

Phase 1
Mountainburg Segment 6mi

Phase 2
Frog Bayou Segment 12mi

Proposed Lee Creek Interconnect
2.8mi

Lake Fort Smith Water Transmission Line Overview October 2022

Lucretia Perkins, Utilities Auditor

River Crossing Interconnect
4.1mi

Phase 3
Arkansas River Segment 9.91mi

Phase 4
Arkansas River Crossing .44mi

Phase 5
Chaffee Crossing Segment 4.7mi



Overview of the Lake Fort Smith 48-inch Water Transmission Line Project

This audit was included in the 2022 Audit Plan and was a direct result of our Risk Assessment process conducted in 2021. Additionally, the project was selected because it was on the CIP plan(s) and a major water project that has numerous design and construction phases. Internal Audit (IA) identified that there were five design and construction phases, and that design phase one (1) began in 2012 and construction phase one (1) began in 2015. Design phases two through five began in 2017 and according to the CIP plan(s) would have expected to see completion of at least two of the phases and construction beginning/ending. However, upon review IA could only provide the following information.

The City is in the process of replacing an existing 27-inch water transmission line that supplies water from Lake Fort Smith to areas south of the Lake Fort Smith water treatment plant. The 27-inch water transmission line is being replaced with a 48-inch water transmission line. The project for the 48-inch water transmission line is planned for five (5) phases over multiple years.

Phase 1 of the project is approximately six miles of 48-inch water transmission line installed from the Lake Fort Smith Water Treatment Plant to near Hwy. 282 and I-49.

Phase 2 of the project is approximately 12 miles of 48-inch water transmission line installed from the end of phase 1 to near Rudy Road and Old Dollard Way.

Phase 3 of the project is approximately 9 miles of 48-inch water transmission line installed from the end of phase 2 to near Gun Club Road/Levee Road near the Hwy 59 crossing of the Arkansas River.

Phase 4 of the project is approximately 2 miles of 48-inch water transmission line installed from the end of phase 3 to H Street in Barling.

Phase 5 of the project is approximately 4 miles of 48-inch water transmission line installed from the end of phase 4 to near Hwy 255 and Massard Road.

Lake Fort Smith Water Transmission Line Phase and Status (e-Builder)

Proj.	Project Name	Phase	Project	Project Status
08-07	Lake Fort Smith Water Transmission Line - Phase I and Distribution 08-07	Complete	Water	Complete/In Warranty
16-16	Lake Fort Smith Water Transmission Line - Phase 2 16-16	Design	Water	Active
18-20	Lake Fort Smith Water Transmission Line - Phase 3 18-20	Design	Water	Active
18-21	Lake Fort Smith Water Transmission Line - Phase 4 18-21	Design	Water	Active
19-03	Lake Fort Smith Transmission Line - Phase 5 19-03	Design	Water	Active
19-33	Lake Fort Smith Water Transmission Line - Phase 2 A 19-33		Water	Active
20-03	Lake Fort Smith Water Transmission Line - Phase 2 B 20-03		Water	Active

Phase 1 Complete – Costs (e-Builder)

Phase 1	Agreement Amount	Actual Cost
Design	\$1,442,991.00	\$1,442,817.73
Construction	\$12,067,940.50	\$11,834,825.78
Const. Observation	\$967,772.00	\$967,771.63
Legal	N/A	\$147,368.87
Utility Easement Acquisitions	N/A	\$268,723.89
Other Direct Costs*	N/A	\$72,823.40
Total Cost		\$14,734,331.30

* Advertising, permits, repairs, etc.

Phase 1 began with a design agreement with Mickle Wagner Coleman on March 6, 2012. S. J. Louis Construction of Texas, Ltd. was awarded the construction contract on October 6, 2015. S. J. Louis Construction of Texas, Ltd. submitted the final payment request for the period of 9/26/2017 through 12/15/2017 on December 26, 2017. Final payment and project completion was approved by Resolution No. R-16-18 on January 16, 2018.

Burns & McDonnell (B&M) was awarded the design for Phase 2, Phase 3, Phase 4, and Phase 5.

- Phase 2 - awarded to B&M on August 1, 2017 by Resolution No. R-116-17.- for \$2,346,192
- Phase 3 - awarded to B&M on October 2, 2018 by Resolution No. R-145-18 for \$1,756,833
- Phase 4 - awarded to B&M on October 2, 2018 by Resolution No. R-146-18 for \$733,042
- Phase 5 - awarded to B&M on June 4, 2019 by Resolution No. R-99-19 for \$1,032,685

Phases 2 through 5 are all currently in the design phase and no construction has been bided or awarded at this time. Below are the current design cost that IA was able to identify for phases 2 through 5.

LAKE FORT SMITH 48-INCH TRANSMISSION LINE DESIGN PHASES

Project/Phase	Agreement Amount	e-Builder Paid To Date	Munis Paid To Date *
16-16-ED1 Phase 2	\$2,707,866.00	\$2,621,577.52	\$2,612,444.75
18-20-ED1 Phase 3	\$1,756,833.00	\$767,409.48	\$767,409.48
18-21-ED1 Phase 4	\$733,042.00	\$222,303.62	\$222,303.62
19-03-ED1 Phase 5	\$1,032,685.00	\$497,537.89	\$497,537.89

* Design cost from Project Central (may not include all costs prior to 2018)

Internal Audit (IA) inquired with Fort Smith Utility Department (FSUD) regarding the phases and estimates of completion. FSUD did not provide a response to the inquiry other than estimates of the design phases having 20% to 95% completion with explanations below:

Design Phases Percentage Complete
Phase 2 – 95% (Environmental will need rework and the distribution is probably at 90%, distribution easements need a lot of work) Easement Acquisition is on-going. For Access and distribution only. Transmission line easements have been acquired)
Phase 3 – 60% (We were not able to get on to significant portions of the project until about two months ago. All survey and geotech is now complete. Minor changes are being made to the alignment as we deal with acquisition issues) Easement Acquisition is on-going.
Phase 4 – 20% (Topo survey and geotech has been completed. We are unable to proceed until ArDOT determines if we are going to be able to install a pipe on their new bridge)
Phase 5 – 60% (Currently waiting to see if we need to change the alignment due to the medical college.) Easement Acquisition is on-going.

IA requested timelines for the design phases estimated completion, construction phases, and any delays to the projects. FSUD did not provide any except that the Board had halted all projects. Below is information obtained from the Utility Water CIP.

SUMMARY OF UTILTIY WATER CAPITAL IMPROVEMENTS PROJECT - LAKE FORT SMITH 48-INCH TRANSMISSION LINE (2022 CIP)										
Project Title	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031
LFS 48 inch Transmission Line Phase 2 (Design)	\$ 140,000	-	-	-	-	-	-	-	-	-
LFS 48 inch Transmission Line Phase 3 (Design)	\$1,400,000	-	-	-	-	-	-	-	-	-
LFS 48 inch Transmission Line Phase 4 (Design)	\$ 570,000	-	-	-	-	-	-	-	-	-
LFS 48 inch Transmission Line Phase 5 (Design)	\$1,530,000	-	-	-	-	-	-	-	-	-
LFS 48 inch Transmission Line Phase 2a Construction	-	-	-	\$14,223,000	\$14,223,000	-	-	-	-	-
LFS 48 inch Transmission Line Phase 2b Construction	-	-	-	\$14,223,000	\$14,223,000	-	-	-	-	-
LFS 48 inch Transmission Line Phase 5 (Design)	-	-	-	-	-	\$13,604,720	\$13,604,720	-	-	-
LFS 48 inch Transmission Line Phase 3 (Construction)	-	-	-	-	-	\$20,976,560	\$20,676,560	-	-	-
LFS 48 inch Transmission Line Phase 4 (Design)	-	-	-	-	-	-	-	\$7,316,760	\$7,316,760	-

Additional information from previous years Utility Water CIPs reflect Phase 2 construction estimated start dates continue to be move from as early as 2019 (2019 CIP) to 2025 (2022 CIP).

SUMMARY OF UTILTIY WATER CAPITAL IMPROVEMENTS PROJECT - LAKE FORT SMITH 48-INCH TRANSMISSION LINE (2021 CIP)

Project Title	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
LFS 48 inch Transmission Line Phase 3 (Design)	\$ 1,727,000	-	-	-	-	-	-	-	-	-
LFS 48 inch Transmission Line Phase 4 (Design)	\$ 690,000	-	-	-	-	-	-	-	-	-
LFS 48 inch Transmission Line Phase 5 (Design)	\$ 1,000,000	-	-	-	-	-	-	-	-	-
LFS 48 inch Transmission Line Phase 2a Construction	-	-	-	-	\$ 8,500,000	\$8,500,000	-	-	-	-
LFS 48 inch Transmission Line Phase 2b Construction	-	-	-	-	-	-	\$ 8,500,000	\$ 8,500,000	-	-
LFS 48 inch Transmission Line Phase 3 (Construction)	-	-	-	-	-	-	\$10,500,000	\$10,500,000	-	-
LFS 48 inch Transmission Line Phase 4 (Design)	-	-	-	-	-	-	-	-	\$6,000,000	\$6,000,000

LAKE FORT SMITH 48-INCH TRANSMISSION LINE (2020 CIP)

Project Title	2020	2021	2022	2023
LFS 48 inch Transmission Line Phase 2a Construction	\$ 8,250,000	\$ 8,250,000	-	-
LFS 48 inch Transmission Line Phase 2b Construction	\$ 8,250,000	\$ 8,250,000	-	-
LFS 48 inch Transmission Line Phase 3 (Design and Construction)	\$ 1,727,000	-	\$ 9,200,000	\$ 9,200,000
LFS 48 inch Transmission Line Phase 4 (Design and Construction)	\$ 690,000	-	-	-
LFS 48 inch Transmission Line Phase 5 (Design and Construction)	\$ 1,047,690	-	-	-

LAKE FORT SMITH 48-INCH TRANSMISSION LINE (2019 CIP)

Project Title	2019	2020	2021	2022	2023
LFS 48 inch Transmission Line Phase 2 Construction	\$11,000,000	\$11,000,000	\$11,000,000	-	-
LFS 48 inch Transmission Line Phase 3 (Design and Construction)	\$ 1,150,000	\$ 1,150,000	\$ 9,200,000	\$ 9,200,000	-
LFS 48 inch Transmission Line Phase 4 (Design and Construction)	\$ 425,000	\$ 425,000	-	-	\$ 7,500,000
LFS 48 inch Transmission Line Phase 5 (Design and Construction)	-	\$ 850,000	-	\$ 4,000,000	\$ 4,000,000

LAKE FORT SMITH 48-INCH TRANSMISSION LINE (2018 CIP)

Project Title	2018	2019	2020	2021	2022
LFS 48 inch transmission line phase 3 - Design	-	-	\$ 1,925,000	-	-
LFS 48 inch transmission line phase 2 construction	-	-	-	\$15,500,000	\$15,500,000