

Wichita State University Water Finance Forum

Moberly, MO Case Study September 12, 2017

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Demographics

- **Population ~ 12,000**
- **Land Size ~ 10 sq. miles**
- **Population - Steady**
- **Economic Activity – Steady**
- **Tax Base – Steady**
- **Cost of Living ~ 77.6 (2016)**

Financials

- **Outstanding Bond Debt - \$7,385,000**
- **Bond Rating – B+**
- **Median Household Income (MHI) ~ \$33,111 (2015)**
- **Median Home or Condo Value - \$83,832**
 - **Missouri Median Home or Condo Value - \$147,800**
- **Sewer Rates ~ 2% MHI and Water Rates ~ 1.5% MHI**

City Sewer Collection System

- Collection system: 87 miles of Combined Sewer Overflow (CSO) Sewers, Separate Sewers, and Storm Sewers
 - CSO system services 20% of the collection system (4 CSO Outfalls)
 - 13 Pump Stations

Diameter	Percent of Total Length
Less than 8-inch (force mains)	1.4
8-inch	57.0
10-inch	16.2
12-inch	9.0
15 and 16-inch	8.0
18 to 24-inch	6.5
30 to 60-inch	1.9

Wastewater Treatment Plant (WWTP)

- Activated Sludge, grit removal, and UV disinfection
- 3.5 Million Gallon per Day (MGD) Design Capacity
 - 1.2 MGD average dry weather flow

Challenges

Water Supply

- **Sugar Creek Lake**
 - **Nutrient Impacts from the watershed**
 - **Quantity**
- **Aging Infrastructure (includes dam issues)**

Wastewater

- **CSO Disinfection**
- **CSO Discharges/Activations**
- **WWTP Capacity Concerns**
- **Aging Infrastructure**

Challenges

Wastewater (cont'd)

- **Future Effluent Limits**
- **Pretreatment Program Implementation**

Stormwater

- **MS4 Program**
 - **Updates**
 - **Implementation**
- **Infrastructure**
 - **Mapping**
 - **Inventory**
 - **O&M/Replacement/Repair of Storm Sewers**

Capital Costs

- Since 2004 Expended ~\$17 million on upgrades and repairs
 - Operational Costs ~\$2.2 million annually
- \$3.5 million for CSO disinfection
- \$6 million in Stormwater Projects
- Combined Water and Wastewater Needs Estimated at \$55 million

Resources

Planning

- **Drinking Water Engineering Report Services Grant (small communities)**
- **Source Water Protection Grant**
 - Missouri Department of Natural Resources Source Water Protection Plan Development and Implementation Grant (\$25k)**
- **Section 319 Watershed Planning Grants**
- **US Army Corps of Engineers – Water Supply Allocation Study**

Resources

Infrastructure

- **USDA Rural Development (communities <10,000))**
- **Missouri Public Utility Alliance (MPUA)**
- **HUD Community Development Block Grants (economic restrictions)**
- **Drinking Water/Clean Water State Revolving Fund (SRF)**
- **State Grant (dependent upon the availability of funding)**

Next Steps

- **Planning**
 - **Water Supply**
 - **Capacity**
 - **Source Water**
 - **Wastewater**
 - **LTCP Approval**
 - **Water Quality Planning (effluent limits)**
 - **Pretreatment Program Review and Local Limits Determination**
 - **Stormwater**
 - **MS4 Program**
 - **Infrastructure inventory/mapping**

References, credits, etc.

<https://www.epa.gov/small-and-rural-wastewater-systems/funding-sources-small-and-rural-wastewater-systems>

- Combined Sewer Overflow Long Term Control Plan – City of Moberly, MO, Jacobs Engineering, August 11, 2017

Questions, Thanks &
Contact Info

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