Clarence Cannon Wholesale Water Commission

“Securing Our Water Future”

November 17, 2011
Clarence Cannon Wholesale Water Commission

Mark McNally, Captain, USN retired
General Manager

DW-C               DS-III
CCWWC – Who we are

- Joint Municipal Utility Commission organized under the Revised Statues of the State of Missouri.
  - Political subdivision of the State of Missouri.
  - Established on October 3, 1983.
  - Fifteen Cities and nine rural water districts are members.
- Governed by Board of Directors.
- Prohibited from retail sales.
CCWWC – Who we are

- “Cecil V. Fretwell” 5 MGD water plant and distribution system was constructed 1991 – 1992.
- Had 13 members: Cities and PWSDs
- Four distribution expansions and an addition of second water treatment plant since original build.
- Currently, 24 purchasing members, 10 MGD water treatment capacity, 325 miles of water transmission mains, serving 14 counties in NE Missouri.
CCWWC – Why we came into being

- Many plants serving Cities and PWSDs are outmoded or just worn out. Too expensive to build replacement.
- Too expensive to operate small water treatment plant.
- Operator’s aging out of the workforce
- New groundwater rule forcing Cities and PWSDs to turn to more expensive surface water treatment
- Small water treatment plants have difficulty meeting water quality standards
- DNR has fewer plants to monitor.
Purchasing Members

- City of Paris
- City of Perry
- City of Shelbyville
- City of Madison
- City of Huntsville
- City of Bowling Green
- City of New London
- City of Farber
- City of Wellsville
- City of Vandalia
- City of Curryville
- City of Armstrong
- City of Edina
- City of Lewiston
- City of La Belle
- PWSD #1 of Shelby Co.
- PWSD #1 of Knox Co.
- PWSD #1 of Marion Co.
- Thomas Hill PWSD #1
- PWSD #2 of Monroe Co.
- Cannon PWSD #1
- PWSD #1 of Macon Co.
- PWSD #1 of Pike Co.
- PWSD #1 of Lewis County
Mission Statement

“The Clarence Cannon Wholesale Water Commission (CCWWC) is a wholesale supplier of high quality potable water to the region through its member communities and public water supply districts. The CCWWC will produce and distribute drinking water to its members that meets or exceeds state and federal water quality standards. This service will be provided at a reasonable cost consistent with sound business practices to maximize efficiency and productivity. The CCWWC is a leader in the development of regional water systems and will support the growth of such systems as a means of solving water supply problems. The CCWWC is committed to providing training, service and support to its members and employees. Preservation and wise use of natural resources, particularly water resources, and public awareness of the issues facing the water profession are major concerns of the CCWWC that shall be cultivated as we pursue our mission.”
Mission Statement (Condensed)

- We will provide the best water at the best cost.
- We are interested in helping our members in meeting their needs.
- We will preserve our natural resources.
CCWWC – Who we are

- “Lean and Mean”
  - CCWWC employs 4 people
  - UWS employs 6 people
- Distribution System
  - Six tanks and standpipes
  - Five booster pump stations
- Missouri DNR considers us as a premier regional water provider and is our best salesman.
CCWWC Area Served
The Commission draws water from the North Fork of the Salt River in Mark Twain Lake.

The Watershed covers 626 square miles of 400,640 acres.
Raw Water

- Rapidly changing Ph
- Variable Turbidity
- Changing Water Temperature
- Algae Blooms
- Other taste and odor concerns

- Potassium Permanganate and Ferric Chloride process, using Chlorimine as a residual disinfectant.
State Certified Laboratory
CCWWC Raw Water Contract

- The State and CCWWC pays for raw water
- History
  - When Dam built, $16,462,935.00 allocated for potable water
  - Allocated 16 million gallons to the State per day for potable water
  - Mark Twain Lake projected 50 year lifecycle
We currently have a contract for 5 MGD. State of Missouri responsible for remainder

- Our share of the cost allocated to water is 5/16
- Interest is billed at 3.22 percent over remainder of projected life.

Bill has three components:

- Present use
- Future use
- Share of O&M expenses
Share of O&M expenses

- We are allocated a percentage of O&M expenses based on USACE’s expenses for Mark Twain Lake.
- In 2010 due to the Corps getting additional infrastructure money the Commission’s bill was increased just under $100,000 from the previous year even though we used less raw water! Next year it is predicted to be $200,000 more than what we paid in 2010.
Sources of Funds for Projects

- DNR administered grants and loans
  - State Revolving Fund
  - American Recovery and Reinvestment Act
- EDA administered grant
- USDA administered grants
  - Community Development Block Grants
- EPA administered grants
  - State and Tribal Assistance Grants
Water and Economic Development

- No potable water = no economic development
  - POET biorefining attracted to the area
    - Corn availability
    - Water availability
  - Duke Energy for peak powerplant
    - Now owned by Ameren UE
Recommendations

- Make sure you understand your raw water bill with the Corps of Engineers.
  - Set aside additional $$ for unexpected increases.
- Use flow control at points-of-connection (POC) to minimize Commission’s investment. Members MUST have storage on their side of the POC.
  - Our contracts are for a steady continuous flow and lines and pressures are designed for all members to get 100% of their contracted water even with all members receiving 100% – lines are not sized for demand flow.
Recommendations (continued)

- Ensure Engineer maintains accurate hydraulic model.
- Use tracer wire during installation for 100 percent of your lines.
- Implement GIS system for locating transmission lines and appurtenances.
  - Develop GIS database that includes installation date, manipulation date, etc, then require contractor to populate the database.
  - Use GIS planning for waterline installation. Then correct plans to “real world”.

Recommendations (continued)

- Do not plan to sell water up to the capacity of the water plant. Down time is needed for maintenance, especially when the plant ages.
- Ensure your transmission lines are installed with excess capacity. Ensure your “arteries” are matched to your plant’s capacity.
  - Understand the requirements of the “Design Guide”
- Obtaining easements is more difficult today than in the past. The Commission is finishing up a project where we paid for easements for the first time.
  - Ensure you have condemnation authority in all three states.
Recommendations (continued)

- Purchase a large enough parcel for expansion of your plant and additional sludge lagoons/handling area.
- Purchase adequate land for land application of sludge.
- Take care of sludge on a continuing basis.
  - The CCWWC has a sludge dredge and truck for annual removal of sludge.
- Write clear rules for when service connections will be authorized, then follow the rules.
Recommendations (continued)

- Install several elevations for intake water. It will help during algae events to can get below the algae bloom.
  - If you are concerned with taste-and-odor due to algae, install ozone or other equipment during initial construction. It is very difficult and expensive to retrofit.

- Plan for plant security during construction. Homeland Security chemical security and handling requirements are not getting easier!
Recommendations (continued)

• Recommend making a quorum for your board meetings one-third the membership.
  • Some Directors have to travel 60 miles – we never see them!

• Be careful how regulatory agencies get new customers for you. Upon initial contact with a prospective customer, ensure they know you are offering a service.
Questions / Comments?
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