

Stella Water System Improvement Project

Location: Village of Stella, Newton County, Missouri

Project Type: Water Infrastructure Replacement and Upgrade

Funding Source: American Rescue Plan Act (ARPA)

Total Estimated Cost: \$2,824,383

Construction Start Date: April 14, 2025

Project Overview

The Village of Stella is moving forward with a much-needed overhaul of its aging water distribution system. Originally installed in the 1960s, the current system serves approximately 71 customers and has suffered from severe deterioration, leading to up to **74% water loss** due to leaks and pipe failures.

This critical infrastructure upgrade, funded through the **American Rescue Plan Act (ARPA)**, is designed to significantly reduce water loss, improve water pressure and quality, and ensure long-term system reliability.

Project Goals

- **Eliminate water loss:** Replace deteriorated cast iron and undersized PVC pipes.
 - **Improve pressure and fire flow:** Upsize water lines under 4 inches in diameter.
 - **Enhance water quality:** Remove dead-end lines that promote stagnation.
 - **Increase efficiency:** Install modern meters for accurate tracking and leak detection.
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Planned Improvements

- Replace **13,120 feet** of old water lines with new PVC pipes.
 - Upsize small-diameter lines (1", 2", 2.25") to **2" and 3"** lines.
 - Install **new valves, fire hydrants, service lines, and water meters.**
 - Loop formerly dead-end lines to **improve flow and maintain disinfectant levels.**
 - Add **1,385 feet of new water lines** for looping enhancements.
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Benefits to the Community

- **Water loss reduced** from 74% to under 10%.
 - **Extended lifespan** for well pumps and reduced operational strain.
 - **Better water pressure** and improved fire-fighting capability.
 - A **more reliable, safer, and cost-effective** water system for Stella residents.
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Project Status

- **Engineering Report Completed:** July 2022
- **All preparations finalized** — construction begins **April 14, 2025**

The Stella Water System Improvement Project reflects the Village's commitment to responsible infrastructure investment and long-term community resilience.