Infrastructure Life Cycle – The Need for Sustainable Infrastructure Practices
Many water utilities began late 1800’s to early 1900’s

* Found reservoirs/rivers/groundwater to be sufficient for potable water supplies

* Many water systems built during this time period were privately funded endeavors

* Cities usually bailed out troubled private systems due to the ability to borrow money and levy taxes

* Systems continued to grow

* Beginning in 1980’s, southeastern states experienced tremendous growth
How Utilities Were Managed Prior to 1980

* Low, low cost was first priority
* Somewhat reliable service
* Fire protection in business districts
* Few federal or state regulations
* Focus was primarily on technical issues rather than the business practices
* Virtually no attention to source water protection
Fast Forward to 2012

* Tremendous population growth, particularly in the southeast
Cities, Communities Begin to Experience:

* Limitation on water supplies (quantity)
* Source water quality issues
* Infrastructure reliability issues
* Struggles to meet new growth infrastructure needs
* Higher customer expectations
* Climate variability
Cities, Communities Begin to Experience (cont’d.)
How Did Things Go So Horribly Awry?

* Historically, little to no competition for public water providers
* Little strategic/business planning
* Poor user rate design and budgeting practices
* Poor asset management (infrastructure life cycle costs)
* Lack of regional utilities
How Did Things Go So Horribly Awry? (Cont’d.)

* Desire to keep rates artificially low
Moving Forward

Strategic/Business Planning

* Strategic Planning should “drive” the organization

* Utilities must understand “making the business case” for operational and management decisions

* Understand the nexus between strategic planning, capital planning, rate development, financing, and customer/consumer impact
Effective Utility Management (EUM) Model

* Developed by seven professional organizations to serve as the standard for utility management

  * EPA
  * American Water Works Association
  * Water Environment Federation
  * American Public Works Association
  * North American Clean Water Agencies
  * Association of Metropolitan Water Agencies
  * National Association of Water Companies
EUM Utilizes:

Five Keys to Management Success

Ten Attributes to Effectively Managed Utilities

- Product Quality
- Customer Satisfaction
- Employee/Leadership Development
- Operational Optimization
- Financial Viability
- Infrastructure Stability
- Operational Resiliency
- Community Sustainability
- Water Resource Adequacy
- Stakeholder Understanding/Support
**Summary**

* Utilities must be more aggressive in replacing infrastructure
* $1 trillion over the next 25 years needed in U.S. (need for asset management)
* Utilities will have to become more regional
* Source water protection will become extremely important
* Management of excessive water use will be necessary
* Rates will rise
* Politics may still be an impediment
QUESTIONS?