Wichita State University Water Finance Forum

Moberly, MO Case Study September 12, 2017

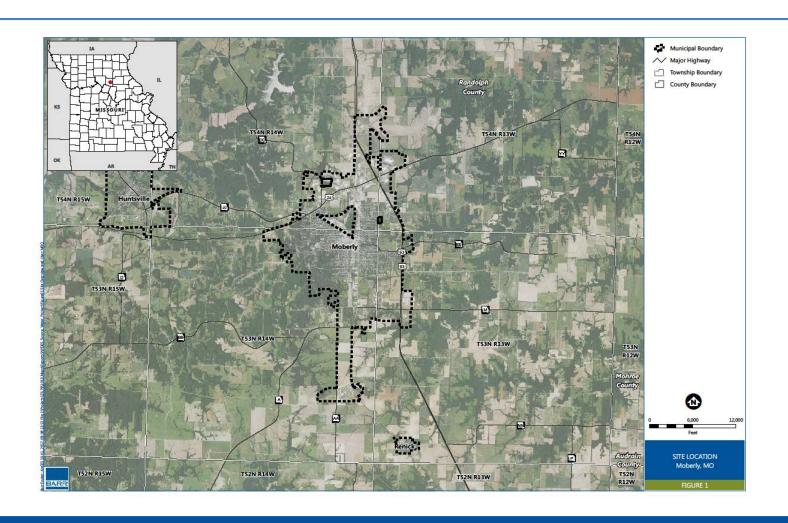
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Location



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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