Cost Estimate Summary Water Supply Project Option September 2018 Prices Wichita Falls - Lake Ringgold

Cost based on ENR CCI 11170.28 for September 2018 and a PPI of 201.9 for September 2018

Annual Cost of Water (\$ per acft), based on PF=2 \$1,456 Annual Cost of Water After Debt Service (\$ per acft), based on PF=2 \$384 Annual Cost of Water (\$ per 1,000 gallons), based on PF=2 \$4.47 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 \$1.18 Note: One or more cost element has been calculated externally	Item	Estimated Costs for Facilities
Transmission Pipeline (48 in dia., 29.7 miles) \$59,057,000 Intake Pump Stations (43 MGD) \$40,481,000 Pipeline Crossings \$16,372,000 Integration, Relocations, & Other \$7,911,000 TOTAL COST OF FACILITIES \$196,552,000 Engineering and Feasibility Studies, Legal Assistance, Financing, Bond Counsel, and Contingencies (30% for pipes & 35% for all other facilities) \$65,022,000 Environmental & Archaeology Studies and Mitigation \$86,683,000 Land Acquisition and Surveying (17486 acres) \$41,076,000 Interest During Construction (3% for 5 years with a 0.5% ROI) \$53,534,000 TOTAL COST \$442,867,000 ANNUAL COST \$13,175,000 Reservoir Debt Service (3.5 percent, 20 years) \$13,175,000 Reservoir Debt Service (3.5 percent, 40 years) \$11,970,000 Operation and Maintenance \$833,000 Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) \$833,000 Intakes and Pump Stations (2.5% of Cost of Facilities) \$1,012,000 Water Treatment Plant \$5,269,000 Pumping Energy Costs (9866677 kW-hr @ 0.08 \$/kW-hr) \$789,000 TOTAL ANNUAL COST \$34,139,000	CAPITAL COST	
Intake Pump Stations (43 MGD) Transmission Pump Station(s) & Storage Tank(s) Pipeline Crossings Storage Tank(s) Pipeline Crossings Integration, Relocations, & Other TOTAL COST OF FACILITIES States Engineering and Feasibility Studies, Legal Assistance, Financing, Bond Counsel, and Contingencies (30% for pipes & 35% for all other facilities) Environmental & Archaeology Studies and Mitigation Land Acquisition and Surveying (17486 acres) Interest During Construction (3% for 5 years with a 0.5% ROI) States States ANNUAL COST Debt Service (3.5 percent, 20 years) Reservoir Debt Service (3.5 percent, 40 years) Operation and Maintenance Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) Intakes and Pump Stations (2.5% of Cost of Facilities) States Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) States State	Dam and Reservoir (Conservation Pool acft, 17280 acres)	\$72,731,000
Transmission Pump Station(s) & Storage Tank(s) Pipeline Crossings Integration, Relocations, & Other TOTAL COST OF FACILITIES Engineering and Feasibility Studies, Legal Assistance, Financing, Bond Counsel, and Contingencies (30% for pipes & 35% for all other facilities) Engineering and Feasibility Studies, Legal Assistance, Financing, Bond Counsel, and Contingencies (30% for pipes & 35% for all other facilities) Environmental & Archaeology Studies and Mitigation Environmental & Archaeology Studies and Mitigation Land Acquisition and Surveying (17486 acres) Interest During Construction (3% for 5 years with a 0.5% ROI) St33,534,000 TOTAL COST OF PROJECT ANNUAL COST Debt Service (3.5 percent, 20 years) Reservoir Debt Service (3.5 percent, 40 years) Operation and Maintenance Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) Intakes and Pump Stations (2.5% of Cost of Facilities) Dam and Reservoir (1.5% of Cost of Facilities) Pumping Energy Costs (9866677 kW-hr @ 0.08 \$/kW-hr) TOTAL ANNUAL COST Available Project Yield (acft/yr) Annual Cost of Water After Debt Service (\$ per acft), based on PF=2 Annual Cost of Water After Debt Service (\$ per acft), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 \$1.18 Note: One or more cost element has been calculated externally	Transmission Pipeline (48 in dia., 29.7 miles)	\$59,057,000
Pipeline Crossings Integration, Relocations, & Other \$7,911,000 \$7,911,000 \$7,911,000 \$196,552,000 \$7,911,000 \$196,552,000 \$7,911,000 \$196,552,000 \$	Intake Pump Stations (43 MGD)	\$40,481,000
Integration, Relocations, & Other TOTAL COST OF FACILITIES Engineering and Feasibility Studies, Legal Assistance, Financing, Bond Counsel, and Contingencies (30% for pipes & 35% for all other facilities) Environmental & Archaeology Studies and Mitigation Land Acquisition and Surveying (17486 acres) Interest During Construction (3% for 5 years with a 0.5% ROI) TOTAL COST OF PROJECT ANNUAL COST Debt Service (3.5 percent, 20 years) Reservoir Debt Service (3.5 percent, 40 years) Operation and Maintenance Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) Intakes and Pump Stations (2.5% of Cost of Facilities) Dam and Reservoir (1.5% of Cost of Facilities) States and Pump Stations (2.5% of Cost of Facilities) States and Pump Interest Plant Pumping Energy Costs (9866677 kW-hr @ 0.08 \$/kW-hr) TOTAL ANNUAL COST Available Project Yield (acft/yr) Annual Cost of Water (\$ per acft), based on PF=2 Annual Cost of Water (\$ per acft), based on PF=2 Annual Cost of Water After Debt Service (\$ per acft), based on PF=2 Annual Cost of Water After Debt Service (\$ per acft), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2	Transmission Pump Station(s) & Storage Tank(s)	\$0
Engineering and Feasibility Studies, Legal Assistance, Financing, Bond Counsel, and Contingencies (30% for pipes & 35% for all other facilities) \$65,022,000 Environmental & Archaeology Studies and Mitigation \$86,683,000 Land Acquisition and Surveying (17486 acres) \$41,076,000 Interest During Construction (3% for 5 years with a 0.5% ROI) \$53,534,000 TOTAL COST OF PROJECT \$442,867,000 TOTAL COST OF PROJECT \$442,867,000 TOTAL COST OF PROJECT \$442,867,000 Poperation and Maintenance Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) \$33,000 Intakes and Pump Stations (2.5% of Cost of Facilities) \$1,012,000 Dam and Reservoir (1.5% of Cost of Facilities) \$1,012,000 Pumping Energy Costs (9866677 kW-hr @ 0.08 \$/kW-hr) \$789,000 TOTAL ANNUAL COST \$34,139,000 Available Project Yield (acft/yr) \$23,450 Annual Cost of Water (\$ per acft), based on PF=2 \$384 Annual Cost of Water (\$ per acft), based on PF=2 \$384 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 \$1.18 Note: One or more cost element has been calculated externally		\$16,372,000
Engineering and Feasibility Studies, Legal Assistance, Financing, Bond Counsel, and Contingencies (30% for pipes & 35% for all other facilities) \$65,022,000 Environmental & Archaeology Studies and Mitigation \$86,683,000 Land Acquisition and Surveying (17486 acres) \$41,076,000 Interest During Construction (3% for 5 years with a 0.5% ROI) \$53,534,000 TOTAL COST OF PROJECT \$442,867,000 ANNUAL COST Debt Service (3.5 percent, 20 years) \$13,175,000 Reservoir Debt Service (3.5 percent, 40 years) \$11,970,000 Operation and Maintenance Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) \$833,000 Intakes and Pump Stations (2.5% of Cost of Facilities) \$1,012,000 Dam and Reservoir (1.5% of Cost of Facilities) \$1,091,000 Water Treatment Plant \$5,269,000 Pumping Energy Costs (9866677 kW-hr @ 0.08 \$/kW-hr) \$789,000 TOTAL ANNUAL COST \$34,139,000 Available Project Yield (acft/yr) \$34,139,000 Available Project Yield (acft/yr) \$34,139,000 Available Project Yield (acft/yr) \$34,139,000 Available Of Water (\$ per acft), based on PF=2 \$1,456 Annual Cost of Water (\$ per 1,000 gallons), based on PF=2 \$4.47 Annual Cost of Water After Debt Service (\$ per acft), based on PF=2 \$1.18		
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Environmental & Archaeology Studies and Mitigation Land Acquisition and Surveying (17486 acres) Interest During Construction (3% for 5 years with a 0.5% ROI) TOTAL COST OF PROJECT ANNUAL COST Debt Service (3.5 percent, 20 years) Reservoir Debt Service (3.5 percent, 40 years) Operation and Maintenance Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) Intakes and Pump Stations (2.5% of Cost of Facilities) Dam and Reservoir (1.5% of Cost of Facilities) Water Treatment Plant Pumping Energy Costs (9866677 kW-hr @ 0.08 \$/kW-hr) TOTAL ANNUAL COST Available Project Yield (acft/yr) Available Project Yield (acft/yr) Annual Cost of Water (\$ per acft), based on PF=2 Annual Cost of Water (\$ per 1,000 gallons), based on PF=2 S344 Annual Cost of Water (\$ per 1,000 gallons), based on PF=2 S1.18 Note: One or more cost element has been calculated externally	Engineering and Feasibility Studies, Legal Assistance, Financing, Bond Counsel,	
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Interest During Construction (3% for 5 years with a 0.5% ROI) TOTAL COST OF PROJECT ANNUAL COST Debt Service (3.5 percent, 20 years) Reservoir Debt Service (3.5 percent, 40 years) Operation and Maintenance Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) Intakes and Pump Stations (2.5% of Cost of Facilities) Dam and Reservoir (1.5% of Cost of Facilities) Vater Treatment Plant Pumping Energy Costs (9866677 kW-hr @ 0.08 \$/kW-hr) TOTAL ANNUAL COST Available Project Yield (acft/yr) Annual Cost of Water (\$ per acft), based on PF=2 Annual Cost of Water (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2		
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ANNUAL COST Debt Service (3.5 percent, 20 years) \$13,175,000 Reservoir Debt Service (3.5 percent, 40 years) \$11,970,000 Operation and Maintenance Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) \$833,000 Intakes and Pump Stations (2.5% of Cost of Facilities) \$1,012,000 Dam and Reservoir (1.5% of Cost of Facilities) \$1,091,000 Water Treatment Plant \$5,269,000 Pumping Energy Costs (9866677 kW-hr @ 0.08 \$/kW-hr) \$789,000 TOTAL ANNUAL COST \$34,139,000 Available Project Yield (acft/yr) 23,450 Annual Cost of Water (\$ per acft), based on PF=2 \$1,456 Annual Cost of Water (\$ per 1,000 gallons), based on PF=2 \$384 Annual Cost of Water (\$ per 1,000 gallons), based on PF=2 \$1.18 Note: One or more cost element has been calculated externally	Interest During Construction (3% for 5 years with a 0.5% ROI)	<u>\$53,534,000</u>
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Pipeline, Wells, and Storage Tanks (1% of Cost of Facilities) Intakes and Pump Stations (2.5% of Cost of Facilities) Dam and Reservoir (1.5% of Cost of Facilities) Water Treatment Plant Pumping Energy Costs (9866677 kW-hr @ 0.08 \$/kW-hr) TOTAL ANNUAL COST Available Project Yield (acft/yr) Annual Cost of Water (\$ per acft), based on PF=2 Annual Cost of Water After Debt Service (\$ per acft), based on PF=2 Annual Cost of Water (\$ per 1,000 gallons), based on PF=2 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 Note: One or more cost element has been calculated externally		\$11,970,000
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Annual Cost of Water After Debt Service (\$ per acft), based on PF=2 \$384 Annual Cost of Water (\$ per 1,000 gallons), based on PF=2 \$4.47 Annual Cost of Water After Debt Service (\$ per 1,000 gallons), based on PF=2 \$1.18 Note: One or more cost element has been calculated externally	Available Project Yield (acft/yr)	
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Note: One or more cost element has been calculated externally		
		\$1.18
JELEUN BICE 7/1/2010	Jeremy Rice	7/1/2019