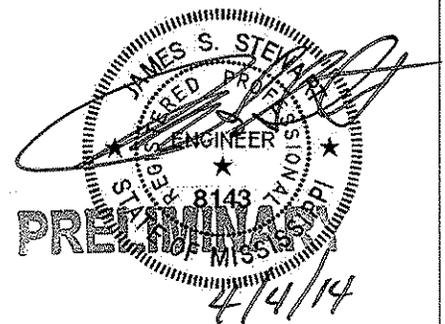


**BARNETT
RESERVOIR**

PEARL RIVER VALLEY
WATER SUPPLY DISTRICT

2014 WATER AND SEWER RATE STUDY

April 4, 2014



Prepared by
SOUTHERN CONSULTANTS, INC.

5740 County Cork Road
Jackson, Mississippi 39206

2014 WATER AND SEWER RATE STUDY
PEARL RIVER VALLEY WATER SUPPLY DISTRICT

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PEARL RIVER VALLEY WATER SUPPLY DISTRICT

2014 WATER/SEWER RATE STUDY

I. GENERAL

The Pearl River Valley Water Supply District (District) entered into a contract with Southern Consultants, Inc. (SCI) to perform an evaluation study of the District's current water and sewer rates. The purpose of this analysis 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, current FY2014 budget from the financial department, and FY2008 - FY2013 audit reports by BKD, LLP, CPAs and Advisors. District staff were instrumental in development of this study.

II. PRIOR RATE STUDY

A previous water/sewer rate study was completed in early 2008 by Neel-Schaffer, Inc. This study included the following recommendations:

- Increase minimum monthly charge for water from \$10.00 to \$12.00 for up to 3,000 gallons of metered water.
- Increase minimum monthly charge for sewer from \$10.00 to \$12.00 for up to 3,000 gallons of metered water.
- Increase volumetric water rate from \$2.00 to \$2.50 per 1,000 gallons over 3,000 gallons of metered water.
- Increase volumetric sewer rate from \$2.50 to \$3.00 per 1,000 gallons over 3,000 gallons of metered water.
- Increase the volumetric rate for both water and sewer by 5% annually from FY2009 through FY2013. (Actual implementation FY2010 through FY2014.)
- Raise volumetric cap on sewer charges from 12,000 gallons of metered water per month to 15,000 gallons.
- Return to monthly billing in lieu of bi-monthly billing.

These recommendations were adopted by the District's Board of Directors and implemented beginning in FY2009 (July 2008).

The Neel-Schaffer study estimated annual revenues ranging from \$4.094M to \$4.793M during the life of the rate structure adjustments. Their estimated revenues were based on 4,965 customers and per month per customer usage of 11,000 gallons. District provided information indicates that actual revenues reached a high of \$3.522M in FY2011. Since that year revenues have averaged approximately \$3.1±M.

III. CURRENT WATER/SEWER RATES

The District's current FY2014 monthly water and sewer rates are as follows:

<u>Water:</u>	\$12.00 minimum for first 3,000 gallons metered \$3.22 per 1,000 gallons over 3,000
<u>Sewer:</u>	\$12.00 minimum for first 3,000 gallons metered water \$3.84 per 1,000 gallons over 3,000; capped at 15,000 gallons

IV. EXISTING WATER/SEWER USAGE

A review was conducted of the FY2009 – FY2013 billing, revenue, and usage records. This review was necessary to best determine the average monthly usage for projecting future revenues. The following table shows the average monthly water usage per customer based on audited revenue for the period:

	<u>Customers</u>	<u>Water/Sewer Revenue</u>	<u>Average Gal Per Month Per Customer</u>
FY2009	5,324	\$2.384M	5,421
FY2010	5,318	\$2.828M	6,515
FY2011	5,328	\$3.474M	7,989
FY2012	5,357	\$3.108M	6,816
FY2013	5,380	\$2.994M	6,335

As shown above, the average monthly water usage ranges from a low of 5,421 to a high of 7,989 gallons per month per customer. The FY2009 average usage (5,421) may have been a result of conservation due to the rate increase and/or a wetter than normal year. The FY2011 average usage (7,989) is likely a result of a drier than normal year.

For purposes of this report, 5,400 customers and 6,500 gallons per month per customer will be utilized for estimating future revenues.

V. EXISTING REVENUES/EXPENSES

A review of the billing records and audits for FY2009 through FY2012 indicated actual audited revenues and expenses for these years were as follows:

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>
Revenues	\$2,774	\$3,007	\$3,522	\$3,134	\$3,037
Expenses (1)	\$3,307	\$2,983	\$3,641	\$3,529	\$3,320
Expenses (2)	\$2,702	\$2,340	\$3,014	\$2,878	\$2,656

Notes: Revenues/Expenses in Thousands. Revenues and expenses from annual audits. Expenses (1) include depreciation. Expenses (2) exclude depreciation.

VI. FUTURE EXPENSE PROJECTIONS

A. General

Expenditures for salaries, wages, utilities, typical repairs/maintenance, and supplies/materials can be expected to increase with inflation, approximately 3% per year.

B. Water System

Expenses related to the water system will generally be limited to well repair/rehab and elevated tank painting. For purposes of this evaluation, an estimated \$50,000 should be available annually for these type expenses.

C. Sewer System

1. Collection System

A significant portion of the District's gravity sewer collection system is reaching the end of its useful life. Repairs and replacements have been numerous on the older concrete lines that are affected by hydrogen sulfide gas. In fact, approximately \$500,000 has been spent in the last 2 years for these type replacements. Therefore, this study will include \$250,000 annually for capital improvement projects (CIP).

2. Treatment

With the exception of Northbay subdivision (300+ customers), all domestic sewage from the District's Pelahatchie Bay system and Madison system is transported to the City of Jackson's Savannah Street wastewater treatment plant. Disposal charges for FY2009 – FY2013 according to audit reports were \$556,000; \$635,000; \$380,000; \$417,000 and \$414,000 respectively. The FY2014 charges are estimated to be \$640,000 based on information provided by West Rankin Regional Authority and East Madison Utility District.

An agreed consent decree between the City of Jackson and the Environmental Protection Agency was entered into in March 2013. The decree requires that the City spend approximately \$389,000,000 on their sewer system over the next seventeen (17) years. Portions of the consent decree will directly impact the District's sewer customers. The District is billed for those customers in the Pelahatchie Bay system by the West Rankin Regional Authority for treatment at the Savannah WWTF. The District is also billed by the East Madison Utility District for their Madison county customers for transmission through the City of Jackson's West Bank Interceptor system and treatment at Savannah.

The consent decree includes capital costs affecting the District, as follows:

West Bank Interceptor Rehabilitation	\$83,988,750
Savannah Wastewater Treatment Facility	\$100,222,875

(Source: WEI/AJA LLC)

Currently, the first project of the West Bank Rehabilitation (\$13.3M) has been initiated. Other projects will generally follow after FY2015 with about half of the project expenditures occurring after FY2022. Additionally, a portion of the increased operation and maintenance costs of the interceptor will be passed on indirectly to the District customers on the Madison sewer system. The District can expect to pay an additional \$2 - \$5 per month per customer as a result of the West Bank Interceptor rehabilitation.

All capital improvements to the Savannah Street WWTF are scheduled to be completed by FY2020. This will have a more immediate impact to the District's Pelahatchie Bay system customers. Additionally, increased O/M costs will be a factor. The District's Rankin county customers can expect to pay an additional \$3 - \$5 per month per customer when the Savannah WWTF work is complete.

In summary, the District should anticipate increases resulting from Jackson's consent decree of \$5 - \$10 per month, or more, for all sewer customers.

Also, it should be noted that the West Rankin Regional Authority has applied to the Mississippi Department of Environmental Quality for a permit to discharge treated sewage into the Pearl River. This application is the first stage required for a new treatment plant to be built on the Rankin county side of the Pearl River. Should this plant be built (estimated at \$100M) the above estimates would be irrelevant and the District's sewer rate structure would need to be adjusted accordingly based on the new plant cost and estimated treatment costs.

VII. CASH FLOW 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 and usage for the study period are 5,400 customers and 6,500 gallons per customer per month.
- Revenues/Expenses for FY2009 – FY2013 based on audit reports.
- Revenues/Expenses for FY2014 based on current budget
- Miscellaneous expenses FY2015 – FY2020, three (3) per cent annual increase.
- Sewer Disposal Charges FY2015 – FY2020, 10-12% annual increase.
- Depreciation, FY2014 and beyond, flat \$670,000.

- A capital improvement projects (CIP) expense of \$300,000 is included for the analysis period.

B. No Rate Change

A review of the actual revenues and expenses, including depreciation, indicates that expenses exceeded revenues from FY2011 to FY2013 and based on projections will do so in FY2014 also. **Table 3** in the Appendix reflects the projected cash flow analysis if the current FY2014 rate structure continues for the study period.

C. Proposed Rate Structure Adjustment

In order for revenues to cover expenses in FY2015, the District's enterprise fund needs an additional \$1±M. At the end of the study period, an additional \$500K is required. Therefore a rate structure increase that produces an initial \$15± per month per customer and an ultimate \$25± per month per customer is necessary based on the District's estimated 5,400 customers. Two (2) approaches were considered to produce the necessary revenue over the study period.

Alternate 1

Table 1 in the Appendix shows the Cash Flow Analysis with the minimum water/sewer bill of \$12/\$12 being raised in FY2015 to \$14.00 for water and \$16.00 for sewer. The volumetric rate will be raised to \$4.25 for water and \$5.75 for sewer per 1,000 gallon of metered water above 3,000 gallons. FY2016 and beyond will include an annual 5% volumetric increase on both water and sewer. The ratio of revenues to expenses, including depreciation, is estimated to be 1.04 in FY2015 and 1.00 in FY2020.

This approach effectively spreads the rate increase over all the District's customers. Customers that use less than the average 6,500 gallons per month will be less impacted than those using more.

Table 4 in the Appendix shows a graphic representation of historical revenues and expenses, projected revenues (Alternate 1), and projected expenses.

Alternate 2

Table 2 in the Appendix shows the Cash Flow Analysis with the minimum water/sewer bill of \$12/\$12 being raised in FY2015 to \$14.00 for water and \$16.00 for sewer. However, the amount of water included under the minimum bill is reduced from 3,000 gallons to 2,000 gallons. This will allow the volumetric rate to be lower than Alternate 1. The volumetric rate will be raised to \$3.50 per 1,000 gallon for water and \$4.50 per 1,000 gallons for sewer. FY2016 and beyond will also include an annual 5% volumetric increase for both water and sewer. The ratio of revenues to expenses, including depreciation, is estimated to be 1.06 in FY2015 and 1.02 in FY2020.

While theoretically generating more revenue than Alternate 1, Alternate 2 increases the impact to the District's minimum users with the reduction in the water included with the minimum bill. This will adversely affect older customers that typically use less water (<3,000 gallons) and may be on a fixed income.

Table 5 in the Appendix provides a comparison of the impacts to the District's customers for Alternate 1 and Alternate 2.

D. Comparison With Metro Area Systems

The recent developments with the City of Jackson's sewer system discussed above, has greatly impacted other area water/sewer systems. **Table 6** in the appendix shows recent water/sewer bill increases of various communities and includes the District's proposed Alternate 1 increase. Note that Flowood, Pearl, and Jackson all raised their water/sewer bills by more than 50%.

Table 7 is included in the appendix to show the actual rates for the various metro communities.

VIII. CONCLUSIONS/RECOMMENDATIONS

This rate evaluation 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 Alternate 1 above for FY2015, including minimum water bill increase to \$14 and minimum sewer bill increase to \$16.00. Increase the volumetric charge for water sold over 3,000 gallons to \$4.25 and \$5.75 respectively.
- Implement an annual 5% volumetric increase for both water and sewer for the period FY2016 through FY2020.
- Closely monitor developments with the City of Jackson's consent decree and the West Rankin Regional Authority's possible wastewater treatment plant planning and construction.
- Be prepared to adjust rates upward if the City of Jackson and/or West Rankin make unexpected increases in their charges.

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

APPENDIX

<u>TABLE 1</u>	Cash Flow Analysis (ALTERNATE 1)
<u>TABLE 2</u>	Cash Flow Analysis (ALTERNATE 2)
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<u>TABLE 4</u>	Revenues/Expenses – Graphical Representation
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TABLE 1
PEARL RIVER VALLEY WATER SUPPLY DISTRICT
CASH FLOW ANALYSIS-OPERATING BUDGET

ALTERNATE 1 - Min Water Increase \$2.00/Min Sewer Increase \$4.00

New Volumetric Rates of \$4.25 for Water and \$5.75 for Sewer/5% Volumetric Increase FY2016 and beyond

	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020
NUMBER OF CUSTOMERS: (1) (2)	5324	5318	5328	5357	5380	5400	5400	5400	5400	5400	5400	5400
AVERAGE MONTHLY USEAGE PER CUSTOMER: (2)	5421	6515	7989	6816	6335	6500	6500	6500	6500	6500	6500	6500
<u>BILLING RATES AND AVG. MONTHLY W/S BILL:</u>												
Minimum Water Bill	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	<u>\$14.00</u>	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00
Water (per 1000) (4)	\$2.50	\$2.63	\$2.77	\$2.91	\$3.06	\$3.22	<u>\$4.25</u>	\$4.46	\$4.69	\$4.92	\$5.17	\$5.42
Minimum Sewer Bill	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	<u>\$16.00</u>	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00
Sewer (per 1000) (4)	\$3.00	\$3.15	\$3.31	\$3.47	\$3.65	\$3.84	<u>\$5.75</u>	\$6.04	\$6.34	\$6.66	\$6.99	\$7.34
AVERAGE MONTHLY BILL:	\$37.32	\$44.31	\$54.34	\$48.35	\$46.38	\$48.71	<u>\$65.00</u>	\$66.75	\$68.59	\$70.52	\$72.54	\$74.67
<u>REVENUES (1000's dollars): (3)</u>												
Water/Sewer Sales	\$2,384	\$2,828	\$3,474	\$3,108	\$2,994	\$3,156	\$4,212	\$4,325	\$4,444	\$4,569	\$4,701	\$4,839
Miscellaneous/Other	\$390	\$179	\$48	\$26	\$43	\$40	\$40	\$40	\$40	\$40	\$40	\$40
TOTAL REVENUES:	\$2,774	\$3,007	\$3,522	\$3,134	\$3,037	\$3,196	\$4,252	\$4,365	\$4,484	\$4,609	\$4,741	\$4,879
<u>EXPENSES (1000's dollars): (3) (5)</u>												
Salaries, Wages and Fringe Benefits	\$703	\$877	\$993	\$946	\$795	\$819	\$843	\$869	\$895	\$922	\$949	\$978
Sewer Disposal Charge (6)	\$556	\$635	\$380	\$417	\$414	\$640	\$726	\$813	\$899	\$986	\$1,072	\$1,158
Professional Fees and Services	\$294	\$162	\$180	\$144	\$151	\$156	\$160	\$165	\$170	\$175	\$180	\$186
Utilities	\$262	\$225	\$269	\$277	\$268	\$276	\$284	\$293	\$302	\$311	\$320	\$330
Repairs and Maintenance	\$568	\$136	\$229	\$445	\$386	\$398	\$410	\$422	\$434	\$447	\$461	\$475
Supplies and Materials	\$129	\$111	\$220	\$179	\$152	\$157	\$161	\$166	\$171	\$176	\$181	\$187
Other	\$349	\$461	\$415	\$221	\$240	\$247	\$255	\$262	\$270	\$278	\$287	\$295
Depreciation	\$605	\$643	\$627	\$651	\$664	\$670	\$670	\$670	\$670	\$670	\$670	\$670
G&A Transfer	(\$159)	(\$267)	\$328	\$249	\$250	\$258	\$265	\$273	\$281	\$290	\$299	\$307
CIP Projects					200±	\$300	\$300	\$300	\$300	\$300	\$300	\$300
TOTAL EXPENSES:	3,307	2,983	3,641	3,529	3,320	3,919	4,075	4,233	4,392	4,555	4,719	4,885
OPERATING INCOME (LOSS) W/ DEPR.	(\$533)	\$24	(\$119)	(\$395)	(\$283)	(\$723)	\$179	\$133	\$92	\$54	\$22	(\$7)
RATIO OF REVENUE TO EXPENSES: Target 1.00	0.84	1.01	0.97	0.89	0.91	0.82	1.04	1.03	1.02	1.01	1.00	1.00
Including Depreciation												

Notes:

1. Customer Counts from Billing (2009-2013).
2. Consumption/Customer Count Assumed Flat 2014 and Beyond
3. Revenues /Expenses 2009-2013 Based on BKD Financial Statements
4. 2015 and Beyond - Min Water \$14/Min Sewer \$16; New Water Rate of \$4.25; New Sewer Rate of \$5.75; 5% Annual Rate Increase Thereafter on Both Water and Sewer.
5. Expenses 2014 and Beyond - Depreciation Flat, Others 3% Annual Increase.
6. Sewer Disposal Charge - 2014 Based on Information Provided by WRUA and EMUD. 2015-2020 Based on Five (5) Year Capital and O&M Costs at Savannah Street Totalling \$130,000,000 and West Bank Capital Costs Totalling \$27,500,000. PRVWSD Share Approximately \$518,000 per Year in 2020.

TABLE 2
PEARL RIVER VALLEY WATER SUPPLY DISTRICT
CASH FLOW ANALYSIS-OPERATING BUDGET

ALTERNATE 2 - Min Water Increase \$2.00/Min Sewer Increase \$4.00/Reduce Quantity at Min Charge to 2,000
New Volumetric Rates of \$3.50 for Water and \$4.50 for Sewer/5% Volumetric Increase FY2016 and beyond

	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020
NUMBER OF CUSTOMERS: (1) (2)	5324	5318	5328	5357	5380	5400	5400	5400	5400	5400	5400	5400
AVERAGE MONTHLY USEAGE PER CUSTOMER: (2)	5421	6515	7989	6816	6335	6500	6500	6500	6500	6500	6500	6500
BILLING RATES AND AVG. MONTHLY W/S BILL:												
Minimum Water Bill	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00	\$14.00
Water (per 1000) (4)	\$2.50	\$2.63	\$2.77	\$2.91	\$3.06	\$3.22	\$3.50	\$3.68	\$3.86	\$4.05	\$4.25	\$4.47
Minimum Sewer Bill	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00	\$16.00
Sewer (per 1000) (4)	\$3.00	\$3.15	\$3.31	\$3.47	\$3.65	\$3.84	\$4.50	\$4.73	\$4.96	\$5.21	\$5.47	\$5.74
AVERAGE MONTLY BILL:	\$37.32	\$44.31	\$54.34	\$48.35	\$46.38	\$48.71	\$66.00	\$67.85	\$69.69	\$71.67	\$73.74	\$75.90
REVENUES (1000's dollars): (3)												
Water/Sewer Sales	\$2,384	\$2,828	\$3,474	\$3,108	\$2,994	\$3,156	\$4,277	\$4,395	\$4,516	\$4,645	\$4,780	\$4,921
Miscellaneous/Other	\$390	\$179	\$48	\$26	\$43	\$40	\$40	\$40	\$40	\$40	\$40	\$40
TOTAL REVENUES:	\$2,774	\$3,007	\$3,522	\$3,134	\$3,037	\$3,196	\$4,317	\$4,435	\$4,556	\$4,685	\$4,820	\$4,961
EXPENSES (1000's dollars): (3) (5)												
Salaries, Wages and Fringe Benefits	\$703	\$877	\$993	\$946	\$795	\$819	\$843	\$869	\$895	\$922	\$949	\$978
Sewer Disposal Charge (6)	\$556	\$635	\$380	\$417	\$414	\$640	\$726	\$813	\$899	\$986	\$1,072	\$1,158
Professional Fees and Services	\$294	\$162	\$180	\$144	\$151	\$156	\$160	\$165	\$170	\$175	\$180	\$186
Utilities	\$262	\$225	\$269	\$277	\$268	\$276	\$284	\$293	\$302	\$311	\$320	\$330
Repairs and Maintenance	\$568	\$136	\$229	\$445	\$386	\$398	\$410	\$422	\$434	\$447	\$461	\$475
Supplies and Materials	\$129	\$111	\$220	\$179	\$152	\$157	\$161	\$166	\$171	\$176	\$181	\$187
Other	\$349	\$461	\$415	\$221	\$240	\$247	\$255	\$262	\$270	\$278	\$287	\$295
Depreciation	\$605	\$643	\$627	\$651	\$664	\$670	\$670	\$670	\$670	\$670	\$670	\$670
G&A Transfer	(\$159)	(\$267)	\$328	\$249	\$250	\$258	\$265	\$273	\$281	\$290	\$299	\$307
CIP Projects					200±	\$300	\$300	\$300	\$300	\$300	\$300	\$300
TOTAL EXPENSES:	3,307	2,983	3,641	3,529	3,320	3,919	4,075	4,233	4,392	4,555	4,719	4,885
OPERATING INCOME (LOSS) W/ DEPR.	(\$533)	\$24	(\$119)	(\$395)	(\$283)	(\$723)	\$244	\$202	\$163	\$130	\$101	\$76
RATIO OF REVENUE TO EXPENSES: Target 1.00	0.84	1.01	0.97	0.89	0.91	0.82	1.06	1.05	1.04	1.03	1.02	1.02
Including Depreciation												

Notes:

1. Customer Counts from Billing (2009-2013).
2. Consumption/Customer Count Assumed Flat 2014 and Beyond
3. Revenues /Expenses 2009-2013 Based on BKD Financial Statements
4. 2015 and Beyond - Min Water \$14/Min Sewer \$16/Reduce to 2,000 Gal at Min Charge, New Water Rate of \$3.50, New Sewer Rate of \$4.50 and 5% Annual Rate Increase Thereafter on Both Water and Sewer.
5. Expenses 2014 and Beyond - Depreciation Flat, Others 3% Annual Increase.
6. Sewer Disposal Charge - 2014 Based on Information Provided by WRUA and EMUD. 2015-2020 Based on Five (5) Year Capital and O&M Costs at Savannah Street Totalling \$130,000,000 and West Bank Capital Costs Totalling \$27,500,000. PRVWSD Share Approximately \$518,000 per Year in 2020.

**TABLE 3
PEARL RIVER VALLEY WATER SUPPLY DISTRICT
CASH FLOW ANALYSIS-OPERATING BUDGET**

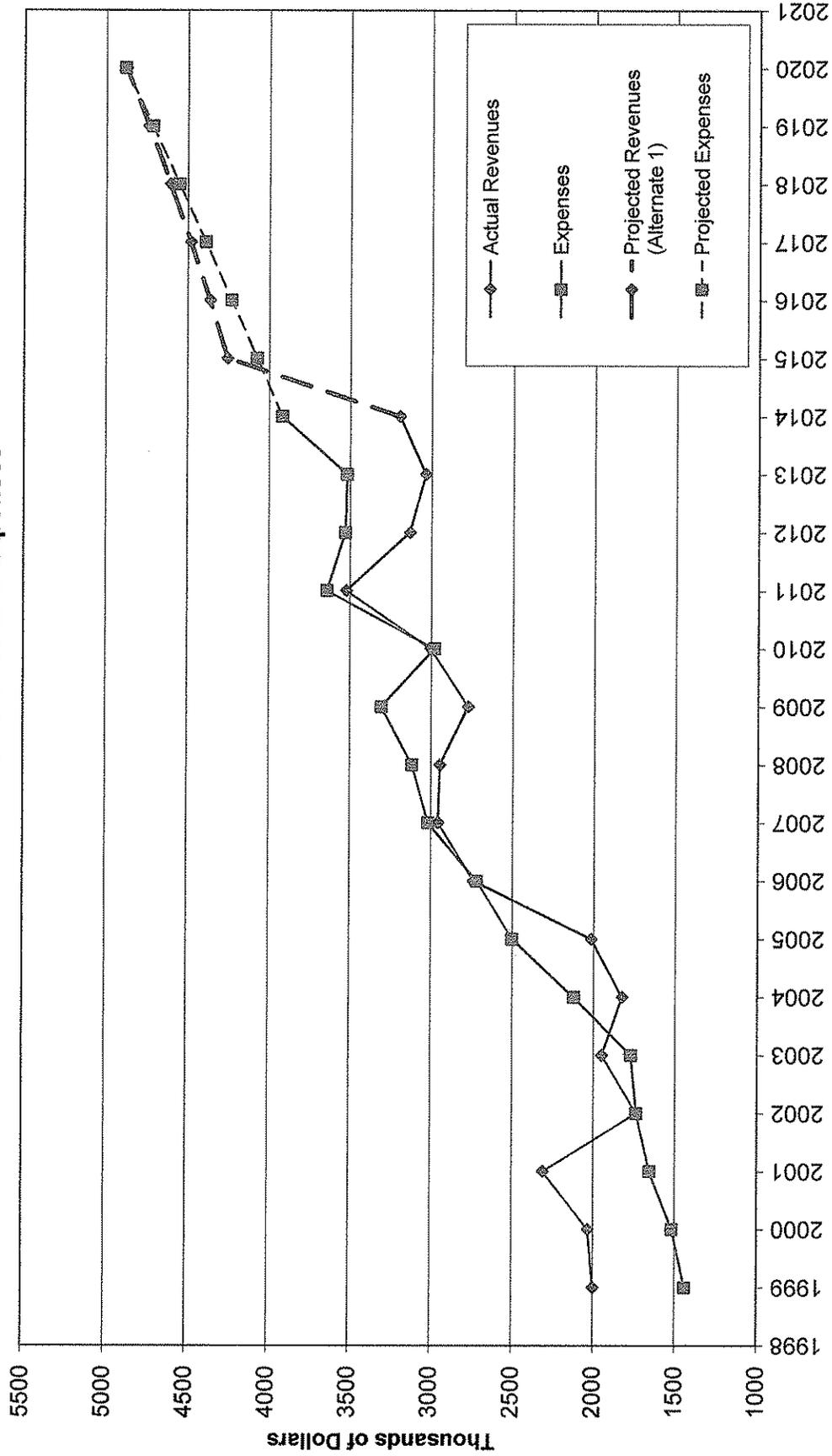
CONTINUE CURRENT (2014) RATES

	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Projected 2014	Projected 2015	Projected 2016	Projected 2017	Projected 2018	Projected 2019	Projected 2020
NUMBER OF CUSTOMERS: (1) (2)	5324	5318	5328	5357	5380	5400	5400	5400	5400	5400	5400	5400
AVERAGE MONTHLY USEAGE PER CUSTOMER: (2)	5421	6515	7989	6816	6335	6500	6500	6500	6500	6500	6500	6500
BILLING RATES AND AVG. MONTHLY W/S BILL:												
Minimum Water Bill	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00
Water (per 1000 over 3000) (4)	\$2.50	\$2.63	\$2.77	\$2.91	\$3.06	\$3.22	\$3.22	\$3.22	\$3.22	\$3.22	\$3.22	\$3.22
Minimum Sewer Bill	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00	\$12.00
Sewer (per 1000 over 3000) (4)	\$3.00	\$3.15	\$3.31	\$3.47	\$3.65	\$3.84	\$3.84	\$3.84	\$3.84	\$3.84	\$3.84	\$3.84
AVERAGE MONTHLY BILL:	\$37.32	\$44.31	\$54.34	\$48.35	\$46.38	\$48.71	\$48.71	\$48.71	\$48.71	\$48.71	\$48.71	\$48.71
REVENUES (1000's dollars): (3)												
Water/Sewer Sales	\$2,384	\$2,828	\$3,474	\$3,108	\$2,994	\$3,156	\$3,156	\$3,156	\$3,156	\$3,156	\$3,156	\$3,156
Miscellaneous/Other	\$390	\$179	\$48	\$26	\$43	\$40	\$40	\$40	\$40	\$40	\$40	\$40
TOTAL REVENUES:	\$2,774	\$3,007	\$3,522	\$3,134	\$3,037	\$3,196						
EXPENSES (1000's dollars): (3) (5)												
Salaries, Wages and Fringe Benefits	\$703	\$877	\$993	\$946	\$795	\$819	\$843	\$869	\$895	\$922	\$949	\$978
Sewer Disposal Charge (6)	\$556	\$635	\$380	\$417	\$414	\$640	\$726	\$813	\$899	\$986	\$1,072	\$1,158
Professional Fees and Services	\$294	\$162	\$180	\$144	\$151	\$156	\$160	\$165	\$170	\$175	\$180	\$186
Utilities	\$262	\$225	\$269	\$277	\$268	\$276	\$284	\$293	\$302	\$311	\$320	\$330
Repairs and Maintenance	\$568	\$136	\$229	\$445	\$386	\$398	\$410	\$422	\$434	\$447	\$461	\$475
Supplies and Materials	\$129	\$111	\$220	\$179	\$152	\$157	\$161	\$166	\$171	\$176	\$181	\$187
Other	\$349	\$461	\$415	\$221	\$240	\$247	\$255	\$262	\$270	\$278	\$287	\$295
Depreciation	\$605	\$643	\$627	\$651	\$664	\$670	\$670	\$670	\$670	\$670	\$670	\$670
G&A Transfer	(\$159)	(\$267)	\$328	\$249	\$250	\$258	\$265	\$273	\$281	\$290	\$299	\$307
CIP Projects					200±	\$300	\$300	\$300	\$300	\$300	\$300	\$300
TOTAL EXPENSES:	3,307	2,983	3,641	3,529	3,520	3,919	4,075	4,233	4,392	4,555	4,719	4,885
OPERATING INCOME (LOSS) W/ DEPR.	(\$533)	\$24	(\$119)	(\$395)	(\$483)	(\$723)	(\$876)	(\$1,036)	(\$1,196)	(\$1,359)	(\$1,523)	(\$1,689)
RATIO OF REVENUE TO EXPENSES: Target 1.00 Including Depreciation	0.84	1.01	0.97	0.89	0.86	0.82	0.78	0.76	0.73	0.70	0.68	0.65

Notes:

1. Customer Counts from Billing (2009-2013).
2. Consumption/Customer Count Assumed Flat 2014 and Beyond
3. Revenues /Expenses 2009-2013 Based on BKD Financial Statements
4. Minimum Bill and Rate Unchanged Through Study Period
5. Expenses 2014 and Beyond - Depreciation Flat, Others 3% Annual Increase.
6. Sewer Disposal Charge - 2014 Based on Information Provided by WRUA and EMUD. 2015-2020 Based on Five (5) Year Capital and O&M Costs at Savannah Street Totalling \$130,000,000 and West Bank Capital Costs Totalling \$27,500,000. PRVWSD Share Approximately \$518,000 per Year in 2019.

TABLE 4
Pearl River Valley Water Supply District
Water/Sewer Sales Revenue and Expenses



Revenues/Expenses 1999-2007 Neel Shaffer Water/Sewer Study
 Revenues/Expenses 2008-2013 BKD Audit
 Revenues/Expenses 2014-2020 SCI Projections

TABLE 5

RATE COMPARISON - ALTERNATE 1 VS ALTERNATE 2
FY 2014/FY 2015

Gallons	FY 2014		FY 2015		Alternate 1		Alternate 2	
	W/S Bill	W/S Bill	W/S Bill	W/S Bill	Increase	% Increase	Increase	% Increase
< 2,000	\$24.00	\$30	\$6.00	\$30	\$6.00	25%	\$6.00	25%
3,000	\$24.00	\$30	\$6.00	\$38	\$6.00	25%	\$14.00	58%
4,000	\$31.06	\$40	\$8.94	\$46	\$8.94	29%	\$14.94	48%
5,000	\$38.12	\$50	\$11.88	\$54	\$11.88	31%	\$15.88	42%
6,000	\$45.18	\$60	\$14.82	\$62	\$14.82	33%	\$16.82	37%
7,000	\$52.24	\$70	\$17.76	\$70	\$17.76	34%	\$17.76	34%
8,000	\$59.30	\$80	\$20.70	\$78	\$20.70	35%	\$18.70	32%
9,000	\$66.36	\$90	\$23.64	\$86	\$23.64	36%	\$19.64	30%
10,000	\$73.42	\$100	\$26.58	\$94	\$26.58	36%	\$20.58	28%
11,000	\$80.48	\$110	\$29.52	\$102	\$29.52	37%	\$21.52	27%
12,000	\$87.54	\$120	\$32.46	\$110	\$32.46	37%	\$22.46	26%
13,000	\$94.60	\$130	\$35.40	\$118	\$35.40	37%	\$23.40	25%
14,000	\$101.66	\$140	\$38.34	\$126	\$38.34	38%	\$24.34	24%
15,000	\$108.72	\$150	\$41.28	\$134	\$41.28	38%	\$25.28	23%
16,000	\$111.94	\$154.25	\$42.31	\$137.50	\$42.31	38%	\$25.56	23%

FY 2014

Current - \$24 + \$3.22/\$3.84 over 3,000 Gal

FY 2015

Alternate 1 - \$30 + \$4.25/\$5.75 over 3,000 Gal

Alternate 2 - \$30 + \$3.50/\$4.50 over 2,000 Gal

TABLE 6

RECENT WATER/SEWER RATE INCREASES

METRO AREA

The following reflects recent water/sewer rate increases for various metro Jackson area communities. The increases are generally associated with increased charges by the City of Jackson for treatment at the Savanna St. WWTP. A residential water usage of 6,500 gallons per month is used.

	<u>March 2013</u>	<u>January 2014</u>	<u>Increase</u>
JACKSON	\$47.68	\$74.20	55.6%
PRVWSD	\$48.71 (8/2013)	\$65.00 (Proposed)	33.4%
PEARL	\$37.46	\$62.95	68.0%
FLOWOOD	\$29.15	\$54.57	87.2%
BRANDON	\$51.44	\$57.75	13.8%
RICHLAND	\$46.19	\$52.66	12.7%
MADISON	\$44.29		
RIDGELAND	\$37.15		

Note: Rates obtained from the various billing departments. As of the date of this study, Ridgeland and Madison have not changed their rate structure.
Proposed PRVWSD Rates: **Water** \$14.00 Min plus \$4.25 per 1,000 after 3,000 gallons;
Sewer \$16.00 Min plus \$5.75 per 1,000 after 3,000 gallons

TABLE 7

PRVWSD Rate Study

CURRENT RESIDENTIAL WATER/SEWER RATE COMPARISON

Following is a comparison of water/sewer billing for the PRVWSD and Metro Jackson cities (inside City rates) as of March 2014, based on a residential water usage of 6,500 gallons per month.

PRVWSD

CURRENT (Water \$12 Min + \$3.22/1,000 over 3,000) + (Sewer \$12 Min + \$3.84/1,000 over 3,000)
 $\$12.00 + \$3.65(3.5) + \$12.00 + \$3.06(3.5) = \mathbf{\$48.71}$

PROPOSED (Water \$14 Min + \$4.25/1,000 over 3,000) + (Sewer \$16 Min + \$5.75/1,000 over 3,000)
 $\$14.00 + \$4.25(3.5) + \$16.00 + \$5.75(3.5) = \mathbf{\$65.00}$

Jackson

(Service Charge \$7.44 per month) + (Water \$3.21/ccf or \$4.29/1,000) + (Sewer \$4.47/ccf or \$5.98/1,000)
 $\$7.44 + \$4.29(6.5) + \$5.98(6.5) = \mathbf{\$74.20}$

Pearl

(Water \$11.20 Min + \$3.05/ccf or \$4.08/1,000 over 2,992) + (Sewer \$5.20 Min + \$1.45/ccf or \$1.94/1,000 over 2,992) + (Regional Sewer \$2.93/ccf or \$3.92/1,000)
 $\$11.20 + \$4.08(3.5) + \$5.20 + \$1.94(3.5) + \$3.92(6.5) = \mathbf{\$62.95}$

Brandon

(Flat Charge \$6.00) + (Water \$2.16/1,000) + (Local Sewer \$1.80/1000) + (West Rankin \$4.19/1,000)
 $\$6.00 + \$2.16(6.5) + \$1.80(6.5) + \$4.19(6.5) = \mathbf{\$58.98}$

Flowood

(Water \$8.00 Min + \$0.80/1,000 over 3,500) + (Sewer \$15 Min + \$1.25/1,000 over 3,500) + (Metro Sewer \$3.91/1000)
 $\$8.00 + \$0.80(3) + \$15.00 + \$1.25(3) + \$3.91(6.5) = \mathbf{\$54.57}$

Richland

(Water \$9.16 Min + \$1.14/1,000 over 3,000) + (Local Sewer \$13.34 Min + \$1.44/1,000 over 3,000) + (Regional Sewer \$3.25/1,000)
 $\$9.16 + \$1.14(3.5) + \$13.34 + \$1.44(3.5) + \$3.25(6.5) = \mathbf{\$52.66}$

Clinton (Not Part of Regional Sewer Treatment)

(Water \$12.45 Min + \$3.34/1,000 over 2,244) + (Sewer \$12.45 Min + \$3.083/1,000 over 2,244)
 $\$12.45 + \$3.34(4.256) + \$12.45 + \$3.083(4.256) = \mathbf{\$52.24}$

Madison

(Service Charge \$6.65 per month for water, \$6.50 per month for sewer) + (Water \$1.50/1,000) (Sewer \$1.50/1,000) + (Metro Sewer \$1.79/1000)
 $\$6.65 + \$6.50 + \$1.50(6.5) + \$1.50(6.5) + \$1.79(6.5) = \mathbf{\$44.29}$

Ridgeland

(Water \$3.00 Flat + \$1.83/1,000) + (Local Sewer \$1.00 Flat + \$1.48/1,000) + (Regional Sewer \$1.79/1,000)
 $\$3.00 + \$1.83(6.5) + \$1.00 + \$1.48(6.5) + \$1.79(6.5) = \mathbf{\$37.15}$

Note: Rates obtained from the various billing departments.