

The Role of Water Loss Control in Energy Management:



By: Rachel Harris, Cavanaugh & Associates, PA



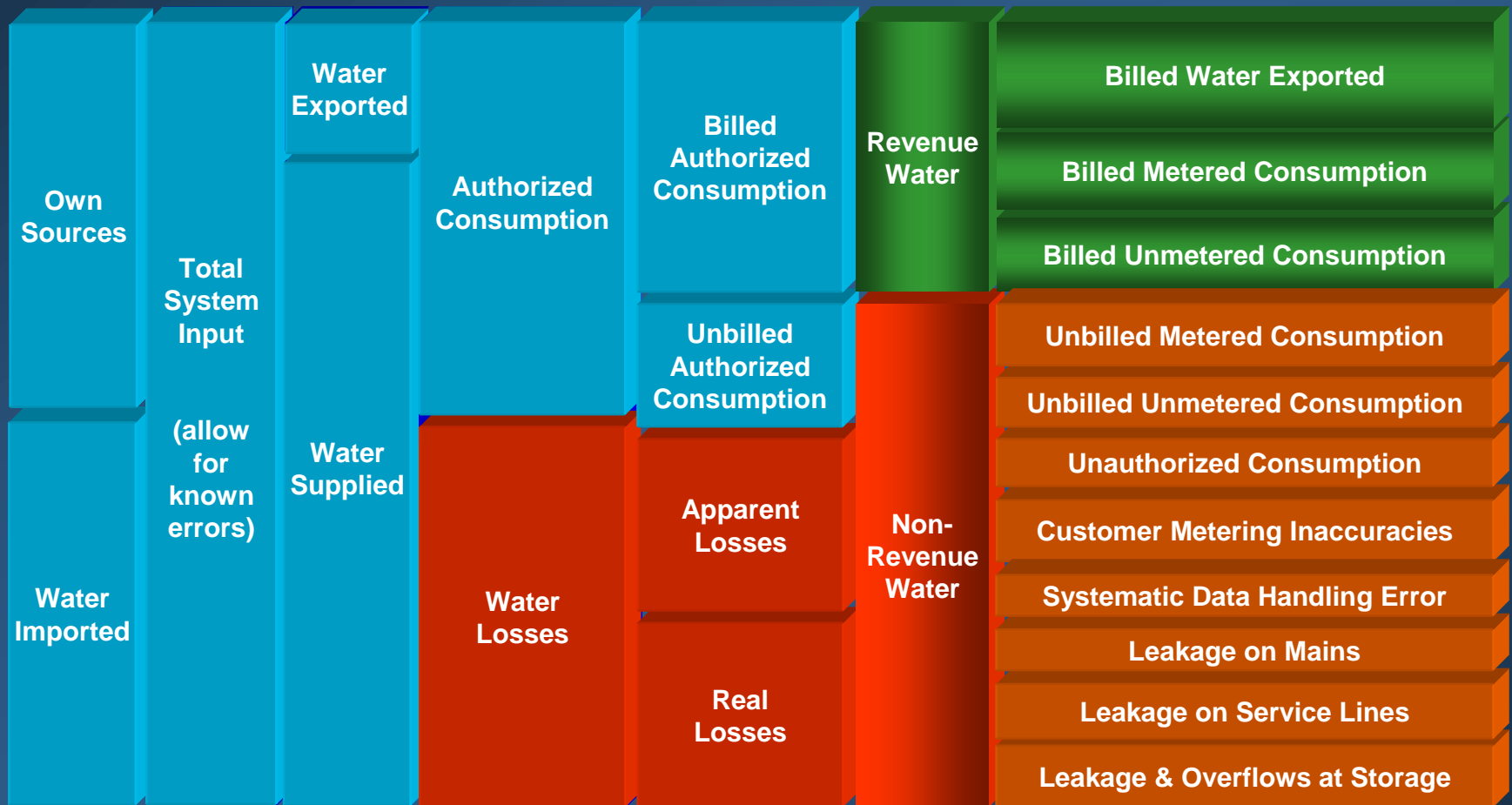
CAVANAUGH
Stewardship Through Innovation

Overview

1. AWWA Water Audit & Terminology
What is Water Loss?
2. Energy and Water Utilities
3. Energy Management
4. Why care about Water Loss and Energy Management?
5. How can Water Loss Control aid in Energy Management?

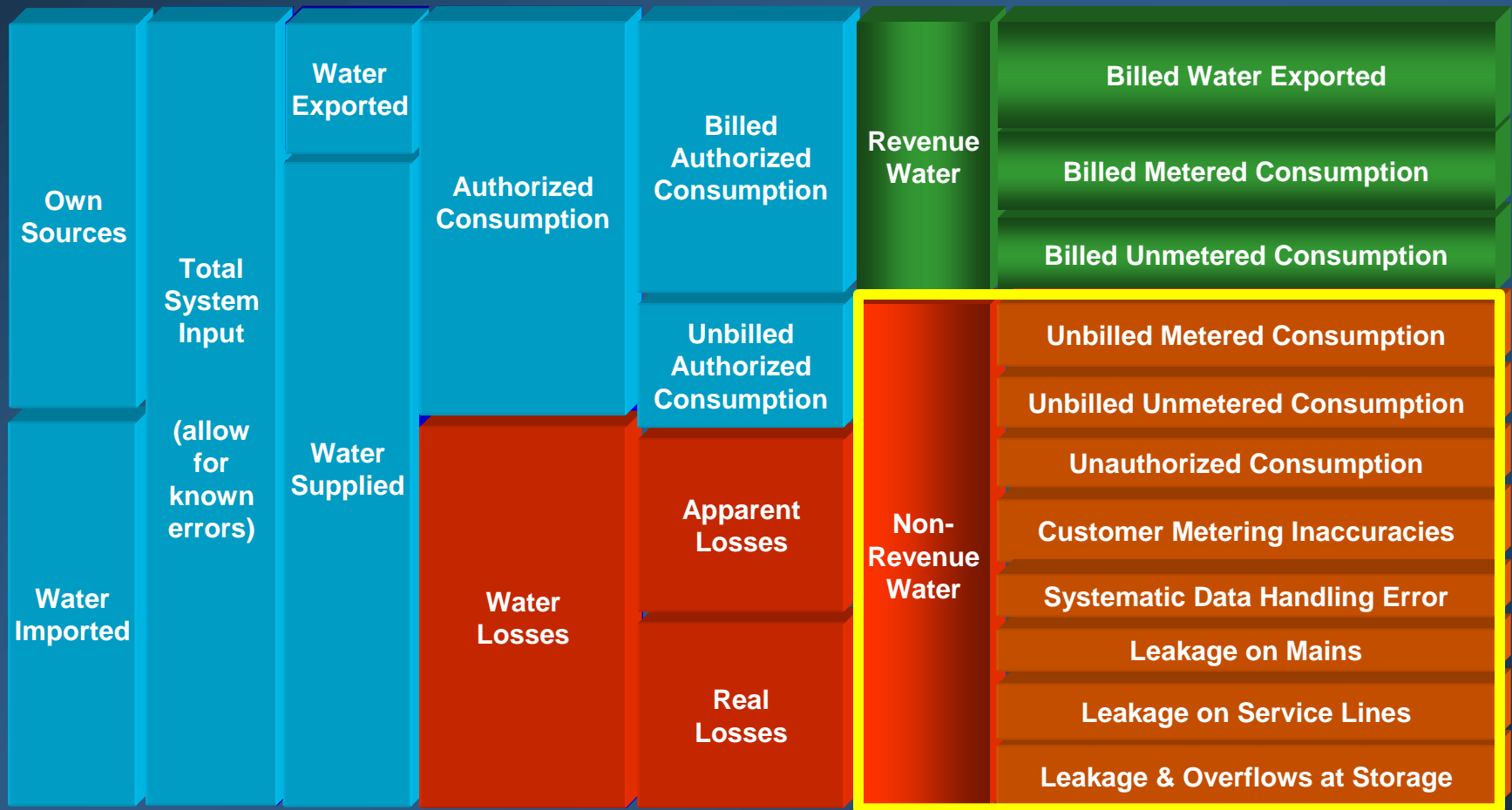
AWWA Water Audit & Terminology

Water Balance: Categorizing Use and Loss



Water Supplied – Authorized Consumption = Water Loss

Non-Revenue Water



Energy & Water Utilities

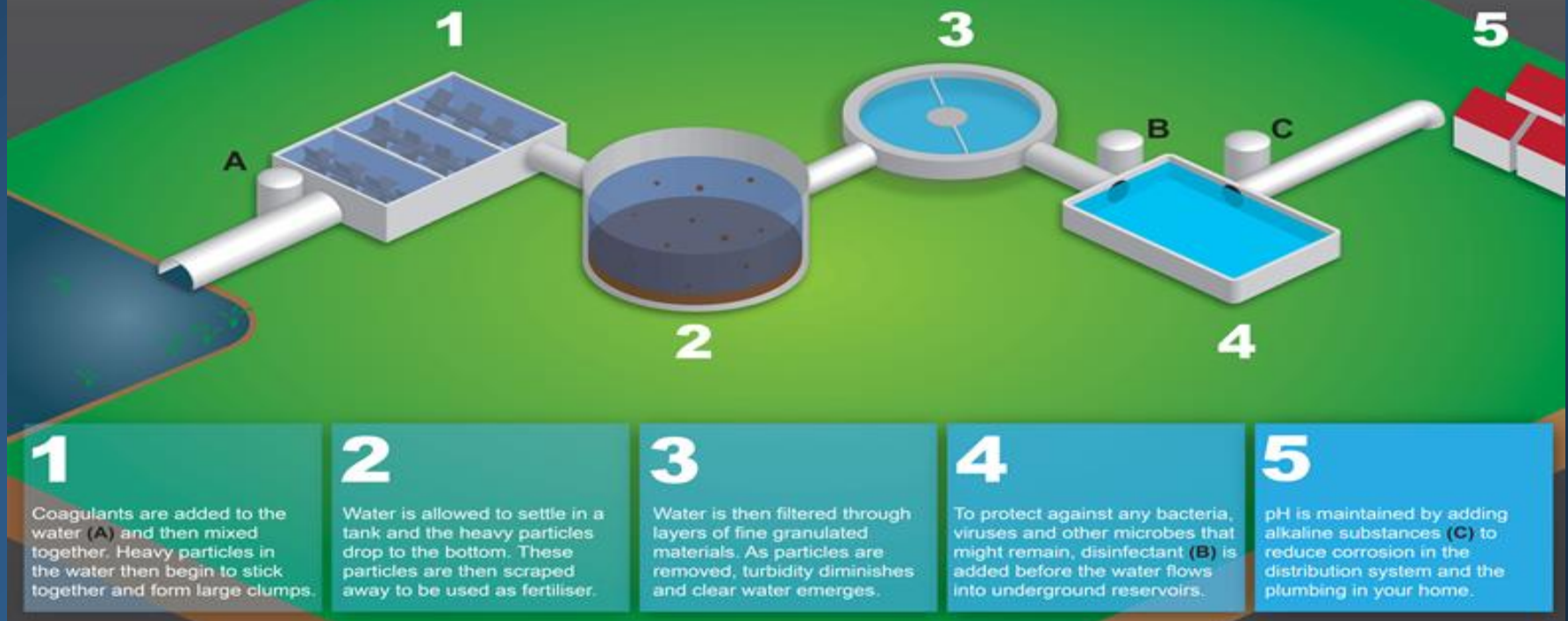
- Energy represents one of the largest controllable costs of providing water services to the public
 - Over 52,000 Community Water Systems
 - Approximately 157,000 Public Water Systems with about 94% as “small systems”
 - In 2010 water systems used 12.6% of the nation’s total annual energy consumption

What kind of energy requirements are necessary to operate a water system?

PRODUCTION

WATER TREATMENT PROCESS

An overview of how water is cleaned and treated before distributing to the population.
(Methods vary between countries depending on water standards)



What kind of energy requirements are necessary to operate a water system?

– DISTRIBUTION



– WATER LOSS



Energy Management

- **What is Energy Management?**
 - Analyzing energy usage to formulate measures to reduce energy costs
 - Improving energy efficiency & managing total energy consumption
 - Controlling peak demand for energy
 - Improving energy reliability

Why care about water loss and energy management?

- Scarcity
- Water Loss places unnecessary energy demands on a water system
- Energy management → Energy savings → \$\$ Savings
- Conserve resources, both natural and financial

How can Water Loss Control aid in Energy Management?

- Water Loss Control = Formulate a Plan
 - Establish the Target
 - Establish a Water Loss Control Plan
 - Provide control measures as real loss/leakage management

Questions?

