Smart Management for Small Water Systems

Financial Resiliency for Small Water Systems

Buffalo, NY
September 14, 2017

UNC ENVIRONMENTAL FINANCE CENTER

EFCN environmental finance center network

American Water Works Association

This program is made possible under a cooperative agreement with the US 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 Program 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, blogs

The Small Systems Program Team

- Environmental Finance Center at The University of North Carolina at Chapel Hill
- Environmental Finance Center at Wichita State University
- EFC West
- New England Environmental Finance Center at the University of Southern Maine
- Southwest Environmental Finance Center at the University of New Mexico
- Syracuse University Environmental Finance Center
- Environmental Finance Center at the University of Maryland
- American Water Works Association (AWWA)

UNC Environmental Finance Center

Wichita State University Hugo Wall School of Public Affairs Environmental Finance Center

EFCWest Environmental Finance Center West

New England Environmental Finance Center

Southwest Environmental Finance Center

Environmental Finance Center Syracuse University

University of Maryland Environmental Finance Center

American Water Works Association

Areas of Expertise

- Asset Management
- Rate Setting and Fiscal Planning
- Leadership Through Decision-making and Communication
- Water Loss Reduction
- Energy Management Planning
- Accessing Infrastructure Financing Programs
- Workforce Development
- Water Conservation Finance and Management
- Collaborating with Other Water Systems
- Resiliency Planning
- Managing Drought

Quick Introductions

1. Name?
2. Organization?
3. Responsibility?
4. Details on your water system
5. What are you most proud of at your water system?
6. What is your biggest issue?

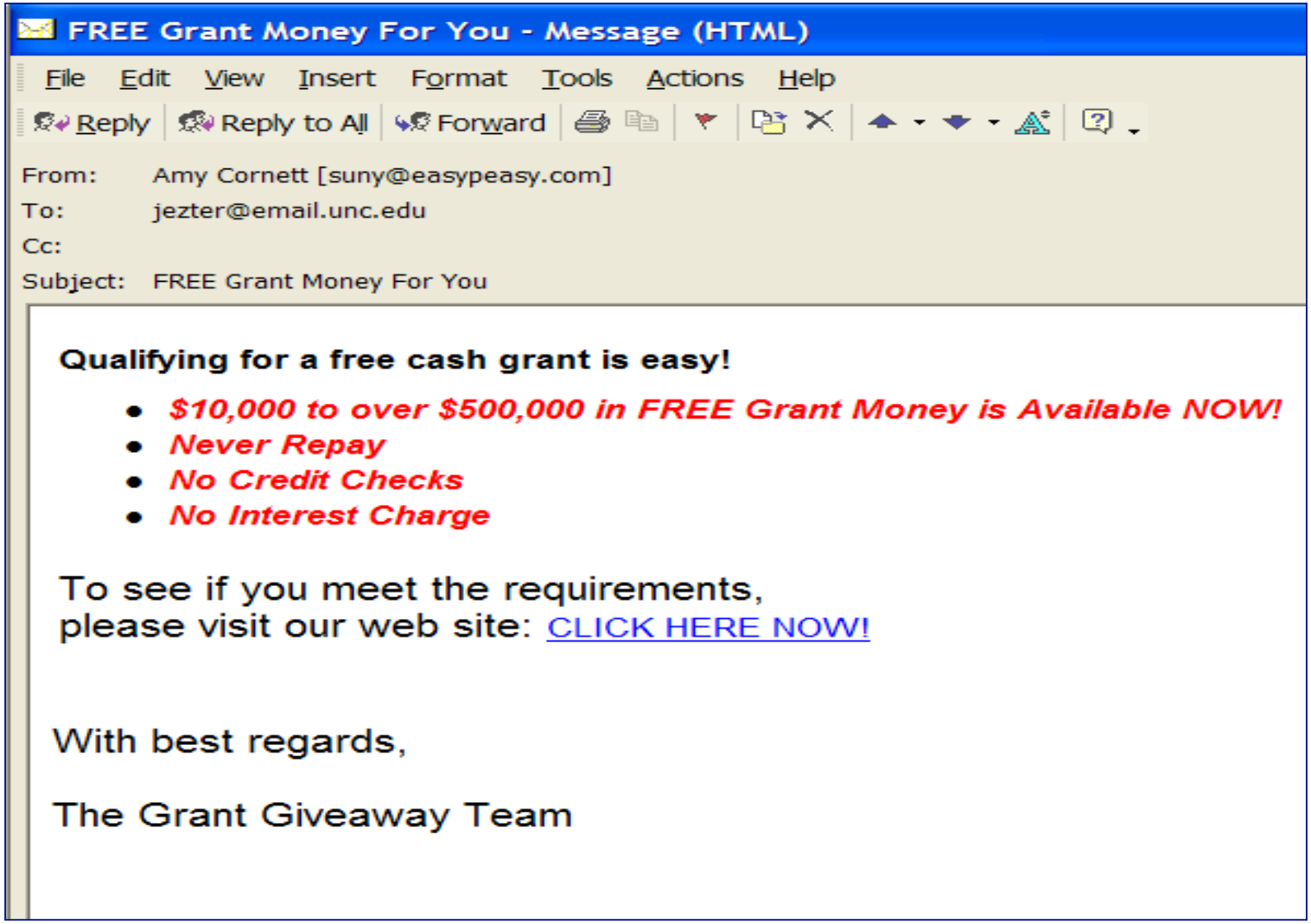
Workshop Objectives

- Have the right staff to achieve system goals
- 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
- Workforce Development
- Long Term System 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

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

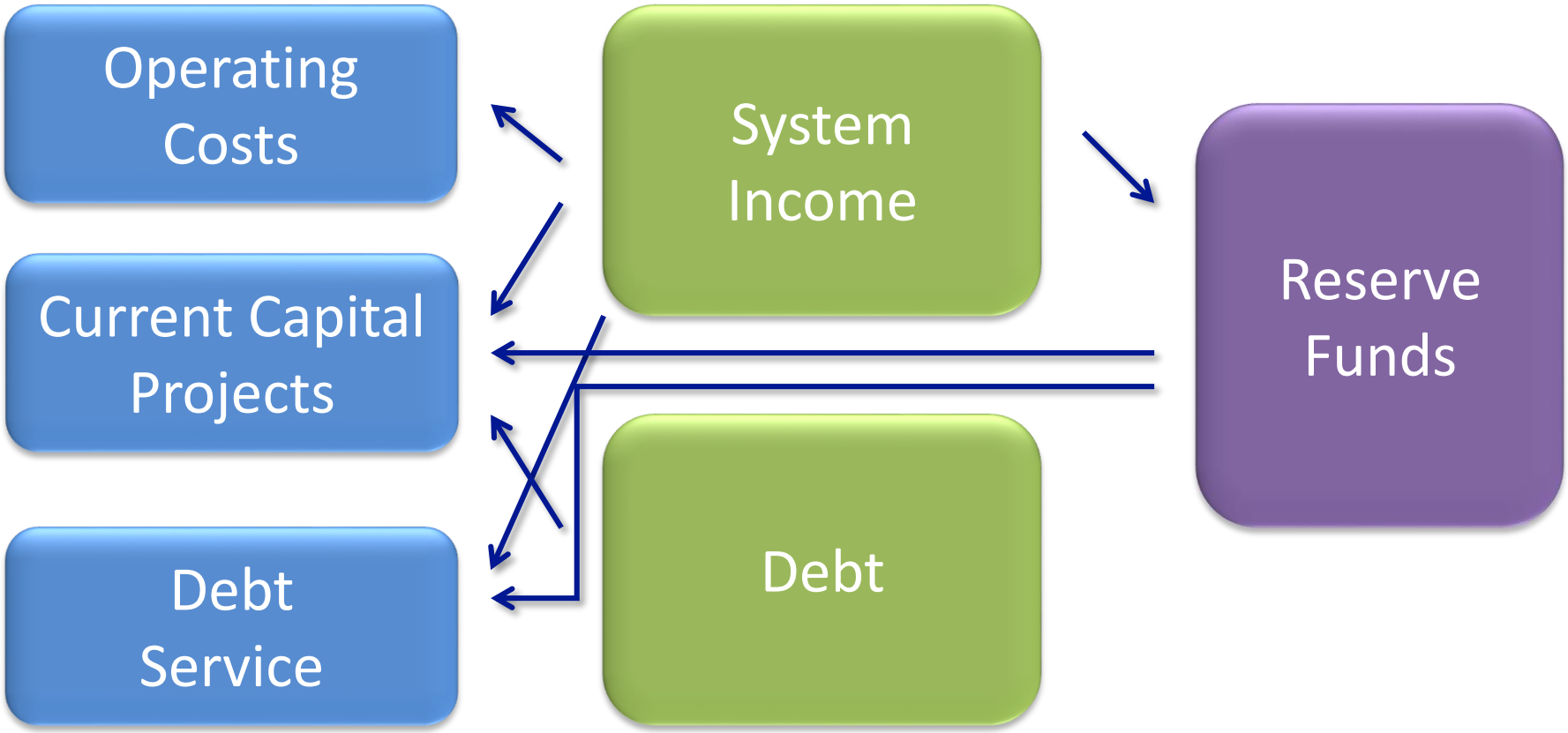
Water Systems Serve Multiple Purposes
Sometimes Those Purposes Conflict

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—what you need to run the system day in and day out
- Capital Costs—rehabilitation and replacement of existing infrastructure and new infrastructure
- Debt Service—what you owe on loans and bonds

Two Types of Revenues

- System Income—Money from rates, tap fees, system development charges, grants, penalties, 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 1, 2016

Confusing Terminology

- “Public” water systems are publically regulated regardless of whether they are owned by a public or private entity

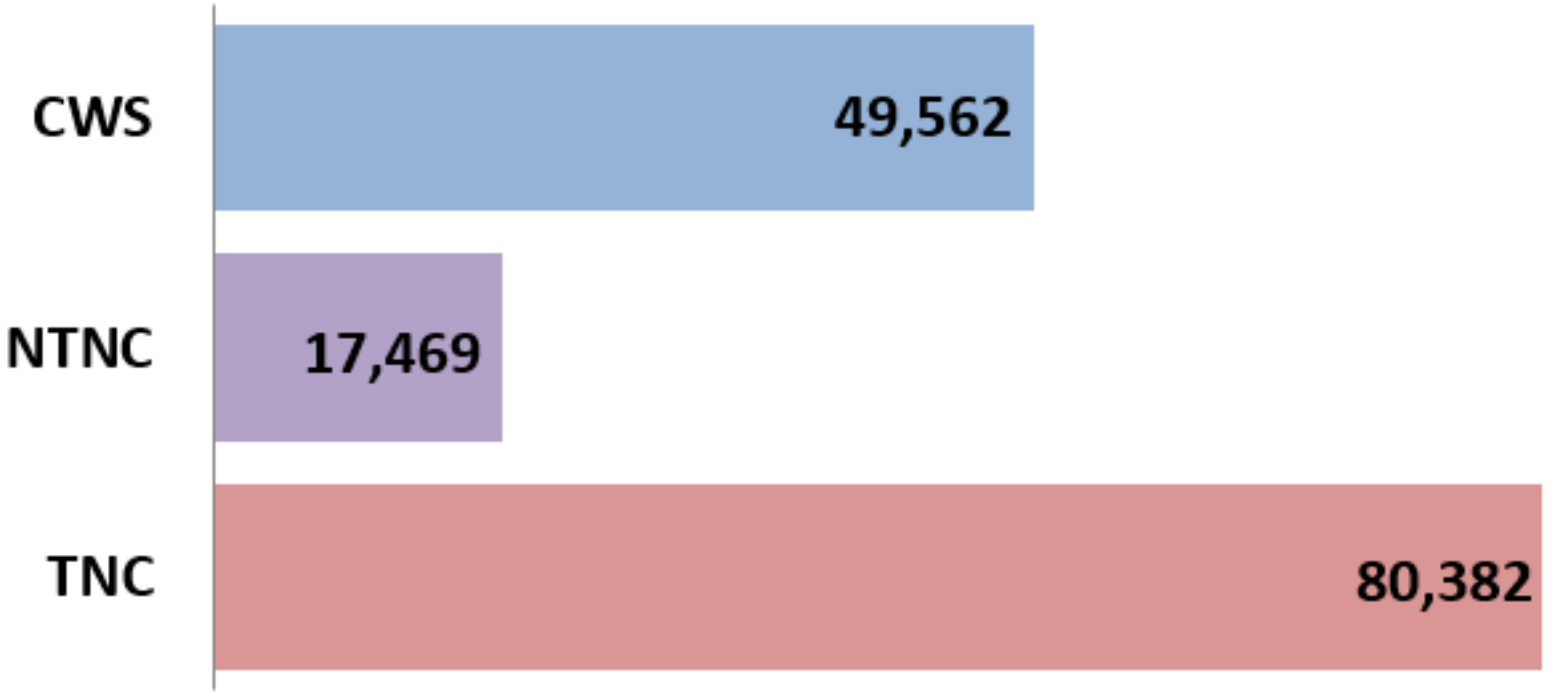
EPA Divides Public Water Systems Into Three Types

- Community Water Systems (**CWS**)
- Non-Transient, Non-Community Water Systems (**NTNC**)
- Transient, Non-Community Water Systems (**TNC**)

Which Type They Are Depends on Who They Serve

- **CWS** serve the same 25+ people/15+ connections regularly where they live
- **NTNC** serve the same 25+ people regularly outside of the home
- **TNC** serve 25+ people regularly but not the same people

Most Water Systems are Transient Non-Community Systems



Source: EPA SDWIS Database as of July 1, 2016

EPA Also Divides Systems into Five Categories Based on Number People Served

Small Systems

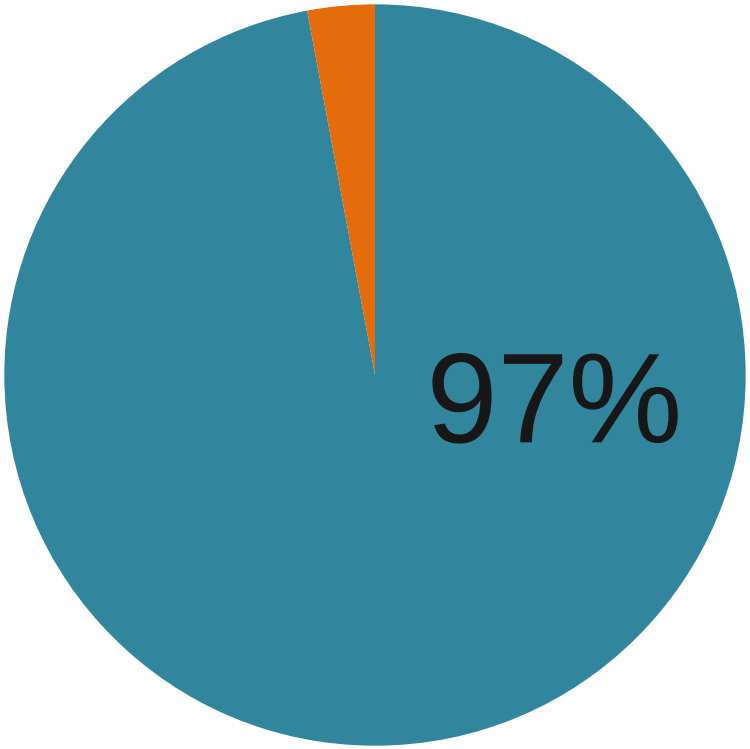
- Very Small: Up to 500
- Small: 501 to 3,300
- Medium: 3,300 to 10,000

Large Systems

- Large: 10,001 to 100,000
- Very Large: More than 100,000

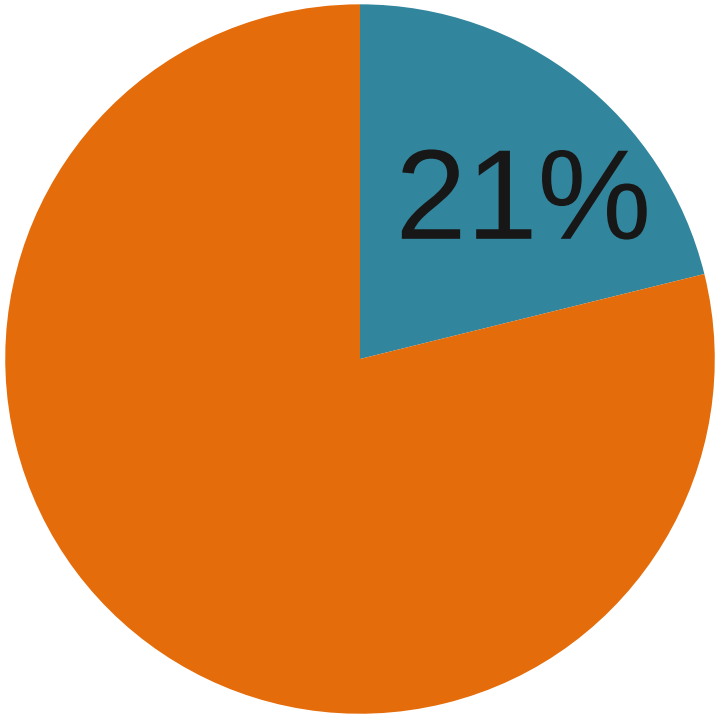
Most Water Systems are Small

They serve 10,000 or fewer customers



Source: EPA SDWIS Database as of July 1, 2016

Collectively, Though, Large Systems Serve Far More Total People



Source: EPA SDWIS Database as of July 1, 2016

Almost all Non-Community Systems are Small

- More than 99% of **NTNC** and **TNC** serve 10,000 or fewer people

- At least 85% serve 500 or fewer people

Source: EPA SDWIS Database as of July 1, 2016

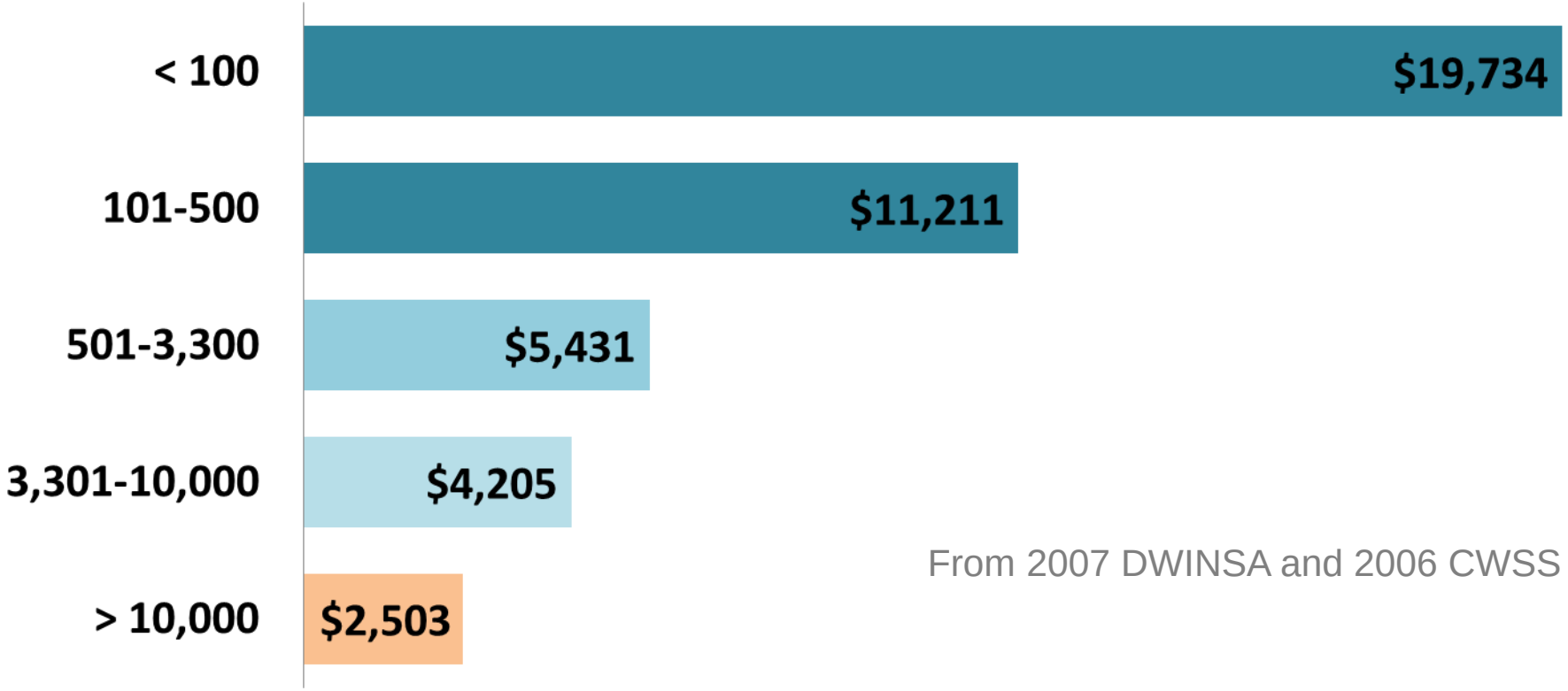
Community Water Systems have the most Large and Very Large Systems

Source: EPA SDWIS Database as of July 1, 2016

Why does system size matter?

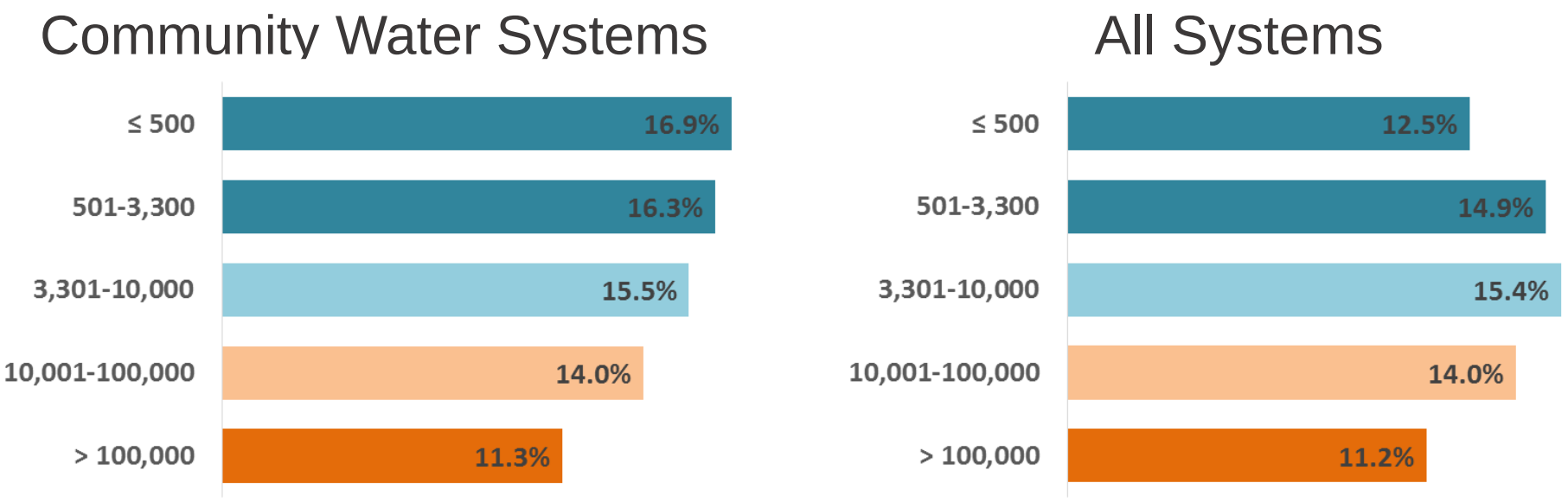
What's the issue with small systems?

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



From SDWIS Data, July 1st 2015- June 30th 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