

From Gut Feelings to Hard Numbers: Measuring Community Financial Health



Is Something Wrong?

- Operators, utility managers, town officials and board members often communicate to us that they **think** that they are not where they should be financially
- Are they right?



Premise



Premise

Water systems have access to an enormous amount of data that can help them make better policy decisions, including financial data.

Data should help drive decision making.



Financial Needs

- Operations and maintenance
- Capital needs
- Emergencies and revenue shortfalls



Financial Needs

- Day-to-day operating ratio
- Debt service coverage ratio
- Days of cash on hand



Poll

- How familiar are you with financial statements?



Our Example Community: Autumn



Autumn



- Serves 2,340 people through 930 connections
- Median household income: \$25,772
- 20th percentile income: \$11,117
- With Social Security: 43.1%



#1: Day-to-Day Ratio

Can we cover our day-to-day expenses?

Annual Operating Revenue

Annual Day-to-Day Expenses



#1: Day-to-Day Ratio

To calculate this metric, you need:

- Annual operating revenues—from rates, fees, penalties, charges, &c.
- Annual operating expenses—including salaries, benefits, overhead, utilities, insurance, regulatory fees, &c.
- Annual depreciation



#1: Day-to-Day Ratio

Where to find this information:

- Statement of Revenues, Expenses and Changes in Net Position



STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
 PROPRIETARY FUNDS
 FOR THE YEAR ENDED SEPTEMBER 30, 2017

	Business-type Activities- Enterprise Funds
	Water & Sewer Fund
<u>Operating revenues:</u>	
Charges and fees	\$ 335,168
Miscellaneous income	125
Total operating revenues	335,293
<u>Operating expenses:</u>	
Salaries and benefits	99,869
Operating materials	33,825
Other operating expenses	24,900
Repairs and maintenance	81,134
Utilities	65,412
Depreciation	172,090
Total operating expenses	477,230

Poll

- Which do you want to be higher?



#1: Day-to-Day Ratio

Your target:

- Revenues higher than expenses, obviously!
- Ideally a ratio of 1.5 or higher



Autumn: Day-to-Day Expenses

Annual Operating Expenses
- Annual Depreciation



Autumn: Day-to-Day Expenses

\$477,230
- \$172,090

\$305,140



Autumn: Day-to-Day Ratio

Annual Operating Revenue

Annual Day-to-Day Expenses



Autumn: Day-to-Day Ratio

\$335,293

\$305,140

1.10



#2: Debt Service Coverage Ratio

Can we make our debt payments after we have covered our day-to-day expenses?

Annual Net Operating Revenue

Annual Debt Payments



#2: Debt Service Coverage Ratio

To calculate this metric, you need:

- Annual operating revenues
- Annual operating expenses
- Annual depreciation
- Annual principal and interest payments on long-term debt



#2: Debt Service Coverage Ratio

Where to find this information:

- Statement of Revenues, Expenses and Changes in Net Position
- Statement of Cash Flows



STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
 PROPRIETARY FUNDS
 FOR THE YEAR ENDED SEPTEMBER 30, 2017

	Business-type Activities- Enterprise Funds
	Water & Sewer Fund
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STATEMENT OF CASH FLOWS
 PROPRIETARY FUNDS
 FOR THE YEAR ENDED SEPTEMBER 30, 2017

	Business-type Activities- Enterprise Funds
	Water & Sewer Fund
<u>Cash Flows from Operating Activities:</u>	
Cash received from customers	\$ 323,916
Cash paid to suppliers for goods and services	(205,741)
Cash paid to employees	(102,064)
 Net Cash Flows Provided by (Used for) Operating Activities	 16,111
<u>Cash Flows from Noncapital Financing Activities:</u>	
Transfers	93,013
 Net Cash Flows Provided by (Used for) Noncapital Financing Activities	 93,013
<u>Cash Flows from Capital and Related Financing Activities:</u>	
Principal payments on notes	(95,178)
Interest and fiscal charges on notes	(19,829)

#2: Debt Service Coverage Ratio

Your target:

- This will likely be set by your debt covenant
- Ideally a ratio of 1.25 or higher



Autumn: Annual Net Operating Revenue

Annual Operating Revenue
- Annual Day-to-Day Expenses



Autumn: Annual Net Operating Revenue

\$335,293
- \$305,140

\$30,153



Autumn: Annual Debt Payments

Annual Principal Payments
+ Annual Interest Payments



Autumn: Annual Debt Payments

\$95,178
+ \$19,829

\$115,007



Autumn: Debt Service Coverage Ratio

$$\frac{\text{Annual Net Operating Revenue}}{\text{Annual Debt Payments}}$$



Autumn: Debt Service Coverage Ratio

\$30,153

\$115,007

0.26



#3: Days of Cash on Hand

How many days can the system can run on its current available cash?

Unrestricted Cash

X 365

Annual Day-to-Day Expenses



#3: Days of Cash on Hand

To calculate this metric, you need:

- Cash available on the day the financials are prepared
- Annual operating expenses
- Annual depreciation



#3: Days of Cash on Hand

Where to find this information:

- Statement of Net Position
- Statement of Revenues, Expenses and Changes in Net Position



STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
 PROPRIETARY FUNDS
 FOR THE YEAR ENDED SEPTEMBER 30, 2017

	Business-type Activities- Enterprise Funds
	Water & Sewer Fund
<u>Operating revenues:</u>	
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TOWN OF AUTUMN
STATEMENT OF NET POSITION
PROPRIETARY FUNDS
SEPTEMBER 30, 2017

	Business-type Activities- Enterprise Funds
	Water & Sewer Fund
<u>ASSETS</u>	
Current assets:	
Cash and cash equivalents	\$ 135,814
Restricted cash and cash equivalents:	
Sinking fund	104
Accounts receivable, net of allowance	42,205
Prepays	2,607
	180,730
Long-term assets:	
Capital assets:	
Nondepreciable	50,847
Depreciable, net	3,907,338
Total capital assets, net	3,958,185

#3: Days of Cash on Hand

Your target:

- Whatever makes you comfortable
- At least six months is probably a good target



Autumn: Days of Cash on Hand

Unrestricted Cash

Annual Day-to-Day Expenses X 365



Autumn: Days of Cash on Hand

\$135,814

\$305,140

X 365

162



Autumn



- Day-to-Day Operating Ratio: **1.10**
- Debt Service Coverage Ratio: **0.26**
- Days of Cash on Hand: **162**



<https://efc.sog.unc.edu/resource/financial-health-checkup-water-utilities>



Financial Health Checkup FOR WATER UTILITIES



UNC

ENVIRONMENTAL FINANCE CENTER

Developed by the Environmental Finance Center
at the University of North Carolina, Chapel Hill
<http://efc.sog.unc.edu>



Smart Management for
Small Water Systems



A resource for water systems through the Environmental Finance Center Network's
Smart Management for Small Water Systems project, funded under a cooperative
agreement with the U.S. Environmental Protection. <http://efcnetwork.org>

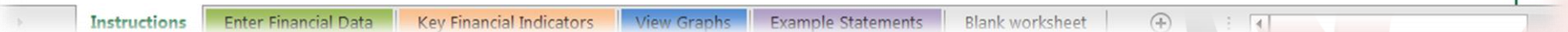
Begin

What does this tool do?

This tool assists in the assessment of the financial performance of a water (and/or wastewater) utility fund. Financial data readily available in annual financial statements are copied into this tool, which computes key financial indicators that measure a variety of important metrics, such as the ability to pay debt service, availability of cash to pay for operations and maintenance, the sufficiency of revenues generated, etc. Each metric is compared against targets that are specified by the user. The tool demonstrates the financial strengths and weaknesses of the utility fund in the past 5 years.

Features:

- Simple data entry (uses data already reported in your audited financial statements)
- 6 financial performance indicators with explanations



Excel tool: Set targets, enter 5 years of data,
and see financial health trends over time

Key Financial Indicators Video



Blog Posts

- Operating Ratio

<http://efc.web.unc.edu/2015/02/27/operating-ratio/>

- Debt Service Coverage Ratio

<http://efc.web.unc.edu/2015/04/23/debt-service-coverage-ratio/>

- Days of Cash on Hand

<http://efc.web.unc.edu/2015/06/24/days-cash-on-hand/>

- Current Ratio

<http://efc.web.unc.edu/2015/10/01/key-indicator-current-ratio/>



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