



Financial Management for Water & Wastewater Funding Program Applicants

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Best Resource: EFCNetwork.org

The screenshot shows the EFCNetwork.org website. At the top, there is a subscription form with the text "Enter your email to subscribe..." and a "Sign Me Up" button. Below this is the EFCN logo and the tagline "Innovative Finance Solutions for Environmental Services". A navigation menu includes links for HOME, ABOUT, WORKSHOPS & WEBINARS, ASSISTANCE, RESOURCES, BLOG, and ARCHIVES, along with a search icon. The main banner features a background image of hands drawing on a blueprint. On the left of the banner is the "Smart Management for Small Water Systems" logo. The banner text reads: "Smart Management for Small Water Systems: Improving small water systems through sustainable finance and management". Below the banner are three smaller images: a woman presenting in a meeting, a globe icon surrounded by water droplets, and hands reviewing a document with charts.





Webinar Objectives

- Learn about the project priority list
- Understand your system's financial position
- Discuss how to raise appropriate revenues



Project Priority List



Minnesota Funding Acronyms

DW

Drinking Water

CW

Clean Water
*(Wastewater and
Stormwater)*



Minnesota Funding Acronyms

PPL

Project Priority List

IUP

Intended Use Plan
*(list of ranked projects
that are ready for
funding)*



Minnesota Funding Acronyms

MDH

MN Department of Health



MPCA

MN Pollution Control Agency





Minnesota Funding Acronyms

PFA

MN Public Facilities
Authority



DEED

MN Department of
Employment and
Economic Development





Minnesota Funding Acronyms

SRF

State Revolving Funds
(infrastructure loans)

PSIG

Point Source Implementation
Grant

SCDP

Small Cities Development Program

WIF

Wastewater Infrastructure Fund
(affordability grants)

RD

USDA Rural Development





PPL = Minnesota Priority Lists for Water Infrastructure Projects

- PPLs identify cities seeking funding for wastewater and drinking water infrastructure projects over the next five years



PPL = Minnesota Priority Lists for Water Infrastructure Projects

- Cities submit PPL requests to MPCA (clean water) and MDH (drinking water) as first step in funding process
 - Clean Water PPL Deadline (to MPCA) – first Friday in March
 - Drinking Water PPL deadline (to MDH) – first Friday in May
 - CW & DW IUP Deadline (to PFA) – first Friday in June



PPL = Minnesota Priority Lists for Water Infrastructure Projects

- State grant and loan funding follows PPL priorities
 - RD and SCDP also consider PPL priorities
 - PPL lists used by state and federal agencies to coordinate funding
- Score and rank
 - Based on Public Health and Environmental Impacts



**CW &
DW SRF**
Low Interest
Loans

PSIG
Grants to Meet
More Stringent
Pollutant Limits

WIF
Affordability
Based Grants

**CW &
DW
PPLs**

SCDP
Block Grants
Administered
by DEED

USDA RD
Loans &
Grants

State Funding (PFA/MDH/MPCA)

Federal Funding





Minnesota community options for water infrastructure financing

Managing wastewater, stormwater and drinking water supplies is important for the health and safety of any community. It can also make a difference to a community's growth potential and environmental value, in terms of attracting new businesses, new residents and additional visitors. Achieving solutions is a complicated journey, requiring several steps to reach the destination. This flyer addresses one of the major steps – financing. Following is an outline of financing options for public entities. Use this matrix as a guide for researching financial options. Examine the requirements for each program and see if your entity qualifies. If so, contacting the funding agency is the first step toward an affordable solution that protects health and safety while enhancing your community.

Program	Objective	Applicant	Uses	Population	Terms/conditions
	<p>Minnesota Public Facilities Authority Becky Sabie, PFA Program Coordinator 651-259-7470 Rebecca.Sabie@state.mn.us http://mn.gov/deed/government/public-facilities/funds-programs/</p>				
	<p>Minnesota Pollution Control Agency Bill Dunn CWRF Program Coordinator 651-757-2324 bill.dunn@state.mn.us www.pca.state.mn.us/ppl</p>				
Clean Water Revolving Fund (CWRF) Minn. R. ch. 7077, Minn. Stat. § 446A.07 and 116.16	Loans for municipal wastewater and stormwater projects.	Cities, counties, townships, sanitary districts. Projects must be listed on the Minnesota Pollution Control Agency (MPCA) project priority list (PPL) and Public Facilities Authority (PFA) Intended Use Plan.	Build, repair and improve public wastewater or stormwater systems.	No cap or minimum.	Below market interest rates, repayment period is 20 years and, in some cases, 30 years.



Understanding Your Water System's Financial Position



Can You Sleep at Night?

Is your system self sufficient?

Operating
Ratio

Are you able to cover your debt service after paying for your day to day operations?

Debt Service
Coverage Ratio

If your customers stop paying their bills, how long can you maintain operations?

Days of
Cash on Hand

Can your system meet its short term obligations?

Current
Ratio



Whiteboard Video: Financial Benchmarking

<http://www.waterrf.org/Pages/Projects.aspx?PID=4366>





Operating Ratio

OPERATING REVENUES



OPERATING EXPENSES





Operating Ratio

DEPRECIATION

ANNUAL COST OF WEAR
AND TEAR ON THE SYSTEM





What is Depreciation?

- Loss of value of an asset not restored by current maintenance
- An economic fact for any water system
- From both physical factors and functional or non-physical factors

<https://www.youtube.com/watch?v=d8A7MJXFV1U&t=1115s>



The video player displays a slide with the title "Infrastructure Wears Out". The slide features two photographs of water towers. The left photograph shows a modern, well-maintained water tower with the word "GALVA" written on its side. A large blue arrow points from this tower to the right photograph, which shows a significantly deteriorated and rusted water tower. The video player interface includes a play button, a progress bar showing 7:20 / 1:03:02, and the URL www.efcnetwork.org. The EFC logo is visible in the bottom left corner of the video player.

Webinar: Demystifying Depreciation and How to Make Use of It



Operating Revenues

Operating Expenses
incl. Depreciation

> 1 ✓



Debt Service Coverage Ratio

OPERATING REVENUES – OPERATING EXPENSES
(EXCLUDING DEPRECIATION)

PRINCIPAL + INTEREST PAYMENTS
ON LONG TERM DEBT



Debt Service Coverage Ratio

- Minnesota SRF borrowers are required to issue a General Obligation Revenue Note to secure the SRF loan
- State law requires 105% revenue coverage for G.O. debt



Debt Service Coverage Ratio

OPERATING REVENUES – OPERATING EXPENSES
(EXCLUDING DEPRECIATION)

PRINCIPAL + INTEREST PAYMENTS
ON LONG TERM DEBT

>1.05



Days Cash on Hand

UNRESTRICTED CASH AND INVESTMENTS

**OPERATING EXPENSES EXCLUDING
DEPRECIATION & AMORTIZATION / 365**



Days Cash on Hand

Generally in MN, 3 months of cash on hand plus 1 year of debt service





Current Ratio

**UNRESTRICTED CURRENT ASSETS
EXCLUDING INVENTORIES AND
PREPAID ITEMS**

CURRENT LIABILITIES



Current Ratio

≥ 1 ✓



An Example

Town of Mayberry

- Actual numbers from an average small town community water system

Operating Ratio – Mayberry

STATEMENT OF REVENUES, EXPENSES, AND CHARGES IN NET ASSETS
 PROPRIETARY FUNDS
 FOR THE YEAR ENDED DECEMBER 31, 2010

\$444,231

Operating Revenues (1)

1a.

=

0.87

\$511,448

Operating Expenses (including depreciation) (2)

Other supplies and expense

Depreciation

Total operating expenses

Operating income (loss)

142,483	
511,448	
(67,217)	

NONOPERATING REVENUES (EXPENSES)

Operating Ratio – Mayberry

STATEMENT OF REVENUES, EXPENSES, AND CHARGES IN NET ASSETS
 PROPRIETARY FUNDS
 FOR THE YEAR ENDED DECEMBER 31, 2010

1b.	\$444,231		1.20
	<i>Operating Revenues (1)</i>	=	
	\$368,985		
	<i>Operating Expenses (excluding depreciation) (2-3)</i>		

Other supplies and expense
 Depreciation
 Total operating expenses
 Operating income (loss)

NONOPERATING REVENUES (EXPENSES)

Handwritten notes:
 - DCP
 \$142,463
 \$311,448

142,463	
511,448	- (2)
(67,217)	

STATEMENT OF CASH FLOWS
 PROPRIETARY FUNDS
 FOR THE YEAR ENDED DECEMBER 31, 2010

CASH FLOWS FROM OPERATING ACTIVITIES
 Receipts from customers

OE Enterprise Funds
 Water and Sewer
 - Dep \$142,748
 \$142,748
 \$142,748

\$444,231 - \$368,985
 Operating Revenues (1) Operating Expenses (2-3)
 (excluding depreciation)

2.

0.89

\$84,783

Principal & Interest on Long-Term Debt (4)

Purchases of capital assets
 Principal paid on capital debt
 Interest paid on capital debt
 Net cash (used) by capital and
 related financing activities

(49,655)
 (35,128)
 (124,624)

The accompanying notes are an integral part

Days of Cash on Hand – Mayberry

STATEMENT OF REVENUES, EXPENSES, AND CHARGES IN NET ASSETS
 PROPRIETARY FUNDS
 FOR THE YEAR ENDED DECEMBER 31, 2010

Enterprise Funds

\$107,706

Unrestricted Cash & Cash Equivalents (5)

3.

107

\$368,985

/ 365

Operating Expenses (excluding depreciation) (2-3)

Other supplies and expense
 Depreciation
 Total operating expenses
 Operating income (loss)

126,202	(13)
142,463	
<u>511,448</u>	(2)
(67,217)	

NONOPERATING REVENUES (EXPENSES)

Unrestricted
 Total net assets

Enterprise Funds
Water and Sewer

ASSETS

Current assets

Cash
Restricted cash

107,706
176,424

(5)

\$107,706

+

\$41,870

Unrestricted Cash &
Cash Equivalents (5)

Receivables, net (6)

4.

1.38

\$108,390

Current Liabilities (7)

LIABILITIES

Current liabilities

Accounts payable
Customer deposits
Bonds payable current
Total current liabilities

\$ 9,311
44,229
54,830
108,390

(7)

Noncurrent liabilities

Bonds, notes and loans payable

828,452



Financial Health Checkup Tool

Did you generate the revenues needed to pay for O&M and a little for capital?

Operating Ratio (including depreciation)

Measures the profitability of the water and/or wastewater system. It shows whether the utility's revenues from sales are sufficient to cover the cost of operations (O&M) and depreciation, which is used here as a surrogate for capital needs.

[Read more about Operating Ratios in this blog post](#)

Formula

$$\frac{\text{Total Operating Revenues [1]}}{\text{Total Operating Expenses [2]}}$$

Set Your Target: greater than or equal to **1.0** (Minimum Benchmark: >1.0 (you may wish it to be > 1.2))

Value for Gatesville, TX in Fiscal Year 2015: 0.75

Did you meet your target? No
 you improve since the previous year? No
 that's the trend over the last 5 years?  [See Full Size Graph](#)

Did you generate the revenues needed to pay for O&M by itself?

Operating Ratio (not including depreciation)

This version of operating ratio measures whether the utility's revenues from sales are sufficient to cover the cost of operations (O&M) only.

[Go to Operating Ratio \(including depreciation\)](#)

Financial Health Checkup
Five-Year Trends

Key: Blue line = target (edit targets in Step 2)
 Above dotted line = exceeded target (good)
 Below dotted line = did not meet target (needs improvement)

Assessment for Sample Utility

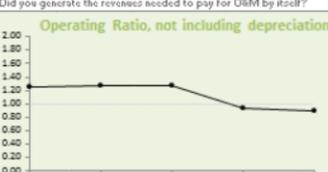
Did you generate the revenues needed to pay for O&M and existing debt service?

Debt Service Coverage Ratio



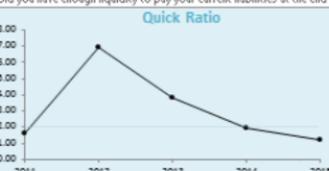
Did you generate the revenues needed to pay for O&M by itself?

Operating Ratio, not including depreciation



Did you have enough liquidity to pay your current liabilities at the end of the year?

Quick Ratio



How many days could you continue to operate the utility with the cash levels available?

Days Cash on Hand



How much have your utility's assets depreciated (near the end of their lives)?

Percent of Capital Assets Depreciated



Enter Financial Data | Key Financial Indicators | View Graphs | Example Statements



Raising Appropriate Revenues



How to Pay for Capital Improvements

- Pay as you go (current receipts)
- Save in advance and pay (reserve funds)
- Pay later (someone loans you money)
- ~~Grants (let someone else pay)~~



“Full Cost Pricing”

- Operations & maintenance expenditures
- Taxes and accounting costs
- Contingencies for emergencies
- Principal and interest on long-term debt
- Reserves for capital improvement
- Source water protection



Systems Love Low Rates, but...

“Once again, the [City’s] Water Department proved to have some of the lowest water and sewage rates in the state.”

The screenshot shows a city website with a navigation menu on the left and a news flash article on the right. The navigation menu includes: Job Openings, Citizen Survey Results, Council Agenda, Comprehensive Planning Information, Community Assessment, and E-News Signup. The news flash is titled "News Flash - All" and "News Flash - Home" with the sub-heading "Low Water and Sewer Rates" dated January 8, 2007. The article text reads: "Once again, the City of [redacted] and sewage rates in [redacted] recent s[redacted] providers to evalu[redacted] rates residents p[redacted] City of [redacted] is proud to say, based on [redacted] household, the City has the third lowest water [redacted] bill of \$15.38, and sewage bill of \$10.36. As a result, [redacted] proved to have the third lowest combined residential water and sewage rates, of the 63 polled." Below the article, it states: "The commercial rates were also compared among the same providers, based on 150,000 gallons per month. [redacted] has the lowest sewage, as well as the lowest combined water and sewage rates of those polled. The average commercial monthly sewage bill is \$222.00, with the combined [redacted]"



Non-Recurring Revenues

- Penalties
- Cellphone & radio receivers on the tank
- Ads on the tank
- Tap or connection fees
- System development charges
- Grants



But most of your revenue
comes from your rates

How do we get the rates “right?”

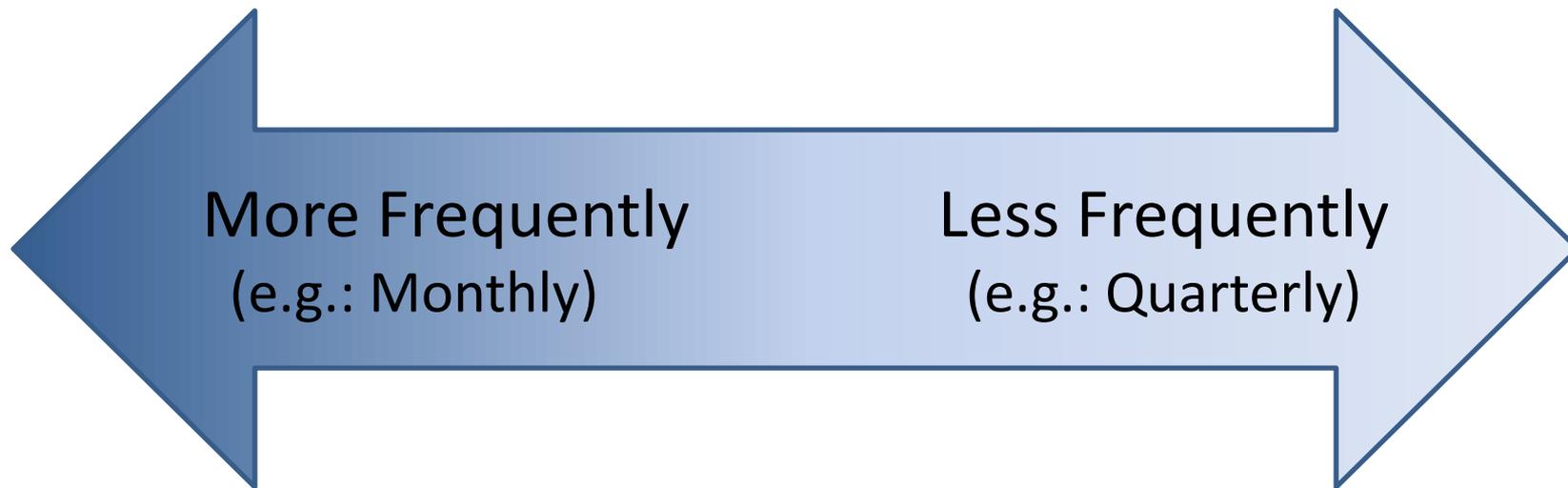


Customer Classes/Distinctions

- One rate structure for all
- Separate structures based on customer class
- Different base charge based on meter size
- Inside/Outside customers
- Negotiated rate with large customers



Billing Period

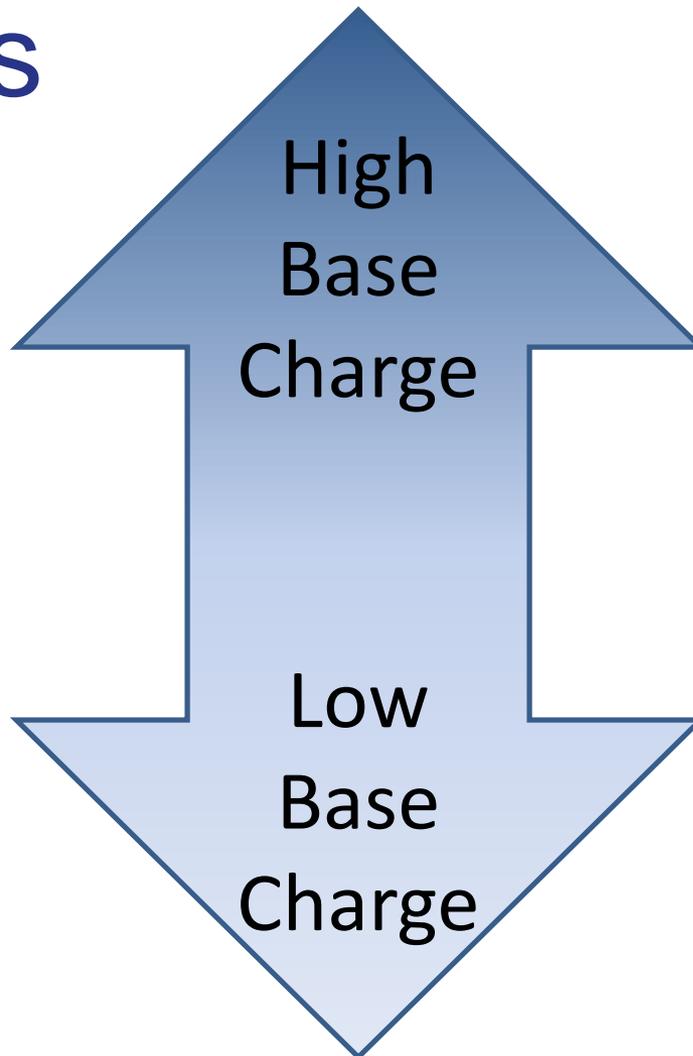


Suggestion: Use a monthly billing period if you can afford it



Base Charges

*Suggestion:
Smaller utilities
should lean
towards higher
base charges*





Consumption Allowance with Base Charge

Do not
include any
(0 gallons)

Include some
amount
(e.g. 1,000 gal/mo)

Include high
amount
(e.g. 3,000 gal/mo)

Suggestion: For systems with low base charges, do not include any consumption allowance. For systems with high base charges but wish to encourage conservation, keep consumption allowance low, if any.



Increasing Block Designs

For block rate structures to be effective:

- Correct number of blocks
- Where the blocks should end/start
- Significant rate differentials between blocks
- Read meters punctually
- Think about large families



Frequency of Rate Changes

- Always review your rates annually (recommended)
- Review your financial health indicators annually, and then review your rates if any of the indicators reflect poor financing
- Raise rates each year automatically based on inflation



Frequency of Rate Changes

- *Important: Avoid maintaining low rates at the expense of your utility's financial health. It will either lead to a sudden, massive rate increase in the future or to failing systems and endangering public health.*

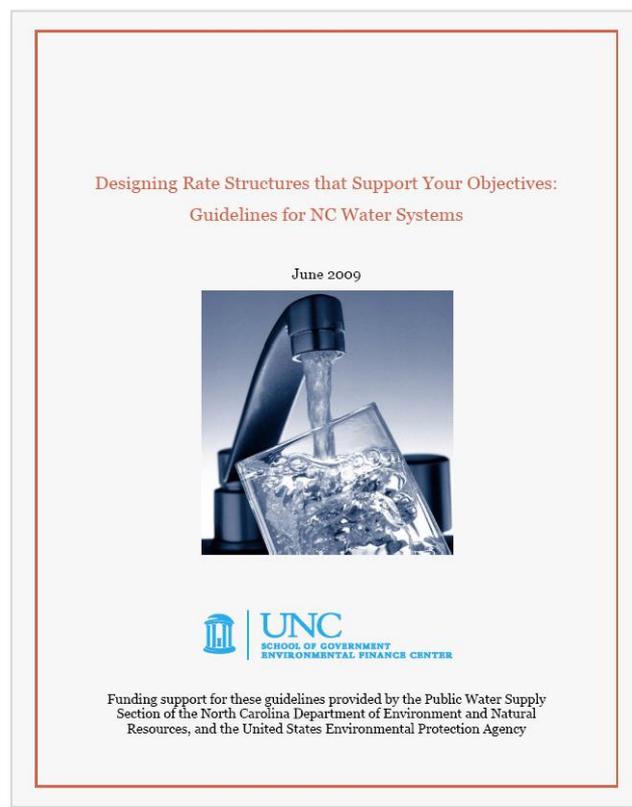


Designing Rate Structures That Support Your Objectives

Free guide
written for
system
managers

Available at:

<http://efc.sog.unc.edu/>





A few questions...



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