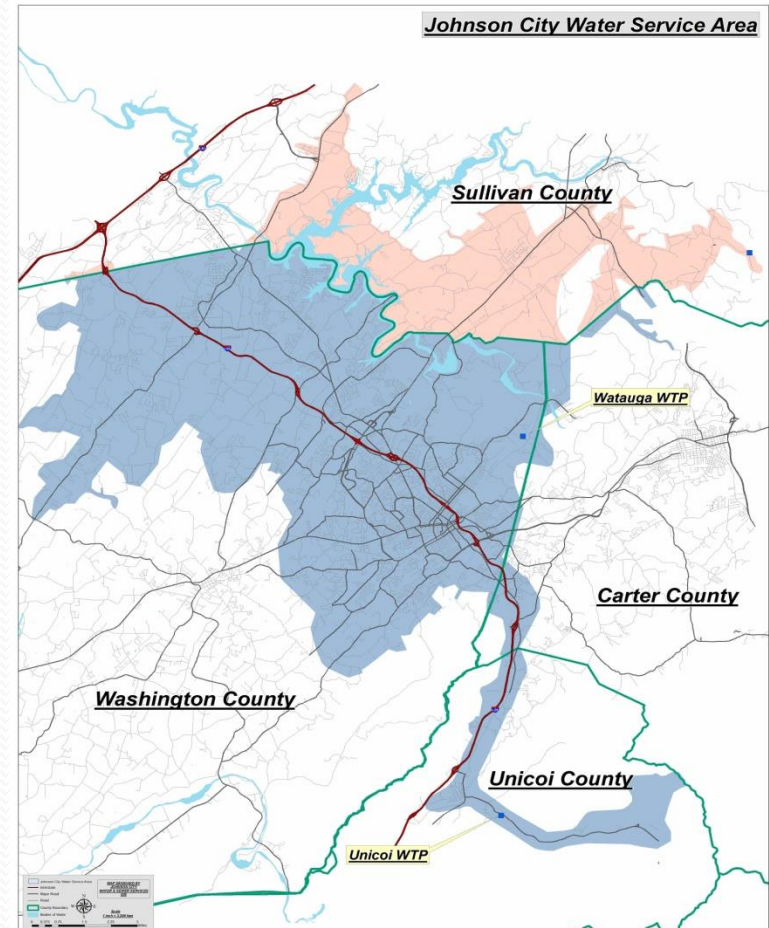




**Presentation By City of Johnson City to the  
Tennessee Advisory Committee on  
Intergovernmental Relations**

# Water Service Area

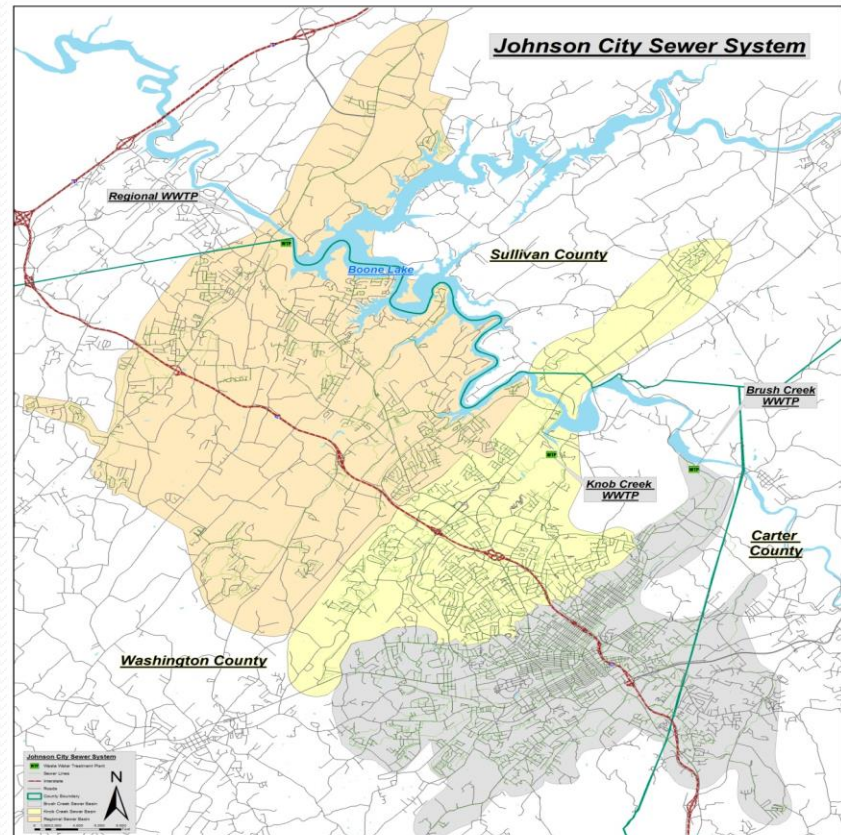
- City & Regional System
  - Service in Four Counties (Blue & Pink)
- Two (2) Water Treatment Plants
- 925 Miles of Potable Water Line
- 42,430 Water Accounts





# Sanitary Sewer Service Area

- Three (3) Award Winning Wastewater Treatment Plants
- 568 Miles of Wastewater Lines
- 27,835 Sewer Accounts



# City Commission Priorities

- Committed to
  - Environmental Stewardship (Protection of Boone Lake)
  - Economic Development
  - Customer Service
  - Infrastructure Investment
  - Efficient Operations
- Local Investment & Funding
  - Role of Federal & State Government – Unfunded Mandates & Regulatory Oversight
  - Water & Sewer Rates Developed & Meeting Industry Standards
  - No Compliance Orders / Moratoriums - Unlike Many Others Within the State of Tennessee
  - Responsive to Customer Needs

# Capital Delivery Last 8 Years

Area	Amount	%
Wastewater Treatment	26,610,000	51
Wastewater Collection & Conveyance	22,725,000	44
Subtotal Wastewater	49,335,000	95
Water Distribution	2,045,000	4
Water Treatment	309,000	1
Water Storage	190,000	
Subtotal Water	2,544,000	5
Total	\$51,879,000	100





Regional Wastewater Treatment Plant Expansion \$24M  
Expansion form 2.25 to 6.0 MGD



# Regional Collection System Capacity Improvements \$12M



A Station



D Station



B Station

# Economic Development



Sullivan County  
Sanitary Sewer Extension



Sullivan County  
Water & Sewer Extension

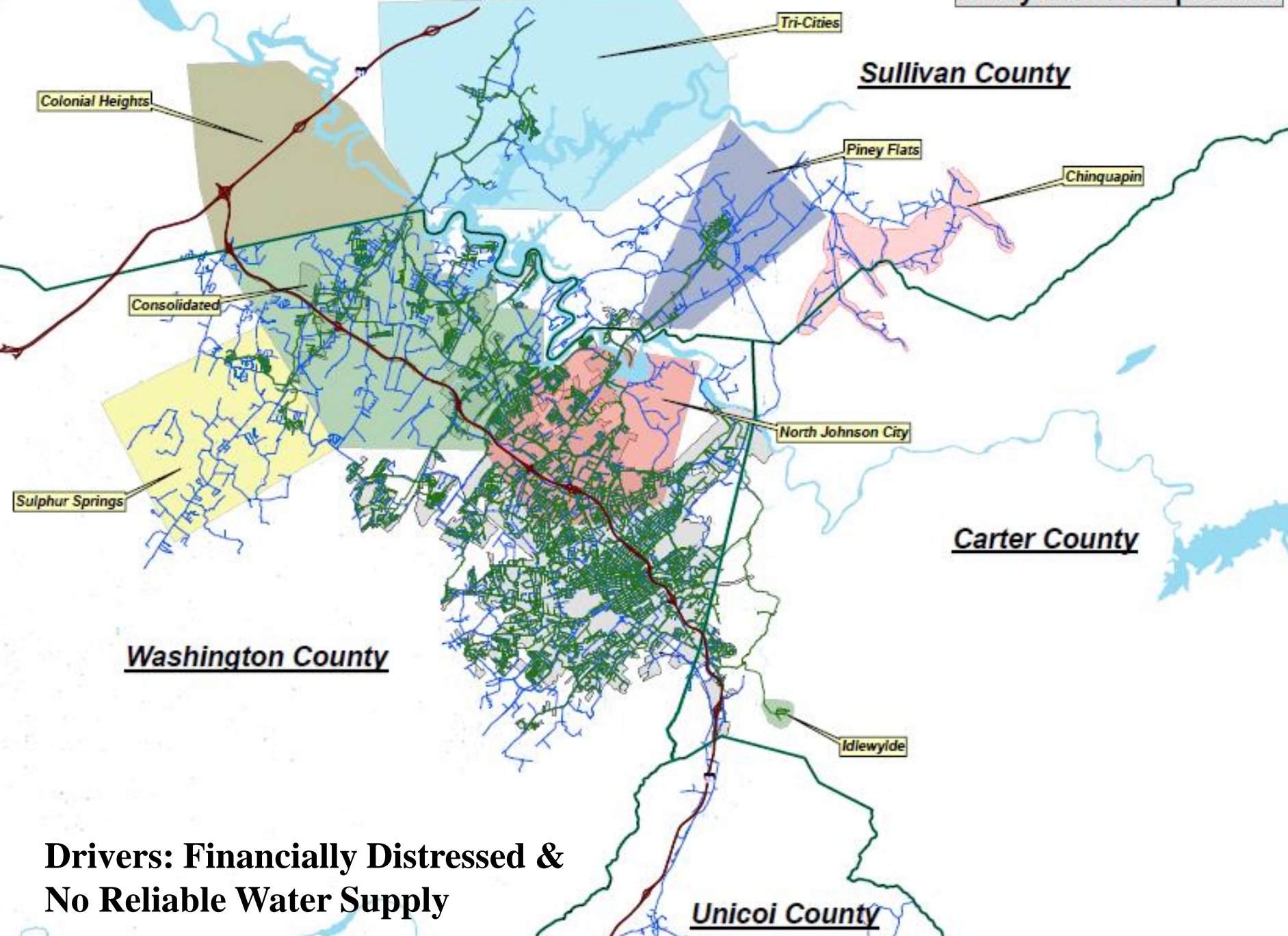


# Galvanized & AC Water Line Replacement Acceleration



- History of Galvanized & AC Pipe Especially In Areas Outside Corporate Limits
- Results in Customer Complaints – Low Pressure, Discolored Water, Leaks
- System Replaces Over 1% of the System Annually
- Regional System has 45 miles Remaining (Estimated Cost \$11.9M)
- Replacement With Department Crews and Contractors

**Utility District Aquisition**



**Drivers: Financially Distressed & No Reliable Water Supply**

# Regional Galvanized Water Complaint Resolution

## In-house Crews

### Sulphur Springs Area of Washington County

- *I would like to submit a complaint about the water quality at our home again. The water is very muddy again. This a very common problem and it started to get bad again last week. (01-21-2013)*
- *Thank you for your prompt response. I'm glad to know there is a plan in place to fix the problem. I wasn't sure if there was a fix or this was just something we had to live with in this house. (01-22-2013)*
- **Construction 5-14 to 8-24, 2013**
- *I have been meaning to email you and let you know that yes our problems are fixed and no more muddy water. I wanted to say thank you and your guys for your diligence and the great job that your department has done. My family and I know I speak for my neighbors, appreciate having the lines replaced and having clean water again. It's funny to think how lucky we are here in the USA to take for granted having clean water at a pretty cheap price and being very upset when this doesn't happen. But anyway, I'm appreciative and thank you! (9-11-2013)*

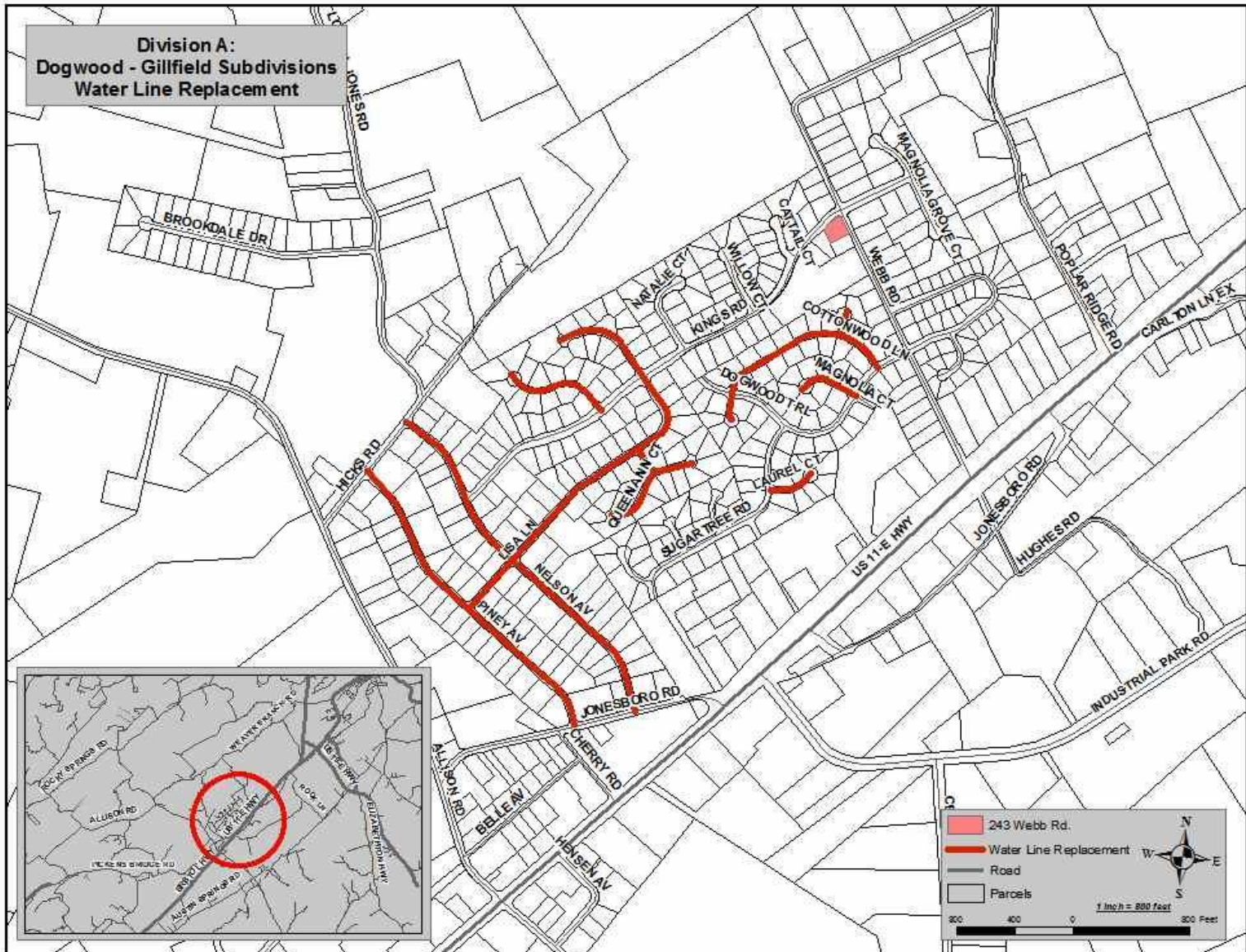


# Neighborhood Approach

Replaced 13,000 feet of  
Waterline & 8 Hydrants

Construction Cost \$650,000  
Construction Period 2011-2012





**Galvanized Water Line Replacement Program  
13,000 feet of line, 8 fire hydrants, \$650,000**

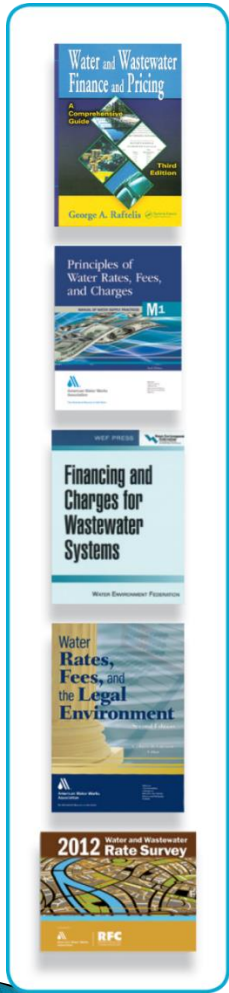


# Capital Delivery Financing

- ▶ Bart Kreps Raftelis Financial Consultants



# RFC – Firm Overview



- ▶ Solely focused on rate and financial consulting for water, sewer, & stormwater utilities
- ▶ Extensive experience preparing financial plans, rate & cost of service studies, & bond feasibility studies for utilities across the country
- ▶ Leadership in state and national associations; author of industry manuals and bi-annual rate survey in conjunction with AWWA
- ▶ Registered Municipal Advisor with SEC and MSRB

# RFC's History with Johnson City

- ▶ Provided rate and financial consulting services since 2003
- ▶ Comprehensive understanding of City's water and sewer financial systems, policies, and rate setting objectives
- ▶ Assisted with funding approximately \$52 million in capital projects over past 8 years
- ▶ Helped move the city to a uniform sewer volumetric rate
- ▶ Assisted with building reserves and establishing rate funded capital program

# Trends in Rates

- ▶ Significant capital needs
  - Aging infrastructure
  - Capacity needs
  - Regulatory requirements, particularly for sewer utilities (e.g. wet weather impacts)
- ▶ Reduced federal funding
- ▶ Declining per capita consumption



# Outside – City Service

- ▶ Municipal utility service outside its corporate boundaries
- ▶ Many utilities charge more to outside–City customers than inside–City customers
  - Typical differential between 1.5 – 2.0 times
  - Common reasons for justification
    - Non–owners of the system
    - Compensation for intrinsic rights and risks of ownership (e.g. ultimate tax security on debt)
    - For policy reasons
    - Additional cost of providing service
    - Population density
    - Different usage characteristics

# Consistency in Rate Design

- ▶ Methodology supporting fixed and variable charges
- ▶ Application of rate differentials
  - Across rate structure components
  - Across multiple jurisdictions with service outside City corporate limits

# Rate Analysis

- ▶ Water and sewer outside–City differential of 1.5 times
  - Projected Shortfall (\$1,751,167)
    - Water (\$1,099,892)
    - Sewer (\$651,275)



# Affordability

- ▶ Common consideration in a rate analysis
- ▶ As a general rule, most commonly cited references
  - Sewer: EPA Combined Sewer Overflows – Guidance for Financial Capability Assessment (average cost per household > 2.0% MHI)
  - Water: Safe Drinking Water Act (S. 1547) (special assistance where average residential bill > 2.0% MHI)
  - Combined, these references suggest a threshold of 4.0% MHI for water and sewer service
- ▶ Considerable debate in the industry – utilities perspectives differ

# Thank you!

