

## Building Your Water Audit Team!

Non-Revenue Water Takes a Village



## Cobb Water at A Glance

- Serve about 600,000 citizens
- 175,000 accounts
- 92% Residential
- No heavy industrial Users
- Buy our water wholesale
- 55 MGD AADD
- Wholesale and retail wastewater provider

## Starting the Audit Process

- Used the software for the first time in FY05
- Perform our audit on the fiscal year cycle
- Immediately realized we did not keep data this way
- We were overwhelmed with what it was asking
- We did not have a process that allowed us to evaluate data this way
- Made the decision things would have to change

## Identify Your Needs

- Went through the Audit
- Broke Down the Data Needs by Division
  - Wholesale/Production
  - Consumption/Billing system Related
  - Financial
  - Operations/System Use
  - Construction Project Data
  - Other County Agencies (Fire)

## This is Not a One-person Job

- Teamwork
  - Developed an internal team
  - Developed a multi-agency team
  - Developed tracking reports
  - Tapped existing resources – how could we augment
- Looking at water loss differently – non-revenue water not unaccounted for water
- Found challenges of being only a distribution system

## Our History with CCMWA: Roadblock to the Audit

- Cobb County Water is CCMWA's largest customer. Appx. 70% of their sales.
- They meter their other 11 customers
- We are billed for all the remaining water "pumped to town"
- Obviously an issue...CCWS is assessed all of their "water loss" They really have no non-revenue water.

## Cooperation for the Common Good

- CCMWA is a valuable member of our multi-agency audit team
- Together we created an annual report that we receive
- Documents any breaks, or authorized unbilled use and losses in the plants
- We calculate a total number of gallons from that report
- That becomes our master-meter offset

## Cooperation

- Fire Department – Estimated Water Uses.
  - Most Challenging
  - Fear we will bill what we quantify
  - Estimate use at training facility, fires, and for hydrant flow testing
- Construction Management – Participate on the internal data collection team
- Meter Maintenance also on the internal team - % of efficiency from the bench tested meters we replaced
- System Maintenance - Flushing and Leaks.
- Leak detection staff – we get an annual report this started about 2 ½ years ago.
- Billing system staff – responsible for creation and pulling of several reports

## It was a Building Process

- Continue to add participants
  - There are far more people involved than you realize
  - More folks involved equals more accurate dataAlways evaluating our data collection
- Realizing we have new needs to consider in purchasing
  - Billing Systems
  - Meters
  - Software
  - Work order systems

## The Audit Changes

- We are now working with our 3<sup>rd</sup> version.
- With every version we find a new data need
- We beta tested the latest version
  - Because of our situation with 100% purchased water we discovered a flaw
  - You could not calculate a validity score if you purchased all you water
- The new scoring really sets a benchmark for us to measure against and a road map for us.

## Benefits to our Approach

- No one person has a total picture of a system our size.
- We tap the expertise within our own organization and those affected by the audit.
- That provides buy-in from staff.
- We can spread out the responsibility.
  - Billing system folks generate reports
  - System maintenance tracks activities and provides a report
  - Other entities as well coordinate is data provision activities
- Point person for coordination and data entry as well as data verification and team coordination
- It makes it very manageable...less overwhelming
- We are able to do it in house

## Drawbacks

- Reluctance to such a major change
- Some felt this wasn't their responsibility
- Fear that reporting accurately would result in retribution
- Fear that we would begin to charge entities
- Concern that it would be used to pit departments against each other
- Did not have a process for collecting, storing, or reporting this way
- We currently use the fiscal year will need to transition to calendar year for compliance.

## Lessons

- You need buy in from the top
  - If someone doesn't want to participate you need to be empowered to address that
  - You can't calm fears unless upper management backs up what you are saying
- You can't benchmark where you are the first couple of times
- It is an ever evolving process
- People love the term unaccounted for water
- It is the project lead's responsibility to define the goals of this for the team

## Points of Interest

- The cost of apparent losses makes looking at meter and billing system changes more financially advantageous
- In Cobb in FY10
  - Water Purchased – 20,557MGY
  - Water Sold – 18,018MGY
  - Water Losses – 2,384 MGY
    - Apparent Losses – 496 MGY @ \$2,277,360
    - Real Losses – 1,888 MGY @ \$3,720,939
- Cobb is spending approximately \$200,000 a Year on Leak Detection and Abatement. Savings is \$1,970/MG Saved.
- Apparent Losses are costing us \$4,591/ MG Lost – Cobb is Spending \$0 dollars on addressing our billing system issues.

## Are we there yet?

- No, we still feel like we are just beginning
- Only added the engineer who maintains the water model this year – System Pressure Accuracy – Using Metro District Approach.
- We have big questions that came out of the new version on our data validity
- We are still wondering what role this has for us in long term planning
- We have a strong team and they can and will meet these challenges.
- With a wholesale effort by so many staff it must have a role in managing the system- and informing our Asset Management Program

## Questions

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