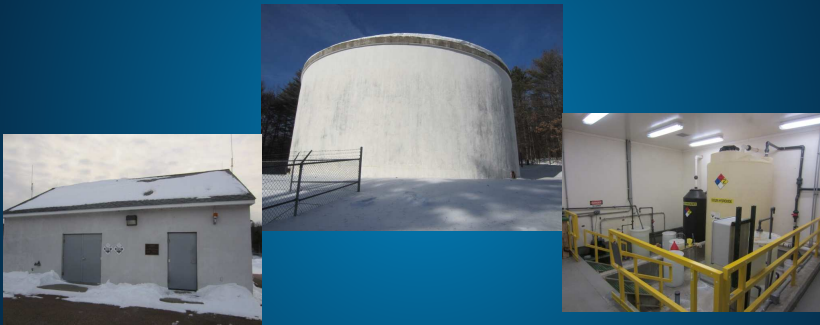
Summary

- Financial Assessment
 - Consistent expenses & revenues
 - Net income is consistent
 - Rates comparable to NH state average
 - Develop long-term funding strategy for water system

Conclusion

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QUESTIONS?



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