

# CONWAY CORP WATER

AMOUNT REQUESTED

**\$1,570,000.00**

ARP FUNDS RECEIVED

**\$0.00**

PEOPLE IMPACTED

Approximately 140 people would benefit from this project.

Conway Corporation will extend City water mains along Lower Ridge Road and serve several citizens in the County. The project will provide treated water to an area known to have contaminated wells.



RECEIVED

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MAR 14 2022

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Faulkner County  
American Rescue Plan / Coronavirus State and Local  
Fiscal Recovery Funds Application

Organizational information:

Name or organization: Conway Corp  
Physical address: 650 Locust St  
Mailing address: PO Box 99  
Email: \_\_\_\_\_  
Phone: 501-450-6000

CEO or Executive Director information:

Name: Bret Carroll  
Email: bret.carroll@conwaycorp.com  
Phone: 501-450-6023  
Brief qualifications statement: \_\_\_\_\_

Financial Officer or Director information:

Name: Tracy Moore  
Email: tracy.moore@conwaycorp.com  
Phone: 501-450-6023  
Brief qualifications statement: \_\_\_\_\_

Who is the contact person for this application?

Name: Mark Ferguson  
Email: mark.ferguson@conwaycorp.com  
Phone: 501-548-3020

Entity type or IRS registration: (501(c)3, LLC, sole proprietorship, etc.)

Public Utility Company

Brief history of the organization:

Founded in 1929. Serves City of Conway with electric, water, wastewater, video, data, voice, and security services.



**Financial information:**

1. Have you received other state or federal grant funds in the past three years? If so, list the grant name, the organization from whom it was received, the amount of funding received, and the status of the grant expenditure.

*Refer to attached Appendix A.*

2. Please Attach your organization's audits from 2019, 2020, and 2021 if available.

*Available if required.*

3. What is your organization's annual budget? Please attach a copy of your 2020, 2021, and 2022 budgets.

*Available if required.*

4. The applicant certifies that any funds received through this Faulkner County granting program are fully subject to federal regulations and affirms that the funds will be properly spent in compliance with the American Rescue Plan Act of 2021. The applicant further affirms that financial controls are in place such that each expenditure under the grant will be fully documented and that such documentation will be open to the public and submitted to the County for audit. The applicant understands that all aspects of their use of the grant are open to the public and subject to the Freedom of Information Act.



About your request:

5. Please indicate under which category of eligibility under ARPA your organization is applying:

- Public Health and Economic Impacts – Responding to COVID-19
- Public Health and Economic Impacts – Responding to Negative Economic Impacts
- Investments in Infrastructure – Water and Sewer
- Investments in Infrastructure – Broadband

6. Briefly and clearly state how your project responds to the COVID-19 crisis:

*Increase public health and safety of project area by mitigating use of contaminated wells.*

7. Does your project have a county-wide impact? If so, please describe.

*This project will extend City water mains along Lower Ridge Rd and serve several citizens in the County.*

8. Please describe your project including the following information (in any order): What will this project accomplish? How will those goals be measured? How do these goals relate to the goals of the American Rescue Plan Act (ARPA)?

*This project will provide treated water to an area known to have contaminated wells. The goals will be measured by the number of citizens connecting to the new water mains.*

9. Please attach a project budget. If the project includes construction or third-party services, please provide their estimates.

*The current estimated project cost is \$2,036,700.  
Refer to attached Preliminary Engineering Report.*

10. Are other funds part of the budget besides ARPA funds? If so, please list other sources of funding and a copy of their funding commitment, if available.

*Conway Corp is working with the Central Arkansas Planning and Development Department to seek funding through the Arkansas Economic Development Commission.*

11. Please describe the organization's financial management practices that will ensure audit compliance.

*Conway Corp has successfully managed several grant funded projects through the State and are capable of meeting any compliance requirements.*



12. What is the total dollar amount that is being requested from Faulkner County?

\$ 1,570,000

13. Have you received other ARPA or CARES Act funds? If so, how much have you received?

No





**Authorized Representative:** The signature indicates that I have been authorized to submit an application requesting funding for the proposed project and to the best of my knowledge and belief, all data contained in this application is true and correct. If the application is approved for funding, I am authorized to sign any applicable documents on behalf of the applicant.

Mark Ferguson  
Type Name

Water Systems Senior Engineer  
Title

Mark Ferguson  
Signature

3/8/22  
Date

When completed return by mail or drop-off  
to: Faulkner County Judge's Office  
801 Locust Street  
Conway, AR 72034



### Appendix A: Previous Grant Projects

Grant Name	Funding Organization	Amount of Funding	Status
Road Elevation to Conway's Emergency Water Pump	Arkansas Department of Emergency Management	\$ 13,680	Complete
Aerial Sewer Crossings Modifications	Arkansas Department of Emergency Management	\$ 125,138	Complete
Replace Stone Dam Creek Crossing Bridge	Arkansas Department of Emergency Management	\$ 150,000	Complete
Gravity Sewer Main Modifications	Arkansas Department of Emergency Management	\$ 97,240	Complete
Tupelo Bayou WWTP Berm Raise: Phase 1 Design	Federal Emergency Management Agency	\$ 102,837	Project close out phase



### 1.0 GENERAL

The purpose of this Preliminary Engineering Report is to identify the present problem, analyze alternatives, and propose a specific course of action from an engineering perspective to address the problem. The proposed area is a rural area not currently served with potable water. There was a public meeting held at the Conway Expo Center with residents of the proposed project area, County Judge Jim Baker, Conway Corp representatives, James Walden City Planning Director with the City of Conway, and Leigh Pool with Central Arkansas Planning & Development on June 25<sup>th</sup>, 2019. There was a subsequent public meeting held at the Conway Expo Center on August 6<sup>th</sup>, 2019. This report will analyze the feasibility and logic of extending water to the area from neighboring water providers.

This project generally consists of water main extensions as required to serve primarily single family residents with some light commercial in the northeast area of the City of Conway, Arkansas. Some of the extensions lie within the City limits of Conway and all of the area lies within Conway Corp’s filed water planning boundary<sup>[1]</sup>. The single family residential service area infrastructure design basis includes fire flow consideration<sup>[2]</sup> therefore fire flow is the primary hydraulic design criteria. This report considers the alternatives to Conway Corp service, capital costs, health and safety impacts associated with the alternatives, and financing.

### 2.0 PROJECT PLANNING AREA

This project is located in the northeast area of the City of Conway. Some of the alignment extends outside the City limits. The greatest proportion of the alignment of this project lies along Lower Ridge Road in Faulkner County, hence the project name, ‘Lower Ridge Rd – Faulkner County Water’. Figure 1.1 below depicts the alignment and proximity with respect to the City limits. The solid blue lines represent existing Conway Corp water mains. The broken blue lines represent ‘the project’. The City limits of Conway are represented by the thick aqua / white dashed line. The yellow shaded area represents Conway Corp’s filed water planning boundary. The area is primarily rural and undeveloped with the exception of one, large lot subdivision in the City limits along the central area of the alignment.

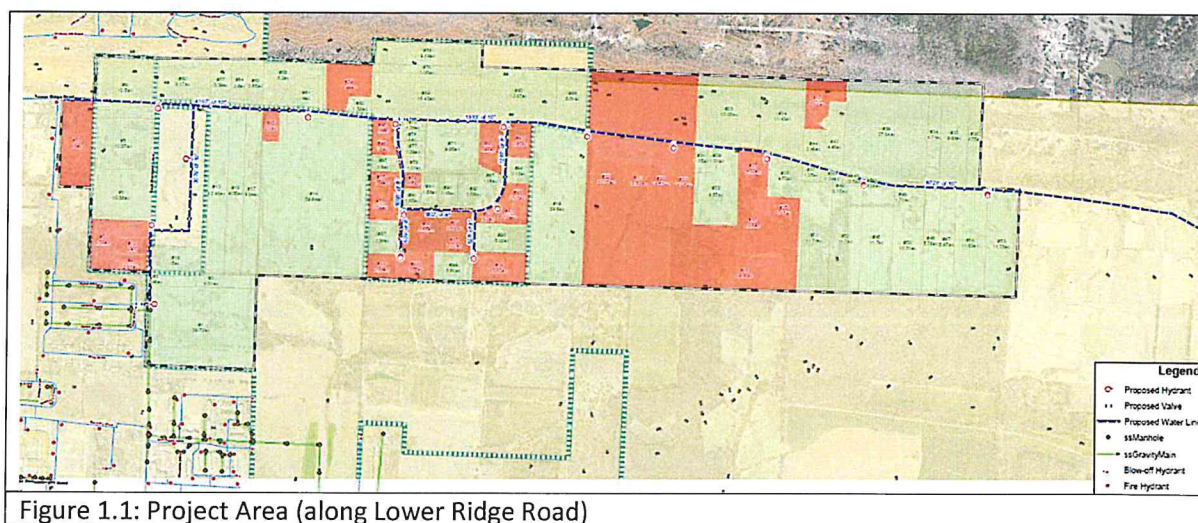


Figure 1.1: Project Area (along Lower Ridge Road)

Preliminary Engineering Report, Lower Ridge Road Water Project, Faulkner County

The project alignment is directly accessible to approximately 100 parcels. These properties are currently served by individual water wells with septic systems for sewage disposal. Residents complain of poor water quality, contamination, and aesthetic problems of color, taste, and odor. Photos typical of the rural areas along the alignment follow below.



Common well – head protection systems consist of simple enclosures as shown in the photo (right).



The recorded well site information is shown in Figure 1.2 which follows<sup>[3]</sup>.

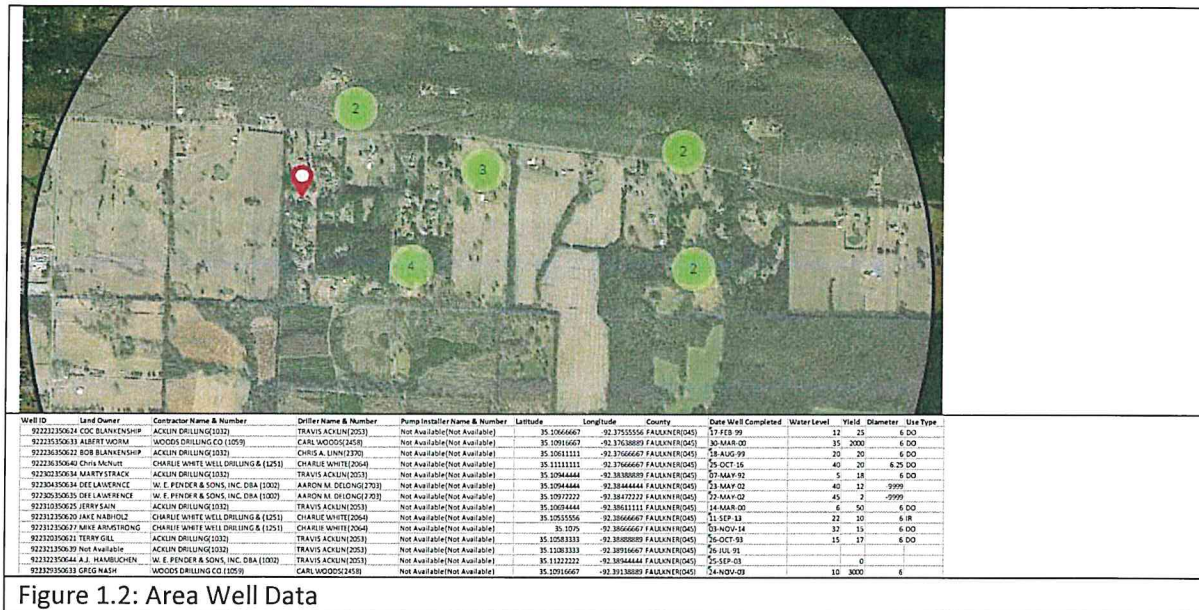


Figure 1.2: Area Well Data

Located at the south edge of the Cadron Ridge, the topography of the project area is generally sloping to the south. According to FEMA maps for the proposed project area, this entire project will be above the 100/500 year floodplain as outlined in Figure 1.3 which follows.

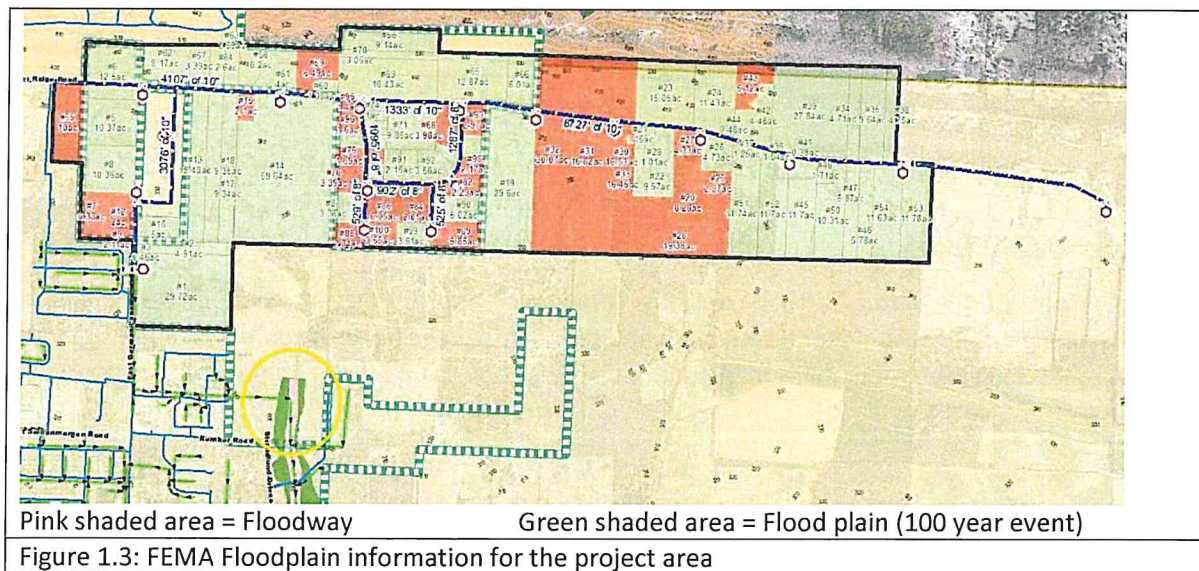


Figure 1.3: FEMA Floodplain information for the project area

### 3.0 NEED FOR PROJECT



This project will provide safe, reliable drinking water to residents who are currently served by potentially unsafe, inconsistent well-water systems. Residents in the area have complained of issues associated with taste and odor in addition to safety concerns. Bacteriological testing was performed at eleven residents in the area of consideration, see Appendix A. Of the eleven tests, there were eight positive results for Total Coliform (73%). Conway Corp regularly tests its water system to ensure the delivery of safe, clean water to its customers. This project will allow both current and future residents of the area a safe, clean, reliable water source.

Conway Corp is also able to provide competitive water rates compared to the other water distribution providers in the area, Vilonia and Beaverfork. Current infrastructure is in place to allow Conway Corp to extend water mains to the service area without undue capital expenses such as storage tanks and/or pump stations to provide fire protection; this again helps keep water rates low for the end user and promotes the feasibility of the project.

Table 1.1 below shows the current Out-of-City water rates for Conway Corp water customers.

<b>Conway Corp Out-of-City water rates</b>	
<b>Monthly customer charge</b>	
3/4" meter	\$ 6.75
1" meter	\$ 15.24
<b>Consumption per month</b>	
Per 1,000 gal (up to 20,000 gal)	\$ 5.86
Per 1,000 gal (over 20,000 gal)	\$ 5.45
<b>Avg. customer bill with 3/4" meter at 5,000 gal/month</b>	<b>\$ 36.05</b>

Table 1.1: Current Out-of-City Conway Corp water rates

#### **4.0 EXISTING CONDITIONS**

Conway Corp’s water system currently consists of approx. eleven miles of 36” diameter transmission main, a 24 MGD water treatment plant, six water storage tanks encompassing four separate pressure zones and approx. 417 miles of distribution piping. Figure 1.4 below is a map of Conway Corp’s water system.

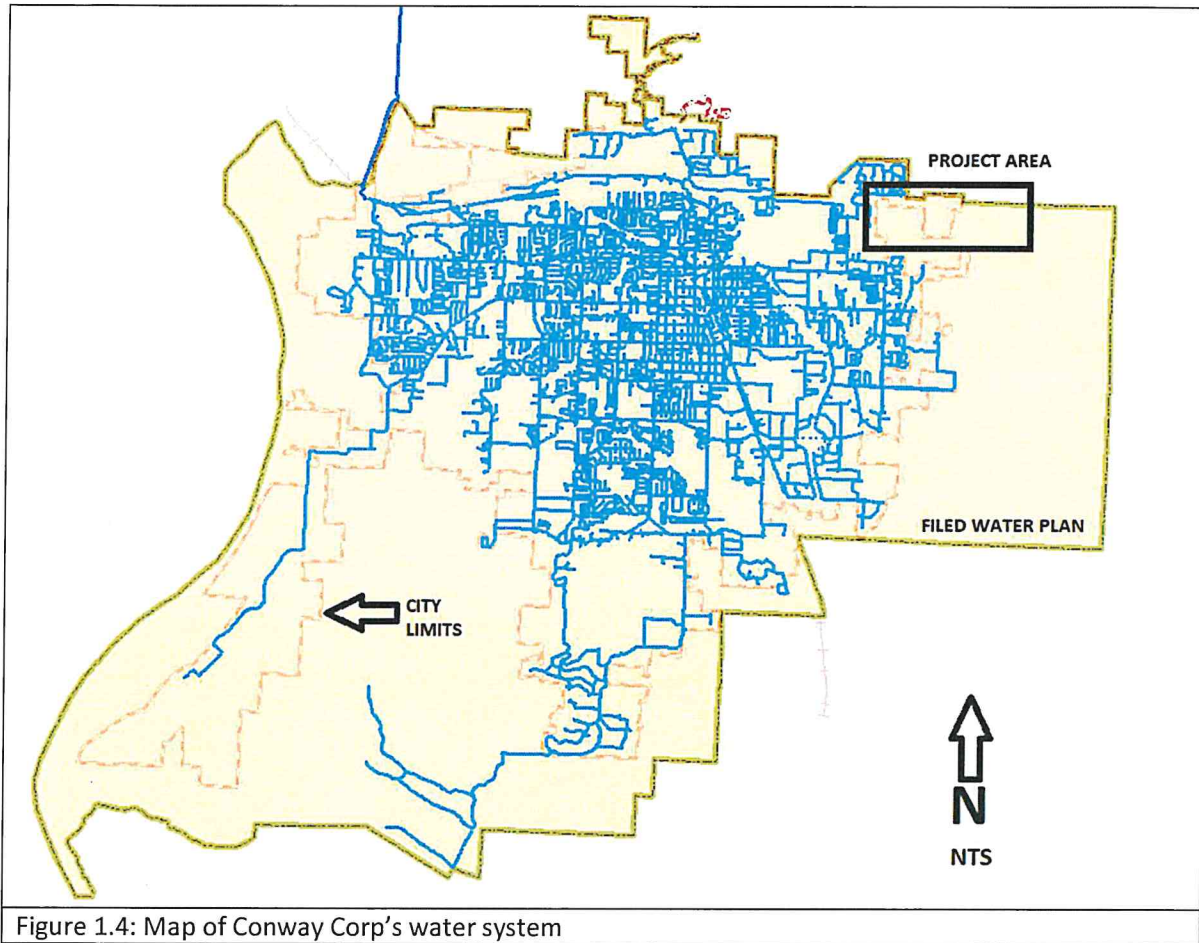


Figure 1.4: Map of Conway Corp's water system

The Water System was incorporated in 1930 and upgrades to the plant and distribution system are made continuously. The Rocky Gap water area in the south portion of the map above extends outside city limits, but remains in Conway's filed water plan. City Ordinance O-19-55 was passed in 2019 that allows Conway Corp to extend water outside city limits, but within the Corporation's filed water plan at the Arkansas Natural Resource Commission office, to provide customers with reliable, safe, cost effective water service.

Conway Corp's Average Day water demand is approximately 9.5 MGD with a peak Max Day demand of 19 MGD in 2012. Conway Corp recently completed a Water Supply Study to research options for additional water source and transmission options that will bring reliability and sustainability for the future of Conway and its residents.

## **6.0 ALTERNATIVES CONSIDERED**

Four alternatives were considered to service this area. Use of existing well-water systems ("do nothing"), service from Beaverfork, service from Vilonia Waterworks and service from Conway Corp.

Figure 1.5 below depicts the project relative to neighboring water systems. The orange lines / area represent Beaverfork water mains / service area. The Vilonia Water Works lines are nested within

the service area shaded in green to the south and east. Conway Corp's water mains are the blue lines in the yellow shaded area.

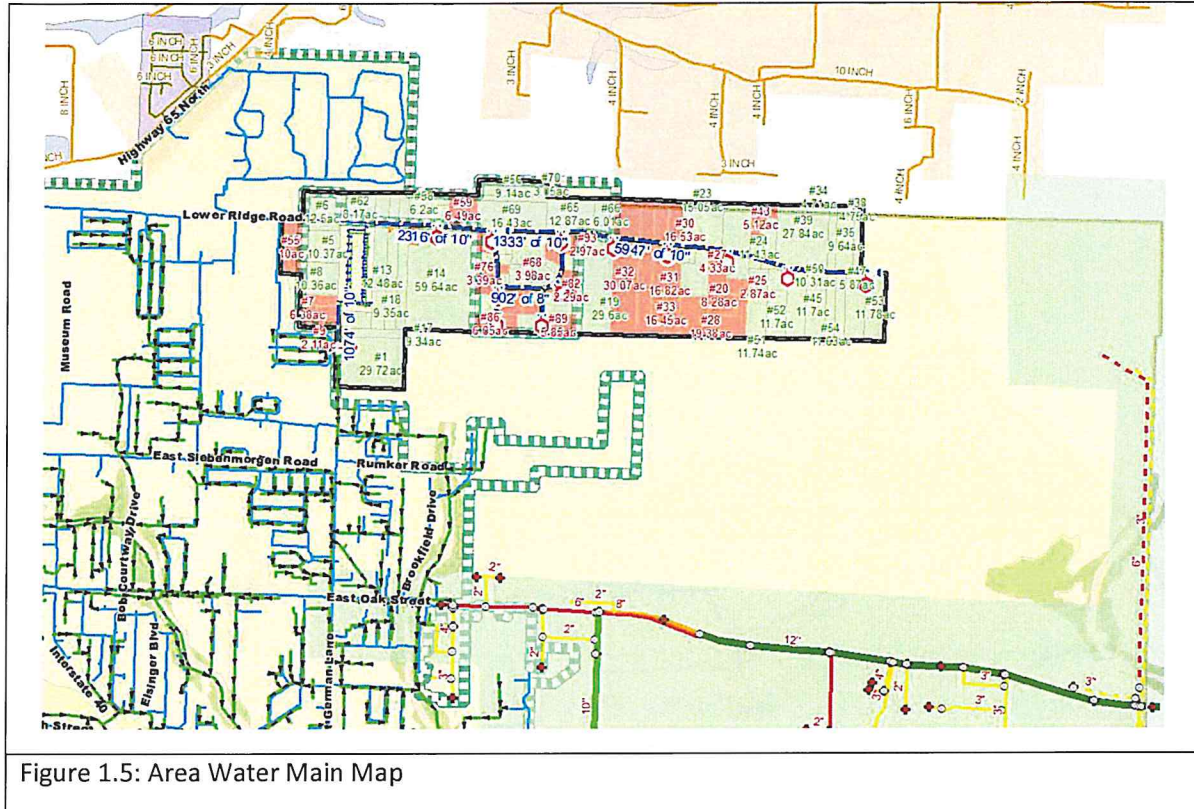
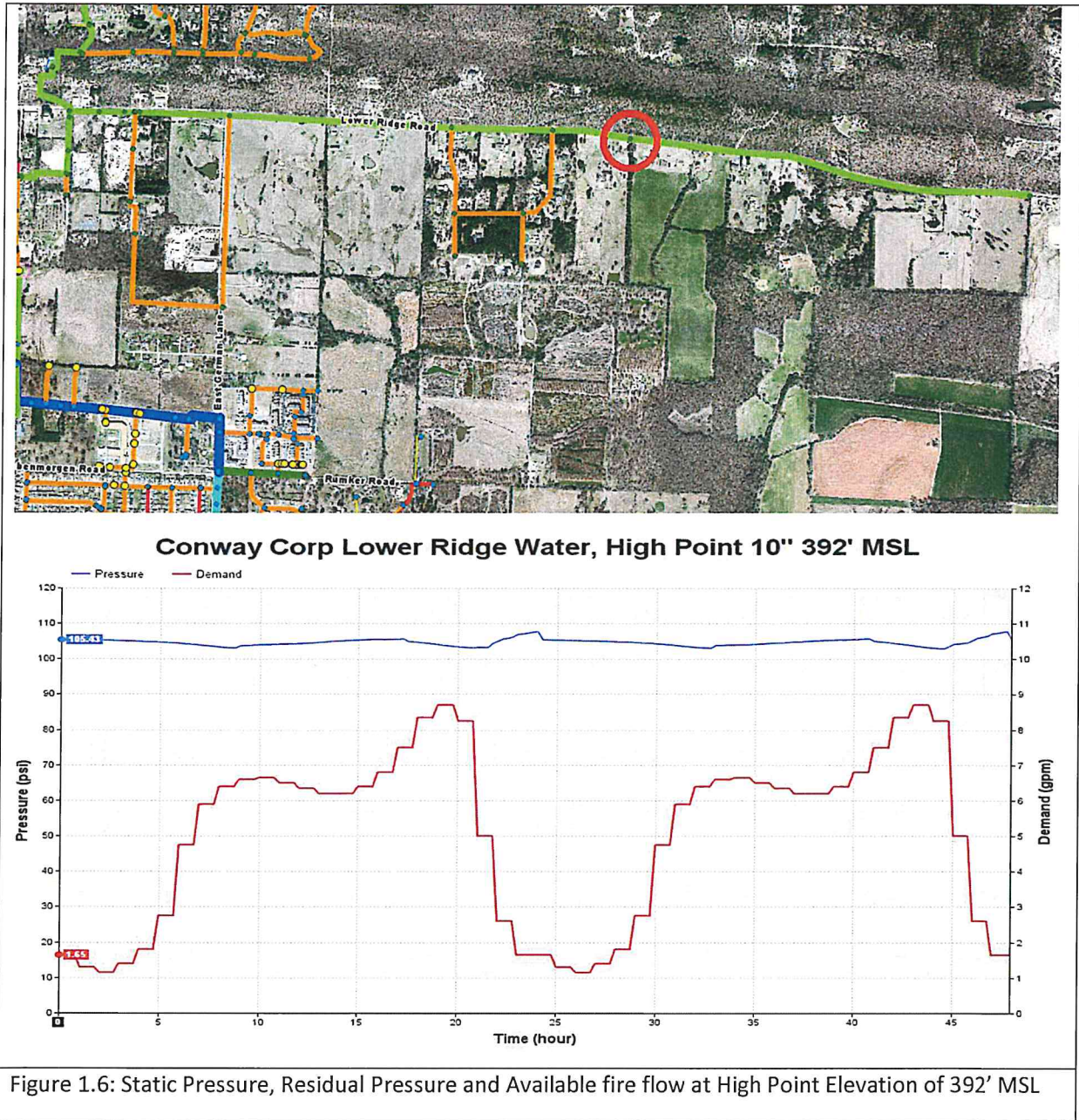
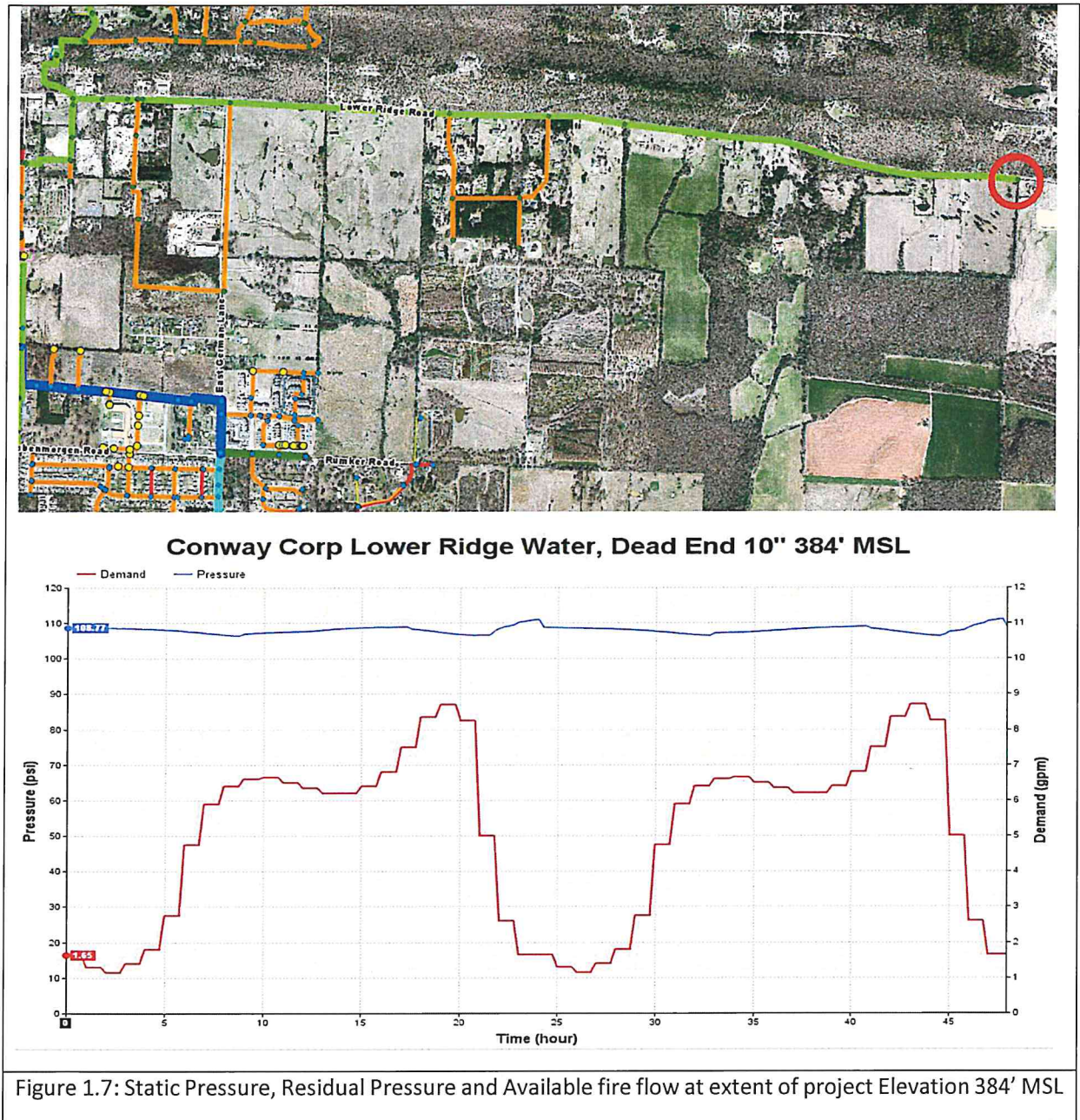


Figure 1.5: Area Water Main Map

Beaverfork's nearest water mains are located on top of the Cadron Ridge to the north of the project area which creates a topographical/geological challenge of installing/maintaining water mains to the area under consideration. Installing water mains of any size down a steep, rocky slope increases the cost of a project due to extended construction timelines and necessary safety precautions. Of the three water distribution providers in the vicinity, Vilonia is the furthest from the project area therefore requiring the most infrastructure to serve the potential customers.

The water modeling analysis depicted below shows static and residual pressures available during a Max Day scenario at the high-point of the project (Elevation 392, Figure 1.6) and the end of the proposed water main extension along Lower Ridge Road (Elevation 384, Figure 1.7). A 10" water main is already extended along Lower Ridge Road near East German Lane which will allow for ample volumetric capacity for extending the water approximately two and a half miles along Lower Ridge Road.





The Water/Wastewater Advisory Committee has reviewed the application for this project and have recommended receiving primary funding from the Community Development Block Grant (CDBG) and secondary funding through the Arkansas Natural Resource Commission (ANRC) for Out-of-City participants. Documentation of existing or approval for proposed means of sewage disposal will be required by the Arkansas Department of Health Division of Engineering prior to providing individual water service connections, per Conway Corp policy. Also, backflow protection will be required by installing an approved backflow prevention device on new water services and/or by decommissioning the customers' existing water well.

**7.0 FINANCIAL ANALYSIS**

The upfront estimated capital cost for extending Conway Corp’s water system is \$3,289,100 (see Table 1.2 below). This cost includes water main construction, Engineering planning and design, construction observation and administration, and contingency. This cost does not include purchase of any easements; it is assumed that easements will be donated by the property owners since they are the ones benefiting from the water main extensions. Easements would be required prior to execution of contracts for construction. In addition, this cost does not include setting the individual water meters and swapping over service lines.

<b>Water Main Extensions from Conway Corporation</b>			
<b>Estimated Cost of Construction</b>			<b>\$2,445,000</b>
In-City costs		6,341 LF	\$ 875,000
Out-of-City costs		8,375 LF	\$1,570,000
<b>Estimated Engineering Costs</b>			<b>\$ 146,700</b>
<b>Contingency</b>			<b>\$ 244,500</b>
<b>ADH review</b>			<b>\$ 500</b>
<b>Total</b>			<b>\$2,836,700</b>

Table 1.2: Project cost estimate for extending water mains from Conway Corp system

The Out-of-City portion of the project may be eligible for CDBG funding. The In-City portion will be paid for by the property owners and will be considered an “in-kind” contribution to the CDBG funds. The extensive cost to extend water mains will improve public health and safety to the area residents.

Beaverfork and Vilonia have 3” and 4” mains at the extent of their system which makes it difficult to serve past their existing boundaries. Conway Corp’s master planning allows flexibility for provision of safe, reliable potable water to the area residents.

The Unit Price Schedule (UPS) in Table 1.3 below provides an estimated cost breakdown of the project. These are estimated quantities based on recent Conway Corp water projects, but the competitive bidding process may results in a lower overall price.

Item	Description	Quantity	Unit Price	Total
1	Bond, Mobilization, and Submittals	1 LS	\$ 75,000.00	\$ 75,000.00
2	8" Ductile Iron Water Pipe & Fittings	4338 LF	\$ 60.00	\$ 260,280.00
3	10" Ductile Iron Water Pipe & Fittings	17243 LF	\$ 85.00	\$ 1,465,655.00
4	6" Resilient Wedge Gate Valve & Box	17 Ea	\$ 1,500.00	\$ 25,500.00
5	8" Resilient Wedge Gate Valve & Box	5 Ea	\$ 2,200.00	\$ 11,000.00
6	10" Resilient Wedge Gate Valve & Box	2 Ea	\$ 3,000.00	\$ 6,000.00
7	Fire Hydrant 4' Bury	17 Ea	\$ 5,500.00	\$ 93,500.00
8	Fire Hydrant Extensions	17 Ft	\$ 1,000.00	\$ 17,000.00
9	Connection To Existing 10" Main	2 Ea	\$ 3,000.00	\$ 6,000.00
10	Fill Connection	5 Ea	\$ 2,000.00	\$ 10,000.00
11	Air Relief Assembly	1 Ea	\$ 2,400.00	\$ 2,400.00
12	Rock Excavation	3000 CY	\$ 50.00	\$ 150,000.00
13	Gravel Fill (SB 2)	1300 Tn	\$ 35.00	\$ 45,500.00
14	Gravel Subgrade (Ballast)	3500 Tn	\$ 35.00	\$ 122,500.00
15	Asphalt St. Saw Cut & Replace	195 Tn	\$ 250.00	\$ 48,750.00
16	Temporary Asphalt	85 Tn	\$ 200.00	\$ 17,000.00
17	Concrete Sidewalk Cut & Replace	5 CY	\$ 300.00	\$ 1,500.00
18	Concrete Placement Under Asphalt	140 CY	\$ 220.00	\$ 30,800.00
19	Concrete Backing, Class "B"	50 CY	\$ 225.00	\$ 11,250.00
20	Concrete Anchor Collar	8 CY	\$ 1,000.00	\$ 8,000.00
21	Trench Compaction	1000 LF	\$ 10.00	\$ 10,000.00
22	Trench Excavation Safety	1 LS	\$ 10,000.00	\$ 10,000.00
23	Storm Water Pollution Prevention	1 LS	\$ 10,000.00	\$ 10,000.00
			<b>Construction Total</b>	<b>\$ 2,437,635.00</b>

Table 1.3: Unit Price Schedule for Estimated Cost of Construction

The Operation, Maintenance, and Replacement (OM&R) component for this project is negligible (<1-2%) if connecting to Conway Corp's water system. The current water rates paid by Conway Corp water customers support OM&R for the entire water system. Those water customer's that live outside of the City limits and are connected to Conway Corp water mains pay one-and-a-half times the In-City rate. This model is similar to the Rocky Gap water project that was funded by the ANRC and completed in 2018.

An amortization and cash flow worksheet is provided in Appendix B assuming a total financed value of \$2,836,700 over a 30 year period. An annual debt service amount of approximately \$184,531 would be required to pay off the loan assuming 5.0% interest and no grant funding. If the overall Improvement District included 100 parcels, then the average monthly debt payment per parcel In/Out-of-City would be approximately \$154/month. An assessor could be utilized to appropriately proportion payments based on acreage, assessed land value, improvements located on the property, etc. As the project area develops, additional customers would be included in to the Improvement District to help pay off the debt.

Current Out-of-City water rates for residential customers are listed in Table 1.4 below.

<b>Conway Corp Out-of-City water rates</b>	
<b>Monthly customer charge</b>	
3/4" meter	\$ 6.75
1" meter	\$ 15.24
<b>Consumption per month</b>	
Per 1,000 gal (up to 20,000 gal)	\$ 5.86
Per 1,000 gal (over 20,000 gal)	\$ 5.45
<b>Avg. customer bill with 3/4" meter at 5,000 gal/month</b>	<b>\$ 36.05</b>

Table 1.4: Current Out-of-City Conway Corp water rates

For the average Out-of-City water customer with a ¾" water meter using 5,000 gallons per month, the average monthly bill would be \$36.05 (\$6.75 + \$5.86 + \$5.86 + \$5.86 + \$5.86 + \$5.86). For the average Improvement District customer there would be an additional monthly debt service payment of \$154 (assuming each property owner pays the same amount) for a total monthly charge of \$190.05.

According to Central Arkansas Planning & Development, the Out-of-City residents within the project area may qualify for CDBG funding to be assessed on that portion of the project Out-of-City and their respective monthly water bills.

## **7.0 CONCLUSIONS AND RECOMMENDATIONS**

The Lower Ridge Road area residents experience poor water quality with evidence of water source contamination. It is important to provide safe and reliable water for participants. The residents in the project area already complain of contamination, odors, discoloration, and taste of the water source. Some individuals have had their wells tested and the test concluded fecal coliform was present (73%).

The Vilonia and Beaverfork water systems closest to the project area do not appear to be sufficient to support the project. The proposed project area lies within Conway Corp's filed water planning boundary.

It is our recommendation to extend mains from the Conway Corp water system to serve the residents along Lower Ridge Road and surrounding areas.



## Preliminary Engineering Report, Lower Ridge Road Water Project, Faulkner County

### References:

- [1] Arkansas Natural Resources Commission, a division of Arkansas Department of Agriculture, Conway's and Mayflower's Water Plan Compliance Determination number 2018 04 19-001 and 2018 04 19-002, 22 July 2019
- [2] Conway Corporation, Water Service Area Expansion Guidelines, DESIGN, SIZING, AND MATERIAL GUIDELINE, March 2018
- [3] Arkansas Department of Agriculture, Water Well Site Information in Lower Ridge Road area, November 2019