

July 17, 2007

2007 NARUC
Summer
Committee

Nicholas
DeBenedictis



AQUA
AmericaSM

Water Supply Planning



The Big Issue

- By 2015, nearly half the world's population will live in countries that are "water stressed"
- By 2025, 2.7 billion people will face severe water shortages if consumption continues at current rates
- By 2025, the demand for fresh water is expected to rise by 56% more than is currently available



Water Supply: Planning for the Future

- Goal is to plan now for the future
- As communities grow, so does demand for fresh water
- Many municipalities working in isolation
- Transfer of water from less densely populated areas to more heavily populated areas
- Need to address infrastructure and financing – building new water supplies and infrastructure can help address water storage, treatment and distribution challenges



Water Supply Issues

- Water quality
- Water quantity
- Water availability
- Allocation



Water Supply Usage

- Competing demands for supply
 - Agriculture
 - Power (hydro, electric)
 - Consumption
 - Recreation
 - Navigation
 - Wildlife protection



Uncertainty of Supply

- Location, location, location
 - Climate variations affect supply / demand
 - Density of population
 - Wells vs. surface water

- Reliability
 - Chances for natural chemicals, pollutants and sediments in water (e.g. arsenic, radium , nitrate)



South / Southeast U.S.

- Population growth
(residential, commercial, industrial)
- Warm climate
- Many small, disparate systems
- Groundwater rights (Texas)



Professional Water Company Solutions

- Bring experience to create innovative solutions to regional issues
- Short-term and long-term water resource management is essential
- Aqua serves more than 2.8 million people in 13 states with water and/or wastewater service



Quantity Initiatives

- Planning and cooperation
- Leak detection
- Conservation initiatives
- Metered consumption
- Conservation rates



Quality Initiatives

- Quality - an important aspect of supply
 - Natural concentration of contaminants
 - Federal standard settings
 - Watershed management and wellhead protection
 - Storm water management initiatives

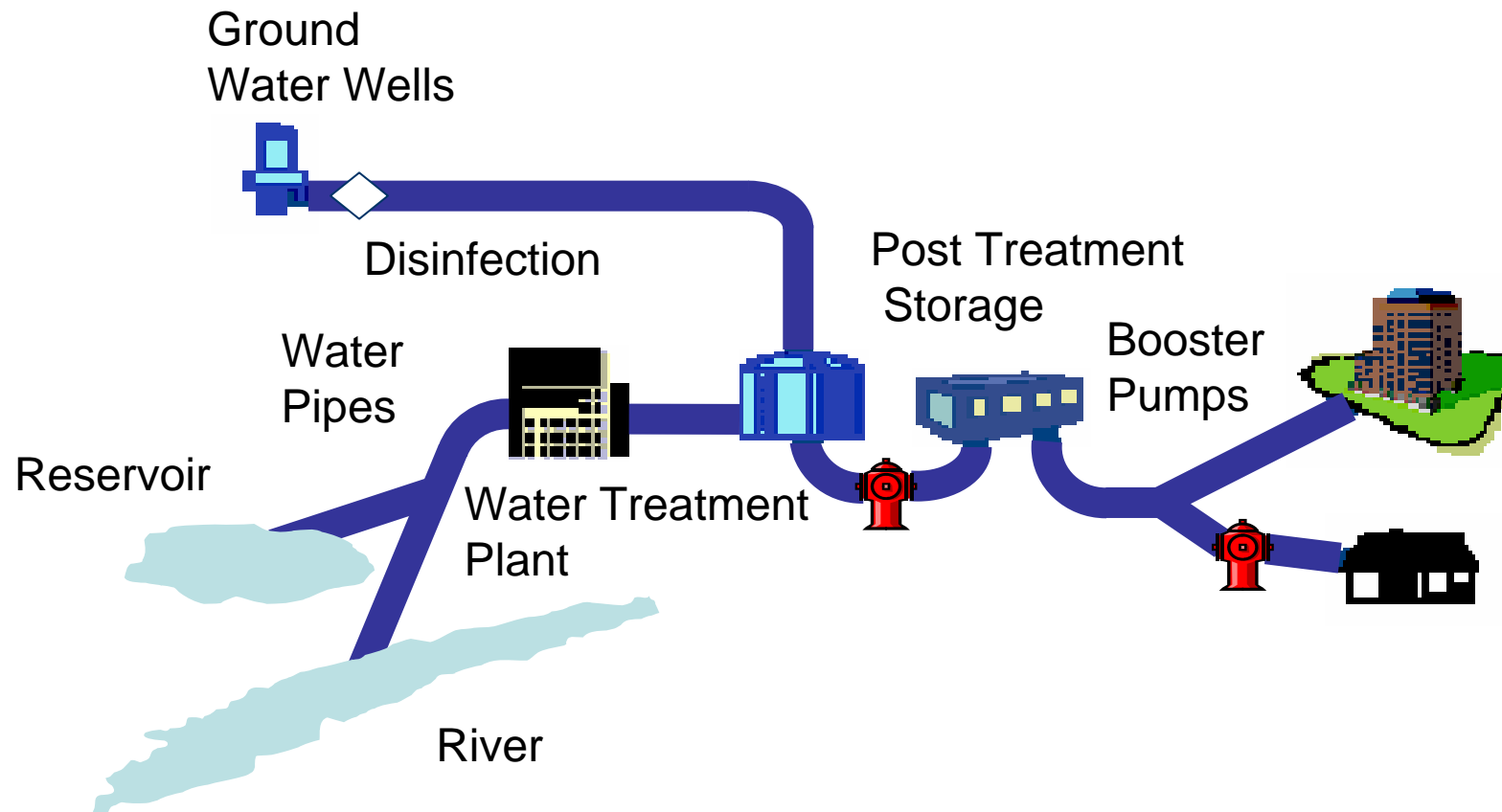


Water Supply, Water Quality & Service Reliability are Key Drivers

- EPA & state environmental agencies – chief regulators of water quality
 - Tightening water quality standards
- Water quality is tested at the source, plants, in distribution system, at customer taps
- Pipes must be kept functional to ensure reliable service and water quality standards are met



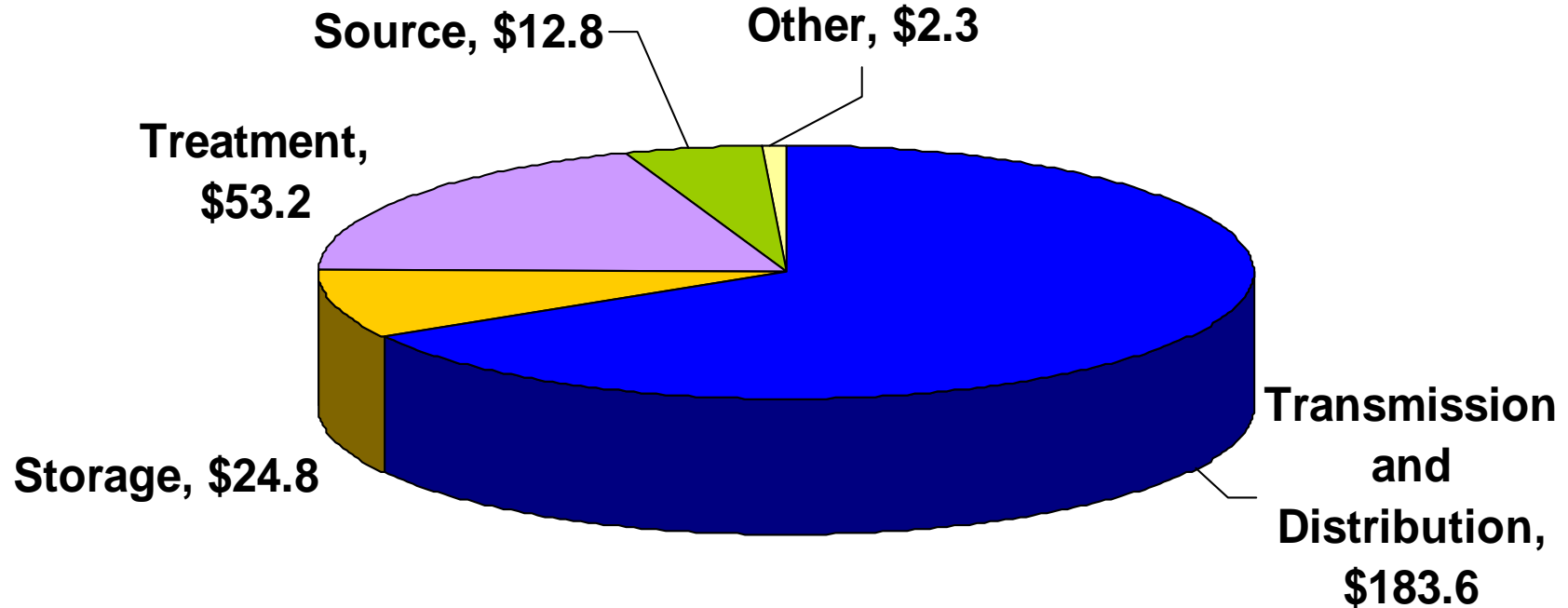
Potential Reliability Points



Source: Sandia Water Initiative



EPA's Estimate of the National Need for Water Infrastructure Investment



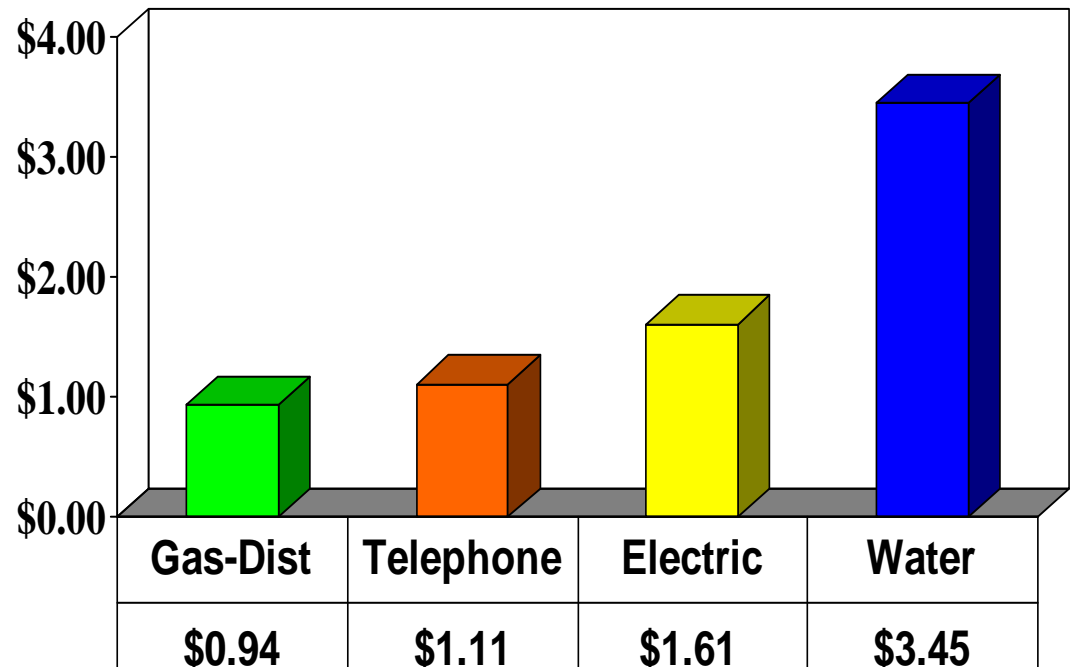
\$277 Billion Needed Over Next 20 Years to Ensure Compliance with Existing and Future Water Regulations



Water Industry is the Most Capital Intensive Industry

- EPA rules require large investment in filtration plants
- Immense investment needed for distribution system and road repair
- More capital per \$1 of revenue than all other utilities

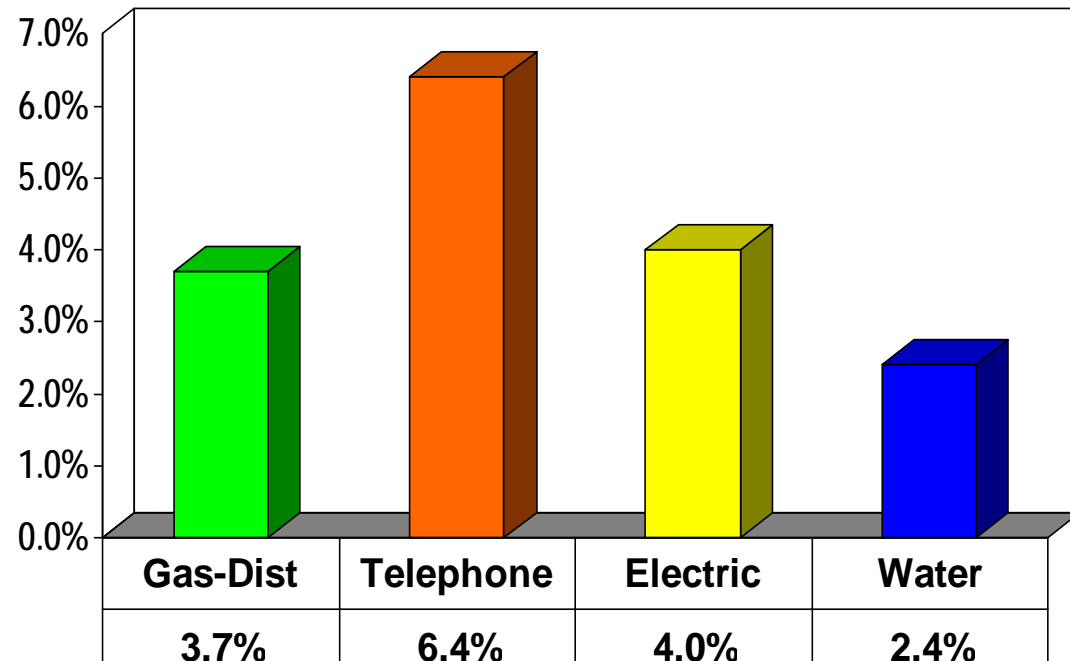
Capital Invested per \$1 of Revenue





Water Industry has the Lowest Depreciation Rate in the Industry

- Water industry has longest capital recovery period, which is viewed negatively by Wall Street
- Historic cost recorded is lower than replacement cost





State Regulatory Initiatives that Have Worked

- DSIC surcharges (pipe replacement)
- Small system acquisition adjustments
- Commodity cost adjustment clauses (water, power, property tax)
- Uniform Rates (regional)



Environmentally and Socially Responsible

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Thank you!