



2021 WATER AND SEWER RATE STUDY

August 23, 2021



Prepared by
SOUTHERN CONSULTANTS, INC.

5740 County Cork Road
Jackson, Mississippi 39206

PEARL RIVER VALLEY WATER SUPPLY DISTRICT

WATER/SEWER RATE STUDY

I. GENERAL

The Pearl River Valley Water Supply District (District) includes four (4) distinct and separate water/sewer systems, including: Pelahatchie Bay system, Goshen Springs system, Tavern Hills system, and Twin Harbor system. Each system has elevated tanks, water wells, sewage lift stations and other related items. All sewer from District customers is treated by outside entities.

II. PURPOSE OF STUDY

The District entered into a contract with Southern Consultants, Inc. (SCI) in December 2019 to perform an evaluation study of the District's current water and sewer rates. The purpose of this study is to determine the adequacy of rates to meet future operation, maintenance, and replacement costs of the District's water and sewer facilities. SCI reviewed billing and usage information from the billing department and FY2016 through FY2020 audit reports by Collins, Barr & Hembree, LTD. and FY 2021 preliminary revenue and expenses provided by the District's Finance Department. District personnel were instrumental in development of this study.

III. PRIOR RATE STUDY

A previous water/sewer rate study was completed in April 2014 by Southern Consultants, Inc. This study included the following recommendations:

- Increase minimum monthly charge for water from \$12.00 to \$14.00 for up to 3,000 gallons of metered water.
- Increase minimum monthly charge for sewer from \$12.00 to \$16.00 for up to 3,000 gallons of metered water.
- Increase volumetric water rate from \$3.22 to \$4.20 per 1,000 gallons over 3,000 gallons of metered water.
- Increase volumetric sewer rate from \$3.84 to \$5.75 per 1,000 gallons over 3,000 gallons of metered water.
- Increase the volumetric rate for both water and sewer by 5% annually from FY2016 through FY2020.

These recommendations were adopted by the District's Board of Directors and implemented beginning in FY2015.

The 2014 study estimated annual revenues ranging from \$3.196M to \$4.879M during the life of the rate study (FY 2015 to FY 2020). Estimated revenues were based on 5,400 customers and per month per customer usage of 6,500 gallons. Audit information

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indicates that actual revenues reached a high of \$4.558M in FY2020. The average revenue for these five (5) years has averaged approximately \$4.435±M per year.

The discrepancy between projected and actual revenues can be attributed to a decline in the per customer monthly usage from the estimated 6,500 to 6,000±. This is likely a result of conservation and/or wetter than normal weather.

IV. CURRENT WATER/SEWER RATES

The District’s current FY2022 monthly water and sewer rates have been carried over from FY2020 and are as follows:

<u>Water:</u>	\$14.00 minimum for first 3,000 gallons metered \$5.45 per 1,000 gallons over 3,000
<u>Sewer:</u>	\$16.00 minimum for first 3,000 gallons metered water \$7.35 per 1,000 gallons over 3,000; capped at 15,000 gallons

V. CUSTOMER COUNT AND USAGE

As of August 2021 the District has a total of 5,600 accounts, with 5,150± being water/sewer accounts and 450± water only accounts. The water only accounts include District leaseholders in North Bay Subdivision as well as irrigation meters scattered throughout all four systems. For purposes of future projections within this report, **5,600** total accounts and **5,150** water/sewer accounts will be utilized.

Customer usage was determined utilizing the water sales and sewer charges billed and shown in the yearly audits. As of FY 2020, water sales were \$2.054M for 5,585 total customers resulting in a per customer usage of 6,065± gallons per month. Sewer charges were \$2.177M for 5,145 customers resulting in a per customer usage of 5,620± gallons per month. Preliminary FY2021 revenues indicate a customer water usage of 5736 gallons per month and sewer usage of 5,238 gallons per month. For purposes of future projections within this report, a conservative usage of **6,000** gallons per month for water and **5,400** gallons per month for sewer will be utilized.

VI. EXISTING REVENUES/EXPENSES

A review of the billing records and audits for FY2017 through FY2020 indicate total audited revenues and expenses for these years were as follows:

	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021(3)</u>
Revenues	\$4,482	\$4,184	\$4,274	\$4,558	\$4,236
Expenses (1)	\$4,421	\$4,587	\$4,787	\$5,255	\$5,245
Expenses (2)	\$3,351	\$3,500	\$3,680	\$3,927	\$3,919

Notes: Revenues/Expenses in Thousands. Revenues/expenses from annual audits
Expenses (1) include depreciation. Expenses (2) exclude depreciation.
(3) Preliminary 2021 Unaudited from Finance Dept.

Numerous capital improvement projects utilizing water/sewer proprietary funds have also been completed over the last three years. These include:

- Tank Painting \$290K±
- Sewer System Rehabilitation (south shore) \$2.5M±
- Complete Water Meter Replacement \$1.2M±
- SCADA upgrades \$425K±

These capital projects have **reduced** the Proprietary Fund Cash Balance from \$5,956,523 in June 2018 to \$2,143,495 in June 2021. The current Ratliff Ferry sewer system project (\$1.3M+) will further reduce cash on hand.

In summary, expenses with depreciation have exceeded revenues for the last four years, with preliminary FY 2021 being the highest at \$1,009,000±. Therefore, it is obvious that the current water and sewer rates cannot sustain the proprietary fund.

VII. FUTURE EXPENSE PROJECTIONS

In order to determine an adequate rate structure to yield sufficient revenues to cover expenses going forward, it is necessary to project any and all relevant expenses. The various expense categories are projected as follows:

A. General Expenses

Proprietary fund expenses for salaries, wages, utilities, repairs/maintenance, supplies/materials, and other miscellaneous expenses have increased 3.4% annually for the past four years. Therefore, going forward general expenses will be estimated to increase approximately 3% per year.

B. Water System Expenses

Additional expenses related to the water system during the study period will generally be limited to well repair/rehab and tank painting. For purposes of this evaluation, an estimated **\$200K+** should be available annually for these type expenses. Long term, the District should plan for replacement/rehabilitation of water lines that have been in service for 50+ years and are reaching the end of their useful life.

C. Sewer Collection System Expenses

A significant portion of the District's gravity sewer collection system (particularly older concrete lines) is reaching the end of its useful life. A project completed in 2019 on the south shore rehabilitated 50,000± feet of older gravity sewer lines and manholes at an estimated cost of \$2.5M. Another 25,000-30,000 feet on the south shore may also need rehabilitation at an estimated cost of \$2.0M. The Tavern Hills sewer system and the Lake Harbor collection system off Highway 43 are both reaching the end of their useful life and the majority of those collection lines will also need rehabilitation within the next 5-10 years.

Based on the sewer collection system conditions and needs, the District should consider allocating a minimum of **\$500K+** annually for these type capital improvement projects.

D. Sewer Disposal/Treatment

All wastewater from the District's customers is transported to and treated by outside entities. All metro area suburbs sewage (excluding Clinton) is all treated by outside entities.

The West Rankin Utility Authority (WRUA) transports District wastewater from the Pelahatchie Bay and Lake Harbor systems. WRUA also serves Richland, Pearl, Brandon, Ms State Hospital, Jackson Municipal Airport, and Flowood. All wastewater is ultimately treated at the City of Jackson's Savanna St. WWTP.

The East Madison Utility District (EMUD) transports District wastewater from the Tavern Hills system. EMUD also serves Ridgeland and a portion of the City of Madison. All sewage is ultimately treated at the City of Jackson's Savanna St. WWTP.

The Madison County Wastewater Authority (MCWA) transports and treats District wastewater from the Lost Rabbit, Haley Creek and Twin Harbor areas. MCWA also transports and treats a portion of the City of Madison, Gluckstadt, and rural areas of Madison County. MCWA's treatment plant is located on the Big Black River and identified as the Beatty's Bluff WWTP.

All entities generally charge for operation/maintenance and debt service for transporting and treating the wastewater based on the percentage of flow each community contributes.

1. Current Disposal/Treatment Charges:

According to the District finance department, the charges for FY2021 were: 1) WRUA \$821±K; 2) EMUD \$38±K, and 3) MCWA \$182±K; totaling **\$1.041M±**. These charges are in line with prior years and are shared by all District sewer customers. For FY 2021, the estimated charge per customer per month was **\$16.84±**.

2. Future Disposal/Treatment Charges:

WRUA is currently completing construction of a new WWTP) that is scheduled to become operational in September 2021. The WWTP, Influent Pumping Station, Outfall line to the Pearl River, and other related items have a total cost just under \$100M. WRUA sold revenue bonds in 2018 totaling \$135±M with repayment beginning in October 2021. According to WRUA officials, their FY2022 budget is \$18,002,578. This is \$8,287,637 more than FY2021, an increase of **85.3%**. This will impact all seven (7) entities served by WRUA.

WRUA's FY2022 budget indicates PRVWSD's share will be \$1,385,644, an increase of \$564,776 from actual FY2021 payments made. This equates to an extra \$9.14/mo for all District customers.

Other potential impacts in the future to disposal/treatment charges could come when the City of Jackson rehabilitates the Savanna WWTP. Estimates of this work range from \$200M to \$400M. No definitive estimates or timelines are available at this time. This work could potentially occur before the end of this five (5) year study period and impact those customers served by EMUD.

As of the date of this study, we are not aware of any improvements planned by MCWA that would affect District wastewater customers.

Therefore, projections for regional disposal/treatment charges going forward after FY2022 will be based on a 3% annual increase.

E. Depreciation Expense

Although not an actual expense, depreciation is included in the Proprietary Fund's Balance Sheet. The District does not include a capital project and/or replacement cost line item for water/sewer system assets. If depreciation is not funded, then some other mechanism would be required to pay for new capital projects and replacement/rehabilitation projects. Therefore, it is critical that depreciation be funded.

VIII. ENTERPRISE FUND ANALYSIS – REVENUES AND EXPENSES

A. General

In order to adequately evaluate the District's rate structure, a detailed cash flow analysis must be developed. The following assumptions were made in developing the analysis

- Annual customer counts and consumption are based on information provided by the District's billing department. Projected customer count for the study period is **5,600** total customers, of which **5,150** also have sewer service.
- Revenues/Expenses for FY2017 – FY2020 are based on audit reports.
- Revenues/Expenses for FY2021 based on unaudited figures from the finance department
- General expenses FY2022 – FY2028, **3% annual increase.**
- Sewer Disposal Charges FY2023 – FY2028, **3% annual increase.**
- Depreciation, FY2022 and beyond, \$1.35M annually

B. No Rate Change

A review of revenues and expenses, including depreciation, indicates expenses have exceeded revenues from FY2018 through FY2021. Therefore, leaving water/sewer rates at current levels is not an option.

C. Proposed Rate Structure Adjustment

As we are now in August 2021 and rates have not been adjusted since July 2019 an immediate rate increase is needed.

Option 1 in the Appendix shows the Proprietary Fund Analysis with the following recommended adjustments:

OCT 2021 (FY2022)

- Volumetric Rate for Water set at **\$5.50** per 1,000 gallons over 3,000
- Volumetric Rate for Sewer set at **\$7.50** per 1,000 gallons over 3,000
- Regional Sewer Charge instituted for all customers set at **\$5.00** per 1,000 gallons over 1,000

JULY 2022 (FY2023)

NO CHANGES

FY 2024 to FY2028

- Volumetric Rate for Water increased **\$0.25** per 1,000 each year
- Volumetric Rate for Sewer increased **\$0.40** per 1,000 each year
- Regional Sewer Charge increased **\$0.15** per 1,000 each year

From Option 1, the October 2021 rate increase will generate sufficient revenue in FY 2023 to cover projected expenses and depreciation. The incremental volumetric increases from FY 2024 going forward should adequately cover expenses and depreciation unless impacted by increased charges by outside entities or large capital projects.

Establishing a “regional sewer charge” complies with what other communities have done including: Richland, Pearl, Brandon, Flowood, Ridgeland and Madison.

The current average bill for a District customer using 6,000 gallons per month of water is \$68.40. With the October 2021 rate increase, the bill would become **\$99.00**, an increase of **44.7%**.

To minimize the immediate impact to the District's customers, a phased rate increase proposal is provided.

Option 2 in the Appendix shows the Proprietary Fund Analysis with the following recommended adjustments:

OCT 2021 (FY2022)

- Volumetric Rate for Water set at **\$5.50** per 1,000 gallons over 3,000
- Volumetric Rate for Sewer set at **\$7.50** per 1,000 gallons over 3,000
- Regional Sewer Charge instituted for all customers set at **\$2.25** per 1,000 gallons over 1,000

FY2023

- Regional Sewer Charge increased **\$1.00** per 1,000

FY 2024

- Volumetric Rate for Water increased **\$0.25** per 1,000
- Volumetric Rate for Sewer increased **\$0.40** per 1,000
- Regional Sewer Charge increased **\$1.00** per 1,000

FY 2025

- Volumetric Rate for Water increased **\$0.25** per 1,000
- Volumetric Rate for Sewer increased **\$0.40** per 1,000
- Regional Sewer Charge increased **\$1.05** per 1,000

FY 2026 to FY2028

- Volumetric Rate for Water increased **\$0.25** per 1,000 each year
- Volumetric Rate for Sewer increased **\$0.40** per 1,000 each year
- Regional Sewer Charge increased **\$0.15** per 1,000 each year

From Option 2, general and regional sewer expenses are identical to Table 1, however funding of full depreciation is phased in over 4 years. This allows the reduced rate increases outlined above. Beginning in FY 2025, Table 1 and Table 2 have the same water and sewer rates.

Under Option 2, the October 2021 rate increase will result in the average bill increasing from \$68.40 to **\$82.50**, an increase of **20.6%**.

IX. CONCLUSIONS/RECOMMENDATIONS

This rate study concludes that the Pearl River Valley Water Supply District's water/sewer enterprise fund cannot be self-sustaining without additional revenues. Therefore, Southern Consultants, Inc. recommends the following actions be taken:

- **Implement the rate adjustments outlined in Option 2**
- **Implement an October 2021 Regional Sewer Charge for all wastewater customers. This rate should be \$2.25 per 1,000 gallons of metered water, with no minimum**
- **Adjust volumetric rates in October 2021 as follows: Water \$5.50 per 1,000 and Sewer \$7.50 per 1,000 for usage over 3,000 gallons per month**
- **Adjust Regional Sewer Charge to \$3.25 per 1,000 in FY 2023. Leave volumetric rates unchanged.**
- **Adjust Regional Sewer Charge to \$4.25 per 1,000 in FY 2024. Adjust volumetric rates as follows: Water \$5.75 per 1,000 and Sewer \$7.90 per 1,000 for usage over 3,000 gallons per month**
- **Adjust Regional Sewer Charge to \$5.30 per 1,000 in FY 2025. Adjust volumetric rates as follows: Water \$6.00 per 1,000 and Sewer \$8.30 per 1,000 for usage over 3,000 gallons per month**
- **FY2026 – FY2028: Increase Regional Sewer Charge \$0.15 per 1,000 each year. Increase volumetric charge for water \$0.25 per 1,000 each year. Increase volumetric charge for sewer \$0.40 per 1,000 per year**
- **Closely monitor developments with all treatment entities and be prepared to adjust regional sewer charges as necessary.**

The District currently operates and maintains an excellent water and sewer system and with adequate monitoring of changing conditions, that will continue.

Prepared By:

James S. Stewart, P.E.
Southern Consultants, Incorporated

**OPTION 1 - REVISED 8-19-2021
PEARL RIVER VALLEY WATER SUPPLY DISTRICT
PROPRIETARY FUND - ANNUAL REVENUES/EXPENSES**

OCTOBER 2021 INCREASE TO COVER ALL COSTS INCLUDING DEPRECIATION

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
	Actual	Actual	Actual	Actual	Estimated	Jul-Sept 2021	Oct 21-June 22						
NUMBER OF CUSTOMERS: (1)													
TOTAL ACCOUNTS	5525	5545	5565	5585	5600	5600	5600	5600	5600	5600	5600	5600	5600
WATER/SEWER ACCOUNTS	5100	5110	5125	5145	5150	5150	5150	5150	5150	5150	5150	5150	5150
AVERAGE MONTHLY USAGE PER CUSTOMER: (2)													
Water (Gallons)	6567	5946	5914	6065	5736	6000	6000	6000	6000	6000	6000	6000	6000
Sewer (Gallons)	6000	5565	5223	5620	5238	5400	5400	5400	5400	5400	5400	5400	5400
BILLING RATES													
Minimum Water Bill	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00
Water (per 1000 over 3,000)	\$4.71	\$4.04	\$5.19	\$5.45	\$5.45	\$5.45	\$5.50	\$5.50	\$5.75	\$6.00	\$6.25	\$6.50	\$6.75
Minimum Sewer Bill	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00
Sewer (per 1000 over 3,000)	\$6.35	\$6.67	\$7.00	\$7.35	\$7.35	\$7.35	\$7.50	\$7.50	\$7.90	\$8.30	\$8.70	\$9.10	\$9.50
REGIONAL SEWER CHARGE (per 1,000 No Minimum)							\$5.00	\$5.00	\$5.15	\$5.30	\$5.45	\$5.60	\$5.75
REVENUES (1000's dollars): (3)													
Water Sales	\$2,042	\$1,900	\$1,941	\$2,054	\$1,943	\$510	\$1,537	\$2,050	\$2,100	\$2,150	\$2,211	\$2,251	\$2,302
Sewer Charges	\$2,146	\$2,030	\$2,042	\$2,177	\$2,001	\$520	\$2,827	\$3,770	\$3,879	\$3,989	\$4,098	\$4,207	\$4,317
Pipeline Maint/Misc/Interest	\$294	\$254	\$291	\$327	\$292	\$80	\$260	\$350	\$360	\$370	\$380	\$390	\$400
TOTAL REVENUES:	\$4,482	\$4,184	\$4,274	\$4,558	\$4,236	\$1,110	\$4,624	\$6,170	\$6,339	\$6,509	\$6,689	\$6,848	\$7,019
EXPENSES (1000's dollars): (3) (4)													
Salaries, Wages and Fringe Benefits	\$678	\$807	\$840	\$855	\$1,039	\$268	\$802	\$1,102	\$1,135	\$1,169	\$1,204	\$1,240	\$1,277
Sewer Disposal/Treatment Charges	\$832	\$788	\$871	\$965	\$1,041	\$262	\$1,350	\$1,660	\$1,710	\$1,761	\$1,814	\$1,868	\$1,924
Professional Fees and Services	\$296	\$353	\$346	\$375	\$172	\$44	\$133	\$182	\$187	\$193	\$199	\$205	\$211
Utilities	\$294	\$296	\$300	\$298	\$333	\$86	\$257	\$353	\$364	\$375	\$386	\$398	\$410
Repairs and Maintenance	\$671	\$651	\$709	\$795	\$797	\$205	\$616	\$846	\$871	\$897	\$924	\$952	\$981
Supplies and Materials	\$236	\$227	\$213	\$241	\$277	\$71	\$214	\$294	\$303	\$312	\$321	\$331	\$341
Other - MMEIA	\$281	\$315	\$338	\$335	\$197	\$75	\$225	\$309	\$318	\$328	\$338	\$348	\$358
Other - MMEIA	\$63	\$63	\$63	\$63	\$63	\$16	\$47	\$63	\$63	\$63	\$63	\$63	\$63
Depreciation (6)	\$1,070	\$1,087	\$1,107	\$1,328	\$1,326	\$340	\$1,010	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350
TOTAL EXPENSES:	\$4,421	\$4,587	\$4,787	\$5,255	\$5,245	\$1,367	\$4,654	\$6,159	\$6,301	\$6,448	\$6,599	\$6,755	\$6,915
OPERATING INCOME (LOSS) (1000's dollars) w/deprec.	\$61	(\$403)	(\$513)	(\$697)	(\$1,009)	(\$257)	(\$30)	\$11	\$38	\$61	\$90	\$93	\$104
RATIO OF REVENUE TO EXPENSES: Target 1.00	1.014	0.912	0.893	0.867	0.808	0.812	0.994	1.002	1.006	1.009	1.014	1.014	1.015

- Notes:
1. Customer Counts from Billing (2017-2020). 2022 forward - Assumed Flat
2. Monthly Usage Assumed Flat 2022 and Beyond
3. Revenues/Expenses 2017-20 From CB&H Financial Statements
4. General Expense Projections FY2022-2028 3% Annual Increase
5. Disposal/Treatment Expense Projections FY2023-28 3% Annual Increase
6. Depreciation Assumed Flat 2025 and Beyond
7. Reflects New Volumetric Charge for Rankin and Madison Sewer Customers

AVERAGE BILL (6,000 GAL/MONTH)	
CURRENT - ALL CUSTOMERS	\$68.40
Oct-21	\$99.00
ALL CUSTOMERS	\$99.00 (44.7% INCREASE)

OPTION 2 - REVISED 8-19-2021
PEARL RIVER VALLEY WATER SUPPLY DISTRICT
PROPRIETARY FUND - ANNUAL REVENUES/EXPENSES

PHASED RATE INCREASES PLUS NEW REGIONAL DISPOSAL CHARGE
100% DEPRECIATION COVERAGE PHASED OVER 4 YEARS

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
	Actual	Actual	Actual	Actual	Estimated	Jul-Sept 2021	Oct 21-June 22						
NUMBER OF CUSTOMERS: (1)													
TOTAL ACCOUNTS	5525	5545	5565	5585	5600	5600	5600	5600	5600	5600	5600	5600	5600
WATER/SEWER ACCOUNTS	5100	5110	5125	5145	5150	5150	5150	5150	5150	5150	5150	5150	5150
AVERAGE MONTHLY USAGE PER CUSTOMER: (2)													
Water (Gallons)	6567	5946	5914	6065	5736	6000	6000	6000	6000	6000	6000	6000	6000
Sewer (Gallons)	6000	5565	5223	5620	5238	5400	5400	5400	5400	5400	5400	5400	5400
BILLING RATES													
Minimum Water Bill	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00
Water (per 1000 over 3,000)	\$4.71	\$4.94	\$5.19	\$5.45	\$5.45	\$5.45	\$5.50	\$5.50	\$5.75	\$6.00	\$6.25	\$6.50	\$6.75
Minimum Sewer Bill	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00
Sewer (per 1000 over 3,000)	\$6.35	\$6.67	\$7.00	\$7.35	\$7.35	\$7.35	\$7.50	\$7.50	\$7.90	\$8.30	\$8.70	\$9.10	\$9.50
REGIONAL SEWER CHARGE (per 1,000 No Minimum)							\$2.25	\$3.25	\$4.25	\$5.30	\$5.45	\$5.60	\$5.75
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Pipeline Maint/Misc/Interest	\$294	\$254	\$291	\$327	\$292	\$80	\$260	\$350	\$360	\$370	\$380	\$390	\$400
TOTAL REVENUES:	\$4,482	\$4,184	\$4,274	\$4,558	\$4,236	\$1,110	\$3,936	\$5,586	\$6,039	\$6,509	\$6,689	\$6,848	\$7,019
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Utilities	\$294	\$296	\$300	\$298	\$333	\$86	\$257	\$353	\$364	\$375	\$386	\$398	\$410
Repairs and Maintenance	\$671	\$651	\$709	\$795	\$797	\$205	\$616	\$846	\$871	\$897	\$924	\$952	\$981
Supplies and Materials	\$236	\$227	\$213	\$241	\$277	\$71	\$214	\$294	\$303	\$312	\$321	\$331	\$341
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Other - MMEIA	\$63	\$63	\$63	\$63	\$63	\$16	\$47	\$63	\$63	\$63	\$63	\$63	\$63
Depreciation (6)	\$1,070	\$1,087	\$1,107	\$1,328	\$1,326	\$88	\$262	\$700	\$1,050	\$1,350	\$1,350	\$1,350	\$1,350
TOTAL EXPENSES:	\$4,421	\$4,587	\$4,787	\$5,255	\$5,245	\$1,115	\$3,906	\$5,509	\$6,001	\$6,448	\$6,599	\$6,755	\$6,915
OPERATING INCOME (LOSS) (1000's dollars) w/deprec.	\$61	(\$403)	(\$513)	(\$697)	(\$1,009)	(\$5)	\$30	\$77	\$38	\$61	\$90	\$93	\$104
RATIO OF REVENUE TO EXPENSES: Target 1.00	1.014	0.912	0.893	0.867	0.808	0.996	1.008	1.014	1.006	1.009	1.014	1.014	1.015

- Notes:
1. Customer Counts from Billing (2017-2020). 2022 forward - Assumed Flat
2. Monthly Usage Assumed Flat 2022 and Beyond
3. Revenues /Expenses 2017-20 From CB&H Financial Statements
4. General Expense Projections FY2022-2028 3% Annual Increase
5. Disposal/Treatment Expense Projections FY2023-28 3% Annual Increase
6. Depreciation Assumed Flat 2025 and Beyond
7. Reflects New Volumetric Charge for Rankin and Madison Sewer Customers

AVERAGE BILL (6,000 GAL/MONTH)	
CURRENT - ALL CUSTOMERS	\$68.40
Oct-21	\$82.50
ALL CUSTOMERS	\$82.50 (20.6% INCREASE)

OPTION 1 - REVISED 8-19-2021
PEARL RIVER VALLEY WATER SUPPLY DISTRICT
PROPRIETARY FUND - ANNUAL REVENUES/EXPENSES

OCTOBER 2021 INCREASE TO COVER ALL COSTS INCLUDING DEPRECIATION

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
	Actual	Actual	Actual	Actual	Estimated	Jul-Sept 2021	Oct 21-June 22						
NUMBER OF CUSTOMERS: (1)													
TOTAL ACCOUNTS	5525	5545	5565	5585	5600	5600	5600	5600	5600	5600	5600	5600	5600
WATER/SEWER ACCOUNTS	5100	5110	5125	5145	5150	5150	5150	5150	5150	5150	5150	5150	5150
AVERAGE MONTHLY USAGE PER CUSTOMER: (2)													
Water (Gallons)	6567	5946	5914	6065	5736	6000	6000	6000	6000	6000	6000	6000	6000
Sewer (Gallons)	6000	5565	5223	5620	5238	5400	5400	5400	5400	5400	5400	5400	5400
BILLING RATES													
Minimum Water Bill	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00
Water (per 1000 over 3,000)	\$4.71	\$4.94	\$5.19	\$5.45	\$5.45	\$5.45	<u>\$5.50</u>	\$5.50	<u>\$5.75</u>	<u>\$6.00</u>	<u>\$6.25</u>	<u>\$6.50</u>	<u>\$6.75</u>
Minimum Sewer Bill	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00
Sewer (per 1000 over 3,000)	\$6.35	\$6.67	\$7.00	\$7.35	\$7.35	\$7.35	<u>\$7.50</u>	\$7.50	<u>\$7.90</u>	<u>\$8.30</u>	<u>\$8.70</u>	<u>\$9.10</u>	<u>\$9.50</u>
REGIONAL SEWER CHARGE (per 1,000 No Minimum)							<u>\$5.00</u> 8	\$5.00	<u>\$5.15</u>	<u>\$5.30</u>	<u>\$5.45</u>	<u>\$5.60</u>	<u>\$5.75</u>
REVENUES (1000's dollars): (3)													
Water Sales	\$2,042	\$1,900	\$1,941	\$2,054	\$1,943	\$510	\$1,537	\$2,050	\$2,100	\$2,150	\$2,211	\$2,251	\$2,302
Sewer Charges	\$2,146	\$2,030	\$2,042	\$2,177	\$2,001	\$520	\$2,827	\$3,770	\$3,879	\$3,989	\$4,098	\$4,207	\$4,317
Pipeline Maint/Misc/Interest	\$294	\$254	\$291	\$327	\$292	\$80	\$260	\$350	\$360	\$370	\$380	\$390	\$400
TOTAL REVENUES:	\$4,482	\$4,184	\$4,274	\$4,558	\$4,236	\$1,110	\$4,624	\$6,170	\$6,339	\$6,509	\$6,689	\$6,848	\$7,019
EXPENSES (1000's dollars): (3) (4)													
Salaries, Wages and Fringe Benefits	\$678	\$807	\$840	\$855	\$1,039	\$268	\$802	\$1,102	\$1,135	\$1,169	\$1,204	\$1,240	\$1,277
Sewer Disposal/Treatment Charges	\$832	\$788	\$871	\$965	\$1,041	\$262	\$1,350	\$1,660	\$1,710	\$1,761	\$1,814	\$1,868	\$1,924
Professional Fees and Services	\$296	\$353	\$346	\$375	\$172	\$44	\$133	\$182	\$187	\$193	\$199	\$205	\$211
Utilities	\$294	\$296	\$300	\$298	\$333	\$86	\$257	\$353	\$364	\$375	\$386	\$398	\$410
Repairs and Maintenance	\$671	\$651	\$709	\$795	\$797	\$205	\$616	\$846	\$871	\$897	\$924	\$952	\$981
Supplies and Materials	\$236	\$227	\$213	\$241	\$277	\$71	\$214	\$294	\$303	\$312	\$321	\$331	\$341
Other	\$281	\$315	\$338	\$335	\$197	\$75	\$225	\$309	\$318	\$328	\$338	\$348	\$358
Other - MMEIA	\$63	\$63	\$63	\$63	\$63	\$16	\$47	\$63	\$63	\$63	\$63	\$63	\$63
Depreciation (6)	\$1,070	\$1,087	\$1,107	\$1,328	\$1,326	\$340	\$1,010	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350	\$1,350
TOTAL EXPENSES:	\$4,421	\$4,587	\$4,787	\$5,255	\$5,245	\$1,367	\$4,654	\$6,159	\$6,301	\$6,448	\$6,599	\$6,755	\$6,915
OPERATING INCOME (LOSS) (1000'S dollars) w/deprec.	\$61	(\$403)	(\$513)	(\$697)	(\$1,009)	(\$257)	(\$30)	\$11	\$38	\$61	\$90	\$93	\$104
RATIO OF REVENUE TO EXPENSES: Target 1.00	1.014	0.912	0.893	0.867	0.808	0.812	0.994	1.002	1.006	1.009	1.014	1.014	1.015

- Notes:
1. Customer Counts from Billing (2017-2020). 2022 forward - Assumed Flat
2. Monthly Usage Assumed Flat 2022 and Beyond
3. Revenues /Expenses 2017-20 From CB&H Financial Statements
4. General Expense Projections FY2022-2028 3% Annual Increase
5. Disposal/Treatment Expense Projections FY2023-28 3% Annual Increase
6. Depreciation Assumed Flat 2025 and Beyond
7. Reflects New Volumetric Charge for Rankin and Madison Sewer Customers

AVERAGE BILL (6,000 GAL/MONTH)
CURRENT - ALL CUSTOMERS \$68.40
Oct-21
ALL CUSTOMERS \$99.00 (44.7% INCREASE)

OPTION 2 - REVISED 8-19-2021
PEARL RIVER VALLEY WATER SUPPLY DISTRICT
PROPRIETARY FUND - ANNUAL REVENUES/EXPENSES

PHASED RATE INCREASES PLUS NEW REGIONAL DISPOSAL CHARGE
100% DEPRECIATION COVERAGE PHASED OVER 4 YEARS

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
	Actual	Actual	Actual	Actual	Estimated	Jul-Sept 2021	Oct 21-June 22						
NUMBER OF CUSTOMERS: (1)													
TOTAL ACCOUNTS	5525	5545	5565	5585	5600	5600	5600	5600	5600	5600	5600	5600	5600
WATER/SEWER ACCOUNTS	5100	5110	5125	5145	5150	5150	5150	5150	5150	5150	5150	5150	5150
AVERAGE MONTHLY USAGE PER CUSTOMER: (2)													
Water (Gallons)	6567	5946	5914	6065	5736	6000	6000	6000	6000	6000	6000	6000	6000
Sewer (Gallons)	6000	5565	5223	5620	5238	5400	5400	5400	5400	5400	5400	5400	5400
BILLING RATES													
Minimum Water Bill	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00
Water (per 1000 over 3,000)	\$4.71	\$4.94	\$5.19	\$5.45	\$5.45	\$5.45	\$5.50	\$5.50	\$5.75	\$6.00	\$6.25	\$6.50	\$6.75
Minimum Sewer Bill	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00
Sewer (per 1000 over 3,000)	\$6.35	\$6.67	\$7.00	\$7.35	\$7.35	\$7.35	\$7.50	\$7.50	\$7.90	\$8.30	\$8.70	\$9.10	\$9.50
REGIONAL SEWER CHARGE (per 1,000 No Minimum)							\$2.25	\$3.25	\$4.25	\$5.30	\$5.45	\$5.60	\$5.75
REVENUES (1000's dollars): (3)													
Water Sales	\$2,042	\$1,900	\$1,941	\$2,054	\$1,943	\$510	\$1,537	\$2,050	\$2,100	\$2,150	\$2,211	\$2,251	\$2,302
Sewer Charges	\$2,146	\$2,030	\$2,042	\$2,177	\$2,001	\$520	\$2,139	\$3,186	\$3,579	\$3,989	\$4,098	\$4,207	\$4,317
Pipeline Maint/Misc/Interest	\$294	\$254	\$291	\$327	\$292	\$80	\$260	\$350	\$360	\$370	\$380	\$390	\$400
TOTAL REVENUES:	\$4,482	\$4,184	\$4,274	\$4,558	\$4,236	\$1,110	\$3,936	\$5,586	\$6,039	\$6,509	\$6,689	\$6,848	\$7,019
EXPENSES (1000's dollars): (3) (4)													
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Utilities	\$294	\$296	\$300	\$298	\$333	\$86	\$257	\$353	\$364	\$375	\$386	\$398	\$410
Repairs and Maintenance	\$671	\$651	\$709	\$795	\$797	\$205	\$616	\$846	\$871	\$897	\$924	\$952	\$981
Supplies and Materials	\$236	\$227	\$213	\$241	\$277	\$71	\$214	\$294	\$303	\$312	\$321	\$331	\$341
Other	\$281	\$315	\$338	\$335	\$197	\$75	\$225	\$309	\$318	\$328	\$338	\$348	\$358
Other - MMEIA	\$63	\$63	\$63	\$63	\$63	\$16	\$47	\$63	\$63	\$63	\$63	\$63	\$63
Depreciation (6)	\$1,070	\$1,087	\$1,107	\$1,328	\$1,326	\$88	\$262	\$700	\$1,050	\$1,350	\$1,350	\$1,350	\$1,350
TOTAL EXPENSES:	\$4,421	\$4,587	\$4,787	\$5,255	\$5,245	\$1,115	\$3,906	\$5,509	\$6,001	\$6,448	\$6,599	\$6,755	\$6,915
OPERATING INCOME (LOSS) (1000'S dollars) w/deprec.	\$61	(\$403)	(\$513)	(\$697)	(\$1,009)	(\$5)	\$30	\$77	\$38	\$61	\$90	\$93	\$104
RATIO OF REVENUE TO EXPENSES: Target 1.00	1.014	0.912	0.893	0.867	0.808	0.996	1.008	1.014	1.006	1.009	1.014	1.014	1.015

- Notes:
1. Customer Counts from Billing (2017-2020). 2022 forward - Assumed Flat
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 5. Disposal/Treatment Expense Projections FY2023-28 3% Annual Increase
 6. Depreciation Assumed Flat 2025 and Beyond
 7. Reflects New Volumetric Charge for Rankin and Madison Sewer Customers

AVERAGE BILL (6,000 GAL/MONTH)
CURRENT - ALL CUSTOMERS \$68.40
Oct-21
ALL CUSTOMERS \$82.50 (20.6% INCREASE)