Assessing Financial Condition

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Session Objectives

- Understanding where your water system is right now financially

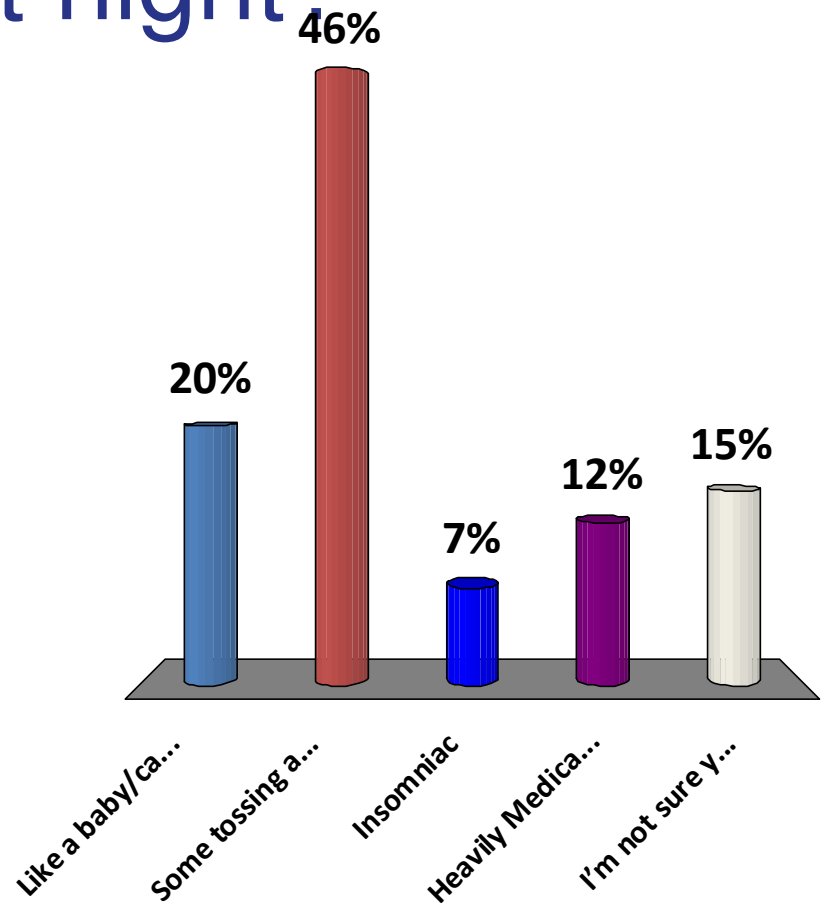
- Learning some standard measures that funders will be concerned with

Can You Sleep at Night?

- Is your system self sufficient? — Operating Ratio
- If your customers stop paying their bills, how long can you maintain operations? — Days Cash on Hand
- Can your system meet its short term obligations? — Current Ratio
- Are you able to cover your debt service after paying for your day to day operations? — Debt Service Coverage Ratio
- How much of your utility's expected life has already run out (and how much is left)? — Asset Depreciation

In terms of your system's finances, how do you sleep at night?

1. Like a baby/cat
2. Some tossing and turning
3. Insomniac
4. Heavily Medicated
5. I'm not sure yet...



Key Financial Indicators!

- Operating Ratio
- Current Ratio
- Days of Cash on Hand
- Debt Service Coverage Ratio

Whiteboard Video: Financial Benchmarking

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

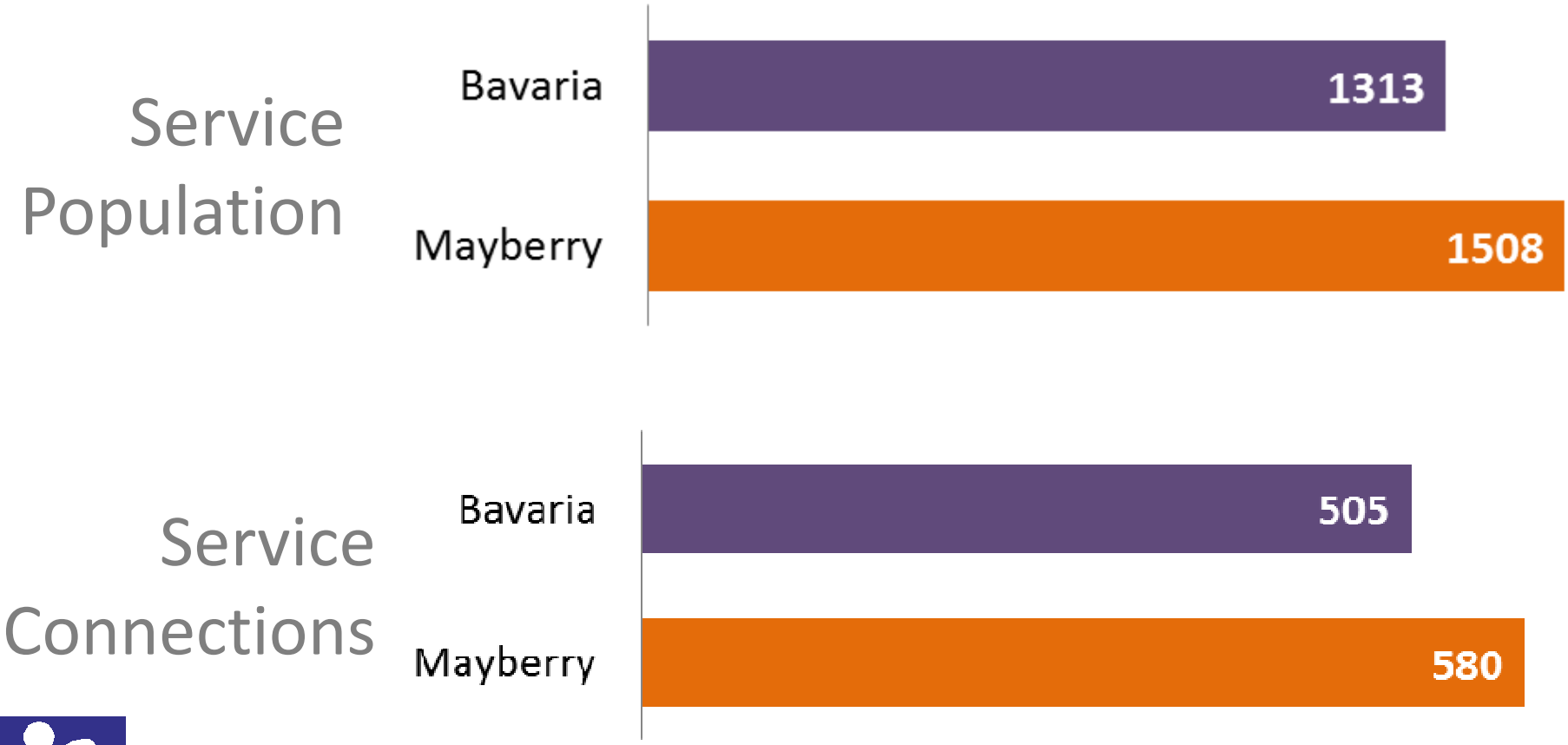
A Tale of Two Systems That Look Similar On Paper...

- **Bavaria** and **Mayberry**

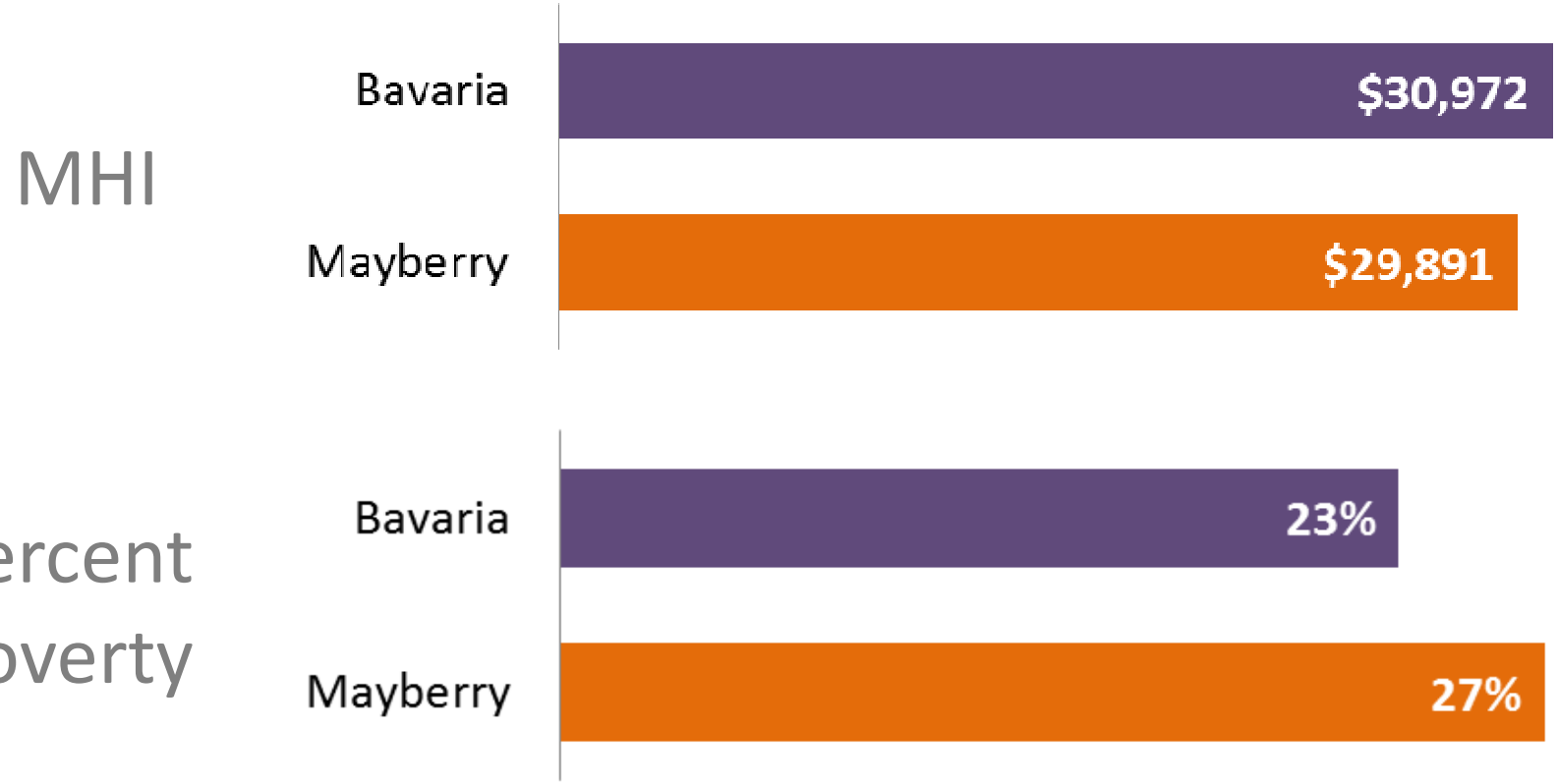
- Two average small town community water systems from the same state

Note: Actual numbers from actual towns

They Serve Similar Populations



They Have Similar Demographics

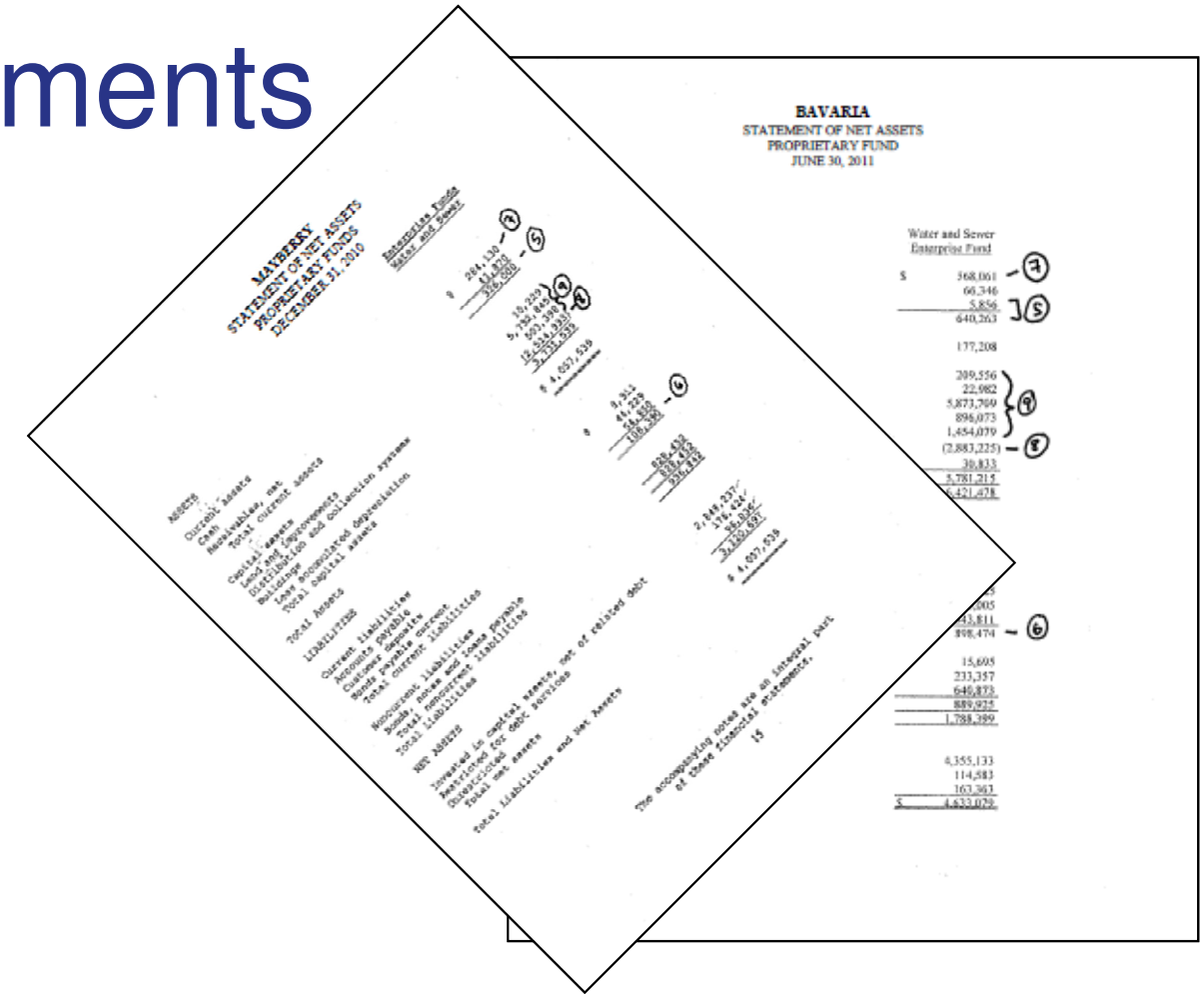


...Though Vastly Different in Financial Indicators (and In Actual Appearance)

Mayberry

Bavaria

Quick Overview of Financial Statements



BAVARIA
STATEMENT OF NET ASSETS
PROPRIETARY FUND
JUNE 30, 2011

Water and Sewer Enterprise Fund

$ 368,061
60,346
5,856
640,263

177,208

209,556
22,982
5,873,709
896,073
1,454,079
(2,883,225)
30,833
5,781,215
6,421,478

905
43,811
898,474

15,695
233,357
640,873
889,925
1,788,399

4,355,133
114,583
163,361
$ 4,633,079

MAYBERRY
STATEMENT OF NET ASSETS
PROPRIETARY FUNDS
DECEMBER 31, 2010

Enterprise Funds
Water and Sewer

$ 264,130
61,870
306,000

15,229
5,732,845
500,398
12,534,938
18,783,410
$ 19,089,410

9,311
41,259
644,503
695,073

695,073
759,133
1,454,206

2,849,237
176,425
96,106
3,121,768
$ 4,697,639

Assets
Current assets
Cash
Receivables, net
Total current assets
Capital assets
Land and improvements
Distribution and collection systems
Buildings
Less accumulated depreciation
Total capital assets
Total Assets
LIABILITIES
Current liabilities
Accounts payable
Customer deposits
Bonds payable current
Total current liabilities
Noncurrent liabilities
Bonds notes and loans payable
Total noncurrent liabilities
Total liabilities
NET ASSETS
Invested in capital assets, net of related debt
Restricted for debt services
Unrestricted
Total net assets
Total liabilities and Net Assets

The accompanying notes are an integral part of these financial statements.
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Statement of Net Assets

- The assets and liabilities of the water system on the day the financial statements were prepared

Statement of Revenues, Expenses & Changes in Net Assets

- Annual operating and non-operating revenues and expenses for the water system

- Also transfers to and from the general fund

Statement of Cash Flows

- Money in and money out of the water system

Notes to Financial Statements

- Explanations, where needed, to the financial statements

Operating Ratio

$$= \frac{Operating\ Revenues}{Operating\ Expenses}$$

Please calculate two numbers—one including depreciation, and one excluding depreciation

Operating Ratio

Including Depreciation

MAYBERRY

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS

PROPRIETARY FUNDS

FOR THE YEAR ENDED DECEMBER 31, 2010

	Enterprise Funds Water and Sewer	
OPERATING REVENUES		
Charges for services	$ 444,231	
Grants	0	
Total operating revenues	444,231	(1)
OPERATING EXPENSES		
Personnel services	178,885	
Contractual services	63,898	
Other supplies and expense	126,202	(3)
Depreciation	142,463	(2)
Total operating expenses	511,448	
Operating income (loss)	(67,217)	

Operating Ratio – Mayberry

Including Depreciation

1a.

$$\frac{\text{\$444,231}}{\text{\$511,448}} = 0.87$$

Operating Revenues ***(1)***

Operating Expenses (including depreciation) ***(2)***

Now You Calculate For **Bavaria**

1a.

$709,972

Operating Revenues ***(1)***

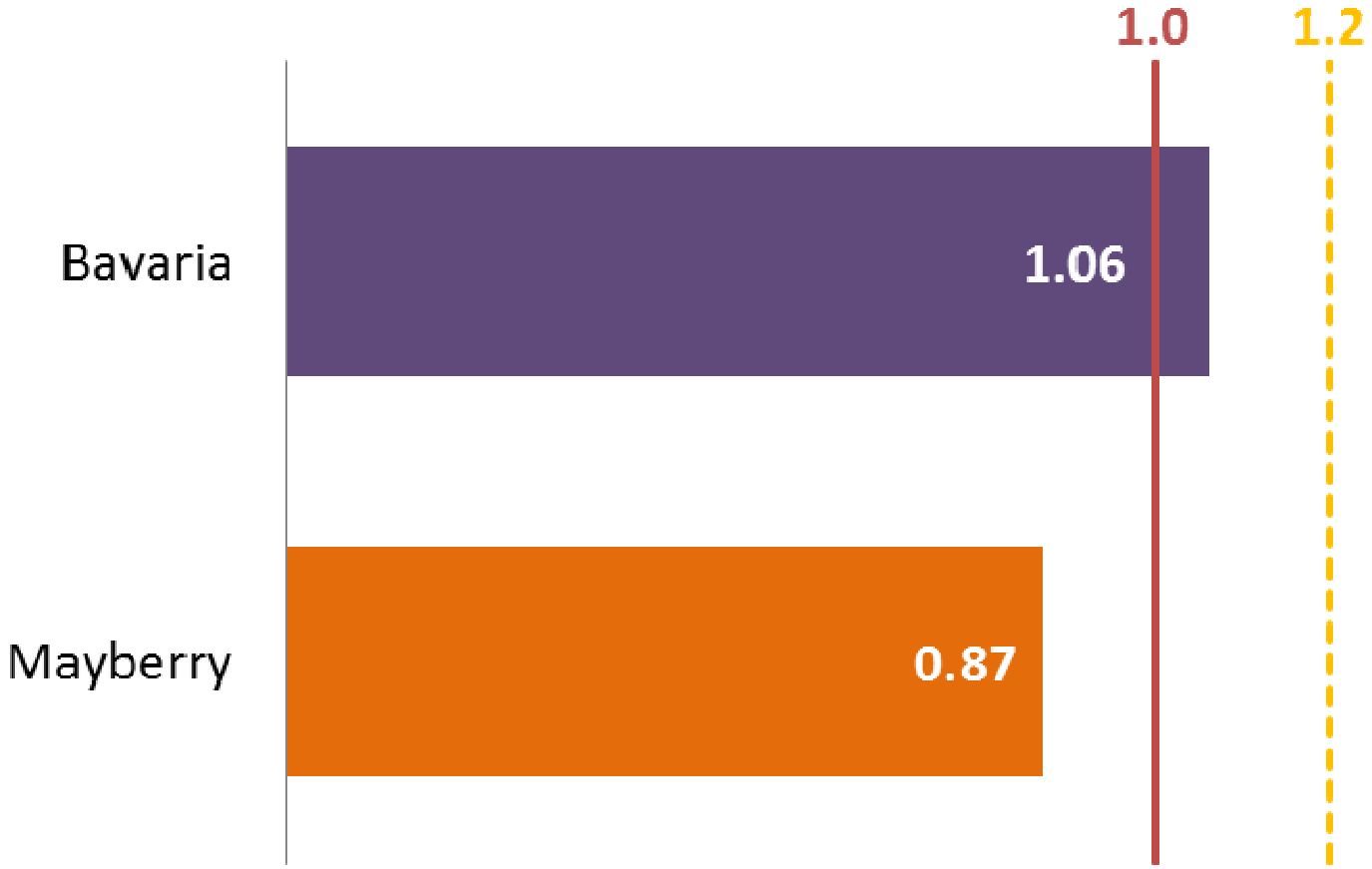
$671,333

Operating Expenses (including depreciation) ***(2)***

= 1.06

Operating Ratio

Including Depreciation



Operating Ratio

Excluding Depreciation

MAYBERRY

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS

PROPRIETARY FUNDS

FOR THE YEAR ENDED DECEMBER 31, 2010

	Enterprise Funds Water and Sewer	
OPERATING REVENUES		
Charges for services	$ 444,231	
Grants	0	
Total operating revenues	444,231	(1)
OPERATING EXPENSES		
Personnel services	178,885	
Contractual services	63,898	
Other supplies and expense	126,202	(3)
Depreciation	142,463	(2)
Total operating expenses	511,448	
Operating income (loss)	(67,217)	

Operating Ratio – Mayberry

Excluding Depreciation

1b.

$444,231

Operating Revenues ***(1)***

÷

$368,985

Operating Expenses (excluding depreciation) ***(2-3)***

=

1.20

OE $511,448
- Dep $142,463

Now You Calculate For **Bavaria**

1b.

$$\frac{\text{\$709,972}}{\text{\$459,082}} = 1.55$$

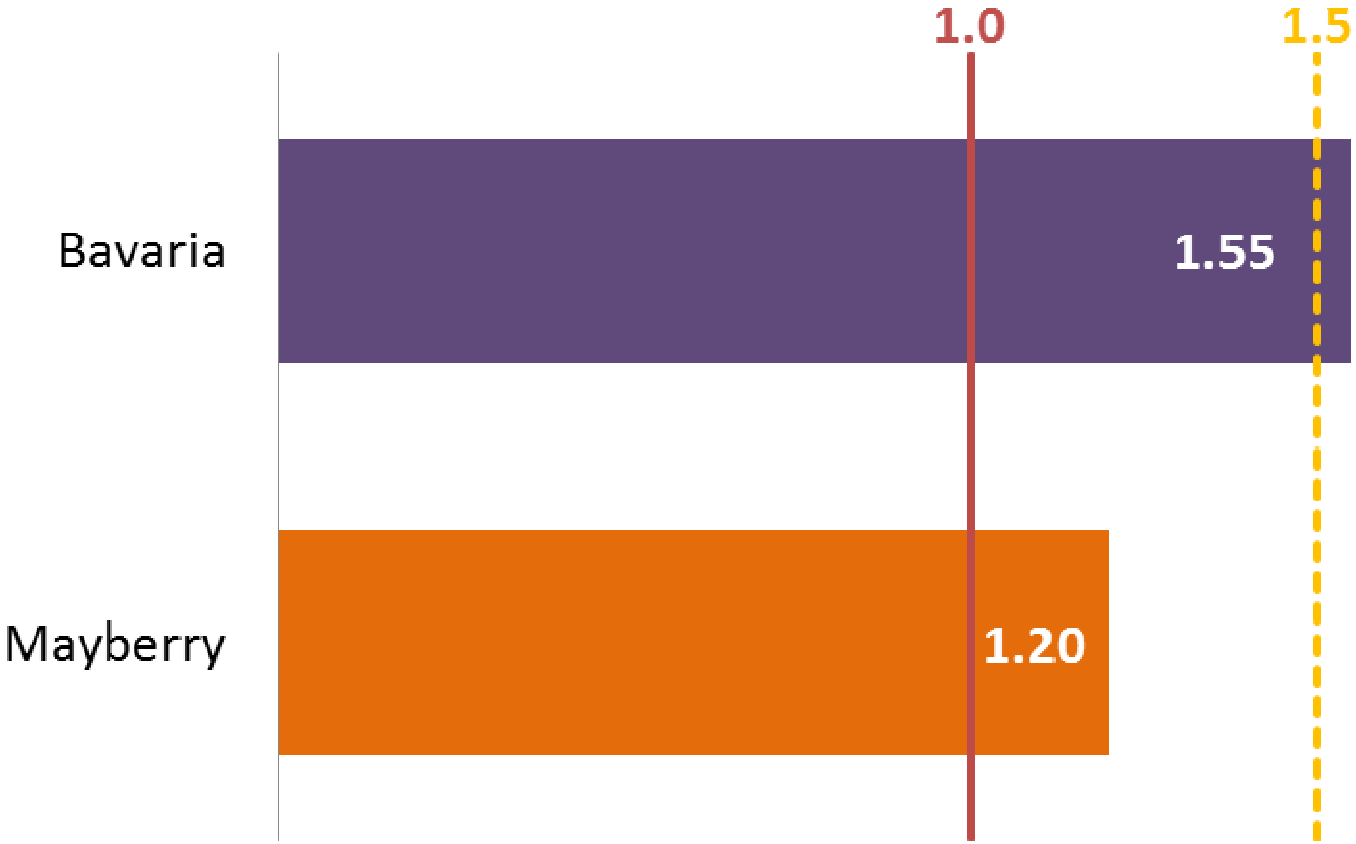
Operating Revenues **(1)**

Operating Expenses (excluding depreciation) **(2-3)**

OE $671,333
- Dep $212,251

Operating Ratio

Excluding Depreciation



Debt Service Coverage Ratio

$$= \frac{\textit{Operating Revenues} - \textit{Operating Expenditures (excludes depreciation)}}{\textit{Principal} + \textit{Interest Payments on Long Term Debt}}$$

Debt Service Coverage Ratio

MAYBERRY

STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET ASSETS

PROPRI[illegible]

FOR THE YEAR EN

OPERATING REVENUES	
Charges for services	
Grants	
Total operating revenues	
OPERATING EXPENSES	
Personnel services	
Contractural services	
Other supplies and expense	
Depreciation	
Total operating expenses	
Operating income (loss)	

MAYBERRY

STATEMENT OF CASH FLOWS

PROPRIETARY FUNDS

FOR THE YEAR ENDED DECEMBER 31, 2010

Page 1 of 2

	Enterprise Funds Water and Sewer
CASH FLOWS FROM OPERATING ACTIVITIES	
Receipts from customers	$ 437,947
Payments to suppliers	(187,296)
Payments to employees	(178,885)
Net cash provided by operating activities	71,766
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES	
Transfers in (out)	(60,000)
Net cash (used) by noncapital financing activities	(60,000)
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES	
Loan proceeds	0
Purchases of capital assets	(39,841)
Principal paid on capital debt	(49,655)] ④
Interest paid on capital debt	(35,128)]
Net cash (used) by capital and related financing activities	(124,624)

Debt Service Coverage Ratio – **Mayberry**

OE $511,448
- Dep $142,463

2. $\dfrac{\$444{,}231 - \$368{,}985}{\$84{,}783} = 0.89$

Operating Revenues ***(1)*** − *Operating Expenses* ***(2-3)*** *(excluding depreciation)*

Principal & Interest on Long-Term Debt ***(4)***

P $49,655
+ I $35,128

Now You Calculate For **Bavaria**

OE $671,333
- Dep $212,251

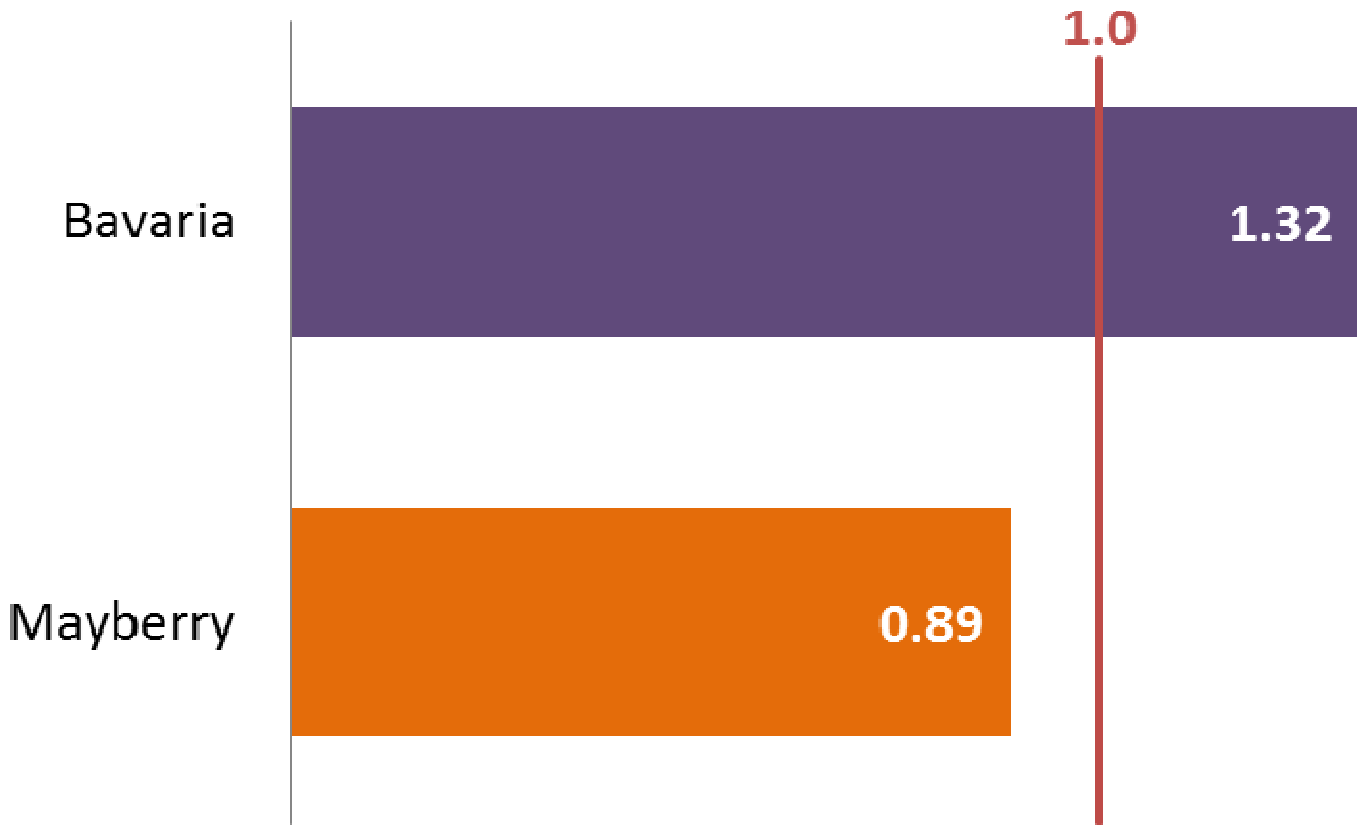
$709,972 - $459,082

Operating Revenues ***(1)*** *Operating Expenses* ***(2-3)*** *(excluding depreciation)*

2. $\dfrac{\$709{,}972 - \$459{,}082}{\$190{,}633} = 1.32$

Principal & Interest on Long-Term Debt ***(4)***

Debt Service Coverage Ratio



Days of Cash on Hand

$$= \frac{\textit{Unrestricted cash and cash equivalents}}{\textit{(Operating Expenses – Depreciation) / 365}}$$

Days of Cash on Hand

MAYBERRY
STATEMENT OF NET ASSETS
PROPRIETARY FUND
DECEMBER 31, 2010

	Enterprise Funds Water and Sewer
ASSETS	
Current assets	
Cash	107,706 (5)
Restricted cash	176,424
Receivables, net	41,870 (6)
Total current assets	326,000
Capital assets	
Land and improvements	10,229
Distribution and collection systems	5,732,845
Buildings	503,398
Less accumulated depreciation	(2,514,933)
Total capital assets	3,731,539
Total Assets	$ 4,057,539
LIABILITIES	

Days of Cash on Hand – **Mayberry**

3. $\dfrac{\text{\$107,706}}{\text{\$368,985}} = 107$ / 365

Unrestricted Cash & Cash Equivalents ***(5)***

Operating Expenses (excluding depreciation) ***(2-3)***

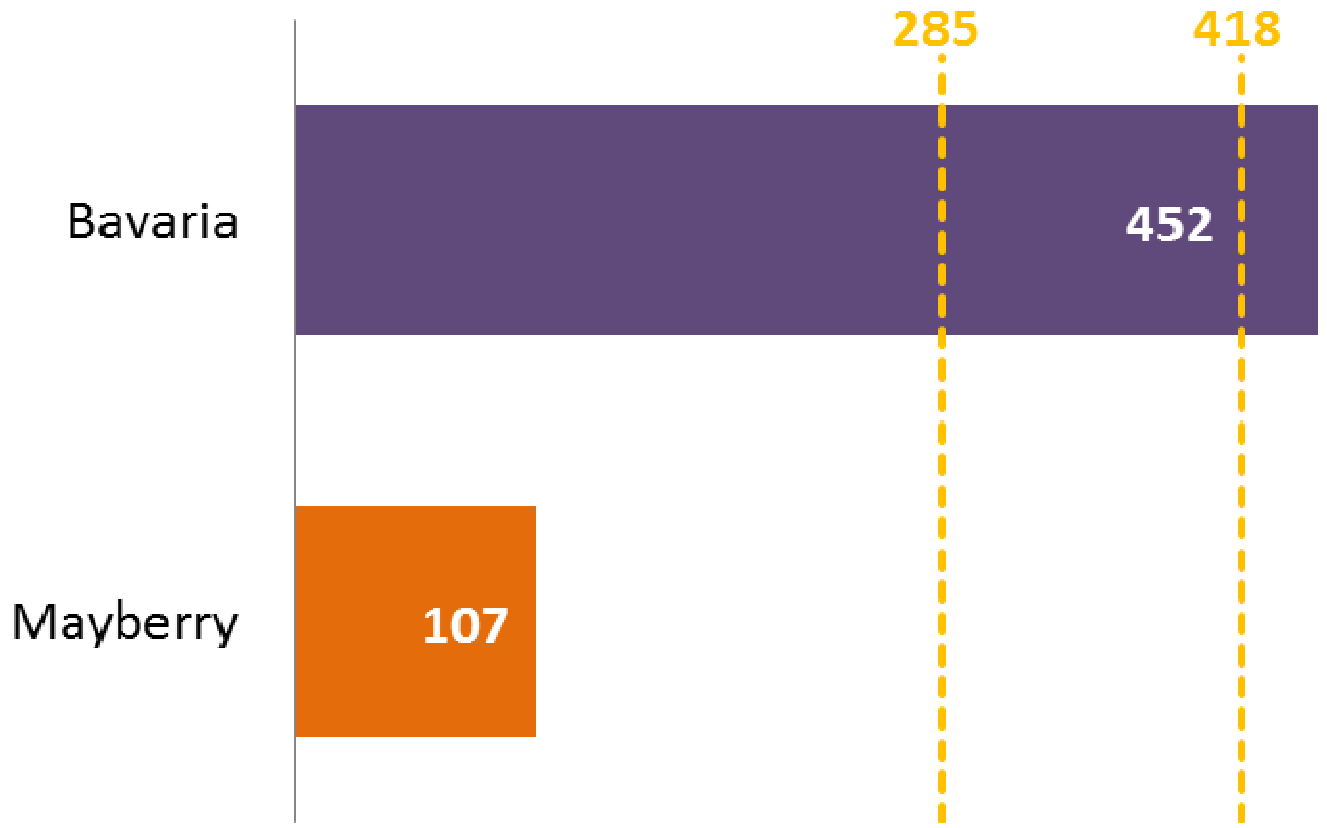
OE $671,333
- Dep $212,251

Now You Calculate For **Bavaria**

3. $\dfrac{\$568{,}061 \text{ — Unrestricted Cash \& Cash Equivalents (5)}}{\$459{,}082 \text{ — Operating Expenses (excluding depreciation) (2-3)} \;/\; 365} = 452$

OE $671,333
- Dep $212,251

Days of Cash on Hand



Current Ratio

$$= \frac{\textit{Unrestricted cash and cash equivalents + Receivables, net}}{\textit{Current Liabilities}}$$

Current Ratio – **Mayberry**

$$\boxed{4.}\quad \frac{\boxed{\$107{,}706} + \boxed{\$41{,}870}}{\boxed{\$108{,}390}} = \boxed{1.38}$$

Unrestricted Cash & Cash Equivalents ***(5)***

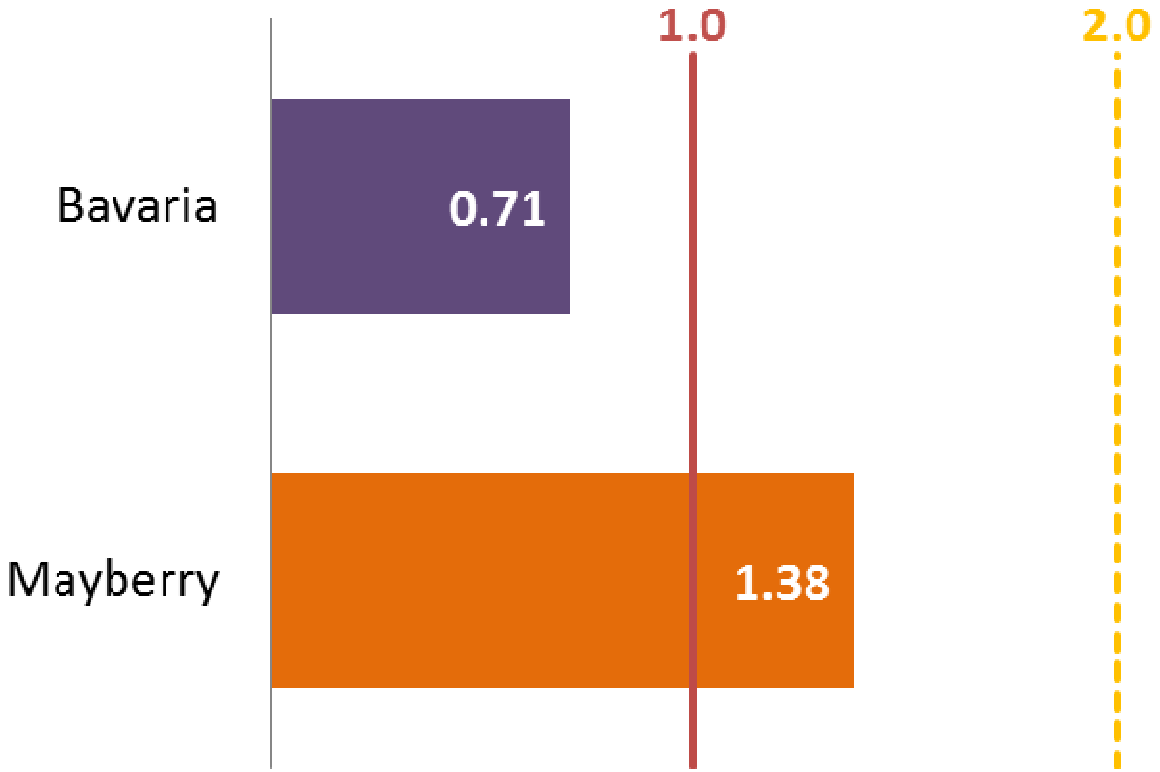
Receivables, net ***(6)***

Current Liabilities ***(7)***

Now You Calculate For **Bavaria**

4. ($568,061 *Unrestricted Cash & Cash Equivalents* **(5)** + $66,346 *Receivables, net* **(6)**) / $898,474 *Current Liabilities* **(7)** = 0.71

Current Ratio



What Happened to Bavaria?

Or

Why the Notes to Financial Statements are Crucial

The accompanying notes are an integral part
of these financial statements.

15

Bavaria corrected

C $568,061
+ G $460.005

$$4. \quad \frac{\boxed{\$1{,}028{,}066} + \boxed{\$66{,}346}}{\boxed{\$898{,}474}} = \boxed{1.22}$$

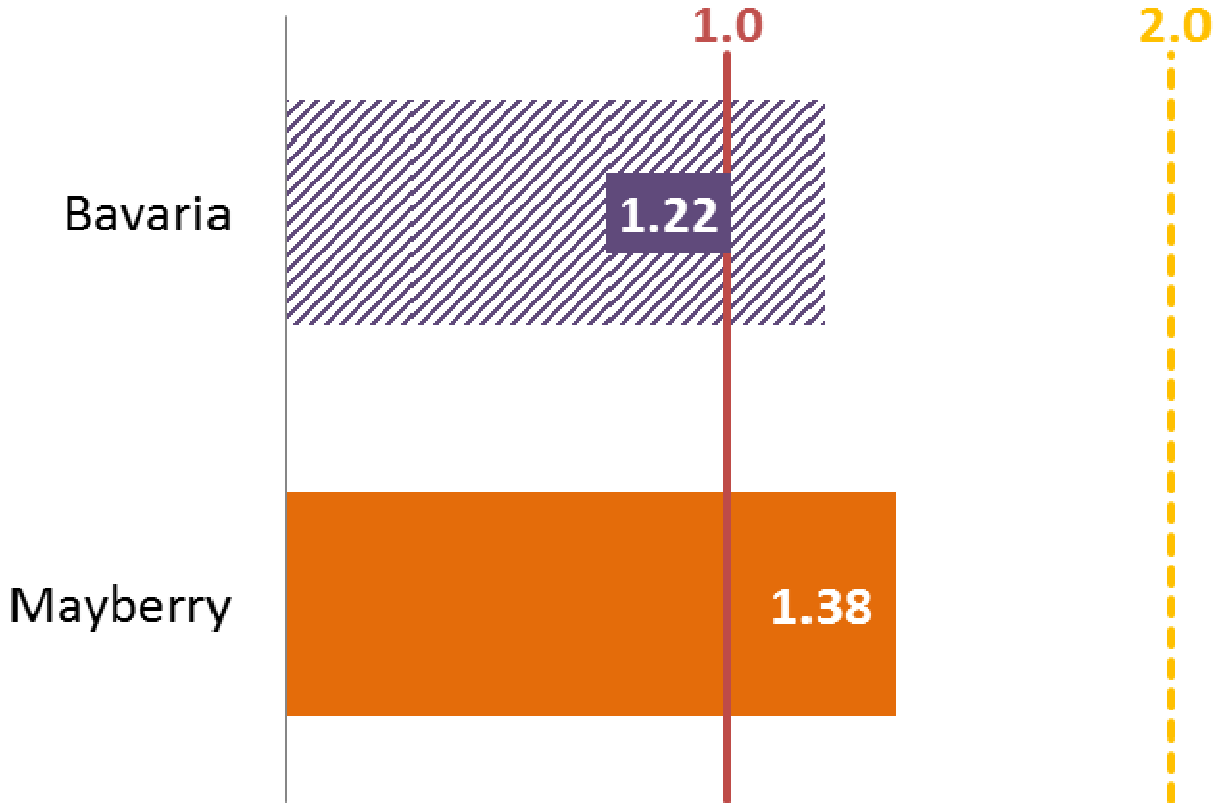
Unrestricted Cash & Cash Equivalents ***(5)***

Receivables, net ***(6)***

Current Liabilities ***(7)***

Current Ratio

Bavaria Corrected for Missing Grant Funds



One More to Mention: Asset Depreciation*

$$= \frac{Accumulated\ Depreciation}{Gross\ Plant\ and\ Equipment}$$

Benchmark? Don't get close to 1.0

*Caveat – This indicator is only as good as your depreciation schedule and even then historic pricing is likely to distort the results.

Why Care About This?

- Funders and ratings agencies care about this

- As you think about the future needs of your system, you have to know where you are starting from

Soooooooooooo....

- Once we figure out where we are, how do we know where we are going?

- How do we estimate the future costs and revenues?