



CITY COUNCIL
February 19th, 2019 WORKSESSION
Time: 6:00 pm
City Hall, 1001 Bridge St. Vernonia, OR 97064

Mission Statement

The City of Vernonia pledges to be an ethical and responsive government using community collaboration to foster leadership and a vision for civic improvement while providing a safe, peaceful, economically viable community.

AGENDA

- 1. Call to Order -- Mayor Hobart**
- 2. Additions or Removal of Agenda Items**
- 3. New Business**
 - 2019-2020 Draft Utility Rate Review and Rate Calculator
- 4. Adjournment**

*****AMERICANS WITH DISABILITIES ACT NOTICE*****

Please contact the City Recorder, Vernonia City Hall, 1001 Bridge Street, Vernonia, OR 97064 (Phone No. 503-429-5291) at least 48 hours prior to the scheduled meeting time if you need an accommodation. TCC users please call Oregon Telecommunications Relay Service at 1-800-735-2900.

STAFF REPORT

January 12, 2019

To: City Council
From: Ben Fousek
RE: 2019-2020 Draft Utility Rate Review and Rate Calculator

Summary

The purpose of this report and presentation is to inform Council about this year's rate review ahead of the Utility Rate Review Committee convening to review rates for the 2019-2020 fiscal year; and demonstrate the functionality of our rate calculator and how rates are affected by the budget and customer use patterns.

2019-2020 Draft Utility Rate Review

- Purpose
- Understanding Utility Rates
- Current Rates
- Water and Sewer Statistics
- Water Rate Calculations
- Sewer Rate Calculations
- Resulting Rates

Rate Calculator

An understanding of the finer points of how our rates are calculated is important for Council to make the best decisions for our water and sewer customers in the budgeting process and setting of rates. It is equally important to understand how the budget, customer use patterns and economy can affect rates. These factors can work together or counteract each other to cause varying amounts of change to the rates. We'll be looking at the different components used to calculate rates and how each one can affect rates. Our water and sewer rates, while using different budget numbers and use statistics, use the exact same calculations.

Budget – The total budget is the unadjusted amount of revenue required to be generated in the coming fiscal year. The effect of the budget total on rates is obvious; rates increase and decrease as the budget increases and decreases. The effect on rates for any given amount of total budget change is dependent on adjustments and current use patterns. As an example, without adjustments and current use patterns, the water base rate changes approximately \$0.75 per \$1000 budget change.

Contingency and Carry Over – Prior to 2016 the City did not have a well-defined method or policy for contingency and carry over for the next budget cycle. This caused a lot of confusion with transfers of additional revenue at the end of a budget cycle, concern over rates including existing funds, and no clearly defined contingency fund. Staff developed and implemented a self-regulating contingency fund which also serves as the carry over. The water utility industry standard is 15% of the O&M budget, and that is the percentage the City has used. Any additional revenue and unused contingency above 15% of

next year's O&M budget is available to reduce the rate, be set aside in the facilities or operating reserves, or some combination of the two. If the amount of carry over is less than the 15%, the difference is passed onto the ratepayer to bring contingency back up to 15%.

Water has an excess this year of \$60,000. Staff is proposing \$40,000 go into the reserve funds with the remaining \$20,000 going to reduce the required revenue and reducing the water rates some amount. Sewer on the other hand has deficit of \$20,000 which has the effect of increasing the required revenue causing some increase to the sewer rates.

Required revenue is reduced by any amount up to the 15% as not to factor existing funds into the rates.

Facilities Reserve – Both water and sewer have facilities reserves. Staff recommends an amount for adding funds, however it's ultimately the budget process which decides how much is added to the reserve. In the case of water, with additional revenue from last year, funds can be added while still seeing a small reduction in the rate. The revenue to add facilities reserves for sewer this year will need to be passed on to the ratepayer.

Operating Reserve – The industry standard for an operating reserve is a minimum 3 months of the O&M budget. Both water and sewer have more than this amount. Like maintaining contingency, if these funds fall below three months of O&M, the amount required to bring the fund up to proper level is passed on to the ratepayer. Once again, water has excess funds this year, so Staff is proposing adding funds to the reserve. Without excess in sewer, and the fund over the 3-month minimum, Staff is not recommending adding funds to the reserve.

Required Rate Revenue – This is the adjusted amount the rates must generate in the next fiscal year.

	Budget total	\$498,500.00
-	Carry over up to 15%	\$40,654.50
+	Required contingency (+ or -)	-\$59,345.50 (negative value indicates excess)
+	Facilities reserve	\$27,103.00
+	Operating reserve	\$13,551.50
	Required revenue	\$439,154.50

Base/Consumption Split – Base and consumptive rates are based on a percentage of the required rate revenue. 77%-23% for water; and 70%-30% for sewer. These splits are somewhat subjective; however, the general principal is to put all fixed costs on the base rate, and all variable costs on the consumptive rate. These percentages were provided by the water and sewer rate studies. It has been proposed the City investigate reevaluating the split percentages, but without a good argument, empirical data or a major revenue shortfall suggesting there may be an issue with the split percentages, it is not worth the time and cost.

Base Rate Calculated – The base % amount of the required revenue is divided by the 12-month average of meter multipliers from the previous calendar year which results in the base charge per meter multiplier for a year. Dividing this amount by 12 gives us the 1-month base rate.

Consumptive Rate Calculated – The consumption % amount of the required revenue is divided by the billed consumption from the previous calendar year which results in the \$/gallon of consumption. Multiplying this amount by 1000 gives us out per unit consumption rate.

budget increases, improvement projects and building reserves with ability to objectively understand how such actions will affect the ratepayer.

City of Vernonia
2019-2020 Utility Rate Review

February 2019



Prepared by:

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Prepared for:

City Council
Public Works Committee
Utility Rate Review Committee

Sections

- Purpose
- Understanding Utility Rates
- Current Rates
- Water and Sewer Statistics
- Water Rate Calculations
- Sewer Rate Calculations
- Resulting Rates

Purpose

The Vernonia Utility Rate Review Committee is tasked with evaluating current water and sewer rates; reviewing 2018 water statistics; inform the Budget Committee of proposed rates; and recommend to City Council any rate changes for the 2019-2020 fiscal year based on the adopted budget.

Philosophy

Provide the community with simple, fair and budget driven utility rates.

Proposed Rates

The proposed changes to rates herein are subject to change based on the adopted budget.

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Understanding Utility Rates

Rate Structure

The City utilizes a *Base + Consumption* rate structure for both water and sewer rates. The concept behind this rate structure is to generate enough revenue to cover the cost of maintaining the systems, regardless of customers consuming water or putting wastewater into the sewer, with flat base rates; and generating the remainder of the budgets through consumptive charges to cover the variable costs of production and delivery of water, and treatment of wastewater. The base rates are an equal distribution across all customers, and consumptive rates charge each customer based on individual consumption/usage.

Loans

Water and sewer loans are a separate component of utility rates. Loans are distributed equally in the same manner as base rates as a flat monthly fee per meter multiplier.

Base/Consumption Rate Splits

The current water rate is split 77%-23%, and the current sewer rate is split 70%-30%. Ideally the base/consumption split would put all fixed costs on the base rate, and all variable costs on the consumptive rate; however the base/consumptive splits are very subjective. There are different revenue and conservation models used to split the costs differently between the base and consumptive rates. With a relatively small water system, the City of Vernonia has two basic goals; ensuring our rates generate enough revenue to minimally operate the systems through the base rate; and to be fair to all customers with a consumptive rate which reflects the costs of usage.

Meter Multipliers

Distribution of base rates and loans are based on the size of the water service's meter. A cost model is used for water rates; while a capacity model is used for sewer rates. Both cost and capacity ratios are recommended by American Water Works Association (AWWA), and City commissioned water and sewer rate studies, which were adopted by City Council in 2012 and 2015 respectively.

Meter Size	3/4"	1"	1 1/2"	2"	3"	4"
Cost (water)	1	1.4	1.8	2.9	11	14
Capacity (sewer)	1	1.67	3.33	5.33	10	16.67

Water Consumption Rate

Water consumption is billed in 100s of gallons based on a rate per 1000 gallons metered.

Sewer Consumption Rate

Sewer consumption is billed in 100s of gallons on a rate per 1000 gallons metered based on the previous winter average (Nov-Feb) of the customer. New customers without a previous winter average are billed for 4600 gallons, which is the average 3/4" meter monthly average.

Current Rates

Current Fixed Charges

Meter Size	Water			Sewer			Fixed Rate
	Cost Mm	Base	Loan	Capacity Mm	Base	Loan	
3/4"	1	\$ 30.70	\$ 9.50	1	\$ 26.65	\$ 44.75	\$ 111.60
1"	1.4	\$ 42.98	\$ 13.30	1.67	\$ 44.51	\$ 74.73	\$ 175.52
1 1/2"	1.8	\$ 55.26	\$ 17.10	3.33	\$ 88.74	\$ 149.02	\$ 310.12
2"	2.9	\$ 89.03	\$ 27.55	5.33	\$ 142.04	\$ 238.52	\$ 497.14
3"	11	\$ 337.70	\$ 104.50	10	\$ 266.50	\$ 447.50	\$ 1,156.20
4"	14	\$ 429.80	\$ 133.00	16.67	\$ 444.26	\$ 745.98	\$ 1,753.04

Note: the current water loan rate of \$9.50 per meter multiplier is artificially below the required rate of \$10.30. The 2017 Utility Rate Review Committee recommended, and City Council approved, a lower water loan rate to refund customers approximately \$22,000 in extra loan revenue generated during the 2014-2016 fiscal period; and is valid through the end of the 2018-2019 fiscal year (June 30, 2019).

Water Consumption Charge

Water consumption is \$1.80/1000 gallons of water.

Sewer Consumption Charge

Sewer consumption is \$2.45/1000 gallons based on the customer's previous November through February average monthly water consumption; or 4600 gallons if the customer did not have a previous winter average.

Average Residential Bill

Rate	Amount
Water Base	\$ 30.70
Water Consumption	\$ 8.28
Water Loan	\$ 9.50
Sewer Base	\$ 26.65
Sewer Consumption	\$ 11.27
Sewer Loan	\$ 44.75
Parks Fee	\$ 2.00
	\$ 133.15

* Based on 4600 gallon/month average consumption

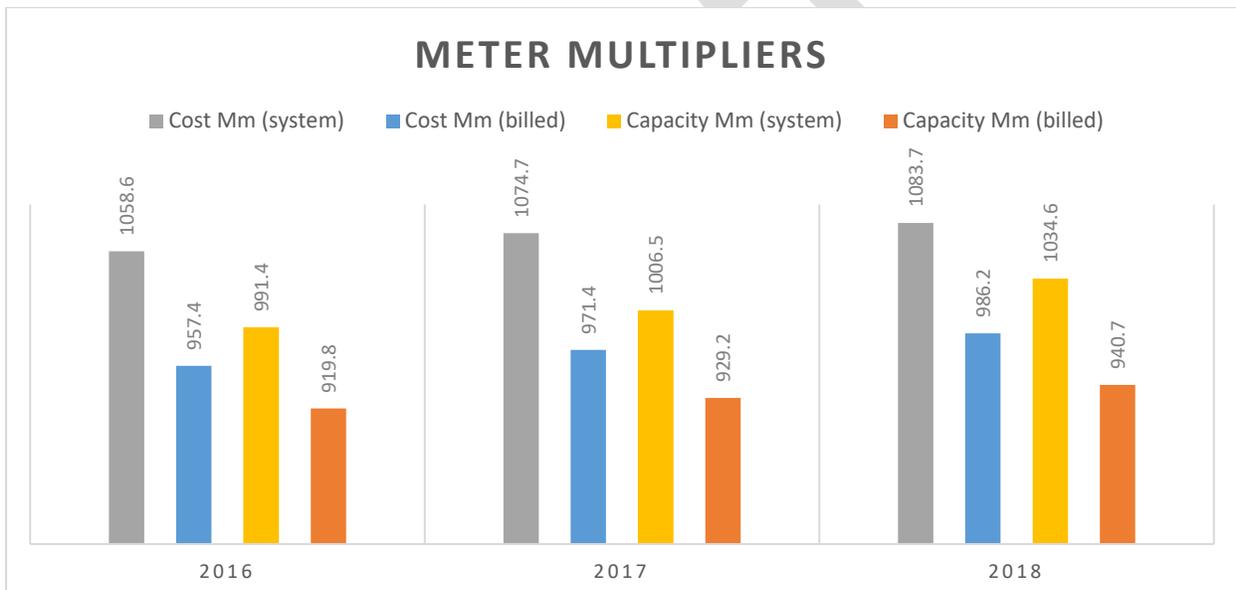
Water and Sewer Statistics

Accurate usage statistics are the basis of properly setting utility rates, and understanding trends which will affect future revenue and rates.

Meter Multipliers

Water had a monthly average of 986.2 billed multipliers, with a system potential of 1074.7 multipliers; billing at 91.0% of the system potential. This constitutes a 1.5% increase in billed multipliers, and a 0.8% increase in system potential from 2017 to 2018.

Sewer had a monthly average of 940.7 billed multipliers, with a system potential of 1034.6 multipliers; billing at 90.9% of the system potential. This constitutes a 1.2% increase in billed multipliers, and a 2.8% increase in system potential from 2017 to 2018.



Water Production and Registered Consumption



Water production totaled 71.8 million gallons in 2018; a 7.1% decrease in water production compared to the 77.3 million gallons produced in 2017. A major reason for reduced consumption was the extended water curtailment this year, as well as two major customer leaks totaling over 1 million gallons in 2017.

Registered consumption, including billed, bulk and City water, totaled 59.3 million gallons in 2018. 57.8 million gallons of water was billed to metered customers in 2018. The percentage of billed water continues to improve as the City continues to replace aging meters with new, more sensitive and accurate meters. City parks, water plant and fire department use of water continue to be unaccounted in consumption numbers.

Sewer Consumption

Billed sewer consumption totaled 50.1 million gallons in 2018; a 4.9% decrease from the 52.7 million gallons billed in 2017.

Average 3/4" Meter Consumption

Average 3/4" meter consumption was 4452 gallons per month in 2018; a decrease of 184 gallons per month from 4636 gallons per month in 2017. This lower average can be contributed to the water curtailment as well.

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Resulting Rates

Fixed Rates

Meter Size	Water			Sewer			Fixed Rate
	Cost Mm	Base	Loan	Capacity Mm	Base	Loan	
3/4"	1	\$ 28.60	\$ 9.80	1	\$ 28.60	\$ 22.05	\$ 89.05
1"	1.4	\$ 40.04	\$ 13.72	1.67	\$ 47.76	\$ 36.82	\$ 138.35
1 1/2"	1.8	\$ 51.48	\$ 17.64	3.33	\$ 95.24	\$ 73.43	\$ 237.78
2"	2.9	\$ 82.94	\$ 28.42	5.33	\$ 152.44	\$ 117.53	\$ 381.32
3"	11	\$ 314.60	\$ 107.80	10	\$ 286.00	\$ 220.50	\$ 928.90
4"	14	\$ 400.40	\$ 137.20	16.67	\$ 476.76	\$ 367.57	\$ 1,381.94

Change to Average 3/4" Meter Customer Utility Bill

Rate	Current	Proposed	Change
Water Base	\$ 30.70	\$ 28.60	\$ (2.10)
Water Consumption	\$ 8.28	\$ 8.05	\$ (0.23)
Water Loan	\$ 9.50	\$ 9.80	\$ 0.30
Sewer Base	\$ 26.65	\$ 28.60	\$ 1.95
Sewer Consumption	\$ 11.27	\$ 12.88	\$ 1.61
Sewer Loan	\$ 44.75	\$ 22.05	\$ (22.70)
Parks Fee	\$ 2.00	\$ 2.00	\$ -
	\$ 133.15	\$ 111.98	\$ (21.17)

* Based on 4600 gallon/month average consumption

Change to Large Meter Customer Utility Bills

Due to the varying use patterns for large meters, utility bills will also vary with the proposed rate changes; however, large meter customers will see a relative reduction in total utility bill, mainly as a result of the sewer loan payment reduction.