



Smart Management for  
Small Water Systems

# Water System Rates & Finance Workshop

Palisades, NY

December 14, 2016



This program is made possible under a cooperative agreement with EPA.



# Housekeeping



## About the Environmental Finance Center Network (EFCN)

The Environmental Finance Center Network (EFCN) is a university-based organization creating innovative solutions to the difficult how-to-pay issues of environmental protection and improvement. The EFCN works with the public and private sectors to promote sustainable environmental solutions while bolstering efforts to manage costs.

## The Smart Management for Small Water Systems Program

This program is offered free of charge to all who are interested. The Project Team will conduct activities in every state, territory, and the Navajo Nation. All small drinking water systems are eligible to receive free training and technical assistance.

### What We Offer

Individualized technical assistance, workshops, small group support, webinars, eLearning, online tools & resources



## Areas of Expertise

- Asset Management
- Fiscal Planning and Rate Setting
- Energy Use and Efficiency
- Financial Regulatory Compliance
- Communications and Decision-making
- Multi-funding Coordination
- Water Loss Reduction
- Partnering with Other Water Systems
- Managing Small Systems in Drought



## Project Team

- Environmental Finance Center at University of North Carolina at Chapel Hill
- Southwest Environmental Finance Center
- Syracuse University Environmental Finance Center
- Environmental Finance Center at Wichita State University
- EFC West
- Environmental Finance Center at University of Maryland, College Park
- Environmental Finance Center at University of Louisville
- Great Lakes Environmental Finance Center at Cleveland State University
- New England Environmental Finance Center at University of Southern Maine
- American Water Works Association



# Best Resource: EFCNetwork.org

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 **Smart Management for Small Water Systems:**  
*Improving small water systems through sustainable finance and management*

Smart Management for Small Water Systems

Smart Management for Small Water Systems

Smart Management for Small Water Systems



# Quick Introductions

1. Name?
2. Organization?
3. Responsibility?
4. Details on your water system—who you serve, infrastructure, etc.



# Workshop Objectives

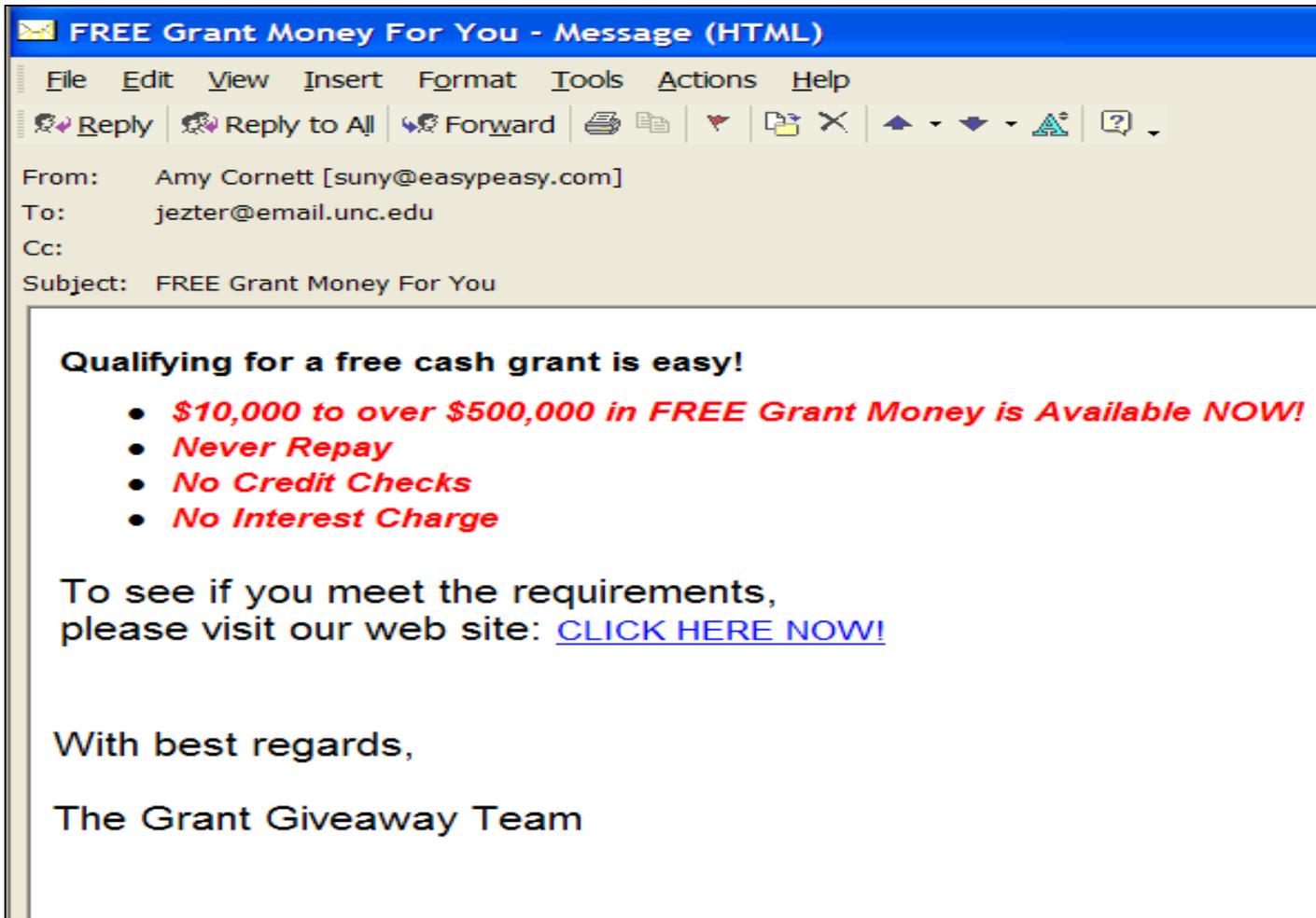
- Understand your system's current financial condition
- Learn how to plan for and finance your water system now and into the future
- Provide forum for sharing finance and management perspectives, ideas, and experiences



# Agenda

- Water Finance 101
- Assessing Financial Condition
- Capital Planning
- Revenues

# Topics Not Covered



**FREE Grant Money For You - Message (HTML)**

File Edit View Insert Format Tools Actions Help

Reply Reply to All Forward

From: Amy Cornett [suny@easypeasy.com]  
To: jezter@email.unc.edu  
Cc:  
Subject: FREE Grant Money For You

**Qualifying for a free cash grant is easy!**

- ***\$10,000 to over \$500,000 in FREE Grant Money is Available NOW!***
- ***Never Repay***
- ***No Credit Checks***
- ***No Interest Charge***

To see if you meet the requirements,  
please visit our web site: [CLICK HERE NOW!](#)

With best regards,

The Grant Giveaway Team



# Water Finance 101

Glenn Barnes

Environmental Finance Center

The University of North Carolina at Chapel Hill

919-962-2789

[glennbarnes@sog.unc.edu](mailto:glennbarnes@sog.unc.edu)



# Session Objectives

- Learn how to think about your water system as a financial entity
- Understand some basic financial facts about water systems across the country



# Let's Start With the Basics

- What does your water system do?



# Water Systems Serve Multiple Purposes

## Sometimes Those Purposes Conflict

- 1) System serves an important **environmental and health purpose** -- protecting community's water resources and supplying community with highest quality drinking water.



Dr. John L. Leal



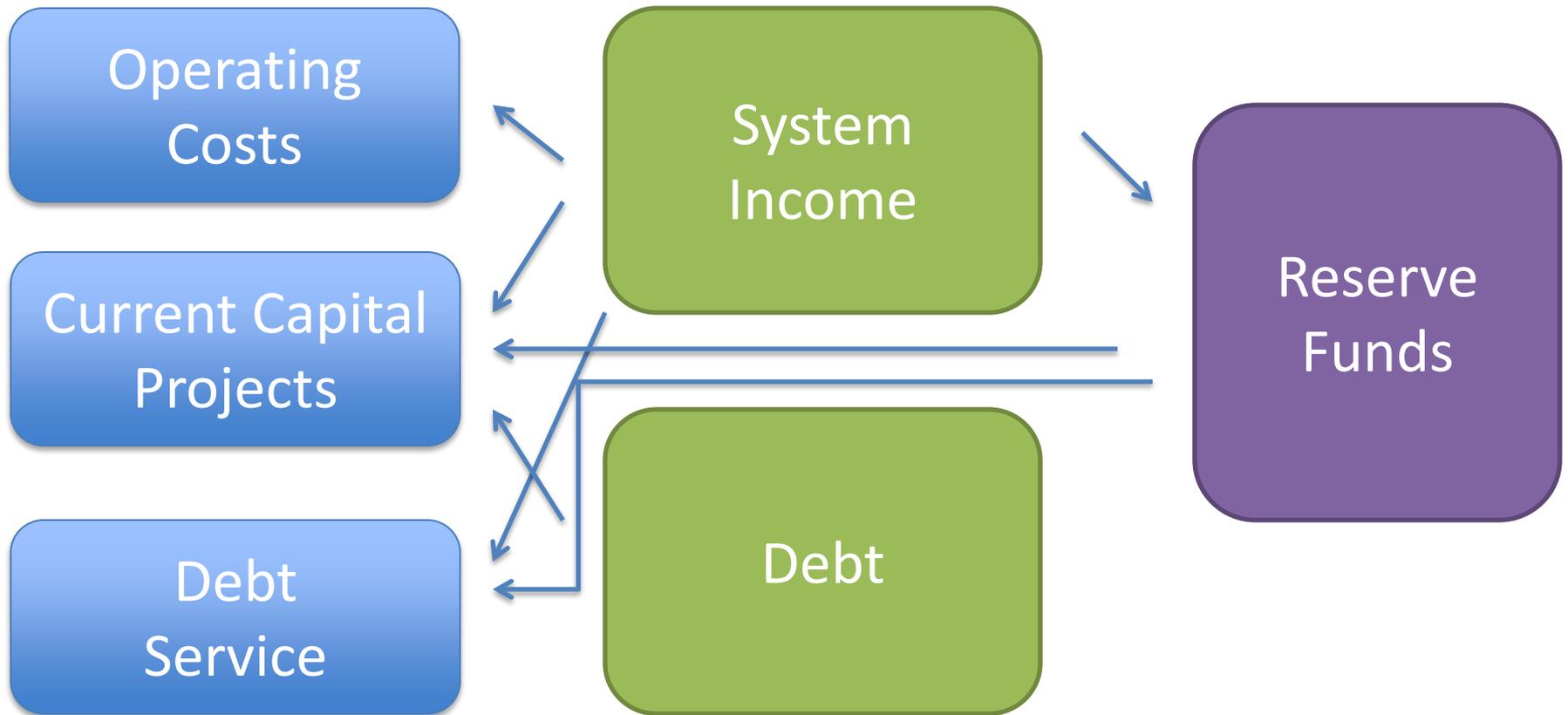
# Water Systems Serve Multiple Purposes

## Sometimes Those Purposes Conflict

- 1) System serves an important **environmental and health purpose** -- protecting community's water resources and supplying community with highest quality drinking water.
- 2) System serves an important **public service** – providing community with basic services that everyone in the community can afford.
- 3) System serves as a well managed **public enterprise** – putting into practice forward-thinking sustainable business practices.



# Water System Finance Diagram





# Three Types of Costs



**Operating Costs**



**Capital Costs**



**Debt Service**



# Two Types of Revenues

- **System Income**—Money from rates, tap fees, impact fees, grants, other sources
  - Note: To be a true enterprise fund, not taxes!
- **Debt**—Money from bonds and loans



# Many Types of Reserve Funds

- **Capital Reserve Fund**—Infrastructure rehabilitation and replacement
- **Repair Fund**—Known, ongoing maintenance issues
- **Emergency Fund**—Unknown, unanticipated maintenance issues
- **Rainy Day Fund**—Unexpected revenue shortfalls



# How Much Do You Need In Your Reserves?

- It depends
- Enough to pay for your most expensive piece of equipment?
- Enough to cover your costs if you had no revenue for two months?
- Enough to cover the projects in your capital improvement plan?



# Financial Facts About Public Water Systems



In the United States, there are

147,413

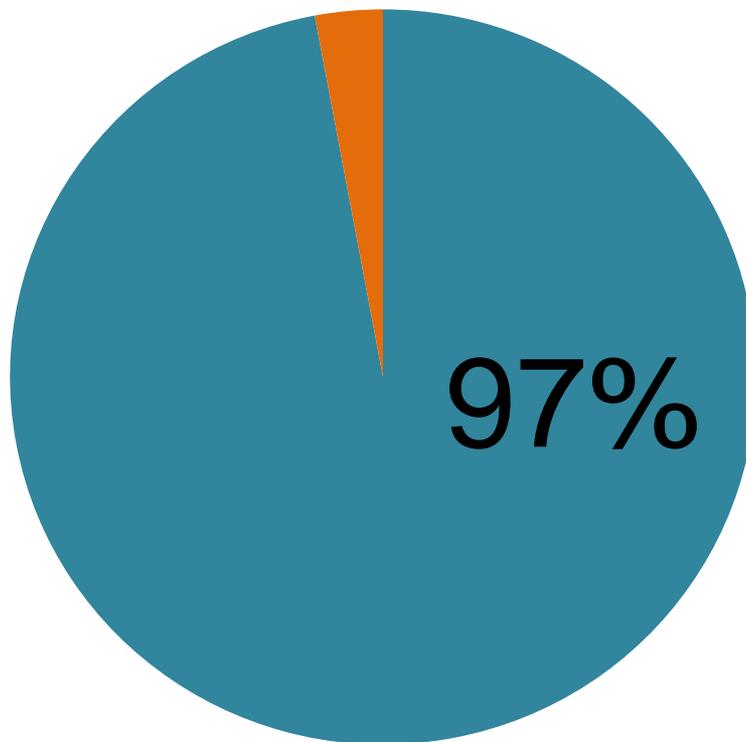
“public” drinking  
water systems

Source: EPA SDWIS Database as of July



# Most Water Systems are Small

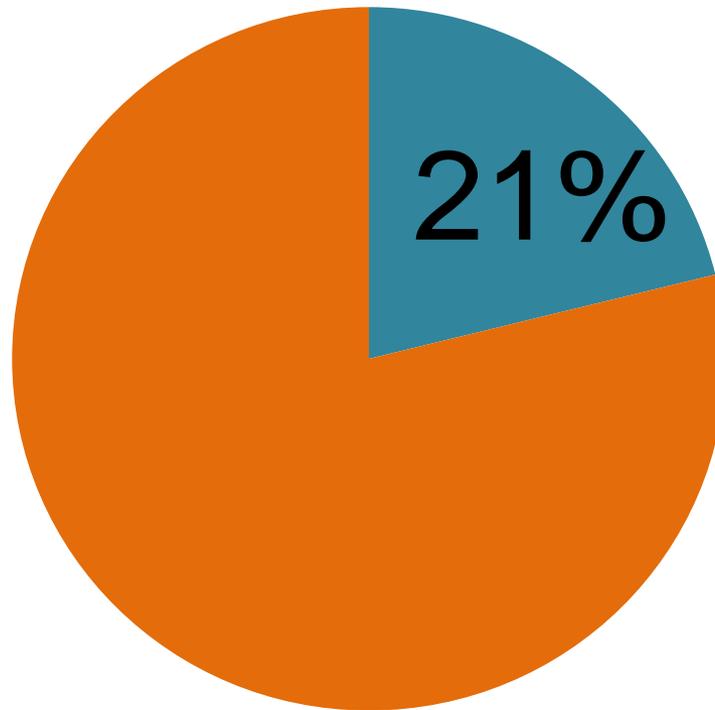
They serve 10,000 or fewer customers



Source: EPA SDWIS Database as of July



# Collectively, Though, **Large Systems** Serve Far More Total People



Source: EPA SDWIS Database as of July

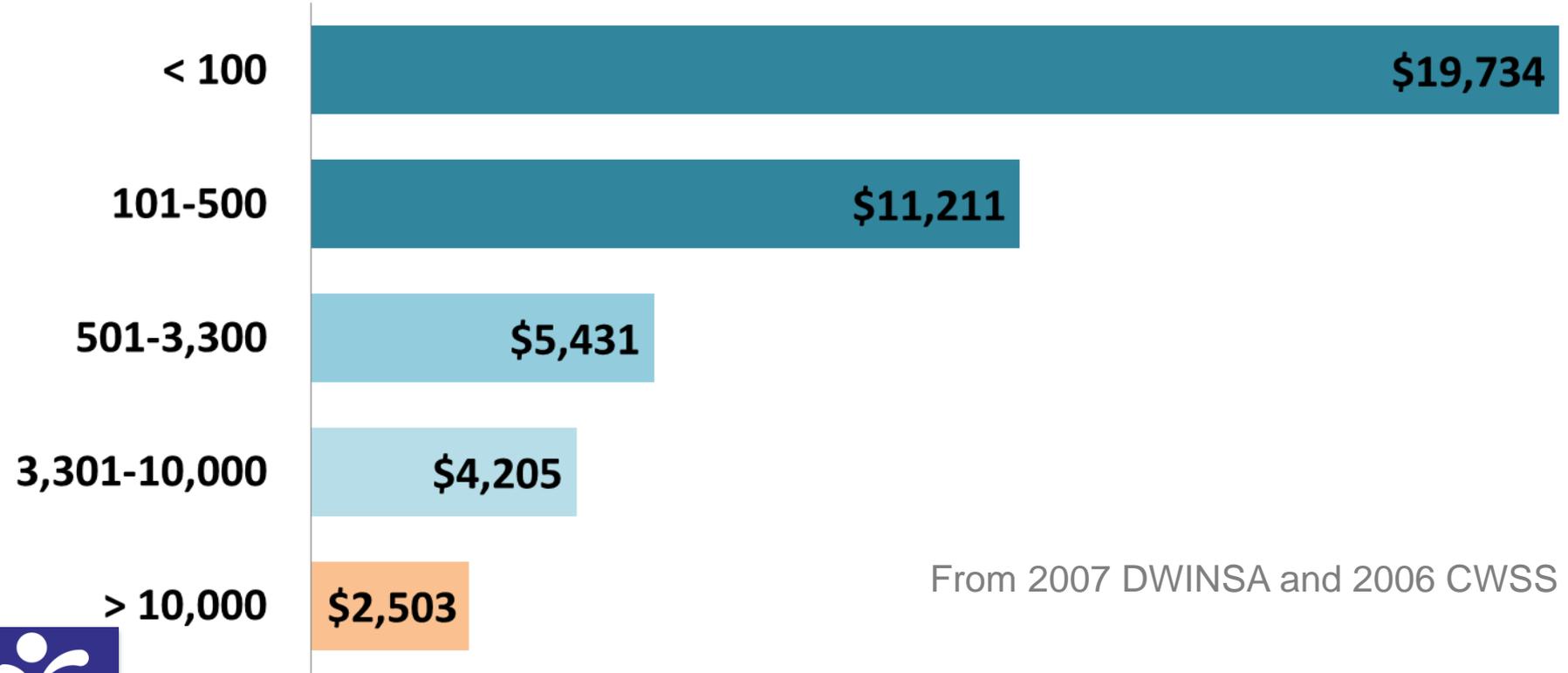


# Why does system size matter?

## What's the issue with small systems?



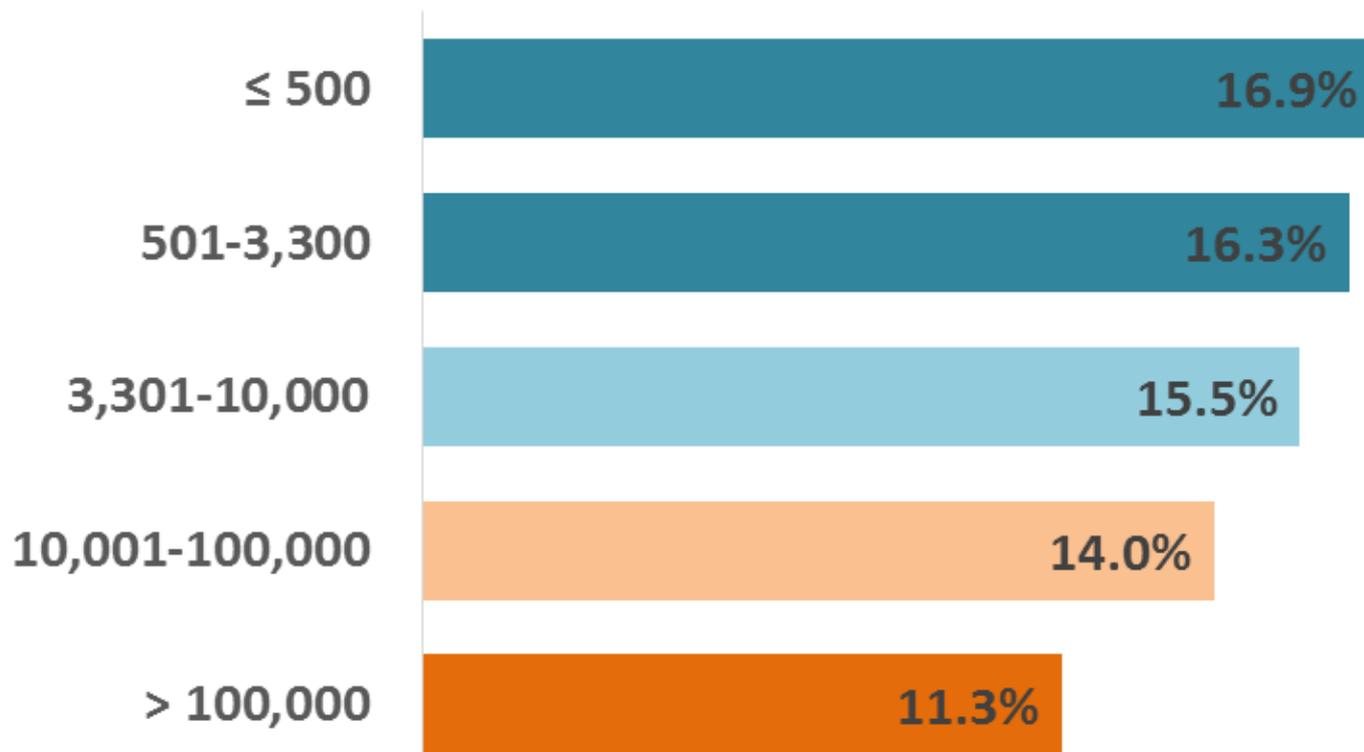
# The Infrastructure Needs Per Residential Connection are Much Greater for Small Systems



From 2007 DWINSA and 2006 CWSS



# And Small Systems have higher numbers of annual health violations



Community Water Systems

From SDWIS Data, July 1<sup>st</sup> 2015- June 30<sup>th</sup> 2016



## In Other Words...

- Water systems require a large amount of very expensive infrastructure and skilled staff
- And that infrastructure, skilled staff, and other fixed costs don't go away when customers use less water individually or collectively



# Is My System Financially Healthy?

CITY OF WOODBINE, GEORGIA  
STATEMENT OF NET ASSETS  
PROPRIETARY FUNDS  
DECEMBER 31, 2010

Enterprises Funds  
Water and Sewer

ASSETS	
Current assets	
Cash	\$ 28
Receivables, net	4
Total current assets	32
Total Assets	
LIABILITY	
Total Liabilities	
Total Liabilities and Net Assets	

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

15

# BREAK

