Creating a One Water Structure

Clayton County Water Authority Case Study
CCWA Background

• Created by Act of State Legislature in 1955 to serve unincorporated area

• Guided by Board of Directors appointed by County Commissioners

• Operate as separate entity from governance and financial standpoint

• Mission: Providing Quality Water and Quality Services to our Community
CCWA Background

• Over 77,000 Water, Wastewater and Stormwater Accounts
• Serving over 270,000 people
• 3 water plants that can provide up to 42 million gallons per day
• 3 water reclamation plants that can treat up to 38.8 million gallons per day
• A significant part of our infrastructure is buried underground pipes – 3,000 miles
Sustainable Water Supply

Water Reclamation Facility

Treatment Wetlands

Drinking Water Plant

“It’s raining in Clayton County every day!”
Limited Water Resources but Sustainable Supply

- Surface water supplies are very limited
- Limited groundwater availability
- Drought preparedness
  - 2007 - Minimum storage capacity was 77% = at least 200 days supply without additional rain
  - 2011 - dropped to 69%
Regional Water Resources Issues

• Appalachian - Chattahoochee - Flint - Water Wars
  • Water supply authorized?
  • Storage management?
  • Endangered species laws
  • Florida v. Ga in Supreme Court
  • ACF Stakeholders Group
Regional Water Resources Planning

• State Water Planning Districts
  – Metropolitan North Georgia Water Planning District – 15 Metro Atlanta Counties
  – Incorporating integrated planning
• Upper Flint River Working Group
  – Facilitated by American Rivers
• Georgia Association of Water Professionals
  – Umbrella for AWWA, WEF, AWWA, etc
Stormwater Service Areas
Stormwater Utility

• Stormwater management was divided along political lines – County & 6 Cities
• Increasing burden of NPDES Permit and other State requirements
• County & Water Authority began feasibility study in 2005
  – All Six Cities joined at invitation of Water Authority
• Developed intergovernmental agreements and utility began operation in 2007
CCWA – A One Water Organization

- Management responsibility for drinking water, wastewater and stormwater within Clayton County
- We don’t specifically talk about or label it One Water, it is just part of our culture
  - Planning, operations and administration all under the same umbrella
  - Scarcity and increasing demand helped to drive an integrated approach
CCWA – A One Water Organization
One Water – Benefits

- **Sustainability**
  - Water Resource Recovery – one of earliest planned indirect potable reuse systems
    - 69% storage during worst drought on record
  - More nimble at making changes to improve sustainability through coordination
    - Flint River discharge
    - Hydrology model

- **Efficiency**
  - One administrative system to support all
  - Shared resources, equipment, knowledge, people
    - Pipeline rehabilitation
Keys for Development of A One Water Structure

• Physical – water disciplines
  – Scarcity – limited supplies
  – Increasing demand for water
    • Not just traditional services – recreation, endangered species, flooding, stormwater runoff,
  – Mindset shift
  – Communication & Coordination
  – Trust
Keys for Development of A One Water Structure

- Organizational/political
  - Trust / Relationships
  - Communication
  - Community orientation
  - Performance – past and present
One Water Challenges // Obstacles

• Issues that go beyond traditional water management arena
  – Land use, zoning, development requirements, code enforcement, septic tank mgmt, plumbing issues

• Centralized vs. Decentralized approach
  – Privately planned treatment or reuse systems
  – Reduction of flow in sewers

• Political versus watershed boundaries