

Table ES-1. Prioritized Recommendations for Urban Finished Water System CIPs

Recommendation	Report Section	Category	Complete By	Estimated Project Cost
South Rivanna River Second Crossing	6.3.7	Redundancy	2025	\$5.8M
Airport Road Pump Station	8.4.3	Conveyance	2025	\$4.0M
Airport Road Pump Station Waterline – Phase 1	8.4.3	Conveyance	2025	\$6.0M
Airport Road Pump Station Waterline – Phase 2	8.4.3	Conveyance	2030	\$1.4M
Central Waterline	6.2.4	Conveyance	2030	\$31.0M
Stillhouse 0.73 MG GST	7.6.1	Storage	2030	\$1.7M
Lewis Mtn. Operations	7.6.2	Storage	2030	\$0.2M
Lewis Mtn. 0.5 MG GST	7.6.2	Storage	2030	\$0.9M
North Rivanna Waterline Reinforcement	6.3.6	Resilience	2030	\$4.3M
North Rivanna River Second Crossing	6.3.7	Redundancy	2030	\$1.2M
Emmet/Seminole Waterline Phase 1 (24" Gap)	6.2.3	Redundancy	2030	\$8.5M
Pressure Surge Mitigation	8.4.4	Resilience	2035	\$0.7M
Emmet/Seminole Waterline Phase 2 (30" Connection to CWL)	6.2.3	Redundancy	2035	\$9.5M
Alderman Road PS Discharge Inter-connection	6.3.1	Resilience	2045	\$0.4M
Single-Feed Bypasses	6.3.4	Resilience	2045	\$1.3M
Rivanna River Second Crossing at Pantops	6.3.7	Redundancy	2045	\$4.8M
Observatory Waterline Replacement	6.3.5	Resilience	2045-50	\$1.9M
South Rivanna Waterline Replacement	6.3.5	Resilience	2055-60	\$27.6M
Avon Street Waterline	6.3.8	Redundancy	2060-65	\$10.3M
North Rivanna Waterline Replacement	6.3.5	Resilience	2065-70	\$10.6M
South Rivanna Waterline Replacement Rio to Hydraulic	6.3.8	Conveyance	2070	\$9.6M
Replace Pantops and Avon Street Tanks at end of useful life	7.6.4	Storage	2070	\$8.9M
Airport Road Tanks	7.6.3	Storage	2070	\$2.8M
<b>Total of Capital Improvement Projects</b>				<b>\$153.4M</b>

Table ES-2. Recommendations for Urban Finished Water System Investigations/Studies

Recommendation	Report Section	Category	Phase	Schedule	Estimated Cost
Comprehensive Waterline Condition Assessment	6.3.5	Asset / Operations Management	Study	2030	\$800,000
Investigate Pressure Surges and Prepare Mitigation PER	8.4.4	Asset / Operations Management	Study	2030	\$100,000
Comprehensive Electro-Mechanical Condition Assessment	8.4.5	Asset / Operations Management	Study	2030	\$200,000
Water Model Hydraulic and Water Quality Calibration	9.2 7.6.6	Operations Management	Study	2030	\$400,000
Storage and Operations Evaluation	7.6.6 9.3	Storage	Study	2030	\$400,000
<b>Total of Investigations / Studies</b>					<b>\$1.9M</b>

Table ES-3. Urban Finished Water Program Budget by Planning Horizon

Planning Horizon	Estimated Cost
2030	\$68.8M
2045	\$16.7M
2070	\$69.8M
<b>Total</b>	<b>\$155.3M</b>

Table 1. Planned and Completed Capital Improvement Projects

Project	Owner	Description	Status
Ivy Road / Emmet Street	City	Construct parallel 6" main	Completed
Main Street Water Main	City	Replace dilapidated 18" main at 9 <sup>th</sup> Street SW with new 18" main along Roosevelt Brown Boulevard and Main Street to 9 <sup>th</sup> Street SW	Completed
West Main Street	City	Replace older 10" main with 12" main from Jefferson Park Avenue to Roosevelt Brown Boulevard, and from 9 <sup>th</sup> Street SW to Ridge McIntire Road	Planned but on-hold
East High Street	City	Replace older 6" and 8" mains with 12" main on 9 <sup>th</sup> Street NE from Market Street to E High Street, and on E High Street to Long Street	In Design
East Market Street	City	Replace older 4" and 6" mains with 12" main on E Market Street from Franklin Street to Marchant Street	Planned
Brandywine Drive	City	Replace older 6" main with 8" main	Completed
South Rivanna River 24" Crossing	RWSA	Construct 24" second crossing of the South Rivanna River from the SRWTP to Rio Mills Road at Seminole Trail	In Design
Central Waterline	RWSA	Construct new transmission main to better hydraulically connect OBSWTP, Observatory Tank, Avon Street Tank, and the Pantops area	In Design
Airport Road Pump Station and Pipeline	RWSA	Construct new pump station and appurtenances at northern terminus of Berkmar Drive to supplement NRWTP	Construction
Wholesale Meters	RWSA	Construct jurisdictional meters to monitor compliance with water allocation agreement	Completed
Stillhouse Pump Station	RWSA	Construct replacement for Canterbury Hills PS	Completed
Glenmore Pump Station and Tank	ACSA	Construct pump station, tank, and PRV to maintain a reduced pressure zone at Glenmore	Completed
Mosby Mountain Pump Upgrades	ACSA	Replace pumps	Completed
Ednam Pump Upgrades	ACSA	Replace pumps	Completed