



Beaver **Water** District

**Management, Operation, and Challenges  
of a Regional Drinking Water Utility**

**Water Provider Legislative Task Force  
August 8, 2018**

# Beaver Water District – Who We Are



- Regional Water District – 1959
- Four Wholesale Customers
- Contracted Storage Space – 120 MGD average
- Average Day Demand 2018 – 54 MGD
- Awards

# Water Utility Challenges – National\*

- Asset Management - \$
- Water Conservation - Quantity
- Declining Budgets - \$
- Sewer Overflows - Regulatory
- Water Rates - \$



\*B&V 2018 Strategic Directions: Water Report



# Water Utility Challenges - Arkansas

## \*SDWA Violations in Arkansas:

- Public Notice – Operator
- Disinfectant By-Product Rule – Treatment
- Operator License – Operator
- Bacteriological Monitoring - Operator



# Water Utility Challenges - BWD

- Regulatory
- Personnel
- Finances



# Regulatory Challenges

- Source Water Quality
  - Algal toxins, pharmaceuticals, PCPs
- Disinfection By-Products
  - Chlorine + organics
- Risk Management Program
  - Gas chlorine vs. alternatives





# Personnel Challenges

- Aging Workforce
  - 27% within 10 years of retirement
- Knowledge Transfer
  - Tacit knowledge
- Qualified Candidates
  - Limited response



# Financial Challenges

- Asset Management
- Operating & Maintenance Costs
- Capital Improvement Projects
- Financial Reserves
- Water Rates



# Asset Management

- Asset Database
  - Physical Description
  - Age
  - Condition
  - Original Cost
- Asset Maintenance
- Annual Depreciation Cost



# Operating & Maintenance Costs

- FY19 - \$13.7 M
  - Personnel – 33.4%
  - Chemicals – 19.2%
  - Power – 19.7%
- 8.3% ↑



# Capital Improvements Projects

- Long Range Master Plan
- Financing
  - Revenue Bonds – 60%
  - Cash Reserves – 40%



# Financial Reserves

- Capital Improvements (20%)
- Depreciation (10%)
- Emergency - \$1M
- Source Water Protection - 4¢/1000 gallons





# Water Rates

- Established in 15-Year Financial Plan
- Increases spread out over multiple years
- BWD Wholesale - \$1.34/1000 gallons
- Avg. NWA residential water bill - \$ 23.40/mo



# Regulatory Challenges: Response

- Become/Stay Engaged
- Industry Trade Groups
- Community Partners

**AWWA**

**AMWA**

**WEF**

# Personnel Challenges: Response

- Training
- Public Outreach/Education
- Competitive Salaries
- O&M Contract Services



The poster for the 13th Annual Secchi Day on Beaver Lake, held on August 18, 2018, features a circular design with images of people participating in various activities. The schedule is detailed on the right side of the poster.

**13th Annual Secchi Day on Beaver Lake**  
August 18, 2018

**Schedule of Events:**

- 8:30am - 1:00pm:** Bring Picnic Blanket! (9:00am - 1:00pm)
- 9:00am - 1:00pm:** Papa Rap Water Fun Facts, Marshallese Dance & Crafts, Family Activities, Kayak Test Drives, Free Snacks, Refreshments & Lunch
- 8:30am - 1:00pm:** Free participation in the Secchi Day event. Volunteers are needed to help with the event. Please contact the Secchi Day committee for more information.

**Sponsors:** Cook's Natural Market, Hargis Foods, Dismorehouse Entertainment, Calabas, Willard Dairy, Dandier Cap, Hag Radio, KJAF, KFSM, La Zeta Radio, KJRW 108.5 FM, B-Sound Media, Rogers Optimist Club, Arkansas & Missouri Railroad, Benton County Environmental Division

**Partners:** USGS, US Army Corps of Engineers, KNAW, the Community, Beaver Water District, OZARKS WATER WATCH, BEAVER WATER ALLIANCE, NWAKamas

**Secchi Day on Beaver Lake SCHEDULE**

Time	Activities
8:30 to 11 AM	<ul style="list-style-type: none"><li>• CITIZEN SCIENTIST TEAMS COLLECT &amp; DELIVER LAKE WATER SAMPLES</li><li>• GREAT WALL OF SECCHI DEPTH RECORDED</li></ul>
9 AM to 12:15 PM	<b>WATER SCIENCE FAIR</b> <ul style="list-style-type: none"><li>• EDUCATIONAL EXHIBITS &amp; ACTIVITIES</li><li>• KAYAK RIDES</li><li>• MUSIC &amp; DANCING</li><li>• FUN &amp; GAMES</li><li>• SNACKS, FRUIT, &amp; FROZEN DESSERTS</li></ul>
11 AM LUNCH	<ul style="list-style-type: none"><li>• HOT DOGS</li><li>• CHIPS</li><li>• VEGGIE DOGS</li><li>• SODA</li></ul>
11:45 AM to 12:15 PM	<ul style="list-style-type: none"><li>• AWARDS FOR "TOSSED" LITTER SCULPTURE</li><li>• ANNOUNCEMENTS</li></ul>
12:15 PM to 12:30 PM	<ul style="list-style-type: none"><li>• DOOR PRIZE DRAWINGS*</li><li><b>GRAND PRIZE KAYAK*</b></li><li><small>**MUST BE PRESENT TO WIN**</small></li></ul>
1 PM	<ul style="list-style-type: none"><li>• SECCHI DAY CELEBRATION CONCLUSION</li><li>• EXHIBITORS PACK-UP</li></ul>

# Financial Challenges: Response

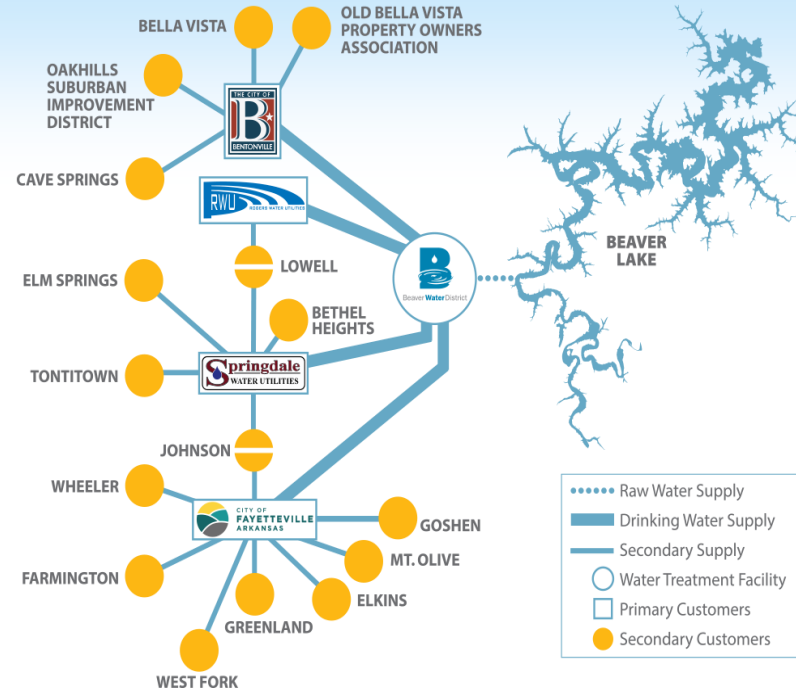
- Adequate Rates
- Asset Management Program
- Funded Reserves
- Regionalization





# Summary

- Many challenges are common, regardless of utility size
- Rates must be adequate to cover costs of services
- Regionalization



# Questions

