

Benefits of Setting Utility Rates

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WATER FINANCE
ASSISTANCE

Session Objective

- Explain how rates charged to customers can generate sustainable revenue



Our goal is safe, reliable water and wastewater service for generations to come...



...So, we're going to need some money.



How We Fund Tribal Utilities

- Tribal Government funds including revenue from business enterprises
- Federal loans and grants
- Rates charged to customers



Benefits of Charging Rates

- Allows the utility to be self-sufficient
- More control over finances
- More stable revenue
- Better able to access grants and loans



Many Tribal Utilities Charge Rates

- Increasingly, Tribal utilities are charging rates to their customers



Tribal Utility Example—Flat Rate Only

Water: \$28.00 per month

Wastewater: \$9.00 per month



Tribal Utility Example—Uniform Rates

Flat Rate: \$12.50 per month

Volumetric Rate: \$5.90 per 1,000 gallons



Tribal Utility Example—Increasing Block

Minimum	\$23.00
Next 2,000 Gal	\$2.87 per 1,000 Gal
Next 5,000 Gal	\$3.59 per 1,000 Gal
Next 10,000 Gal	\$4.31 per 1,000 Gal
Next 30,000 Gal	\$5.74 per 1,000 Gal
Next 50,000 Gal	\$7.18 per 1,000 Gal
Anything After	\$8.62 per 1,000 Gal



How much should we charge?



The Magic Number

- There is a single number you can calculate that is the appropriate level of revenue for your water system in a given year. That's data.



The Magic Number

- Day-to-Day Operating Costs
 - + Asset Replacement & Refurbishment
 - + Contributions to Reserve Funds
 - + Annual Debt Payments
-



The Magic Number

- There is a single number you can calculate that is the appropriate level of revenue for your water system in a given year. That's data.
- But how you get there is where you have choices



Grant Valley

Population

2,114

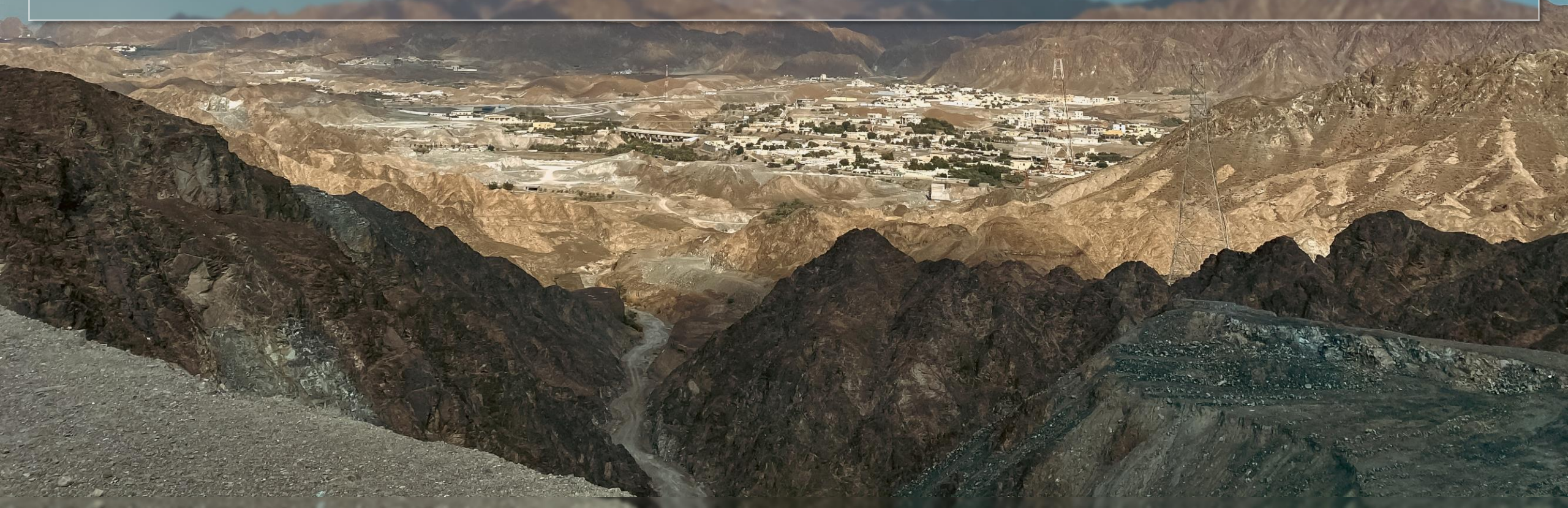
Median Household
Income

\$31,571

Service Connections 813

Annual Water
Gallons Sold

42,879,548



The Magic Number: Drinking Water

Water Financial Target: \$485,550

Customers: 813

Volume of Water Sold: 42,879,548

Bill Payment Rate: 90%

Annual Billing Periods 12



Math...



The Magic Number

Flat: \$0.00

Flat: \$20.00

Volumetric: \$12.58

Volumetric: \$8.03

Flat: \$40.00

Flat: \$55.30

Volumetric: \$3.48

Volumetric: \$0.00

**All Generate
the Same
Amount of
Revenue**



Which one is “right?”

It depends.



Think About Your Customers



One Person Household

1,500 gallons per month



Three Person Household

4,500 gallons per month



Six Person Household

9,000 gallons per month



Exercise

Grant Valley Rate Options

Rate #1	
Volumetric Rate	\$12.58
Flat Rate	\$0.00

Rate #2	
Volumetric Rate	\$8.03
Flat Rate	\$20.00

Rate #3	
Volumetric Rate	\$3.48
Flat Rate	\$40.00

Rate #4	
Volumetric Rate	\$0.00
Flat Rate	\$55.30

What Customers Pay Exercise

Customer using 1,500 gallons a month of water

	Rate #1	Rate #2	Rate #3	Rate #4
Volumetric Rate	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1000s of Gallons	* <input type="text" value="1.5"/>	* <input type="text" value="1.5"/>	* <input type="text" value="1.5"/>	* <input type="text" value="1.5"/>
Bill from Volumetric	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Flat Rate	+ <input type="text"/>	+ <input type="text"/>	+ <input type="text"/>	+ <input type="text"/>
Total Bill	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>



Customer using 1,500 gallons a month of water

	Rate #1	Rate #2	Rate #3	Rate #4
Volumetric Rate	\$12.58	\$8.03	\$3.48	\$0.00
1000s of Gallons	x 1.5	x 1.5	x 1.5	x 1.5
Bill from Volumetric	\$18.87	\$12.05	\$5.22	\$0.00
Flat Rate	+ \$0.00	+ \$20.00	+ \$40.00	+ \$55.30
Total Bill	\$18.87	\$32.05	\$45.22	\$55.30



Customer using 4,500 gallons a month of water

	Rate #1	Rate #2	Rate #3	Rate #4
Volumetric Rate	\$12.58	\$8.03	\$3.48	\$0.00
1000s of Gallons	x 4.5	x 4.5	x 4.5	x 4.5
Bill from Volumetric	\$56.61	\$36.14	\$15.66	\$0.00
Flat Rate	+ \$0.00	+ \$20.00	+ \$40.00	+ \$55.30
Total Bill	\$56.61	\$56.14	\$55.66	\$55.30



Customer using 9,000 gallons a month of water

	Rate #1	Rate #2	Rate #3	Rate #4
Volumetric Rate	\$12.58	\$8.03	\$3.48	\$0.00
1000s of Gallons	x 9.0	x 9.0	x 9.0	x 9.0
Bill from Volumetric	\$113.22	\$72.27	\$31.32	\$0.00
Flat Rate	+ \$0.00	+ \$20.00	+ \$40.00	+ \$55.30
Total Bill	\$113.22	\$92.27	\$71.32	\$55.30



What Customers Pay

	1,500 gallons a month	4,500 gallons a month	9,000 gallons a month
Flat: \$0.00 Volumetric: \$12.58	\$18.87	\$56.61	\$113.22
Flat: \$20.00 Volumetric: \$8.03	\$32.05	\$56.14	\$92.27
Flat: \$40.00 Volumetric: \$3.48	\$45.22	\$55.66	\$71.32
Flat: \$55.30 Volumetric: \$0.00	\$55.30	\$55.30	\$55.30



What Customers Pay

1,500 gallons/mo.

\$18.87 ————— **\$55.30**

4,500 gallons/mo.

\$55.30 • \$56.62

9,000 gallons/mo.

\$55.30 ————— **\$113.24**



What Customers Pay

	1,500 gallons a month	4,500 gallons a month	9,000 gallons a month
Flat: \$0.00 Volumetric: \$12.58	\$18.87	\$56.62	\$113.24
Flat: \$20.00 Volumetric: \$8.03	\$32.05	\$44.08	\$88.16
Flat: \$40.00 Volumetric: \$3.48	\$45.22	\$55.66	\$71.33
Flat: \$55.30 Volumetric: \$0.00	\$55.30	\$55.30	\$55.30

Low-Use
Customers Pay Less When the Flat Rate is Low and the Volumetric Rate Is High

What Customers Pay

	1,500 gallons a month	4,500 gallons a month	9,000 gallons a month
Flat: \$0.00 Volumetric: \$12.58	\$18.87	\$62.62	\$113.22
Flat: \$20.00 Volumetric: \$8.03	\$32.05	\$56.14	\$92.27
Flat: \$40.00 Volumetric: \$3.48	\$42.22	\$55.62	\$71.32
Flat: \$55.30 Volumetric: \$0.00	\$55.30	\$55.30	\$55.30

High-Use Customers Pay Less When the Volumetric Rate is Low and the Flat Rate is High



Pricing Strategies

Strategy	Benefits	Drawbacks
Low flat-rate and high volumetric-rate	<ul style="list-style-type: none">• Encourages conservation• More affordable for low-use customers	<ul style="list-style-type: none">• Revenue can vary significantly each month and can be impacted by outside factors



Pricing Strategies

Strategy	Benefits	Drawbacks
Low flat-rate and high volumetric-rate	<ul style="list-style-type: none">• Encourages conservation• More affordable for low-use customers	<ul style="list-style-type: none">• Revenue can vary significantly each month and can be impacted by outside factors
High flat-rate and low volumetric-rate	<ul style="list-style-type: none">• Revenue is more stable	<ul style="list-style-type: none">• Low-use customers pay relatively high bills• Little incentive to conserve water





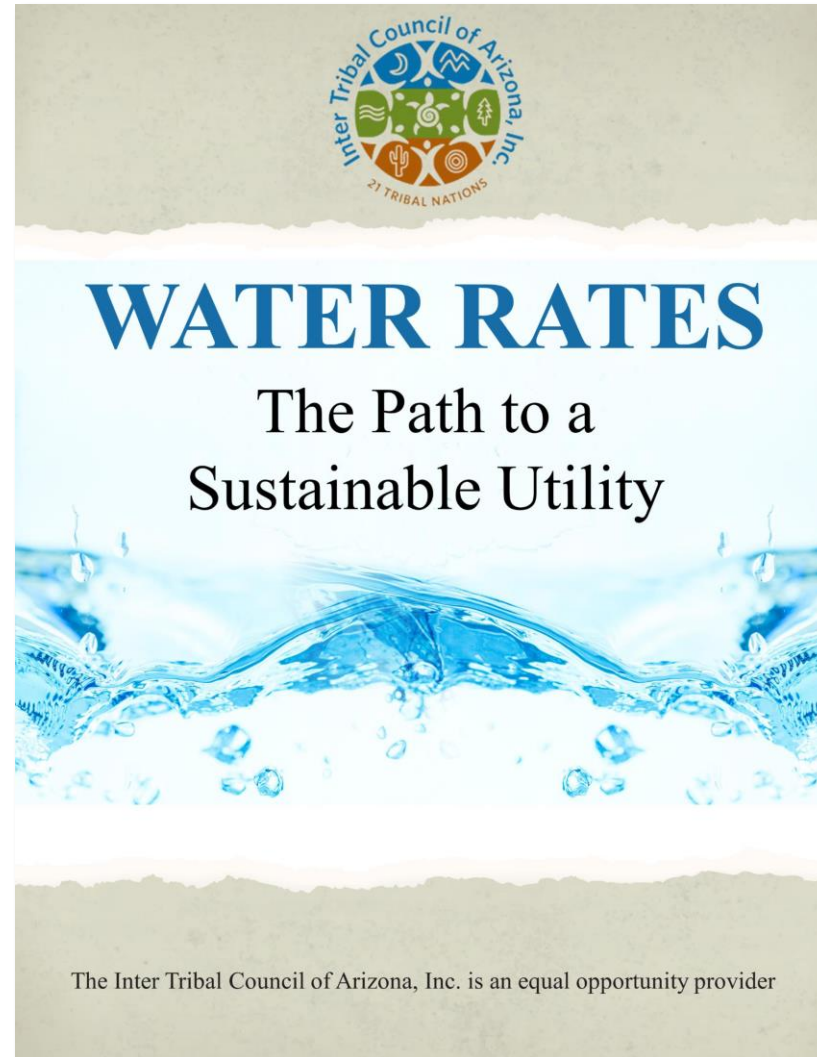
“Water is sacred (Ni Waxube). If you don't have water rates, customers think it is free and has no value, hence no motive to conserve or use wisely. Rates are important to get customers to conserve and keep water sacred.”



Jerry Henscheid
Utilities Director
Omaha Tribal Utilities Department



White Paper on Rate Setting



Free technical assistance from ITCA for rate studies!



Thank You!



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