



Water System Improvements Project Update - June 2023




ANGELINA & NECHES RIVER AUTHORITY

Project Introduction & Mission

From the General Manager

By now, all Prairie Grove Utility customers should have received the official rate increase notice in the mail. I'm sure that there is some rate shock that has taken place for most, if not all of you, especially customers on a fixed income. I want to assure all of you that ANRA, and myself personally, do not take rate changes of any amount lightly, especially increases that are required in this type of situation. I am very much aware of the impact that this rate increase has on each of you. From the beginning, ANRA has been open and honest about the issues that this water system faces and the potential cost to fix these issues. We are very fortunate that we have been able to secure a 70% grant to fund the majority of the improvements. Unfortunately, that still leaves 30% of the cost, which has to be paid for by customers. I want to assure you that as ANRA goes through the detailed engineering design process, my staff and I will do our very best to design a system that is as inexpensive as possible, while still meeting regulatory requirements. We will also continue to look for additional grant opportunities. My staff and I have put together this detailed informational booklet (as well as some additional material on our website) in order to provide you with as much information as possible, without overwhelming you. I hope that each of you will take the time to look over it and I encourage you to ask questions. As always, thank you for your patience and understanding.


Kelley Holcomb, General Manager

Our ultimate goal is to provide PGU current and future customers with quality water and service that is reliable, safe, and in compliance with all regulatory agencies and state and federal laws.

Angelina & Neches River Authority Prairie Grove Utilities FY 2024 Budget

Revenue	<u>Annual</u>
Water Sales	\$ 195,351.12
Total Revenue	\$ 195,351.12
Direct Expenses	
Utilities	\$ 4,775.00
Repairs & Maintenance	\$ 10,900.00
Wholesale Water Purchase	\$ 12,000.00
Supplies, Fees & Insurance	\$ 7,956.98
Reserve, Repairs & Maintenance	\$ 5,000.00
Laboratory & Contract Services	\$ 4,135.45
Sub Total	\$ 44,767.43
Operations Labor	
Operations Labor	\$ 47,769.19
Administrative Labor	\$ 31,846.13
	\$ 79,615.32
Debt Service	
PGU-Prosperity Bond Series 2023-Principal	\$ 9,000.00
PGU-Prosperity Bond Series 2023-Interest	\$ 9,951.83
PGU-TWDB Bond Series 2023-Principal	\$ 26,295.56
PGU-TWDB Bond Series 2023-Interest	\$ 26,295.56
Sub Total	\$ 71,542.95
Total Expenses	\$ 195,925.70
Net Revenue	\$ (574.58)

**Phase II
January 1, 2023**

Base rate increase to \$35.07

+ \$3.03 (1 - 10,000 gallons)
\$3.50 (10,001 - 20,000 gallons)
\$4.00 (20,001+ gallons)
(Variable Rate per 1,000 gallons)

**Phase II
July 1, 2023**

Base rate increase to \$60.00

+ \$3.03 (1 - 10,000 gallons)
\$3.50 (10,001 - 20,000 gallons)
\$4.00 (20,001+ gallons)
(Variable Rate per 1,000 gallons)

**Phase III
January 1, 2024**

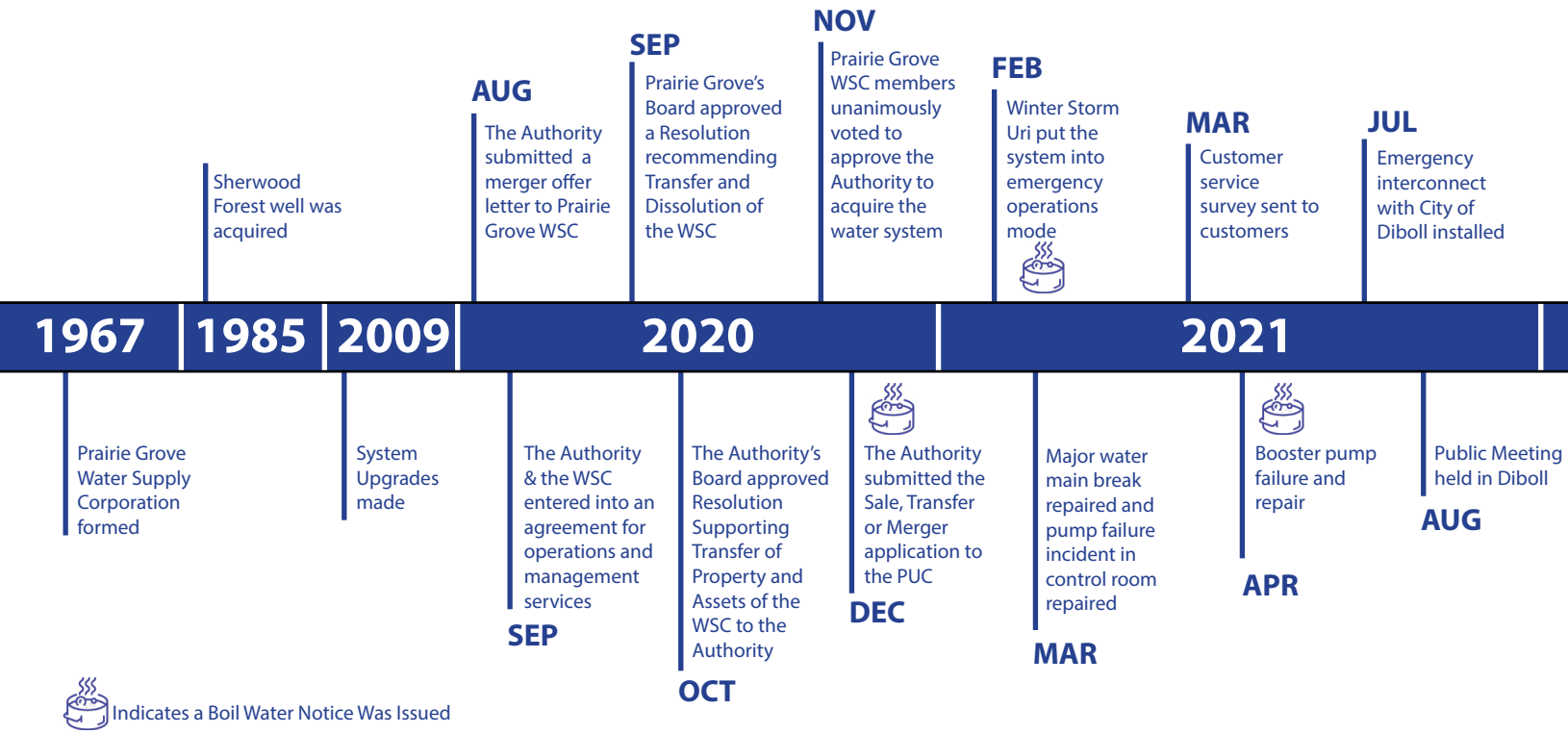
*Final increase amount determined by
Texas Water Development Board
debt service schedule*

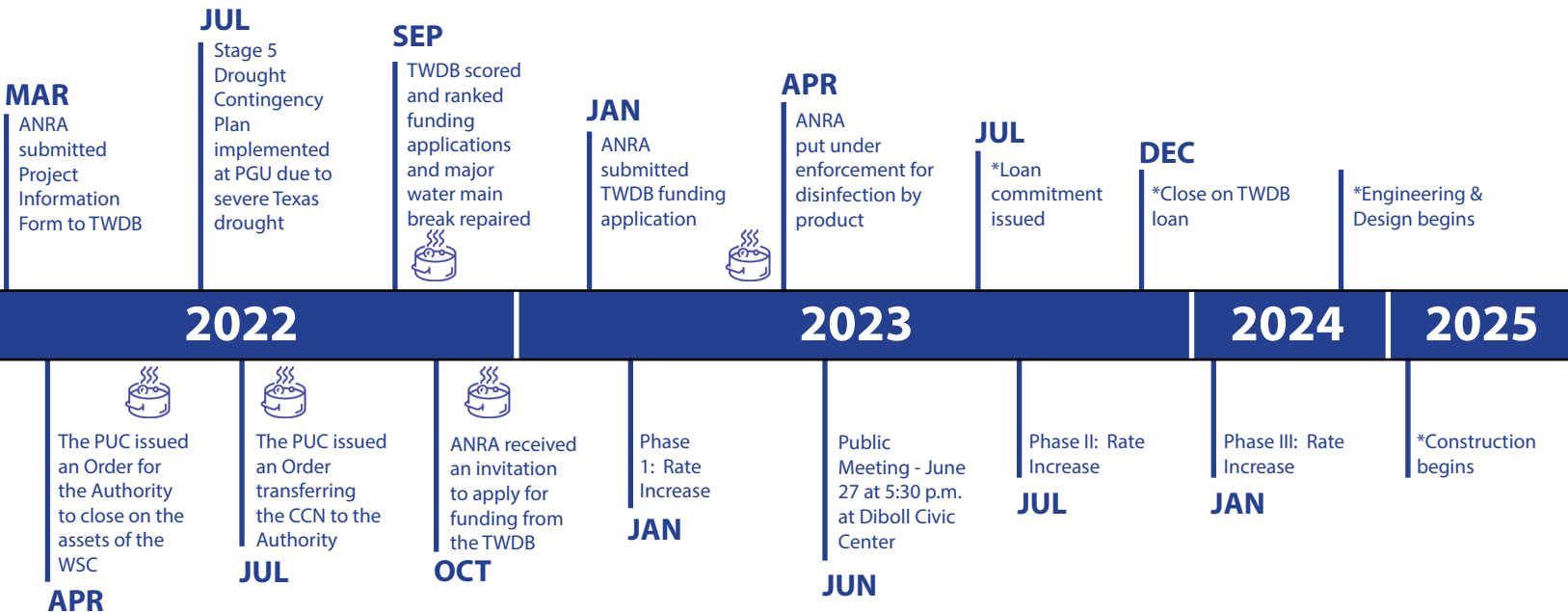
\$7.7million
Total Funding Cost

Does not have to be paid back (loan forgiveness) ← **\$4.9 million** 70 % Grant | **\$2.8 million** 30% Loan → *Must be paid back via debt service issued to customers*

Let's talk numbers...

Prairie Grove Utilities Historical Timeline





*Dates are subject to change

53 Years of Water Service

Let's talk about what a new PGU looks like.

Construction of a new 8" water supply line and master meter from the City of Diboll:

This project will construct a new water transmission line for the purchase of wholesale water supply from the City of Diboll. The water line will connect to the City's system at the end of Mockingbird Road and run parallel to the new Highway 59 bypass to FM 1818, and will connect to a new master meter. From the new master meter, water will be directed to a new booster station that will be constructed as part of the project.

Construction of a new booster station capable of serving 500 residential water customers:

The old water wells and treatment plants will be decommissioned as part of this project. In their place, a new booster station will be constructed at the Sherwood Forest well site. The booster station will include new ground storage tanks, new pressure tanks, new booster pumps, a new backup generator, a new motor control center, and a new fully-automated state-of-the-art control system that is capable of being monitored and operated remotely.

Replacement of 85% of the existing distribution system:

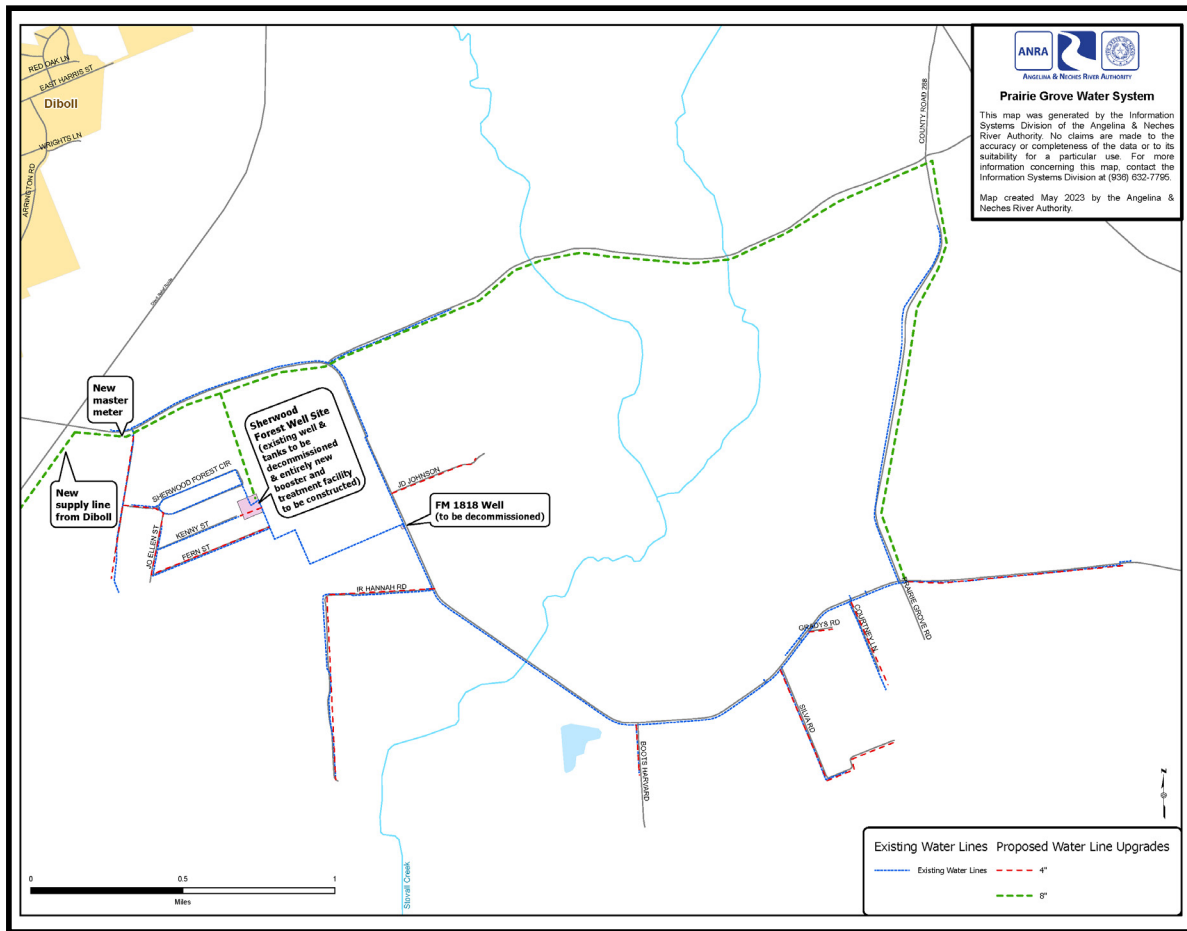
The original water system was constructed in the 1960s and the Sherwood Forest portion was constructed in the early 1980s. When those systems were constructed, they were in compliance with the rules at that time. As the water system grew and the number of connections increased, those small diameter lines could no longer provide adequate volume or pressure. All of the water lines that serve the side streets within the water system will be replaced with larger diameter lines.

Creation of a looped distribution system by constructing water lines that connect from FM 1818 and Buttermilk Road, down to the intersection CC Road, and back to FM 1818:

The project will construct a new 8" water line along Buttermilk Road to CC Road and back to FM 1818. In addition to serving customers along this route, this segment will create a looped system to prevent water from remaining in the line and becoming stale. This also provides the ability to serve new customers along that route.

Installation of fire hydrants at key locations:

One of the benefits of a new booster station and new, larger diameter water lines is that the new system will have the capability to provide adequate flow and pressure for fire hydrants. Fire hydrant locations will be determined as part of detailed engineering design.



With the proposed improvements, all Prairie Grove customers will have clean, safe, and reliable water. Imagine clear water flowing from your faucet, higher pressure, better taste, and no more frequent boil water notices. Imagine no longer having to worry about your water...

PGU's current
maximum
pumping
capacity is

25

gallons
per minute.

TCEQ's minimum
requirement is

138



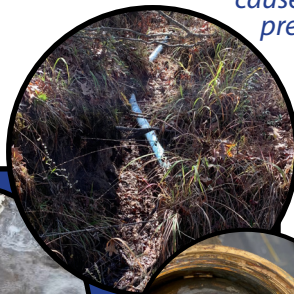
Total Trihalomethanes (TTHM) normally form in the distribution system as a result of the chlorine disinfection process and age of water in the system, but at Prairie Grove, there is a large amount of particulates in the source water so that TTHM is formed before it enters into distribution. The most cost effective way to reduce TTHM is to find an alternate water source.

85%

Of water
lines are
undersized



Undersized pipes are non-compliant with TCEQ minimum requirements and cause low volume and pressure. Aging pipes are more prone to water main breaks, costing time, money, resources, and the need for more boil water advisories due to constant repairs, which is an inconvenience customers.

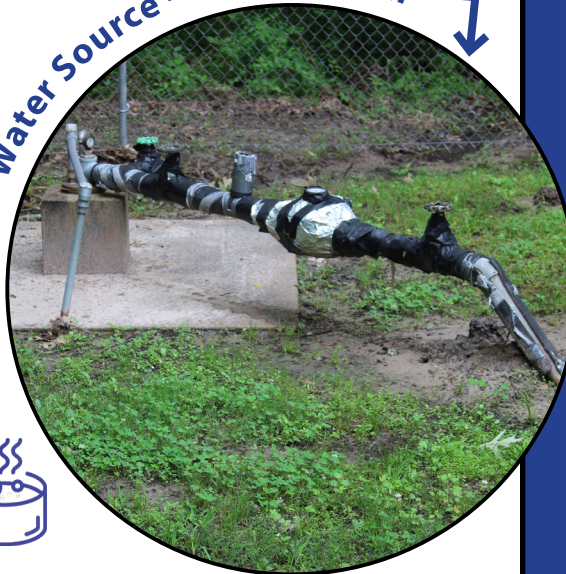


37 days

under boil
water
advisories



Water Source - Ground Well



**So, Why
Wrong?
the Prairie
Grove Water
System
Anyways?**

Insufficient water supply

What's
going on with
Fairfield
Water
System
anyway?



**Both the water well and
the distribution system
are severely degraded
beyond a simple repair.**



403
Violations &
enforcement
actions levied
since 2002

85%
of the
system is not
compliant
with state
law



The existing water system is not in compliance with regulatory requirements, nor is it capable of supporting the current customer base or any future growth in the community. Customers deserve water service that is safe, reliable, and quality in taste.

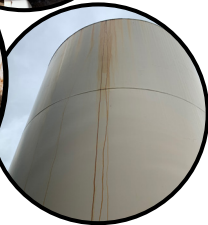
**Unsafe electrical
wiring**



**1818 Plant shut
down due to
unresolvable
bacteria issues**



**Structural
damage
& rust**



*Rust buildup is
a sign of aged
infrastructure
and enhances the
potential for water
outages*



196
repairs made
since 2020,
wasting time,
money, and
resources.

Got Questions? We've got answers.

Q. *What improvements have been made and why isn't that enough to fix the system?*

A. Since September of 2020, ANRA has completed nearly 200 work orders on the PGU system, including burying exposed water line, repairing major leaks, installing a new master meter, and shutting down the 1818 well, due to unresolvable bacterial impairments and poor water quality. Because of increasing regulations by the TCEQ and despite ANRA resolving the majority of the system's past compliance issues, PGU was recently put under enforcement for high levels of TTHM (disinfection by-product). The system also does not meet the TCEQ's minimum standards for pumping capacity or water distribution line size. For a water system the size of PGU, the minimum water supply requirement is 138 gpm, but PGU's maximum capacity is only 25 gpm. Existing water distribution lines range from 1.25" to 6" in diameter, but an 8" line is required along 1818 and larger lines are required in other areas, meaning that approximately 85% of water distribution lines are undersized. The only way to solve these issues is to find an alternate water source and upgrade the infrastructure so that the whole system is compliant.

Q. *What would happen if ANRA did not acquire the system?*

A. In a situation like this, there are three options 1) Do nothing. Also called the "no action alternative," this is the only option that would not require a rate change. 2) A for-profit company would take over. 3) The system would go into "receivership," in which the State would appoint an entity to take over. In options 2 & 3, rate increases are necessary in order to get the system back into compliance.

Q. *Why can't we just make improvements to part of the system so that we can keep rates down?*

A. About 85% of the distribution system is non-compliant by TCEQ minimum requirements. The remaining 15% of the distribution system was installed in 2009 and is of adequate size and meets TCEQ minimum requirements. There are still many project elements that have not been finalized. Detailed engineering design has not yet been completed. During the design phase, every aspect of the project will be evaluated to minimize costs without sacrificing service quality and non-compliance with TCEQ regulatory requirements.

Q. *Will my rate ever go down...or will it increase even more?*

A. Not likely - at least not during the early years. Of the \$ 7.7 million loan application, the debt service on the loan portion of the project is estimated to be approximately \$2.8 million over a 30-year term. It's anticipated that rates will remain relatively flat throughout the entirety of this period. There is a limited amount of capacity the new infrastructure will provide and adding new customers to the system will provide some relief on rates over time.

Q. Why can't PGU just drill a well, like Diboll did, or increase the amount of water we get from Diboll?

A. We wish the solution was that simple. Unfortunately, Prairie Grove lies within the outcrop of a minor aquifer called the Yegua aquifer, meaning that groundwater here is not reliable like it is in areas to the north of the Prairie Grove community. Drilling a well would be just as costly and would not guarantee a reliable quality or quantity of water for the whole system. Although the City of Diboll did drill their own wells, they still receive a significant portion of their water from the City of Lufkin to meet water demands and to stay within compliance. The plan is to buy all of PGU's water from Diboll, but 85% of PGU's infrastructure still must be replaced in to become compliant and meet the physical demands for higher water volumes, pressure, etc.

Q. Why can't ANRA just install a water filter or why can't I install my own?

A. Unfortunately, a water filtration system will not address other non-compliances at the Sherwood water plant or sub-standard line size within the distribution system. While filtration can improve water quality in some ways, there are currently no water filters on the market that prevent disinfection by-products from getting into the water. In addition, the maintenance cost of a filter is very high and the effectiveness is inconsistent.

Q. What if I'm on a fixed income?

A. We understand that these rate increases will be harder on some customers. For customers who are on a fixed income or who are 65 or older or permanently disabled, ANRA is looking into the legalities of developing a separate rate class. If that rate class is finalized, customers will be notified and can check for eligibility and apply for this program online.

Q. Why do we have to pay now?

A. We are trying to phase in rate increases over a 1-year period to soften the rate shock as much as possible. Based on our estimates, there will need to be a series of three rate increases. Phase 1 was to adjust customers to an industry standard rate structure, which is a base rate with no water consumption factored in. Phase 2 is estimated to get rates near the final estimated rate. Phase 3 will be based on costs engineers estimate, based on total cost for the project.

Q. I never agreed to this. Can I opt out?

A. Since becoming involved with the system in 2020, ANRA has provided transparency regarding all of the challenges the system faces and the correlating rate increases that are necessary to fund required improvements, through social media, traditional mail, and in-person via public meeting. The majority of feedback through these channels of communication indicated that customers are more concerned about a safe, clean, and reliable water supply than the rates required to fund those improvements. No customer can opt out and still receive water from PGU.



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936.632.7795



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us on Facebook



**Text "PGU" to
(800) 282-5634
to receive text notifications**



**Attend a Public Meeting
June 27 @ 5:30 p.m.
Diboll Civic Center**



Take a Survey
[https://www.anra.org/
services-projects/water-sewer-service/
prairie-grove-utilities/](https://www.anra.org/services-projects/water-sewer-service/prairie-grove-utilities/)



tceq.texas.gov



dww2.tceq.texas.gov/DWW/



twddb.texas.gov

**Want more
info or
need to get
in touch
with us?**



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