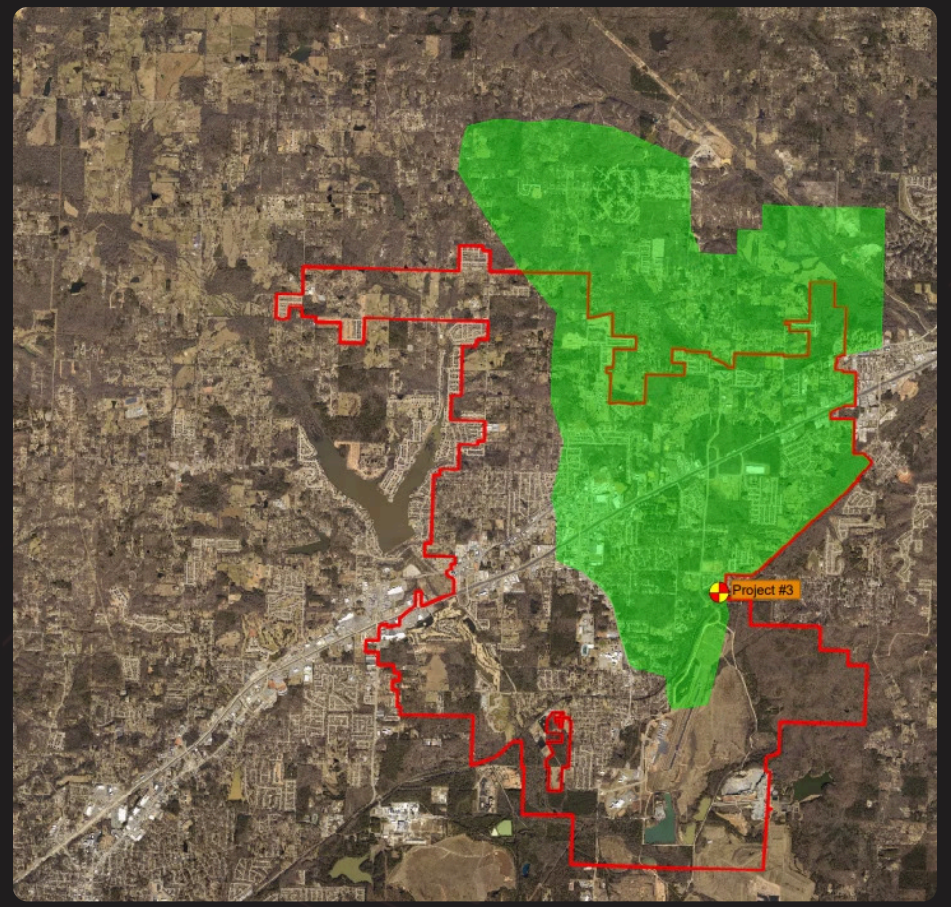



# Lift Station 5 and Force Main

City of Bryant + Hawkins-Weir Engineering

# Project Summary

This project involves a comprehensive upgrade of the city's largest lift station, Lift Station 5, and its corresponding force main, essential for handling peak wastewater flows and ensuring long-term system reliability.

**3.6 MGD vs 10 MGD**

Current Maximum Pumping Capacity vs. Future Maximum Pumping Capacity

**8,234 People + 30 Businesses over 14.5 sq miles**

Estimated # of People "served" by Lift Station 5/ Force Main

**2.65 miles of force main + est. 40% increase in line capacity**

Force Main from Lift Station to the Wastewater Treatment Plant

## 🏔️ Problem Statement

The current lift station and force main infrastructure are operating near maximum capacity, limiting the system's ability to handle peak flow conditions and compromising its resilience. This capacity restriction poses significant risks of overflow, especially during heavy rainfall events, potentially leading to environmental contamination and non-compliance with wastewater regulations. Simply increasing the lift station capacity would overload the force main, causing backpressure issues and system inefficiencies that would strain the entire conveyance system and elevate risks of pipe failure. To ensure a reliable, resilient, and environmentally responsible wastewater management solution, it is essential to upgrade both the lift station and force main simultaneously.

## ⏪ Prior Work

This lift station has had some minor upgrades throughout the years, but a major project addressing multiple issues has been noted as high priority in prior and current master plans, flow studies, and capacity discussions.

# Project Goals

## 1 Increase System Capacity and Reliability While Ensuring Cost-Effectiveness

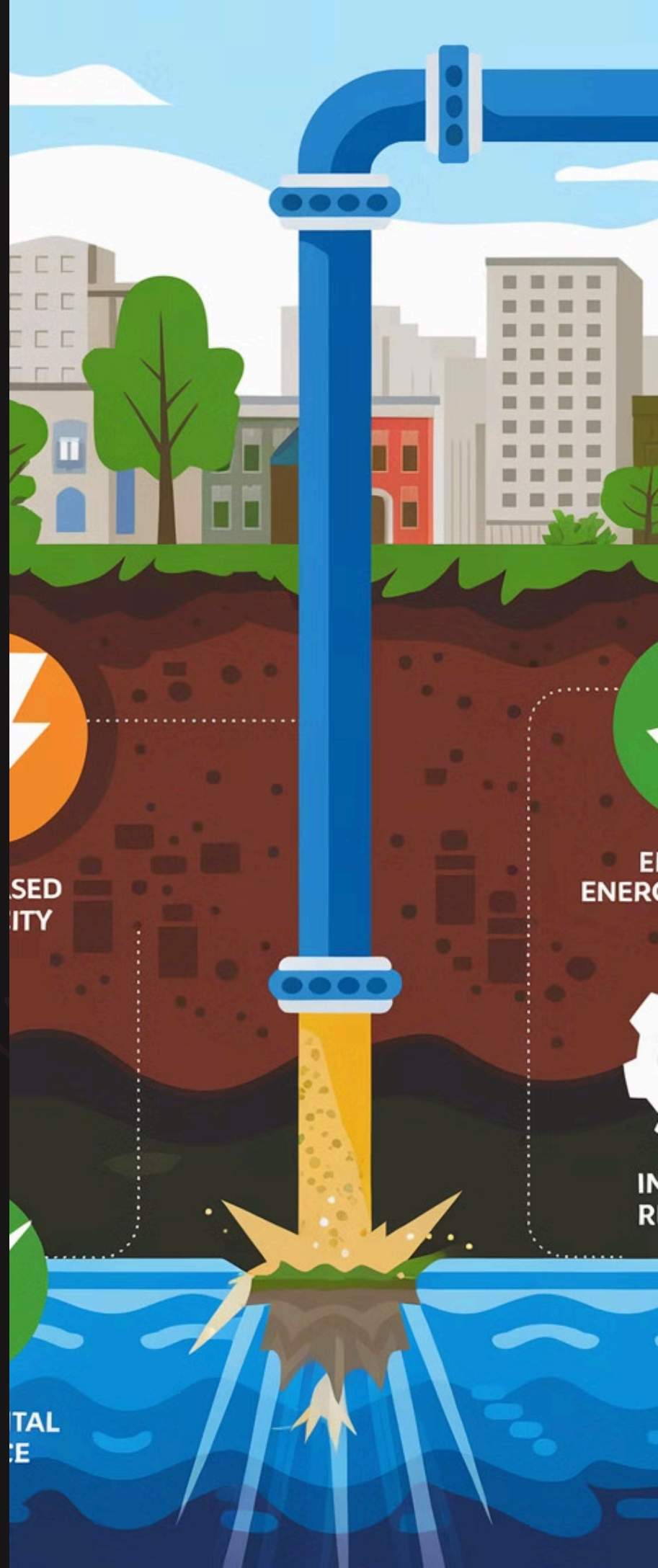
Upgrade the lift station and force main to handle higher flow volumes and peak loads, ensuring reliable wastewater conveyance and minimizing the risk of overflows or surcharges. This upgrade will prioritize cost-effective solutions to ensure we are using ratepayer funds wisely and delivering the best possible service at a responsible cost.

## 2 Enhance Energy Efficiency and Reduce Operational Costs

Explore possibilities of integrating modern, energy-efficient pumps and controls to lower energy consumption and reduce operational costs, aiming for a more sustainable and cost-effective lift station over the long term.

## 3 Improve Compliance with Environmental and Regulatory Standards

Ensure the upgraded lift station and force main meet all local, state, and federal wastewater management regulations, minimizing environmental impact and protecting water quality in surrounding areas.





# Project Scope

## ⏱️ Timeline

1. **Vision**

   Kickoff Meeting on November 13th, 2024

2. **Design and Preliminary Investigations**

   Design Work from November 13th, 2024, through July 1st, 2025

3. **Budget Work and Agency Review**

   Funding Applications and Final Approvals December 4th, 2024, through August 1st, 2025

4. **Bidding and Construction**

   Bidding and Construction estimated for August 1st, 2025, to October 1st, 2026

## 💸 Budget

ARPA Funds (City of Bryant): $1,100,000 for Task Order #2

Estimated Remaining Cost: asking for $13,000,000 through State Revolving Fund administered by Arkansas Natural Resources Division

Possible Lending Rate Reductions to Aim for:

- Element of Cybersecurity

Possible Green Project Reserve Elements to Implement:

- Energy Efficiency
- Water Efficiency
- Environmentally Innovative

## 🧱 Possible Challenges and Constraints

- Budget Restraints or Cost Overruns
- Route/Easement Acquisition
- Minimization of Service Disruptions
- Regulatory Compliance/ Permitting Delays
- Technical Integration/ Reliability Testing
- Achievable Long-Term Maintenace Plans

# Project Team and Communication



Bryant: Primary Contact

Tim Fournier

501-366-7614

tfournier@cityofbryant.com



Other Bryant Leadership:

Moriah Winkel, Bryce Rimmer, Gregg Asher, Frankie Glover, Ted Taylor



Hawkins Weir Engineering

Aaron Benzing

Austin Anderson, Craig Hardin, Scott McBrayer

## Roles and Responsibilities

| | |
|---|---|
| **Primary Contact** | *Tim Fournier; Director of Public Works; (501-366-7614)(tfournier@cityofbryant.com)* |
| **Core working team** | *Moriah Winkel; Public Works Analyst; Secondary Contact (501-914-9238)(mwinkel@cityofbryant.com)*<br>*Bryce Rimmer; Pumps/ Controls Super (501-213-8181)(brimmer@cityofbryant.com)*<br>*Frankie Glover; Wastewater Conveyance Super (501-710-0040)(fglover@cityofbryant.com)*<br>*Gregg Asher; Wastewater Treatment Plant Super (501-366-7430)(gasher@cityofbryant.com)*<br>*Ted Taylor; Planning Director (501-366-0343)(ttaylor@cityofbryant.com)* |
| **Engineering Team** | Aaron Benzing; Principal In Charge; Primary Contact (501-414-9851)(aaron.benzing@hawkins-weir.com)<br>Austin Anderson; Project Manager; Secondary (501-353-8239)(austin.anderson@hawkins-weir.com)<br>Craig Hardin; Structural Lead (479-455-2206)(craig.hardin@hawkins-weir.com)<br>Scott McBrayer; Electrical/Mechanical Lead (479-883-7025)(scott.mcbrayer@hawkins-weir.com) |
| **Communication channels** | *Please CC entire Bryant Leadership Team on all email communications. Tim will be primary contact and will delegate tasks as he sees fit. Moriah will be primary contact on any funding/budget/communication related items. Bryce, Frankie, and Gregg will take the lead on any operations related questions. Ted will provide input on design/project details. Teamwork makes the dream work!* |