

# Water and Wastewater Rate Study

August 2013



Pagosa Area Water and Sanitation District



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August 9, 2013

To Pagosa Area Water and Sanitation District (PAWSD)

StepWise Utility Advisors, now MWH Global, is pleased to provide this Water and Wastewater Rate Study Report for your review and comment.

This report encompasses a great deal of effort from not only MWH Global, but also from you and your staff. We are very thankful of the time and dedication put into the study by PAWSD's staff and Board Members, without which we would not have been able to complete our work.

The report includes a summary of our findings with respect to the rate study and evaluation of PAWSD water and wastewater system.

Our efforts were completed using standard financial and rate setting principles published in the case of water utilities by the American Water Works Association and the Water Environment Federation for Wastewater.

The enclosed report is a comprehensive but not exhaustive description of our analysis and findings. The report body is meant to provide the overall information and describe the basis for our findings. The report appendix is a summary the water and wastewater financial plans.

Sincerely,

Fernando Aranda  
Consultant



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# Executive Summary

## Introduction

The Pagosa Area Water and Sanitation District (District) provides water and wastewater service to approximately 5,400 water and 3,000 wastewater customer accounts. The District's water and wastewater utilities are funded primarily from water and wastewater rates.

The District retained StepWise Utility Advisors now MWH Global (MWH) to review the water and wastewater utilities financial status and to recommend rate adjustments, as necessary, to assure their continuing financial viability. This study includes:

- Update of the District's water and wastewater financial plans for the 10-year study period, 2014 through 2023;
- Water Rate Design for 2014

## Study Assumptions

This rate study is based on numerous assumptions, and changes in these assumptions could have a material effect on study findings. MWH incorporated the following key assumptions into the study:

- Based on recommendation from the District's Board of Directors, the number of equivalent residential units is forecasted to increase by the following numbers:

Fiscal Year	Projected ERU Growth	Fiscal Year	Projected ERU Growth
2014	60	2019	60
2015	60	2020	60
2016	60	2021	60
2017	60	2022	60
2018	60	2023	60

- Costs will increase at the following annual inflation rates:
  - Operation and maintenance expense (O&M) at 2.5%
  - Capital improvement project cost (CIP) at 2.5%.
- Utilities will strive to maintain the following cash reserve levels: ninety days for each of water and wastewater O&M as working capital reserve.
- Utilities will strive to maintain a debt service coverage (DSC) of 1.25 times net revenues for the combined Water and Wastewater Fund.

## Water Rates

Principal findings of the water rate study are as follows:

- Staff developed a \$6.4 million water capital improvement program for the 10-year study period comprised of \$5.8 million of renewal and replacement (R&R) related projects and \$609 thousand for raw water acquisition and capital investment related projects. The raw water acquisition and capital investment related portion of the CIP will be funded from raw water acquisition and capital improvement fees respectively, and the R&R related portion will be funded from water sales revenue.



- Water sales revenue under existing rates is inadequate to meet projected O&M and capital costs during the study period. The financial plan indicates that rate adjustments are needed during the study period to increase annual water sales revenue as follows:

Fiscal Year	Water Sales Revenue Increase	Fiscal Year	Water Sales Revenue Increase
2014	4.4%	2019	0%
2015	4.4%	2020	0%
2016	4.4%	2021	0%
2017	4.4%	2022	0%
2018	0%	2023	0%

- MWH recommends the water utility's ten-year financial plan be updated annually to reflect current estimates of revenue, operating expenses, capital improvement needs, and capital financing requirements.
- Existing water rates have been in effect since January 2011 and include a monthly Service charge and a volume rate component. Existing water rates have the following structure:
  - Service charge that varies by ERU and does not include a volume allowance.
  - Volume rates comprised of a 3-block increasing rate structure.
- MWH developed a new rate design structure for the 2014 test year. The changes to the rate structure are discussed in more detail in Section 2 of this report. The proposed new structure consist of:
  - Service charge that varies by ERU and **does** include a 2,000 gallons volume allowance for each ERU.
  - Volume rates comprised of a 3-block increasing rate structure.

Table 1 compares existing and proposed rates for 2014. The proposed rates for 2014 were designed to increase revenues by 4.4% as presented above. The propose rates incorporate the effect of price elasticity to consumption.

Table 1: Comparison of Existing and Proposed Water Rates for 2014

Item	Existing		Proposed	
	Block Differential	Block Thresholds per ERU (gallons)	Existing	Proposed
Monthly Service Charge per ERU	\$14.50		\$23.50*	
Block 1	1.00	2,000 to 8,000	\$4.50	\$4.22
Block 2	2.00	20,000	\$9.00	\$8.43
Block 3	2.51	>20,000	\$11.30	\$10.59

\*Proposed service charge includes a 2,000 gallons allowance per ERU

## Wastewater Rates

Principal findings of the wastewater rate study are as follows:

- Staff developed a \$6.6 million wastewater capital improvement program for the 10-year study period comprised of \$5.7 million of R&R related projects and \$955 thousand of capital investment related projects. The capital investment related portion of the CIP will be funded from capital investment fees, and the R&R related portion will be funded from wastewater sales revenue.

Due to approved wastewater rate adjustments implemented in 2011, 2012, and 2013 the existing Wastewater rates generate sufficient revenues to meet the projected revenue requirements during the study period. The financial plan indicates that no rate adjustments are needed during the study period



- MWH recommends the wastewater utility's ten-year financial plan be updated annually to reflect current estimates of revenue, operating expenses, capital improvement needs, and capital financing requirements.
- Existing wastewater rates have been in effect since January 2013 and include a fixed monthly service charge of \$32.00 by ERU.



## Section 1

# Water Rates

## Introduction

The Pagosa Area Water and Sanitation District provides water service to approximately 5,400 customer accounts. The District's water operations and capital improvements are funded primarily from rates, capital investment fees and raw water acquisition fees. The District retained MWH Consulting to analyze the water utility's financial status and to recommend rate and fee adjustments, as necessary, to ensure the utility's continuing financial viability. The study includes:

- Update of the District's financial plan for the ten-year study period, fiscal years 2014 through 2023;
- Analysis of customers' consumption characteristics; and
- Design of water rates for 2014.

## Financial Plan

MWH subdivided the Water Enterprise Fund into the following subfunds and developed separate financial forecasts for each of these Funds for the study period:

- Operating subfund;
- Debt Service subfund
- Capital Investment subfund
- Raw Water Acquisition subfund
- Renewal and Replacement subfund.

**Appendix A** illustrates the water utility financial plan.

### Operating Fund

#### *Reserves*

Operating cash reserves available at the beginning of the study period total an estimated \$1.2 million. MWH recommends the utility maintain an annual minimum operating reserve of at least 90 days of operation and maintenance expense (O&M) or approximately \$597 thousand.

#### *Revenue*

Operating fund revenue includes water sales (from water rates), inclusion fees, late charges, investment income, General Fund contribution, irrigation water sales and other miscellaneous sources.

Projected revenue from miscellaneous sources reflects 2013 budgeted revenue and anticipated system growth. Projected interest income, derived from investment of operating fund reserves, reflects an assumed annual interest rate of 0.15%.

The assumed system growth and increase in equivalent residential units for the study period is presented on Table 2. System growth was based on recommendations from the District's Board of Directors.





Table 2: Projected Number of Water Equivalent Residential Units

Fiscal Year	Projected Number of ERUs	New ERUs	Growth Rate
2014	7,305	60	0.82%
2015	7,365	60	0.81%
2016	7,425	60	0.81%
2017	7,485	60	0.80%
2018	7,545	60	0.80%
2019	7,605	60	0.79%
2020	7,665	60	0.78%
2021	7,725	60	0.78%
2022	7,785	60	0.77%
2023	7,845	60	0.76%

### Revenue Requirements

Operating fund revenue requirements include O&M, transfers to debt service fund, and transfers to R&R fund.

Water O&M includes the cost of personnel, materials, supplies, and services to acquire, treat and distribute water and represents approximately 69% of projected revenue requirements during the study period. Projected O&M includes an annual inflation rate of 2.5%.

Transfers are made to the R&R subfund to cash finance non-expansion capital improvements. These transfers represent approximately 13% of projected revenue requirements during the study period.

Debt service during the study period consists of annual payments on outstanding and represents approximately 40% of projected revenue requirements during the study period. Outstanding debt obligations include revenue bonds and a loan from the Colorado Water Resources and Power Development Authority (CWRPDA). Some of these debt obligations were issued for both water and wastewater capital needs. The District provided the information to identify the portion associated with financing water system improvements and growth and non-growth responsibility for these projects.

The Water and Wastewater Bonds and Loan Resolutions contain covenants requiring the District to:

- Maintain revenues adequate to pay current system expenses;
- Produce an aggregate amount of net revenues each year, at least equal to 1.21 times the annual debt service (weighted average debt service coverage);

These requirements support the need for targeting a debt coverage ratio of at least 1.25.

MWH's financial plan assumes an early payoff of principal (in 2014) of \$925,000 of the 2006 water revenue bond issue set to expire in 2026. The early payoff is assumed as a special payment of \$925,000 at the end of 2014 to the outstanding principal of \$5,215,000. The early partial payoff of this debt will ease the increase of rates to maintain debt service coverage in 2014.

### Projected Water Sales Revenue Adjustment

Revenue should be sufficient to meet revenue requirements, provide required debt service coverage and maintain adequate reserves. Water sales revenue from existing rates is inadequate to meet these requirements throughout the study period. The financial plan indicates that revenue adjustments are needed during the study period to increase annual water sales revenue as follows:



Fiscal Year	Water Sales Revenue Increase	Fiscal Year	Water Sales Revenue Increase
2014	4.4%	2019	0%
2015	4.4%	2020	0%
2016	4.4%	2021	0%
2017	4.4%	2022	0%
2018	0%	2023	0%

MWH recommends the water utility's ten-year financial plan be updated annually to reflect current estimates of revenue, operating expenses, capital improvement needs, and capital financing requirements.

## Capital Fund

### Capital Improvement Program

Staff developed a \$6.4 million capital improvement program (CIP) for the study period. The 10-year program includes 30 different projects; Appendix A shows the full list of projects. The District's proposed program is separated into renewal and replacement, capital investment and raw water acquisition projects for assignment to respective funding sources. The CIP includes an annual inflation rate of 2.5%. Table 3 summarizes the water capital improvement program.

Table 3: Water Capital Improvement Program

Fiscal Year	Renewal and Replacement	Capital Investment	Water Resources	Total CIP
2014	\$664,322	\$63,666	\$1,667	\$729,654
2015	546,040	65,484	1,708	613,232
2016	572,929	67,121	1,751	641,801
2017	360,243	68,799	1,795	430,837
2018	467,268	70,519	1,840	539,627
2019	549,323	72,282	1,886	623,491
2020	522,235	74,089	1,933	598,257
2021	743,549	35,264	1,981	780,794
2022	975,114	36,146	2,031	1,013,291
2023	406,532	37,050	2,081	445,663
<b>Total</b>	<b>\$5,807,554</b>	<b>\$590,419</b>	<b>\$18,672</b>	<b>\$6,416,646</b>

### Capital Investment Fund

The capital investment fund tracks financial activities associated with funding growth-related capital projects. Growth-related capital improvements total \$590,419 during the study period. MWH's financial plan forecasts 100% funding from capital investment fee revenues.

Capital investment fund capital cash reserves available at the beginning of the study period total an estimated \$1.1 million.

### Raw Water Acquisition Fund

The Raw Water Acquisition subfund tracks financial activities associated with funding water resources related capital projects including water rights acquisitions. Raw Water Acquisition capital improvements total \$18,672 during the study period. MWH's financial plan forecasts 100% funding from raw water acquisition fee revenues.



Raw Water Acquisition fund cash reserves available at the beginning of the study period total an estimated \$144 thousand.

### *Renewal and Replacement Fund*

The R&R Capital subfund tracks financial activities associated with funding major non-growth capital improvements. Renewal and replacement capital improvements total \$5.8 million during the study period. MWH's financial plan forecasts 100% funding from cash reserves and operating fund transfers. MWH does not project any bond issue during the study period. If the District decides to replace the Snowball Water Treatment Plant a issuance of bonds might be necessary.

Renewal and Replacement capital cash reserves available at the beginning of the study period total an estimated \$778 thousand.

## **Rate Design**

In the development of schedules of rates for service, a basic consideration is to establish equitable charges to customers commensurate with the cost of providing service. MWH developed a rate design tool to evaluate different rate structures and customer impacts incorporating the effect of price elasticity to consumption. The designed proposed rates and structure assure the recovery the District's revenue requirement.

### **Revenue Requirements**

The total revenue requirements for the study period 2014-2023 is \$51,378,376 and consist of \$27,518,738 of operating expenses and \$23,859,638 of capital costs. These costs are projected to be met from \$39,996,600 of annualized water sales revenue, \$10,802,709, of other revenue sources and \$579,067 of operating reserves.

The 2014 Revenue requirements equal \$4,764,818 and consist of \$2,456,288 of operating expenses and \$2,308,529 of capital costs. These costs are projected to be met from \$3,473,497 of water sales revenue, \$1,037,400 of other revenue sources, and \$253,921 of operating reserves.

### **Customer Service Characteristics**

The District serves 5,416 customer accounts that represent 7,227 equivalent residential units. Of those customers accounts 87% are residential, 8% are commercial, 4% are multifamily and 1% are irrigation customers. In terms of equivalent residential units 65% are residential, 15% are commercial, 18% percent are multifamily, 1% irrigation and 1% is from District accounts.

The district billed 393 million gallons in 2012 and 373 million gallons in 2011. How that billed usage is distributed is presented on Figure 1. 76% of the total billed usage is allocated at or below 8,000 gallons which represents the District block 1 threshold. Meanwhile, about 90% of the total bills present consumption of 8,000 gallons or less. It's interesting to note that about 23% of the District total bills have zero usage. This is consistent with the fact that the district has a large number of seasonal customers (snowbirds) during the summer.

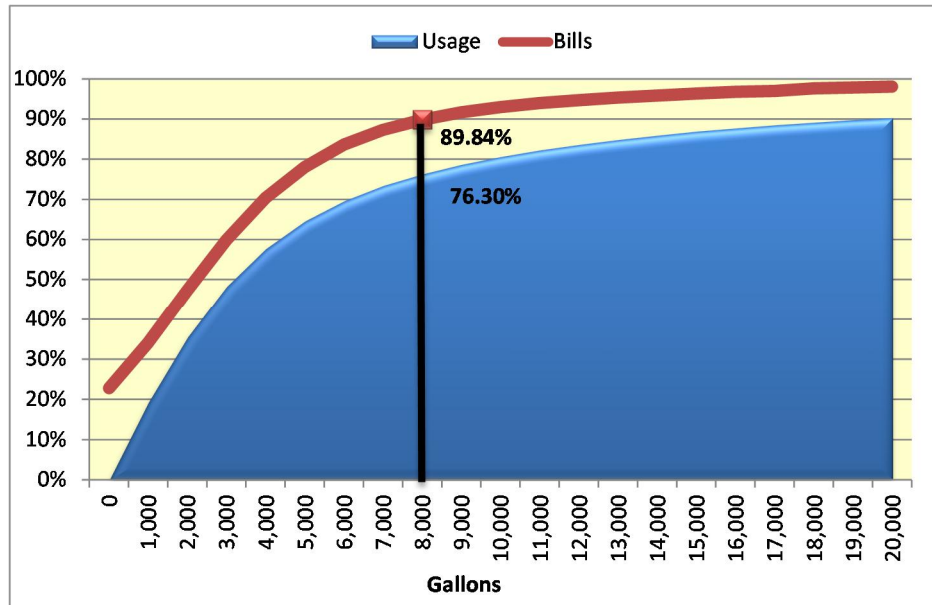


Figure 1: Water Cumulative Usage and Bill Distribution

## Existing Rates

Existing rates have been in effect since January 2011 and include a monthly Service charge and volume rate component. Existing water rates have the following structure:

- Service charge that varies by equivalent residential unit and does not include a volume allowance.
- Volume rates for all customers comprised of a 3-block increasing rate structure.

Table 4 summarizes the District's existing rate structure.

Table 4: Existing Rate Structure

Monthly Service Charge per ERU		\$14.50
<b>Volume Rates</b>		
<b>Blocks</b>	<b>Block Differential</b>	<b>Block Thresholds per ERU (gallons)</b>
Block 1	1.00	0 to 8,000
Block 2	2.00	8,000 to 20,000
Block 3	2.50	More than 20,000

## Proposed Rates

MWH developed a rate design tool to evaluate different rate structures and customer impacts incorporating the effect of price elasticity to consumption. MWH developed a new rate structure with different service charge and volume rate components.

The proposed rates for 2014 were designed to increase revenues by 4.4% as projected in MWH's financial plan.

### Service Charge

Fixed service charges recover utility billing costs; meter reading, administrative costs; and a portion of the utility fixed cost. The existing service charges represent about 38% of the total water revenues. Considering that the majority of utility's costs are fixed and the fact that the district has to invest in system capacity that is not used consistently due to the



seasonal nature of the District's customers. MWH recommends including an allowance of 2,000 gallons in the service charge which will increase the percentage of total revenues recovered through the fixed service charge to about 59% of total water revenue and will provide revenue stability to the district.

The proposed volume allowance will be a total of 2,000 and would be included for each ERU.

### Volume Charge

Proposed residential volume rates consist of a 3-block increasing rate structure. The rate for the second block is 100% greater than the first block rate. The third block rate is 250% greater than the first block rate. Table 5 compares existing and proposed residential water volume charges.

Table 5: Comparison of Existing and Proposed 2014 Water Rates

Item	Existing		Proposed	
Monthly Service Charge per ERU	\$14.50		\$23.50*	
Blocks	Block Differential	Block Thresholds per ERU (gallons)	Existing	Proposed
Block 1	1.00	2,000 to 8,000	\$4.50	\$4.22
Block 2	2.00	20,000	\$9.00	\$8.43
Block 3	2.50	>20,000	\$11.30	\$10.59

\*Proposed service charge includes a 2,000 gallons allowance per EQR

### Bill Impact

The change in rate structure will affect customers differently depending on their usage. Figure 2 summarize the dollar impact at different level of consumption for customers with 1 ERU.

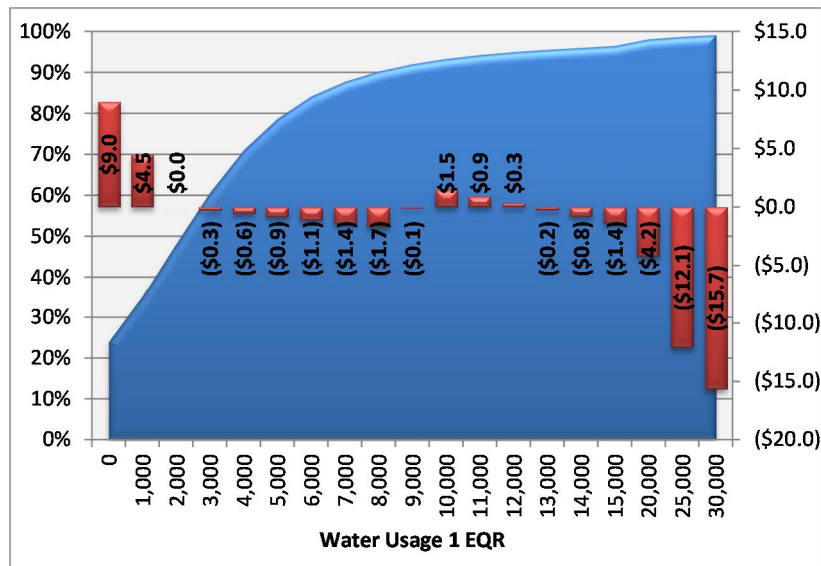


Figure 2: Proposed Rate Structure Bill Impact

With the proposed rate structure 1.7% of the customers will experience an increase greater than \$10; 23% of the customers will experience a bill increase between \$8 and \$10; other 27% will experience an increase between 0 and \$8. Meanwhile 48% will experience a bill reduction.

Because of the effect of price elasticity and the fact that 48% of the customers will experience a bill reduction MWH projects an increase in usage of 1 million gallons or about 0.3%



## Section 2

# Wastewater Rates

## Introduction

The District provides wastewater service to over 3,000 customer accounts. The District's wastewater operations and capital improvements are funded primarily from rates and capital investment fees. The District retained MWH Consulting to analyze the wastewater utility's financial status and to recommend rate adjustments, as necessary, to ensure the utility's continuing financial viability. The study included:

- Development of financial plan for the ten-year study period, 2014 through 2023; and
- Evaluate wastewater rates for 2014-2023.

## Financial Plan

MWH subdivided the Wastewater Fund into the following subfunds and developed separate financial forecasts for each of these Funds for the study period:

- Operating subfund;
- Capital Investment subfund; and
- Renewal and Replacement subfund.

Appendix B illustrates the development of the wastewater utility financial plan.

## Operating Fund

### *Reserves*

Operating cash reserves available at the beginning of the study period total an estimated \$233,846. MWH recommends the utility maintain a annual minimum operating reserve of at least 90 days of operation and maintenance expense (O&M) or approximately \$273,703.

### *Revenues*

Operating subfund revenue includes wastewater sales (from wastewater rates), late charges, wastewater hauler revenues, investment income, contributions from the General Fund and other miscellaneous sources.

Projected wastewater sales revenue is based on the existing number of customers and total equivalent residential units and projected growth in the number of ERU. Table 6 summarizes the projected number of wastewater ERU.



Table 6: Projected Number of Wastewater Equivalent Residential Units

Fiscal Year	Projected Number of ERUs	New ERUs	Growth Rate
2014	4,247	35	0.8%
2015	4,282	35	0.8%
2016	4,317	35	0.8%
2017	4,352	35	0.8%
2018	4,387	35	0.8%
2019	4,422	35	0.8%
2020	4,457	35	0.8%
2021	4,492	35	0.8%
2022	4,527	35	0.8%
2023	4,562	35	0.8%

Projected revenue reflects fiscal year 2013 budgeted revenue and anticipated system growth. Projected interest income, derived from investment of operating fund reserves, reflects an assumed annual interest rate of 0.15%.

### Revenue Requirements

Operating subfund revenue requirements include O&M, transfers to renewal and replacement fund, and debt service.

Wastewater O&M includes the cost of personnel, materials, supplies, and services to collect, treat and discharge wastewater and represents approximately 51% of projected revenue requirements during the study period. Projected O&M includes an annual inflation rate of 2.5%.

Transfers are made to the renewal and replacement capital fund to cash finance a portion of non-growth capital improvements. These transfers represent approximately 24% of projected revenue requirements during the study period.

Debt service during the study period consists of annual payments on outstanding debt obligations and represents approximately 18% of projected revenue requirements during the study period. Outstanding debt obligations include revenue bonds and loans. These debt obligations were issued for both water and wastewater capital needs. The District provided the information to identify the portion associated with financing wastewater system improvements for these projects. No debt obligations are projected during the study period to pay for capital improvements.

The Water and Wastewater Bonds and Loan Resolutions contains covenants requiring the District to:

- Maintain revenues adequate to pay current system expenses;
- Produce an aggregate amount of net revenues each year, at least equal to 1.16 times the annual debt service (weighted average debt service coverage);

These requirements support the need for targeting a debt coverage ratio of at least 1.25.

The existing bond resolutions allows the debt service coverage to be calculated with the combined revenues and expenses of the water and wastewater enterprises. MWH's wastewater financial plan was designed to maintain the target debt service coverage without the help of the combined system (using water and wastewater revenues).

### Projected Wastewater Sales Revenue Adjustments

Revenue should be sufficient to meet revenue requirements, provide required debt service coverage and maintain adequate reserves. The District implemented rate adjustments in 2011, 2012, and 2013. The financial plan indicates that no rate adjustments are needed during the study period.

MWH recommends the wastewater utility's ten-year financial plan be updated annually to reflect current estimates of revenue, operating expenses, capital improvement needs, and capital financing requirements.



## Capital Fund

Staff developed a \$6.6 million capital improvement program (CIP) for the study period. The 10-year program includes 30 different projects, Appendix B illustrates the full list of projects. The District's proposed program is separated into renewal and replacement and capital investment for assignment to respective funding sources. The CIP includes an annual inflation rate of 2.5%. Table 7 summarizes the wastewater capital improvement program.

Table 7: Wastewater Capital Improvement Program

Fiscal Year	Renewal and Replacement	Capital Investment	Total CIP
2011	\$320,552	\$382,596	\$703,149
2012	648,375	99,396	747,771
2013	549,961	50,925	600,887
2014	460,760	52,198	512,958
2015	382,428	53,503	435,932
2016	765,580	54,841	820,421
2017	817,608	85,204	902,813
2018	539,023	57,617	596,640
2019	507,417	59,058	566,475
2020	696,942	60,534	757,476
Total	\$5,688,647	\$955,874	\$6,644,521

### Capital Improvement Fund

The capital improvement subfund tracks financial activities associated with funding major growth-related capital projects. Growth-related capital improvements total \$955,874 during the study period. MWH's financial plan forecasts 100% funding of these costs will be met from capital improvement fee revenues.

Growth-related capital cash reserves available at the beginning of the study period total an estimated \$910,903.

### Renewal & Replacement

The renewal and replacement capital subfund tracks financial activities associated with funding major non-growth capital improvements. Non-growth capital improvements total \$5.7 million during the study period. MWH's financial plan forecasts 100% funding of these costs will be met from cash reserves and operating fund transfers.

## Wastewater Rates

### Revenue Requirements

The total revenue requirements for the study period 2014-2023 equal \$24,189,673 and consist of \$12,406,706 of operating expenses and \$11,782,966 of capital costs. These costs are projected to be met from \$17,047,680 of annualized wastewater revenue, \$7,109,090, of other revenue sources and \$32,903 of operating reserves.

The 2014 Revenue requirements equal \$2,170,389 and consist of \$1,110,018 of operating expenses and \$1,060,371 of capital costs. These costs are projected to be met from \$1,644,288 of wastewater revenue, and \$526,101 of other revenue sources.





## Proposed Rates

Existing rates have been in effect since January, 2013 and consist of a monthly service charge of \$32.00. Since no rate increases are necessary during the study period the wastewater rates will stay at the \$32.00 as follows:

<b>Fiscal Year</b>	<b>Wastewater Proposed Service Charge per ERU</b>	<b>Fiscal Year</b>	<b>Wastewater Proposed Service Charge per ERU</b>
2014	\$32.00	2019	\$32.00
2015	\$32.00	2020	\$32.00
2016	\$32.00	2021	\$32.00
2017	\$32.00	2022	\$32.00
2018	\$32.00	2023	\$32.00



## Appendix A

### **Water Financial Plan and Rates**

Table 1  
Pagosa Area Water and Sanitation District  
Water Rate Study  
Projected Capital Improvement Plan

Earmarked Expenditures:	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2122	FY2023	Total	Sub-Funds			Funding				
														CIF	WRF	R&R	Reserves	Grants, Transfers and Other Proceeds	Debt		
Inspection Service	63,050	61,895	61,895	61,895	61,895	61,895	61,895	61,895	61,895	61,895	61,895	61,895	61,895	803,112	0%	0%	0%	100%	100%	0%	0%
Master Plan Update	2,738	75,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	133,173	33%	33%	33%	100%	100%	0%	0%
Water Accomitability (Meter Replacement / Reprograming)	281,149	100,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	984,479	0%	0%	0%	100%	100%	0%	0%
GIS Implementation (Water 68%)	7,084	34,000	68,000											109,084	50%	0%	50%	100%	100%	0%	0%
SJWTP Internal Improvements to Treat Lake Water	611,395	2,785,800												3,482,529	0%	0%	0%	100%	100%	0%	0%
3MGD Lake Forest Pump	0	417,784												417,784	0%	0%	0%	100%	100%	0%	0%
Eagle Peak Booster SCADA	13,095	51,000												80,728	0%	0%	0%	100%	100%	0%	0%
Appropriate # of Solar Bee's in Lakes (25-years)	140,000	165,000												635,000	0%	0%	0%	100%	100%	0%	0%
New PRV Installation (7 locations)	20,883	0												20,883	0%	0%	0%	100%	100%	0%	0%
PRV Inspection/Repair/Replacement		280,000	12,000		12,000		12,000		12,000				12,000	340,000	0%	0%	0%	100%	100%	0%	0%
Meadows Tank Inspection/Repair (20-year)				150,000										150,000	0%	0%	0%	100%	100%	0%	0%
Eagle Peak Tank Increase From 30,000 to 80,000 / Repair (20-year)					150,000									150,000	0%	0%	0%	100%	100%	0%	0%
Elk Park Tank Inspection/Repair (20-year)								31,000						31,000	0%	0%	0%	100%	100%	0%	0%
Cemetery Tank Inspection/Repair (20-year)	120,156													120,156	0%	0%	0%	100%	100%	0%	0%
Elk Run Tank Inspection/Repair (20-year)				14,200										14,200	0%	0%	0%	100%	100%	0%	0%
Jenkins Pump Station Replacement (20-year)											32,000			32,000	0%	0%	0%	100%	100%	0%	0%
Mission Booster Pump Station Replacement with duplex (20-year)			65,000											65,000	0%	0%	0%	100%	100%	0%	0%
Elk Park Pump Station Replacement (20-year)													62,000	62,000	0%	0%	0%	100%	100%	0%	0%
Pat Hill 1 & 2 Pump Station Replacement (20-year)			150,000											150,000	0%	0%	0%	100%	100%	0%	0%
Terry Robinson Pump Station Replacement (20-year)				30,000										30,000	0%	0%	0%	100%	100%	0%	0%
San Juan River Pump Station Replacement (20-year)												235,000		235,000	0%	0%	0%	100%	100%	0%	0%
Trujillo Road Pump Station Replacement (20-year)													235,000	235,000	0%	0%	0%	100%	100%	0%	0%
H WTP BW Pond Cleaning		0		5,000		5,000		5,000		5,000			5,000	25,000	0%	0%	0%	100%	100%	0%	0%
San Juan WTP BW Pond Cleaning		0				0		0		2,000			2,000	2,000	0%	0%	0%	100%	100%	0%	0%
SB WTP BW Pond Cleaning		0		5,000		5,000		5,000		5,000			5,000	25,000	0%	0%	0%	100%	100%	0%	0%
San Juan WTP Media Replacement/Improvements													75,000	75,000	0%	0%	0%	100%	100%	0%	0%
Distribution System Replacement	286,310	244,772	200,000	200,000	180,000	196,000	208,000	222,000	235,000	250,000			187,000	2,746,438	0%	0%	0%	100%	100%	0%	0%
Equipment / Vehicle Replacement (Water 68%)	105,040	61,200	74,800	0	74,800	0	74,800	0	74,800	0			0	540,240	0%	0%	0%	100%	100%	0%	0%
Significant Site Maintenance (Water 68%)	0	16,000	14,960	14,960	14,960	14,960	14,960	14,960	14,960	14,960			14,960	165,600	0%	0%	0%	100%	100%	0%	0%
Connection Costs			27,999	62,220	62,220	62,220	62,220	62,220	62,220	28,000			28,000	485,319	100%	0%	0%	100%	100%	0%	0%
<b>Total CIP</b>	<b>\$1,650,901</b>	<b>\$4,292,451</b>	<b>\$729,654</b>	<b>\$598,275</b>	<b>\$610,875</b>	<b>\$400,075</b>	<b>\$488,875</b>	<b>\$551,075</b>	<b>\$515,875</b>	<b>\$656,855</b>	<b>\$831,655</b>	<b>\$356,855</b>	<b>\$12,345,726</b>								
Expected Inflation Rate	0.00%	0.00%	0.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%								
Inflation Factor	1.000	1.000	1.000	1.025	1.051	1.077	1.104	1.131	1.160	1.189	1.218	1.249									
CIF Sub-Fund	\$4,943	\$42,000	\$63,666	\$65,484	\$67,121	\$68,799	\$70,519	\$72,282	\$74,089	\$35,264	\$36,146	\$37,050	\$648,869								
WRF Sub-Fund	0	25,000	1,667	1,708	1,751	1,795	1,840	1,886	1,933	1,981	2,031	2,081	51,137								
R&R CIP	1,681,113	4,225,451	664,322	546,040	572,929	360,243	467,268	549,323	522,235	743,549	975,114	406,532	12,384,491								
Total Cash Financing CIP	1,650,901	4,292,451	729,654	613,232	641,801	430,837	539,627	623,491	598,257	780,794	1,013,291	445,663	13,022,302								
Debt Funded CIP	0	0	0	0	0	0	0	0	0	0	0	0	0								
Other Funds	0	0	0	0	0	0	0	0	0	0	0	0	0								
<b>Total</b>	<b>\$1,650,901</b>	<b>\$4,292,451</b>	<b>\$729,654</b>	<b>\$613,232</b>	<b>\$641,801</b>	<b>\$430,837</b>	<b>\$539,627</b>	<b>\$623,491</b>	<b>\$598,257</b>	<b>\$780,794</b>	<b>\$1,013,291</b>	<b>\$445,663</b>	<b>\$13,022,302</b>								



Table 4  
Pagosa Area Water and Sanitation District  
Water Rate Study  
Operation and Maintenance Cost Manual Override  
Continued

Item	Escalation Rate	Forecast Expenses for O&M									
		FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Billing and Personnel</b>											
Bad Debts											
Health Insurance											
Retirement											
Insurance - General											
Collection of Past Due Accts											
Data Processing											
Data Processing Salaries											
Payroll Exp - FICA/Unemployment											
Training											
Postage											
<b>Billing and Personnel Total</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Water Treatment</b>											
Health Insurance											
Retirement											
Insurance - General											
Operator Salaries											
Training											
Maintenance General WTP Bldgs											
Vehicle Maintenance											
Fuel & Power Hatcher WTP											
Chemicals & Lab - Hatcher Wtr Plant											
Maintenance Hatcher WTP											
Utilities Hatcher Storage											
Payroll Exp - FICA/Unemployment											
Fuel & Power Stevens WTP											
Fuel & Power Snowball WTP											
Chemicals - Snowball WTP											
Maintenance Snowball WTP											
Fuel & Power San Juan WTP											
Chemicals - San Juan WTP											
Maintenance San Juan WTP											
<b>Water Treatment Total</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Water Distribution</b>											
Health Insurance											
Uniforms											
Retirement											
Fuel & Power Mission Booster											
Fuel & Power Pump Stations											
Town Fill Station - Fuel & P											
Town Fill Station - Maint											
Insurance - General											
Interest Expense on Leases											
Trails Fill Station - Fuel & P											
Trails Fill Station - Maint											
Water Tank Maintenance											
Water Line Maintenance											
Fire Hydrant Maintenance											
Distribution Salaries											
Temporary Help											
Payroll Exp - FICA/Unemployment											
Vehicle Maintenance											
Training											
<b>Water Distribution Total</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Laboratory Service</b>											
Health Insurance											
Retirement											
Insurance - General											
Lab Supplies											
Vehicle Maintenance											
Lab Salaries											
Payroll Exp - FICA/Unemployment											
<b>Laboratory Service Total</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Maintenance</b>											
Health Insurance											
Retirement											
Insurance - General											
Operating Supplies											
Building Maintenance											
Maintenance Salaries											
Payroll Exp - FICA/Unemployment											
Utilities - Maintenance Bldg											
Vehicle Maintenance											
Equipment Maintenance											
Service Equipment											
Gasoline & Oil											
Training											
Tools and Small Equipment											
<b>Maintenance Total</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Source of Supply</b>											
Ditches											
Reservoirs											
Raw Water Line - Jackson Mt											
Raw Water Line - San Juan											
Power Trujillo Booster											
Power SJ River Booster											
Power Dutton Ditch											
<b>Source of Supply Total</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Administration</b>											
Compilation and Audit											
Employee Miscellaneous											
Health Insurance											
Retirement											
Insurance - General											
Legal Services											
Office Supplies											
Outside Services											
Publications											
Maintenance of Office Building											
Landscaping											
Administrative Salaries											
Payroll Tax /Vac/Sick Leave											
Telephone											
Utilities											
Trash Removal											
Vehicle Maintenance											
Dues and Permits											
Training											
Contributions											
Inclusion Expense											
Computer Support & Upgrades											
<b>Administration Total</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Table 5  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Existing Debt Service

Item	Subject to Coverage	Debt Service												
		Coverage	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2009 CWCB Water Revenue Bond	1	1.00	\$335,307	\$501,269	\$501,269	\$501,269	\$501,269	\$501,268	\$501,269	\$501,269	\$501,269	\$501,269	\$501,269	\$501,269
2008 Water Revenue CWRDPA	1	1.10	259,186	264,297	280,151	508,435	551,352	562,508	561,251	562,781	547,765	558,022	562,756	556,322
2006 Water Portion Of Revenue Bond	1	1.25	265,236	258,636	552,236	455,025	455,025	455,025	455,025	455,025	455,025	455,025	455,025	455,025
1998 Water Revenue Bonds	0	1.25	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>			<b>\$859,729</b>	<b>\$1,024,202</b>	<b>\$1,333,656</b>	<b>\$1,464,729</b>	<b>\$1,507,646</b>	<b>\$1,518,801</b>	<b>\$1,517,545</b>	<b>\$1,519,075</b>	<b>\$1,504,059</b>	<b>\$1,514,316</b>	<b>\$1,519,050</b>	<b>\$1,512,616</b>

Table 6  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Outstanding Debt Balance

Item	Subject to Coverage	Debt Service												
		Coverage	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2009 CWCB Water Revenue Bond	1	1.00	\$9,219,363	\$9,040,772	\$8,855,930	\$8,664,619	\$8,466,612	\$8,261,675	\$8,049,565	\$7,830,031	\$7,602,813	\$7,367,642	\$7,124,240	\$6,872,319
2008 Water Revenue CWRDPA	1	1.10	6,781,056	6,725,084	6,652,320	6,350,069	6,000,241	5,633,622	5,261,406	4,880,794	4,508,578	4,119,570	3,719,368	3,319,165
2006 Water Portion Of Revenue Bond	1	1.25	5,580,000	5,545,000	4,290,000	3,995,850	3,692,839	3,381,262	3,062,031	2,730,210	2,385,298	2,026,771	1,656,656	1,271,460
1998 Water Revenue Bonds	1	1.25	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total</b>			<b>\$21,580,419</b>	<b>\$21,310,856</b>	<b>\$19,798,250</b>	<b>\$19,010,538</b>	<b>\$18,159,693</b>	<b>\$17,276,560</b>	<b>\$16,373,002</b>	<b>\$15,441,036</b>	<b>\$14,496,690</b>	<b>\$13,513,983</b>	<b>\$12,500,264</b>	<b>\$11,462,945</b>

Table 7  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Anticipated Debt Service Subject to Coverage

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Issue Sizing</b>												
Bond Proceeds Required	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Issuance Costs	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Reserve Requirement	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Issue Size	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Debt Service Requirements</b>												
Term (Years)	20	20	20	20	20	20	20	20	20	20	20	20
Interest Rate	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%
Debt Service Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Input 1 if Half Payment on First Year	1	1	1	1	1	1	1	1	1	1	1	1
New Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Debt Service During Year	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total New Annual Debt Service</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>



Table 8  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Anticipated Debt Service Not Subject to Coverage

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Issue Sizing</b>												
Bond Proceeds Required	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Issuance Costs	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Reserve Requirement	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Issue Size	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Debt Service Requirements</b>												
Term (Years)	20	20	20	20	20	20	20	20	20	20	20	20
Interest Rate	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%
Debt Service Coverage	1	1	1	1	1	1	1	1	1	1	1	1
Input 1 if Half Payment on First Year	1	1	1	1	1	1	1	1	1	1	1	1
New Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Debt Service During Year	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total New Annual Debt Service</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Table 9  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Actual Annual Debt Service

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Current Debt Service	\$859,729	\$1,024,202	\$1,333,656	\$1,464,729	\$1,507,646	\$1,518,801	\$1,517,545	\$1,519,075	\$1,504,059	\$1,514,316	\$1,519,050	\$1,512,616
Anticipated Debt Service Subject to Coverage												
Series 2011	0	0	0	0	0	0	0	0	0	0	0	0
Series 2012	0	0	0	0	0	0	0	0	0	0	0	0
Series 2013		0	0	0	0	0	0	0	0	0	0	0
Series 2014			0	0	0	0	0	0	0	0	0	0
Series 2015				0	0	0	0	0	0	0	0	0
Series 2016					0	0	0	0	0	0	0	0
Series 2017						0	0	0	0	0	0	0
Series 2018							0	0	0	0	0	0
Series 2019								0	0	0	0	0
Series 2020									0	0	0	0
Series 2021										0	0	0
Series 2022											0	0
Series 2023												0
Total New Debt Service Subject to Coverage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Anticipated Debt Service Not Subject to Coverage												
Series 2011	0	0	0	0	0	0	0	0	0	0	0	0
Series 2012	0	0	0	0	0	0	0	0	0	0	0	0
Series 2013		0	0	0	0	0	0	0	0	0	0	0
Series 2014			0	0	0	0	0	0	0	0	0	0
Series 2015				0	0	0	0	0	0	0	0	0
Series 2016					0	0	0	0	0	0	0	0
Series 2017						0	0	0	0	0	0	0
Series 2018							0	0	0	0	0	0
Series 2019								0	0	0	0	0
Series 2020									0	0	0	0
Series 2021										0	0	0
Series 2022											0	0
Series 2023												0
Total New Debt Service not Subject to Coverage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Refinanced Debt	\$0	\$0	\$925,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Debt Service	\$859,729	\$1,024,202	\$2,258,656	\$1,464,729	\$1,507,646	\$1,518,801	\$1,517,545	\$1,519,075	\$1,504,059	\$1,514,316	\$1,519,050	\$1,512,616

Table 10  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Calculation of Debt Service Coverage (No SDF)

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Estimated Gross Revenues												
User Charge Revenues	\$3,448,595	\$3,300,000	\$3,473,497	\$3,655,874	\$3,847,574	\$4,049,067	\$4,081,266	\$4,113,466	\$4,145,665	\$4,177,864	\$4,210,064	\$4,242,263
Other Revenues	794,748	741,616	732,284	730,135	728,047	726,019	724,050	722,138	720,282	718,480	716,731	715,035
Interest Earning	2,126	2,600	1,607	1,588	1,886	2,394	3,049	3,508	3,879	4,048	3,804	3,787
Total Gross Revenues	\$4,245,469	\$4,044,216	\$4,207,389	\$4,387,596	\$4,577,508	\$4,777,481	\$4,808,366	\$4,839,112	\$4,869,826	\$4,900,393	\$4,930,599	\$4,961,084
Less: O&M	\$2,298,234	\$2,396,379	\$2,456,288	\$2,517,696	\$2,580,638	\$2,645,154	\$2,711,283	\$2,779,065	\$2,848,542	\$2,919,755	\$2,992,749	\$3,067,568
Net Revenues	\$1,947,235	\$1,647,837	\$1,751,100	\$1,869,901	\$1,996,870	\$2,132,326	\$2,097,083	\$2,060,047	\$2,021,284	\$1,980,637	\$1,937,850	\$1,893,517
Annual Debt Service	\$859,729	\$1,024,202	\$1,333,656	\$1,464,729	\$1,507,646	\$1,518,801	\$1,517,545	\$1,519,075	\$1,504,059	\$1,514,316	\$1,519,050	\$1,512,616
Coverage	2.26	1.61	1.31	1.28	1.32	1.40	1.38	1.36	1.34	1.31	1.28	1.25
Coverage Goals												
Required Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Target Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Revenue Deficit												
Required Coverage	0	0	0	0	0	0	0	0	0	0	0	0
Target Coverage	0	0	0	0	0	0	0	0	0	0	0	0

Table 11  
Pagosa Area Water and Sanitation District  
Water Rate Study  
Calculation of Debt Service Coverage (W/ CIF & WRF)

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Estimated Gross Revenues												
User Charge Revenues	\$3,448,595	\$3,300,000	\$3,473,497	\$3,655,874	\$3,847,574	\$4,049,067	\$4,081,266	\$4,113,466	\$4,145,665	\$4,177,864	\$4,210,064	\$4,242,263
Other Revenues	794,748	741,616	732,284	730,135	728,047	726,019	724,050	722,138	720,282	718,480	716,731	715,035
CIF and WRF Revenues	131,450	60,000	277,079	277,079	277,079	277,079	277,079	277,079	277,079	277,079	277,079	277,079
Interest Earning	2,126	2,600	1,607	1,588	1,886	2,394	3,049	3,508	3,879	4,048	3,804	3,787
Total Gross Revenues	\$4,376,919	\$4,104,216	\$4,484,468	\$4,664,676	\$4,854,587	\$5,054,560	\$5,085,445	\$5,116,191	\$5,146,905	\$5,177,472	\$5,207,679	\$5,238,164
Less: O&M	\$2,298,234	\$2,396,379	\$2,456,288	\$2,517,696	\$2,580,638	\$2,645,154	\$2,711,283	\$2,779,065	\$2,848,542	\$2,919,755	\$2,992,749	\$3,067,568
Net Revenues	\$2,078,685	\$1,707,837	\$2,028,180	\$2,146,980	\$2,273,949	\$2,409,406	\$2,374,162	\$2,337,126	\$2,298,363	\$2,257,717	\$2,214,930	\$2,170,596
Annual Debt Service	\$859,729	\$1,024,202	\$1,333,656	\$1,464,729	\$1,507,646	\$1,518,801	\$1,517,545	\$1,519,075	\$1,504,059	\$1,514,316	\$1,519,050	\$1,512,616
Coverage	2.42	1.67	1.52	1.47	1.51	1.59	1.56	1.54	1.53	1.49	1.46	1.43
Coverage All Debt	2.42	1.67	1.52	1.47	1.51	1.59	1.56	1.54	1.53	1.49	1.46	1.43
Coverage Goals												
Required Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Target Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Revenue Deficit												
Required Coverage	0	0	0	0	0	0	0	0	0	0	0	0
Target Coverage	0	0	0	0	0	0	0	0	0	0	0	0

Table 12  
Pagosa Area Water and Sanitation District  
Water Rate Study  
Estimated Revenues

Description	Include in Cvg Test?	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Assumptions</b>													
Rate Revenue Increases		0.00%	0.00%	4.40%	4.40%	4.40%	4.40%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Month of Rate Increase		1	1	1	1	1	1	1	1	1	1	1	1
Prorated Percent Impact of Increase		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
System Growth		0.21%	0.37%	0.82%	0.81%	0.81%	0.80%	0.80%	0.79%	0.78%	0.78%	0.77%	0.76%
Number of Equivalent Units		7,263	7,278	7,305	7,365	7,425	7,485	7,545	7,605	7,665	7,725	7,785	7,845
Growth in the Number of Equivalent Units		15	27	60	60	60	60	60	60	60	60	60	60
<b>Revenues</b>													
<i>Retail Rate Revenues:</i>													
Retail Rates Before Increases		\$3,448,595	\$3,300,000	\$3,327,105	\$3,501,795	\$3,685,416	\$3,878,417	\$4,081,266	\$4,113,466	\$4,145,665	\$4,177,864	\$4,210,064	\$4,242,263
Revenues from Current Year Increase (Prorated)		0	0	146,393	154,079	162,158	170,650	0	0	0	0	0	0
Prorated Revenues from Previous Increase		0	0	0	0	0	0	0	0	0	0	0	0
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Rate Revenue		\$3,448,595	\$3,300,000	\$3,473,497	\$3,655,874	\$3,847,574	\$4,049,067	\$4,081,266	\$4,113,466	\$4,145,665	\$4,177,864	\$4,210,064	\$4,242,263
<b>O&amp;M-Related Nonrate Revenue</b>													
Availability Charges	1	\$470,106	\$470,316	\$466,453	\$462,653	\$458,914	\$455,236	\$451,616	\$448,053	\$444,545	\$441,092	\$437,693	\$434,345
Other Water Sales	1	95,798	90,000	90,739	91,478	92,218	92,957	93,696	94,435	95,175	95,914	96,653	97,392
Irrigation Water Sales	1	49,316	40,000	40,329	40,657	40,986	41,314	41,643	41,971	42,300	42,628	42,957	43,285
Inclusion Fee	1	6,684	0	0	0	0	0	0	0	0	0	0	0
Other Interest Income	1	2,970	2,600	0	0	0	0	0	0	0	0	0	0
Interest From Cert. Treas	1	12,888	5,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Interest on Delinquent Taxes	1	1,627	1,200	500	500	500	500	500	500	500	500	500	500
Penalty & Interest Delin. Accounts	1	69,494	71,000	71,583	72,166	72,749	73,333	73,916	74,499	75,082	75,665	76,248	76,832
Current TAX Interest	1	7,026	6,500	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Other Revenues	1	60,207	55,000	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842
Gain/Loss on Investment	1	18,633	0	0	0	0	0	0	0	0	0	0	0
Bond Proceeds Interest	0	19,273	5,025	0	0	0	0	0	0	0	0	0	0
Wastewater Utility Water Usage - In regular customer billings	1	0	0	0	0	0	0	0	0	0	0	0	0
Transfer from General Fund	0	358,000	363,000	303,000	303,000	303,000	303,000	303,000	303,000	303,000	303,000	303,000	303,000
Transfer from DS - Bond INT-Transfer from SR	1	0	0	3,838	3,838	3,838	3,838	3,838	3,838	3,838	3,838	3,838	3,838
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Other O&M Revenues		\$1,172,021	\$1,109,641	\$1,035,284	\$1,033,135	\$1,031,047	\$1,029,019	\$1,027,050	\$1,025,138	\$1,023,282	\$1,021,480	\$1,019,731	\$1,018,035
Total Operating Revenues Revenue		\$4,620,616	\$4,409,641	\$4,508,781	\$4,689,008	\$4,878,622	\$5,078,086	\$5,108,316	\$5,138,604	\$5,168,947	\$5,199,344	\$5,229,795	\$5,260,298
<b>Capital-Related Nonrate Revenue</b>													
Customer Hookups		0	0	0	0	0	0	0	0	0	0	0	0
Capital Investment Fees		0	0	0	0	0	0	0	0	0	0	0	0
Tap Fee- Main Line Extension		0	0	0	0	0	0	0	0	0	0	0	0
Interest Income WRF		0	0	0	0	0	0	0	0	0	0	0	0
Water resource Fee		0	0	0	0	0	0	0	0	0	0	0	0
Raw Water Acquisition Fee		0	0	0	0	0	0	0	0	0	0	0	0
Interest Income CIF		0	0	0	0	0	0	0	0	0	0	0	0
Connection Fee		0	0	0	0	0	0	0	0	0	0	0	0
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Other Capital Nonrate Revenues		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenues		\$4,620,616	\$4,409,641	\$4,508,781	\$4,689,008	\$4,878,622	\$5,078,086	\$5,108,316	\$5,138,604	\$5,168,947	\$5,199,344	\$5,229,795	\$5,260,298

Table 13  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Calculation of Revenue Proration by Month (FY)

Month	Month	Average Revenue	Percent of Fiscal Year	Cumulative Percent Earnings	Historical Revenues Earned:			
					FY2007	FY2008	FY2009	FY2010
July	1	\$1	8%	100%	\$1	\$1	\$1	\$1
August	2	1	8%	92%	1	1	1	1
September	3	1	8%	83%	1	1	1	1
October	4	1	8%	75%	1	1	1	1
November	5	1	8%	67%	1	1	1	1
December	6	1	8%	58%	1	1	1	1
January	7	1	8%	50%	1	1	1	1
February	8	1	8%	42%	1	1	1	1
March	9	1	8%	33%	1	1	1	1
April	10	1	8%	25%	1	1	1	1
May	11	1	8%	17%	1	1	1	1
June	12	1	8%	8%	1	1	1	1
Total		\$12			\$12	\$12	\$12	\$12

Table 14  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 CIF Revenues

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Number of New EUs, total	15	27	60	60	60	60	60	60	60	60	60	60
Action Parameters												
Capital Investment Fee			\$2,659	\$2,659	\$2,659	\$2,659	\$2,659	\$2,659	\$2,659	\$2,659	\$2,659	\$2,659
Raw Water Acquisition Fee			\$1,959	\$1,959	\$1,959	\$1,959	\$1,959	\$1,959	\$1,959	\$1,959	\$1,959	\$1,959
Connection Fee			1,380	1,380	1,380	1,380	1,380	1,380	1,381	1,382	1,383	1,384
Capital Investment Fee Revenues	\$72,104	\$60,000	\$159,519	\$159,519	\$159,519	\$159,519	\$159,519	\$159,519	\$159,519	\$159,519	\$159,519	\$159,519
Water Resource Fee Revenues	59,346		117,560	117,560	117,560	117,560	117,560	117,560	117,560	117,560	117,560	117,560
Connection Fee Revenues	41,450	35,000	82,800	82,800	82,800	82,800	82,800	82,800	82,860	82,920	82,980	83,040
<b>Total CIF &amp; WRF Rev</b>	<b>\$131,450</b>	<b>\$60,000</b>	<b>\$277,079</b>	<b>\$277,079</b>	<b>\$277,079</b>	<b>\$277,079</b>	<b>\$277,079</b>	<b>\$277,079</b>	<b>\$277,079</b>	<b>\$277,079</b>	<b>\$277,079</b>	<b>\$277,079</b>

Appendix A - Pagosa Area Water and Sanitation District Water Financial Plan and Rates

Table 15  
Pagosa Area Water and Sanitation District  
Water Rate Study  
Computation of User Charge Revenue Requirement

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Expenditures</b>												
Operation and Maintenance	\$2,298,234	\$2,396,379	\$2,456,288	\$2,517,696	\$2,580,638	\$2,645,154	\$2,711,283	\$2,779,065	\$2,848,542	\$2,919,755	\$2,992,749	\$3,067,568
Capital-Related												
Transfers:												
Transfer to CIF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Transfer to WRF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Transfer to Water R&R Fund	929,718	1,997,013	0	430,910	572,929	360,243	467,268	549,323	522,235	743,549	975,114	406,532
Additional Transfer from Operating Fund	0	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	0
Lease Payments	14,775	14,775	0	0	0	0	0	0	1	2	3	4
Contingency	0	0	0	0	0	0	0	0	0	0	0	0
Debt Service Fund	859,729	1,024,202	2,258,656	1,464,729	1,507,646	1,518,801	1,517,545	1,519,075	1,504,059	1,514,316	1,519,050	1,512,616
Increase (Decrease) in Fund Balance	270,418	(1,069,568)	(253,921)	227,972	170,081	507,144	366,206	245,660	249,076	(23,067)	(302,079)	780,037
Prorated Rate Increase	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Expenditures</b>	<b>\$4,372,874</b>	<b>\$4,412,674</b>	<b>\$4,510,897</b>	<b>\$4,691,180</b>	<b>\$4,881,167</b>	<b>\$5,081,215</b>	<b>\$5,112,175</b>	<b>\$5,142,996</b>	<b>\$5,173,786</b>	<b>\$5,204,428</b>	<b>\$5,234,710</b>	<b>\$5,766,757</b>
<b>O&amp;M Non-Rate Revenues</b>												
Interest Earned - Operating Fund	\$2,126	\$2,600	\$1,607	\$1,588	\$1,886	\$2,394	\$3,049	\$3,508	\$3,879	\$4,048	\$3,804	\$3,787
Transfer from R&R Fund	0	0	0	0	0	0	0	0	0	0	0	0
Availability Charges	470,106	470,316	466,453	462,653	458,914	455,236	451,616	448,053	444,545	441,092	437,693	434,345
Other Water Sales	95,798	90,000	90,739	91,478	92,218	92,957	93,696	94,435	95,175	95,914	96,653	97,392
Irrigation Water Sales	49,316	40,000	40,329	40,657	40,986	41,314	41,643	41,971	42,300	42,628	42,957	43,285
Inclusion Fee	6,684	0	0	0	0	0	0	0	0	0	0	0
Other Interest Income	2,970	2,600	0	0	0	0	0	0	0	0	0	0
Interest From Cert. Treas	12,888	5,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Interest on Delinquent Taxes	1,627	1,200	500	500	500	500	500	500	500	500	500	500
Penalty & Interest Delin. Accounts	69,494	71,000	71,583	72,166	72,749	73,333	73,916	74,499	75,082	75,665	76,248	76,832
Current TAX Interest	7,026	6,500	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Other Revenues	60,207	55,000	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842	50,842
Gain/Loss on Investment	18,633	0	0	0	0	0	0	0	0	0	0	0
Bond Proceeds Interest	19,273	5,025	0	0	0	0	0	0	0	0	0	0
Wastewater Utility Water Usage - In regular customer billings	0	0	0	0	0	0	0	0	0	0	0	0
Transfer from General Fund	358,000	363,000	303,000	303,000	303,000	303,000	303,000	303,000	303,000	303,000	303,000	303,000
Transfer from DS - Bond INT-Transfer from SR	0	0	3,838	3,838	3,838	3,838	3,838	3,838	3,838	3,838	3,838	3,838
<b>Capital Non-Rate Revenues</b>												
Tap Fee- Main Line Extention	0	0	0	0	0	0	0	0	0	0	0	0
Transfer from Debt Service Fund	13,957	433	508	584	659	734	809	885	960	1,035	1,110	502,672
Transfer from WRF Fund	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Non-Rate Revenues</b>	<b>\$1,188,105</b>	<b>\$1,112,674</b>	<b>\$1,037,400</b>	<b>\$1,035,306</b>	<b>\$1,033,592</b>	<b>\$1,032,148</b>	<b>\$1,030,909</b>	<b>\$1,029,531</b>	<b>\$1,028,121</b>	<b>\$1,026,563</b>	<b>\$1,024,646</b>	<b>\$1,524,494</b>
<b>Revenue Required from Rates</b>	<b>\$3,184,769</b>	<b>\$3,300,000</b>	<b>\$3,473,497</b>	<b>\$3,655,874</b>	<b>\$3,847,574</b>	<b>\$4,049,067</b>	<b>\$4,081,266</b>	<b>\$4,113,466</b>	<b>\$4,145,665</b>	<b>\$4,177,864</b>	<b>\$4,210,064</b>	<b>\$4,242,263</b>



Table 16  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Annualized User Charge Revenue Requirements

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Total Revenue Requirements:</b>												
Operation & Maintenance	\$2,298,234	\$2,396,379	\$2,456,288	\$2,517,696	\$2,580,638	\$2,645,154	\$2,711,283	\$2,779,065	\$2,848,542	\$2,919,755	\$2,992,749	\$3,067,568
Capital	1,804,222	3,085,863	2,308,529	1,945,512	2,130,447	1,928,917	2,034,686	2,118,271	2,076,168	2,307,739	2,544,040	1,919,152
Total	\$4,102,456	\$5,482,242	\$4,764,818	\$4,463,208	\$4,711,085	\$4,574,071	\$4,745,969	\$4,897,336	\$4,924,709	\$5,227,495	\$5,536,789	\$4,986,719
<b>User Charge Revenue Requirements:</b>												
Operation & Maintenance	\$1,124,087	\$1,284,138	\$1,419,397	\$1,482,973	\$1,547,705	\$1,613,740	\$1,681,184	\$1,750,419	\$1,821,381	\$1,894,227	\$1,969,213	\$2,045,746
Capital	2,060,682	2,015,862	2,054,100	2,172,901	2,299,870	2,435,326	2,400,083	2,363,047	2,324,284	2,283,637	2,240,850	2,196,517
Total	\$3,184,769	\$3,300,000	\$3,473,497	\$3,655,874	\$3,847,574	\$4,049,067	\$4,081,266	\$4,113,466	\$4,145,665	\$4,177,864	\$4,210,064	\$4,242,263

Table 17  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Calculation of Minimum Operating Fund Balance

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Assumptions												
Days of O&M Expenses	90	90	90	90	90	90	90	90	91	92	93	94
Percent of Year	24.66%	24.66%	24.66%	24.66%	24.66%	24.66%	24.66%	24.66%	24.93%	25.21%	25.48%	25.75%
Minimum Balance	\$566,688	\$590,888	\$597,070	\$620,802	\$636,322	\$652,230	\$668,536	\$685,249	\$710,184	\$735,938	\$762,536	\$790,004
Override Calculation			597,070									

Table 18  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Defined Minimum Fund Balances

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Operating Fund	\$566,688	\$590,888	\$597,070	\$620,802	\$636,322	\$652,230	\$668,536	\$685,249	\$710,184	\$735,938	\$762,536	\$790,004
Debt Service Fund	\$432,936	\$483,063	\$533,190	\$583,317	\$633,444	\$683,571	\$733,698	\$783,825	\$833,952	\$884,079	\$934,206	\$432,936
CIF Fund	0	0	0	0	0	0	0	0	0	0	0	0
WRF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Water R&R Fund		778,694										
Total Combined Fund Balance Minimum	999,624	1,852,645	1,130,260	1,204,119	1,269,766	1,335,801	1,402,234	1,469,074	1,544,136	1,620,017	1,696,742	1,222,940

Appendix A - Pagosa Area Water and Sanitation District Water Financial Plan and Rates

Table 19  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Sources and Uses of Funds -- Operating Fund

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Interest Rate on Operating Fund	0.10%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
<b>Sources of Funds</b>												
Beginning Fund Balance	\$1,997,894	\$2,268,311	\$1,198,743	\$944,823	\$1,172,795	\$1,342,876	\$1,850,020	\$2,216,226	\$2,461,886	\$2,710,962	\$2,687,896	\$2,385,816
Total Revenues	4,620,616	4,409,641	4,508,781	4,689,008	4,878,622	5,078,086	5,108,316	5,138,604	5,168,947	5,199,344	5,229,795	5,260,298
Transfer from CIF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Transfer from Debt Service Fund	13,957	433	508	584	659	734	809	885	960	1,035	1,110	502,672
Transfer from WRF Fund												
Transfer from R&R Fund			0									
Interest Earnings	2,126	2,600	1,607	1,588	1,886	2,394	3,049	3,508	3,879	4,048	3,804	3,787
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Total Sources of Funds	\$6,634,593	\$6,680,986	\$5,709,640	\$5,636,003	\$6,053,962	\$6,424,091	\$6,962,195	\$7,359,222	\$7,635,672	\$7,915,390	\$7,922,605	\$8,152,573
<b>Uses of Funds</b>												
O&M Costs	\$2,298,234	\$2,396,379	\$2,456,288	\$2,517,696	\$2,580,638	\$2,645,154	\$2,711,283	\$2,779,065	\$2,848,542	\$2,919,755	\$2,992,749	\$3,067,568
<b>Transfers to:</b>												
Refinanced Bonds	0	0	0	0	0	0	0	0	0	0	0	0
Transfer to CIF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Transfer to WRF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Transfer to Water R&R Fund	929,718	1,997,013	0	430,910	572,929	360,243	467,268	549,323	522,235	743,549	975,114	406,532
Additional Transfer from Operating Fund	0	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	0
Lease Payments	14,775	14,775	0	0	0	0	0	0	1	2	3	4
Contingency												
Debt Service Fund Adjustment	859,729	1,024,202	2,258,656	1,464,729	1,507,646	1,518,801	1,517,545	1,519,075	1,504,059	1,514,316	1,519,050	1,512,616
	\$263,825											
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Ending Fund Balance	\$2,268,311	\$1,198,743	\$944,823	\$1,172,795	\$1,342,876	\$1,850,020	\$2,216,226	\$2,461,886	\$2,710,962	\$2,687,896	\$2,385,816	\$3,165,854
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Uses of Funds	\$6,634,593	\$6,680,986	\$5,709,640	\$5,636,003	\$6,053,962	\$6,424,091	\$6,962,195	\$7,359,222	\$7,635,672	\$7,915,390	\$7,922,605	\$8,152,573

Table 20  
Pagosa Area Water and Sanitation District  
Water Rate Study  
Sources and Uses of Funds -- Debt Service Fund

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Interest Rate on Debt Service Fund	0.10%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
<b>Sources of Funds</b>												
Beginning Fund Balance	\$446,150	\$432,936	\$483,063	\$533,190	\$583,317	\$633,444	\$683,571	\$733,698	\$783,825	\$833,952	\$884,079	\$934,206
Transfers from Operating Fund	859,729	1,024,202	2,258,656	1,464,729	1,507,646	1,518,801	1,517,545	1,519,075	1,504,059	1,514,316	1,519,050	1,512,616
Additional Transfer from Operating Fund	0	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	0
Interest Earnings	446	687	763	838	913	988	1,064	1,139	1,214	1,289	1,365	1,402
<b>Total Sources of Funds</b>	<b>\$1,306,326</b>	<b>\$1,507,698</b>	<b>\$2,792,355</b>	<b>\$2,048,630</b>	<b>\$2,141,749</b>	<b>\$2,203,106</b>	<b>\$2,252,052</b>	<b>\$2,303,785</b>	<b>\$2,338,971</b>	<b>\$2,399,430</b>	<b>\$2,454,366</b>	<b>\$2,448,224</b>
<b>Uses of Funds</b>												
Debt Service Payments	\$859,729	\$1,024,202	\$2,258,656	\$1,464,729	\$1,507,646	\$1,518,801	\$1,517,545	\$1,519,075	\$1,504,059	\$1,514,316	\$1,519,050	\$1,512,616
Transfer to Operating Fund Adjustment	13,957 (\$297)	433	508	584	659	734	809	885	960	1,035	1,110	502,672
<b>Ending Fund Balance</b>	<b>432,936</b>	<b>483,063</b>	<b>533,190</b>	<b>583,317</b>	<b>633,444</b>	<b>683,571</b>	<b>733,698</b>	<b>783,825</b>	<b>833,952</b>	<b>884,079</b>	<b>934,206</b>	<b>432,936</b>
<b>Total Uses of Funds</b>	<b>\$1,306,326</b>	<b>\$1,507,698</b>	<b>\$2,792,355</b>	<b>\$2,048,630</b>	<b>\$2,141,749</b>	<b>\$2,203,106</b>	<b>\$2,252,052</b>	<b>\$2,303,785</b>	<b>\$2,338,971</b>	<b>\$2,399,430</b>	<b>\$2,454,366</b>	<b>\$2,448,224</b>

Table 21  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Sources and Uses of Funds -- CIF Fund

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Interest Rate on CIF Fund	0.10%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
<b>Sources of Funds</b>												
Beginning Fund Balance	\$1,102,588	\$1,173,150	\$1,193,550	\$1,291,267	\$1,387,311	\$1,481,861	\$1,574,874	\$1,666,305	\$1,756,109	\$1,844,239	\$1,971,355	\$2,097,780
Transfer from Operating Fund - Calibrating	0	0	0	0	0	0	0	0	0	0	0	0
Other Sources	<u>more</u>											
CIF Grants, and Other Proceeds	0	0	0	0	0	0	0	0	0	0	0	0
Bond Proceeds	0	0	0	0	0	0	0	0	0	0	0	0
CIF Revenues	72,104	60,000	159,519	159,519	159,519	159,519	159,519	159,519	159,519	159,519	159,519	159,519
Interest Earnings	\$3,409	\$2,400	1,864	2,009	2,152	2,293	2,431	2,567	2,700	2,862	3,052	3,241
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Sources of Funds	\$1,178,100	\$1,235,550	\$1,354,933	\$1,452,795	\$1,548,982	\$1,643,673	\$1,736,824	\$1,828,390	\$1,918,328	\$2,006,620	\$2,133,926	\$2,260,540
<b>Uses of Funds</b>												
CIP	\$4,943	\$42,000	\$63,666	\$65,484	\$67,121	\$68,799	\$70,519	\$72,282	\$74,089	\$35,264	\$36,146	\$37,050
Bond Issuance Costs	0	0	0	0	0	0	0	0	0	0	0	0
Transfer To Operating Fund	0	0	0	0	0	0	0	0	0	0	0	0
Transfer To WRF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Transfers To R&R Fund	0	0	0	0	0	0	0	0	0	0	0	0
Adjustment	\$7											
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Ending Fund Balance	1,173,150	1,193,550	1,291,267	1,387,311	1,481,861	1,574,874	1,666,305	1,756,109	1,844,239	1,971,355	2,097,780	2,223,490
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Uses of Funds	\$1,178,100	\$1,235,550	\$1,354,933	\$1,452,795	\$1,548,982	\$1,643,673	\$1,736,824	\$1,828,390	\$1,918,328	\$2,006,620	\$2,133,926	\$2,260,540

Table 23  
Pagosa Area Water and Sanitation District  
Water Rate Study  
Sources and Uses of Funds -- R&R Fund

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Interest Rate on Water R&R Fund	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
Sources of Funds												
Beginning Fund Balance	\$3,582,311	\$3,004,295	\$778,694	\$115,043	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)	(\$0)
Transfer from Operating Fund	929,718	1,997,013	0	430,910	572,929	360,243	467,268	549,323	522,235	743,549	975,114	406,532
Transfers from CIF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Bond Proceeds	0	0	0	0	0	0	0	0	0	0	0	0
Interest Earnings	4,814	2,837	670	86	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Sources of Funds	\$4,516,842	\$5,004,145	\$779,365	\$546,040	\$572,929	\$360,243	\$467,268	\$549,323	\$522,235	\$743,549	\$975,114	\$406,532
Uses of Funds												
R&R CIP	1,681,113	4,225,451	664,322	546,040	572,929	360,243	467,268	549,323	522,235	743,549	975,114	406,532
Bond Issuance Costs	0	0	0	0	0	0	0	0	0	0	0	0
Transfer to Operating Fund												
Adjustment	(\$168,566)											
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Ending Fund Balance	3,004,295	778,694	115,043	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Uses of Funds	\$4,516,842	\$5,004,145	\$779,365	\$546,040	\$572,929	\$360,243	\$467,268	\$549,323	\$522,235	\$743,549	\$975,114	\$406,532

Table 24  
Pagosa Area Water and Sanitation District  
Water Rate Study  
Calibration Table

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Informational Items</b>												
Debt Service Coverage (w/o CIF & WRF)	2.26	1.61	1.31	1.28	1.32	1.40	1.38	1.36	1.34	1.31	1.28	1.25
Debt Service Coverage (w CIF & WRF)	2.42	1.67	1.52	1.47	1.51	1.59	1.56	1.54	1.53	1.49	1.46	1.43
Target Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Additional Funds Needed	0	0	0	0	0	0	0	0	0	0	0	0
Minimum Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Additional Funds Needed	0	0	0	0	0	0	0	0	0	0	0	0
Debt Service Coverage All Debt	2.42	1.67	1.52	1.47	1.51	1.59	1.56	1.54	1.53	1.49	1.46	1.43
Cash-Needs Revenue Requirement-- Water	3,184,769	3,300,000	3,473,497	3,655,874	3,847,574	4,049,067	4,081,266	4,113,466	4,145,665	4,177,864	4,210,064	4,242,263
Percent Increase/Decrease from Previous	1%	4%	5%	5%	5%	5%	1%	1%	1%	1%	1%	1%
<b>Ending Fund Balances</b>												
<i>Operating Fund</i>	2,268,311	1,198,743	944,823	1,172,795	1,342,876	1,850,020	2,216,226	2,461,886	2,710,962	2,687,896	2,385,816	3,165,854
Target Operating Fund Balance	566,688	590,888	597,070	620,802	636,322	652,230	668,536	685,249	710,184	735,938	762,536	790,004
Difference from Target Fund Balance	1,701,624	607,855	347,753	551,993	706,554	1,197,790	1,547,691	1,776,638	2,000,778	1,951,957	1,623,280	2,375,850
<i>Debt Service Fund</i>	432,936	483,063	533,190	583,317	633,444	683,571	733,698	783,825	833,952	884,079	934,206	432,936
Target Debt Service Fund Balance	432,936	483,063	533,190	583,317	633,444	683,571	733,698	783,825	833,952	884,079	934,206	432,936
Difference from Target Fund Balance	0	0	0	0	0	0	0	0	0	0	0	(0)
<i>CIF Fund</i>	1,173,150	1,193,550	1,291,267	1,387,311	1,481,861	1,574,874	1,666,305	1,756,109	1,844,239	1,971,355	2,097,780	2,223,490
Target CIF Fund Balance	0	0	0	0	0	0	0	0	0	0	0	0
Difference from Target Fund Balance	1,173,150	1,193,550	1,291,267	1,387,311	1,481,861	1,574,874	1,666,305	1,756,109	1,844,239	1,971,355	2,097,780	2,223,490
<i>WRF Fund</i>	168,708	144,083	260,280	376,610	493,071	609,664	726,387	843,239	960,219	1,077,326	1,194,560	1,311,919
Target WRF Fund Balance	0	0	0	0	0	0	0	0	0	0	0	0
Difference from Target Fund Balance	168,708	144,083	260,280	376,610	493,071	609,664	726,387	843,239	960,219	1,077,326	1,194,560	1,311,919
<i>Water R&amp;R Fund</i>	3,004,295	778,694	115,043	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Target Water R & D Fund Balance	0	778,694	0	0	0	0	0	0	0	0	0	0
Difference from Target Fund Balance - FY1 Only	3,004,295	(0)	115,043	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
<i>Combined Available Fund Balance</i>	6,878,693	3,654,051	2,884,323	3,143,423	3,458,181	4,108,464	4,616,229	5,001,820	5,389,153	5,543,330	5,417,802	5,822,280
Target Minimum Combined Balance	999,624	1,852,645	1,130,260	1,204,119	1,269,766	1,335,801	1,402,234	1,469,074	1,544,136	1,620,017	1,696,742	1,222,940
Fund Surplus/(Shortfall) - excludes Rate Stabilization	6,047,777	1,945,489	2,014,343	2,315,914	2,681,487	3,382,328	3,940,382	4,375,985	4,805,236	5,000,639	4,915,620	5,911,259
<b>Action Items</b>												
New Debt issued - Subject to Bond Ordinance	0	0	0	0	0	0	0	0	0	0	0	0
New Debt issued - Not Subject to Bond Ordinance	0	0	0	0	0	0	0	0	0	0	0	0
New Debt issued - Subject to Bond Ordinance For Refinance	0	0	0	0	0	0	0	0	0	0	0	0
<b>New Debt Issed Percentage by Fund</b>												
CIF Fund	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
WRF Fund	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
R&R Fund	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%
<b>Transfers:</b>												
Operating Fund to CIF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Operating Fund to WRF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Operating Fund to R&R Fund	929,718	1,997,013		430,910	572,929	360,243	467,268	549,323	522,235	743,549	975,114	406,532
Additional transfer to Debt Service Fund	0	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	49,873	0
CIF Fund to Operating Fund	0	0	0	0	0	0	0	0	0	0	0	0
CIF Fund to R&R Fund	0	0	0	0	0	0	0	0	0	0	0	0
CIF Fund to WRF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Debt Service to Operating Fund	13,957	433	508	584	659	734	809	885	960	1,035	1,110	502,672
CIF Grants, and Other Proceeds	0	0	0	0	0	0	0	0	0	0	0	0
WRF Grants and Other Proceeds	0	0	0	0	0	0	0	0	0	0	0	0
Debt Issue Early Payoff	0	0	925,000	0	0	0	0	0	0	0	0	0
Unused 6												
<b>CIP Costs</b>												
Total Cash Financing CIP	1,650,901	4,292,451	729,654	613,232	641,801	430,837	539,627	623,491	598,257	780,794	1,013,291	445,663
Debt Funded CIP	0	0	0	0	0	0	0	0	0	0	0	0
Other Funds	0	0	0	0	0	0	0	0	0	0	0	0
<b>Rate Revenue Increase</b>												
Target Rate Increase	0.0%	0.0%	4.4%	4.4%	4.4%	4.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Performance Factors &amp; Goals</b>												
Difference in Target Fund Balances	6,047,777	1,945,489	2,014,343	2,315,914	2,681,487	3,382,328	3,940,382	4,375,985	4,805,236	5,000,639	4,915,620	5,911,259
Difference in Rate Target	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Average Rate per Unit	\$36.54	\$37.79	\$39.62	\$41.37	\$43.18	\$45.08	\$45.08	\$45.07	\$45.07	\$45.07	\$45.07	\$45.06
Total Cumulative Revenue Increase	0.00%	0.00%	4.40%	8.99%	13.79%	18.80%	18.80%	18.80%	18.80%	18.80%	18.80%	18.80%
Debt Issues Early Payoff	2,012	2,013	2,014	2,015	2,016	2,017	2,018	2,019				2,020
2009 CWCB Water Revenue Bond	0	0	0	0	0	0	0	0	0	0	0	0
2008 Water Revenue CWRDPA	0	0	0	0	0	0	0	0	0	0	0	0
2006 Water Portion Of Revenue Bond	0	0	0	0	0	0	0	0	0	0	0	0
1998 Water Revenue Bonds	0	0	0	0	0	0	0	0	0	0	0	0



Table 25  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Proposed Volume-Based Water Rates  
 (\$ per 1,000 Gallons)

Item	Block Thresholds	Block Differential	Block Percentage	FY2014	FY2015	FY2016	FY2017	FY2018
User Charge Revenue Requirement				\$3,473,497	\$3,655,874	\$3,847,574	\$4,049,067	\$4,081,266
% of User Charge Allocated to Service Charge			35.97%	58.77%	58.77%	58.77%	58.77%	58.77%
Service Charge Revenue Requirement				\$2,041,478	\$2,148,666	\$2,261,334	\$2,379,757	\$2,398,682
Monthly Service Charge per ERU			\$14.50	\$23.50	\$24.53	\$25.73	\$26.86	\$26.86
Percentage Increase				62.07%	4.38%	4.89%	4.39%	0.00%
Volumetric Rate								
Block 1	2,000-8,000	1.00	64.15%	\$4.22	\$4.40	\$4.59	\$4.80	\$4.80
Block 2	20,000	2.00	16.14%	8.43	8.80	9.18	9.60	9.60
Block 3	>20000	2.51	19.71%	10.59	11.05	11.53	12.05	12.05
Average Rate				\$3.96	\$4.14	\$4.32	\$4.51	\$4.51

Appendix A - Pagosa Area Water and Sanitation District Water Financial Plan and Rates

Table 26  
 Pagosa Area Water and Sanitation District  
 Water Rate Study  
 Revenues Volume-Based Water Rates  
 (\$ per 1,000 Gallons)

Item	FY2011	FY2012	FY2013	FY2014	FY2015
Total Usage	361,341	364,285	367,228	370,172	373,116
Service Charge	\$2,041,398	\$2,148,231	\$2,261,682	\$2,379,935	\$2,398,861
Block 1	629,604	662,435	696,624	734,336	740,175
Block 2	316,744	333,261	350,461	369,433	372,371
Block 3	485,929	511,167	537,682	566,436	570,940
Total Revenues	\$3,473,675	\$3,655,094	\$3,846,449	\$4,050,139	\$4,082,347
Revenue Requirements	\$3,473,497	\$3,655,874	\$3,847,574	\$4,049,067	\$4,081,266
Difference	\$178	(\$779)	(\$1,126)	\$1,072	\$1,081
Percentage of Revenues by Component					
Service Charge	58.77%	58.77%	58.80%	58.76%	58.76%
Block 1	18.13%	18.12%	18.11%	18.13%	18.13%
Block 2	9.12%	9.12%	9.11%	9.12%	9.12%
Block 3	13.99%	13.99%	13.98%	13.99%	13.99%
	100.00%	100.00%	100.00%	100.00%	100.00%

Appendix A - Pagosa Area Water and Sanitation District Water Financial Plan and Rates

Table 26

Pagosa Area Water and Sanitation District  
Water Rate Study

Bill frequency Percentages

Usage per Equivalent Unit	Cummulative % of Usage per Block	Cummulative % of Usage Bills Block
0	0.0%	22.8%
1,000	19.3%	34.1%
2,000	35.5%	47.3%
3,000	48.2%	59.9%
4,000	57.7%	70.4%
5,000	64.6%	78.1%
6,000	69.6%	83.6%
7,000	73.4%	87.3%
8,000	76.3%	89.8%
9,000	78.6%	91.7%
10,000	80.6%	93.0%
11,000	82.2%	94.0%
12,000	83.6%	94.7%
13,000	84.8%	95.3%
14,000	85.9%	95.8%
15,000	86.9%	96.3%
16,000	87.7%	96.7%
17,000	88.5%	97.0%
18,000	89.1%	97.6%
19,000	89.7%	97.8%
20,000	90.3%	98.0%
21,000	90.7%	98.2%
22,000	91.2%	98.3%
23,000	91.6%	98.5%
24,000	92.0%	98.6%
25,000	92.3%	98.7%
26,000	92.6%	98.7%
27,000	92.9%	98.8%
28,000	93.2%	98.9%
29,000	93.5%	99.0%
30,000	93.7%	99.1%
31,000	94.0%	99.1%
32,000	94.2%	99.2%
33,000	94.4%	99.2%
34,000	94.6%	99.3%
35,000	94.7%	99.4%
36,000	94.9%	99.4%
37,000	95.1%	99.4%
38,000	95.2%	99.5%
39,000	95.3%	99.5%
40,000	95.5%	99.5%
41,000	95.6%	99.5%
42,000	95.7%	99.5%
43,000	95.8%	99.6%
44,000	95.9%	99.6%
45,000	96.0%	99.6%
46,000	96.1%	99.6%
707,000	100.0%	100.0%



## Appendix B

### **Wastewater Financial Plan**

Table 1  
Pagosa Area Water and Sanitation District  
Wastewater Rate Study  
Projected Capital Improvement Plan

Earmarked Expenditures:	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	Total	Sub-Funds		Funding Grants, Transfers and Other Proceeds			
														CIF	R&R	Reserves	Debt		
Inspection Services	29,716	29,150	30,383	30,383	30,383	30,383	30,383	30,383	30,383	30,383	30,383	30,383	30,383	394,222	0%	100%	100%	0%	0%
Master Plan Update	0	0	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	53,340	25%	75%	100%	0%	0%
Hydraulic Modeling	0	50,000	50,000	50,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	179,782	50%	50%	100%	0%	0%
Flow Monitoring	0	0	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	125,000	0%	100%	100%	0%	0%
Infiltration/Inflow Evaluation	0	0	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	25,000	0%	100%	100%	0%	0%
CDPS Permit Review and Negotiations	0	0	0	0	0	25,000	0	0	0	0	0	25,000	0	50,000	0%	100%	100%	0%	0%
GIS Implementation	3,274	16,000	32,000	0	0	0	0	0	0	0	0	0	0	51,274	0%	100%	100%	0%	0%
<b>Vista System</b>														0	0%	100%	100%	0%	0%
8-inch Gravity Pipe	203,611	0	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	175,000	2,013,082	25%	75%	100%	0%	0%
10-inch Gravity Pipe	0	0	16,190	16,190	16,190	16,190	16,190	16,190	16,190	16,190	16,190	16,190	16,190	161,904	0%	100%	100%	0%	0%
12-inch Gravity Pipe	0	0	3,724	3,724	3,724	3,724	3,724	3,724	3,724	3,724	3,724	3,724	3,724	37,238	25%	75%	100%	0%	0%
15-inch Gravity Pipe	0	0	2,508	2,508	2,508	2,508	2,508	2,508	2,508	2,508	2,508	2,508	2,508	25,077	0%	100%	100%	0%	0%
24-inch Gravity Pipe	0	0	599	599	599	599	599	599	599	599	599	599	599	5,985	50%	50%	100%	0%	0%
4-inch Force Main	0	0	3,699	3,699	3,699	3,699	3,699	3,699	3,699	3,699	3,699	3,699	3,699	36,999	0%	100%	100%	0%	0%
6-inch Force Main	0	0	21,463	21,463	21,463	21,463	21,463	21,463	21,463	21,463	21,463	21,463	21,463	214,630	0%	100%	100%	0%	0%
8-inch Force Main	0	0	2,965	2,965	2,965	2,965	2,965	2,965	2,965	2,965	2,965	2,965	2,965	29,650	25%	75%	100%	0%	0%
4-foot Diameter Manholes	0	0	106,400	75,000	75,000	106,400	75,000	75,000	106,400	75,000	75,000	75,000	106,400	875,600	0%	100%	100%	0%	0%
Lift Station Improvements Summary	0	0	125,000	100,000	125,000	25,000	0	250,000	0	100,000	0	100,000	100,000	825,000	0%	100%	100%	0%	0%
Infiltration and Inflow Repair	0	0	8,547	8,547	8,547	8,547	8,547	8,547	8,547	8,547	8,547	8,547	8,547	85,469	0%	100%	100%	0%	0%
<b>Highlands System</b>														0	0%	100%	100%	0%	0%
8-inch Gravity Pipe	0	0	0	100,000	0	0	0	0	100,000	0	0	0	0	200,000	25%	75%	100%	0%	0%
10-inch Gravity Pipe	0	0	0	0	0	0	0	0	5,160	0	0	0	0	5,160	0%	100%	100%	0%	0%
6-inch Force Main	0	0	0	0	0	0	0	0	55,000	0	0	0	0	55,000	0%	100%	100%	0%	0%
4-foot Diameter Manholes	0	0	0	87,600	0	0	0	0	42,000	0	0	0	0	129,600	0%	100%	100%	0%	0%
Lift Station No. 10	0	0	0	0	0	0	0	0	150,000	0	0	0	0	150,000	0%	100%	100%	0%	0%
Infiltration and Inflow Repair	0	0	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	1,855	18,553	0%	100%	100%	0%	0%
<b>Highlands Vista Connector</b>														0	0%	100%	100%	0%	0%
Engineering	0	80,000	0	0	0	0	0	0	0	0	0	0	0	80,000	50%	50%	100%	0%	0%
Equipment Replacement Allowance	0	0	30,000	30,000	75,000	30,000	30,000	75,000	30,000	30,000	75,000	75,000	75,000	480,000	0%	100%	100%	0%	0%
SCADA System Improvements/Replacement	0	24,000	0	0	7,000	0	0	0	0	7,000	0	0	0	38,000	0%	100%	100%	0%	0%
Equipment / Vehicle Replacement (32%)	75,098	173,800	35,200	0	0	0	0	35,200	0	0	0	0	35,200	354,498	0%	100%	100%	0%	0%
PSSGID Sewer Project	108,076	1,863,750	621,250	0	0	0	0	0	0	0	0	0	0	2,593,076	50%	50%	100%	0%	0%
Highlands Lagoon project - overage alloc to cif	272,343													272,343	0%	100%	0%	100%	0%
Adjustment to R&R			(583,635)											(583,635)	0%	100%	100%	0%	0%
<b>Total CIP</b>	<b>\$692,117</b>	<b>\$2,236,700</b>	<b>\$703,149</b>	<b>\$729,533</b>	<b>\$571,933</b>	<b>\$476,333</b>	<b>\$394,933</b>	<b>\$725,133</b>	<b>\$778,493</b>	<b>\$501,933</b>	<b>\$464,933</b>	<b>\$606,533</b>	<b>\$8,981,838</b>						
Expected Inflation Rate	0.00%	0.00%	0.00%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%						
Inflation Factor	1.000	1.000	1.000	1.025	1.051	1.077	1.104	1.131	1.160	1.189	1.218	1.249							
CIF CIP	\$326,381	\$996,875	\$382,596	\$99,396	\$50,925	\$52,198	\$53,503	\$54,841	\$85,204	\$57,617	\$59,058	\$60,534	\$2,283,770						
R&R CIP	365,736	1,239,825	320,552	648,375	549,961	460,760	382,428	765,580	817,608	539,023	507,417	696,942	7,391,488						
<b>Total Cash Financing CIP</b>	<b>\$692,117</b>	<b>\$2,236,700</b>	<b>\$703,149</b>	<b>\$747,771</b>	<b>\$600,887</b>	<b>\$512,958</b>	<b>\$435,932</b>	<b>\$820,421</b>	<b>\$902,813</b>	<b>\$596,640</b>	<b>\$566,475</b>	<b>\$757,476</b>	<b>\$9,673,457</b>						
Debt Funded CIP	0	0	0	0	0	0	0	0	0	0	0	0	0						
Other Funds	0	0	0	0	0	0	0	0	0	0	0	0	0						
<b>Total with Inflation</b>	<b>\$692,117</b>	<b>\$2,236,700</b>	<b>\$703,149</b>	<b>\$747,771</b>	<b>\$600,887</b>	<b>\$512,958</b>	<b>\$435,932</b>	<b>\$820,421</b>	<b>\$902,813</b>	<b>\$596,640</b>	<b>\$566,475</b>	<b>\$757,476</b>	<b>\$9,673,457</b>						

Table 3  
Pagosa Area Water and Sanitation District  
Wastewater Rate Study  
Projected Annual Operation and Maintenance Costs  
Continued

Item	Escalation Rate	Forecast Expenses for O&M											
		FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Wastewater Collection</b>													
Health Insurance	2.50%	\$30,742	\$26,834	\$27,505	\$28,192	\$28,897	\$29,620	\$30,360	\$31,119	\$31,897	\$32,695	\$33,512	\$34,350
Uniforms	2.50%	2,957	3,838	3,934	4,032	4,133	4,236	4,342	4,451	4,562	4,676	4,793	4,913
Retirement	2.50%	7,381	6,491	6,653	6,820	6,990	7,165	7,344	7,528	7,716	7,909	8,106	8,309
Fuel & Power Lift Stations	2.50%	42,255	53,000	54,325	55,683	57,075	58,502	59,965	61,464	63,000	64,575	66,190	67,844
Insurance - General	2.50%	2,290	2,100	2,153	2,206	2,261	2,318	2,376	2,435	2,496	2,559	2,623	2,688
Interest Expense on Leases	2.50%	1,382	318	326	334	342	351	360	369	378	387	397	407
Wastewater Line Maint / Repair	2.50%	48,219	62,250	63,806	65,401	67,036	68,712	70,430	72,191	73,996	75,846	77,742	79,685
Gen. & Pumps Lift Stations	2.50%	7,081	10,000	10,250	10,506	10,769	11,038	11,314	11,597	11,887	12,184	12,489	12,801
Collection Salaries	2.50%	142,577	115,243	118,124	121,077	124,104	127,207	130,387	133,647	136,988	140,412	143,923	147,521
Temporary Help	2.50%	1,446	2,750	2,819	2,889	2,961	3,035	3,111	3,189	3,269	3,351	3,434	3,520
Payroll Exp - FICA/Unemplmnt	2.50%	9,999	8,240	8,446	8,657	8,874	9,095	9,323	9,556	9,795	10,040	10,291	10,548
Vehicle Maintenance	2.50%	5,749	2,640	2,706	2,774	2,843	2,914	2,987	3,062	3,138	3,217	3,297	3,379
Training	2.50%	1,391	3,102	3,180	3,259	3,341	3,424	3,510	3,597	3,687	3,779	3,874	3,971
<b>Wastewater Collection Total</b>		<b>\$303,469</b>	<b>\$296,806</b>	<b>\$304,226</b>	<b>\$311,832</b>	<b>\$319,628</b>	<b>\$327,618</b>	<b>\$335,809</b>	<b>\$344,204</b>	<b>\$352,809</b>	<b>\$361,629</b>	<b>\$370,670</b>	<b>\$379,937</b>
<b>Wastewater Treatment</b>													
Health Insurance	2.50%	\$6,756	\$17,742	\$18,186	\$18,640	\$19,106	\$19,584	\$20,073	\$20,575	\$21,090	\$21,617	\$22,157	\$22,711
Retirement	2.50%	2,045	4,257	4,363	4,473	4,584	4,699	4,816	4,937	5,060	5,187	5,316	5,449
Insurance - General	2.50%	609	1,380	1,415	1,450	1,486	1,523	1,561	1,600	1,640	1,681	1,723	1,767
Lab Supply & Testing	0	0	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000	16,000
Fuel & Power & Water Vista WWTP	2.50%	176,912	217,500	222,938	228,511	234,224	240,079	246,081	252,233	258,539	265,003	271,628	278,418
Maintenance Vista WWTP	2.50%	23,576	26,500	27,163	27,842	28,538	29,251	29,982	30,732	31,500	32,288	33,095	33,922
Sludge Removal/Processing	2.50%	35,188	25,000	25,625	26,266	26,922	27,595	28,285	28,992	29,717	30,460	31,222	32,002
Operator Salaries	2.50%	37,723	82,623	84,689	86,806	88,976	91,200	93,480	95,817	98,213	100,668	103,185	105,764
Payroll Exp - FICA/Unemplmnt	2.50%	3,077	6,115	6,268	6,425	6,585	6,750	6,919	7,092	7,269	7,451	7,637	7,828
Building Maintenance Vista	2.50%	0	0	0	0	0	0	0	0	0	0	0	0
Fuel & Power Highlands Lagoon	2.50%	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Maintenance	2.50%	145	1,760	1,804	1,849	1,895	1,943	1,991	2,041	2,092	2,144	2,198	2,253
Training	2.50%	205	2,138	2,191	2,246	2,302	2,360	2,419	2,479	2,541	2,605	2,670	2,737
<b>Wastewater Treatment Total</b>		<b>\$286,236</b>	<b>\$401,015</b>	<b>\$410,640</b>	<b>\$420,506</b>	<b>\$430,619</b>	<b>\$440,985</b>	<b>\$451,609</b>	<b>\$462,499</b>	<b>\$473,662</b>	<b>\$485,103</b>	<b>\$496,831</b>	<b>\$508,852</b>
<b>Maintenance Department</b>													
Health Insurance	2.50%	\$3,380	\$3,756	\$3,850	\$3,946	\$4,045	\$4,146	\$4,250	\$4,356	\$4,465	\$4,576	\$4,691	\$4,808
Retirement	2.50%	1,044	1,043	1,069	1,096	1,123	1,151	1,180	1,210	1,240	1,271	1,303	1,335
Insurance - General	2.50%	291	340	349	357	366	375	384	394	404	414	425	435
Operating Supplies	2.50%	6,918	7,000	7,175	7,354	7,538	7,727	7,920	8,118	8,321	8,529	8,742	8,961
Building Maintenance	2.50%	3,965	2,560	2,624	2,690	2,757	2,826	2,896	2,969	3,043	3,119	3,197	3,277
Maintenance Salaries	2.50%	17,563	17,398	17,833	18,279	18,736	19,204	19,684	20,176	20,681	21,198	21,728	22,271
Payroll Exp - FICA/Unemplmnt	2.50%	1,310	1,280	1,312	1,345	1,378	1,413	1,448	1,484	1,522	1,560	1,599	1,639
Utilities - Maintenance Bldg	2.50%	1,479	1,500	1,538	1,576	1,615	1,656	1,697	1,740	1,783	1,828	1,873	1,920
Vehicle Maintenance	2.50%	718	352	361	370	379	388	398	408	418	429	440	451
Equipment Maintenance	2.50%	2,477	2,300	2,358	2,416	2,477	2,539	2,602	2,667	2,734	2,802	2,872	2,944
Gasoline & Oil	2.50%	26,352	28,000	28,700	29,418	30,153	30,907	31,679	32,471	33,283	34,115	34,968	35,842
Training	2.50%	0	0	0	0	0	0	0	0	0	0	0	0
Tools and Small Equipment	2.50%	1,483	8,032	8,233	8,439	8,650	8,866	9,087	9,315	9,548	9,786	10,031	10,282
<b>Maintenance Department Total</b>		<b>\$66,980</b>	<b>\$73,561</b>	<b>\$75,400</b>	<b>\$77,285</b>	<b>\$79,217</b>	<b>\$81,198</b>	<b>\$83,228</b>	<b>\$85,308</b>	<b>\$87,441</b>	<b>\$89,627</b>	<b>\$91,868</b>	<b>\$94,164</b>
<b>Laboratory Service</b>													
Health Insurance	2.50%	\$7,966	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Retirement	2.50%	2,396	0	0	0	0	0	0	0	0	0	0	0
Insurance - General	2.50%	734	0	0	0	0	0	0	0	0	0	0	0
Lab Supplies	2.50%	16,232	0	0	0	0	0	0	0	0	0	0	0
Lab Salaries	2.50%	46,038	0	0	0	0	0	0	0	0	0	0	0
Payroll Exp - FICA/Unemplmnt	2.50%	3,523	0	0	0	0	0	0	0	0	0	0	0
Vehicle Maintenance	2.50%	0	0	0	0	0	0	0	0	0	0	0	0
<b>Laboratory Service Total</b>		<b>\$76,889</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>
<b>Billing</b>													
Bad Debts	2.50%	\$72,523	\$43,000	\$44,075	\$45,177	\$46,306	\$47,464	\$48,651	\$49,867	\$51,113	\$52,391	\$53,701	\$55,044
Health Insurance	2.50%	13,302	15,822	16,218	16,623	17,039	17,465	17,901	18,349	18,807	19,278	19,760	20,253
Retirement	2.50%	2,961	2,830	2,901	2,973	3,048	3,124	3,202	3,282	3,364	3,448	3,534	3,623
Insurance - General	2.50%	64	70	72	74	75	77	79	81	83	85	87	90
Collection of Past Due Accts	2.50%	87	300	308	315	323	331	339	348	357	366	375	384
Data Processing	2.50%	8,058	10,500	11,032	11,307	11,590	11,880	12,177	12,481	12,793	13,113	13,441	13,777
Data Processing Salaries	2.50%	51,884	47,448	48,634	49,850	51,096	52,374	53,683	55,025	56,401	57,811	59,256	60,737
Payroll Exp - FICA/Unemplmnt	2.50%	3,672	3,205	3,285	3,367	3,451	3,538	3,626	3,717	3,810	3,905	4,003	4,103
Training	2.50%	205	1,124	1,152	1,181	1,210	1,241	1,272	1,303	1,336	1,369	1,404	1,439
Postage	2.50%	10,694	12,000	12,300	12,608	12,923	13,246	13,577	13,916	14,264	14,621	14,986	15,361
<b>Billing Total</b>		<b>163,449</b>	<b>136,299</b>	<b>139,706</b>	<b>143,199</b>	<b>146,779</b>	<b>150,449</b>	<b>154,210</b>	<b>158,065</b>	<b>162,017</b>	<b>166,067</b>	<b>170,219</b>	<b>174,474</b>
<b>Administration</b>													
Audit	2.50%	\$1,858	\$1,600	\$1,640	\$1,681	\$1,723	\$1,766	\$1,810	\$1,856	\$1,902	\$1,949	\$1,998	\$2,048
Employee Miscellaneous	2.50%	1,208	1,312	1,345	1,378	1,413	1,448	1,484	1,522	1,560	1,599	1,639	1,679
Health Insurance	2.50%	7,436	10,235	10,491	10,753	11,022	11,298	11,580	11,869	12,166	12,470	12,782	13,102
Retirement	2.50%	3,712	4,657	4,773	4,893	5,015	5,140	5,269	5,401	5,536	5,674	5,816	5,961
Insurance - General	2.50%	21,840	20,100	20,603	21,118	21,646	22,187	22,741	23,310	23,893	24,490	25,102	25,730
Legal Services	2.50%	584	1,600	1,640	1,681	1,723	1,766	1,810	1,856	1,902	1,949	1,998	2,048
Office Supplies	2.50%	6,509	6,880	7,052	7,228	7,409	7,594	7,784	7,979	8,178	8,383	8,592	8,807
Outside Services	2.50%	201	5,600	5,740	5,884	6,031	6,181	6,336	6,494	6,657	6,823	6,994	7,168
Publications	2.50%	979	1,200	1,230	1,261	1,292	1,325	1,358	1,392	1,426	1,462	1,499	1,536
Maintenance of Office Building	2.50%	3,060	3,200	3,280	3,362	3,446	3,532	3,621	3,711	3,804	3,899	3,996	4,096
Landscaping	2.50%	780	1,632	1,673	1,715	1,757	1,801	1,846	1,893	1,940	1,988	2,038	2,089
Administrative Salaries	2.50%	75,583	79,876	81,873	83,920	86,018	88,168	90,372	92,632	94,947	97,321	99,754	102,248
Payroll Tax/Vac/Sick Leave	2.50%	3,716	5,815	5,960	6,109	6,262	6,419	6,579	6,744	6,912	7,085	7,262	7,444
Telephone	2.50%	3,693	3,200	3,280	3,362	3,446	3,532	3,621	3,711	3,804	3,899	3,996	4,096
Utilities	2.50%	1,547	2,10										

Table 4  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Operation and Maintenance Cost Manual Override  
 Continued

Item	Escalation Rate	Forecast Expenses for O&M									
		FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Wastewater Collection</b>											
Health Insurance											
Uniforms											
Retirement											
Fuel & Power Lift Stations											
Insurance - General											
Interest Expense on Leases											
Wastewater Line Maint / Repair											
Gen. & Pumps Lift Stations											
Collection Salaries											
Temporary Help											
Payroll Exp - FICA/Unemploymnt											
Vehicle Maintenance											
Training											
Wastewater Collection Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Wastewater Treatment</b>											
Health Insurance											
Retirement											
Insurance - General											
Lab Supply & Testing											
Fuel & Power & Water Vista WWTP											
Maintenance Vista WWTP											
Sludge Removal/Processing											
Operator Salaries											
Payroll Exp - FICA/Unemploymnt											
Building Maintenance Vista											
Fuel & Power Highlands Lagoon											
Vehicle Maintenance											
Highlands Lagoon Maintenance											
Training											
Wastewater Treatment Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Maintenance Department</b>											
Health Insurance											
Retirement											
Insurance - General											
Operating Supplies											
Building Maintenance											
Maintenance Salaries											
Payroll Exp - FICA/Unemploymnt											
Utilities - Maintenance Bldg											
Vehicle Maintenance											
Equipment Maintenance											
Service Equipment											
Gasoline & Oil											
Training											
Tools and Small Equipment											
0											
Maintenance Department Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Laboratory Service</b>											
Health Insurance											
Retirement											
Insurance - General											
Lab Supplies											
Lab Salaries											
Payroll Exp - FICA/Unemploymnt											
Vehicle Maintenance											
Laboratory Service Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Billing</b>											
Bad Debts											
Health Insurance											
Retirement											
Insurance - General											
Collection of Past Due Accts											
Data Processing											
Data Processing Salaries											
Payroll Exp - FICA/Unemploymnt											
Training											
Postage											
Billing Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Administration</b>											
Audit											
Employee Miscellaneous											
Health Insurance											
Retirement											
Insurance - General											
Legal Services											
Office Supplies											
Outside Services											
Publications											
Maintenance of Office Building											
Landscaping											
Administrative Salaries											
Payroll Tax/Vac/Sick Leave											
Telephone											
Utilities											
Trash Removal											
Vehicle Maintenance											
Dues and Permits											
Training											
Contributions											
Inclusion Expense											
Computer Support & Upgrades											
Administration Total		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Table 5  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Existing Debt Service

Item	Subject to Coverage	Debt Service Coverage	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2006 Refunding Bonds	1	1.25	\$277,675	\$277,875	\$282,675	\$51,875	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2009 Wastewater Revenue CWRDPA (ARRA)	1	1.10	351,827	351,827	351,827	351,827	351,827	351,827	351,827	351,828	351,827	351,827	351,827	351,827
2009 ARRA Base Loan	1	1.10	48,827	48,827	48,827	48,827	48,827	48,827	48,827	48,827	48,827	48,827	48,827	48,827
<b>Total</b>			<b>\$678,329</b>	<b>\$678,529</b>	<b>\$683,329</b>	<b>\$452,529</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,655</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,654</b>



Table 6  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Outstanding Debt Service

Item	Subject to Coverage	Debt Service Coverage	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
2006 Refunding Bonds	1	1.25	\$575,000	\$320,000	\$50,000	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2009 Wastewater Revenue CWRDPA (ARRA)	1	1.10	6,332,887	5,981,060	5,629,233	5,277,406	4,925,579	4,573,752	4,221,925	3,870,097	3,518,270	3,166,443	2,814,616	2,462,789
2009 ARRA Base Loan	1	1.10	878,877	830,051	781,224	732,398	683,571	634,745	585,918	537,092	488,265	439,439	390,612	341,786
<b>Total</b>			<b>\$7,786,764</b>	<b>\$7,131,111</b>	<b>\$6,460,457</b>	<b>\$6,009,804</b>	<b>\$5,609,150</b>	<b>\$5,208,497</b>	<b>\$4,807,843</b>	<b>\$4,407,189</b>	<b>\$4,006,535</b>	<b>\$3,605,882</b>	<b>\$3,205,228</b>	<b>\$2,804,575</b>

Table 7  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Anticipated Debt Service Subject to Coverage

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Issue Sizing</b>												
Bond Proceeds Required	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Issuance Costs	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Reserve Requirement	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Issue Size	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Debt Service Requirements</b>												
Term (Years)	20	20	20	20	20	20	20	20	20	20	20	20
Interest Rate	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%
Debt Service Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Input 1 if Half Payment on First Year	1	1	1	1	1	1	1	1	1	1	1	1
New Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Debt Service During Year	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total New Annual Debt Service</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Table 8  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Anticipated Debt Service Not Subject to Coverage

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Issue Sizing</b>												
Bond Proceeds Required	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Issuance Costs	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Reserve Requirement	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%	5.00%
Issue Size	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Debt Service Requirements</b>												
Term (Years)	20	20	20	20	20	20	20	20	20	20	20	20
Interest Rate	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%	3.75%
Debt Service Coverage	1	1	1	1	1	1	1	1	1	1	1	1
Input 1 if Half Payment on First Year	1	1	1	1	1	1	1	1	1	1	1	1
New Debt Service	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
New Debt Service During Year	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total New Annual Debt Service</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>

Table 9  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Actual Annual Debt Service

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Current Debt Service	\$678,329	\$678,529	\$683,329	\$452,529	\$400,654	\$400,654	\$400,654	\$400,655	\$400,654	\$400,654	\$400,654	\$400,654
Anticipated Debt Service Subject to Coverage												
Series 2011	0	0	0	0	0	0	0	0	0	0	0	0
Series 2012	0	0	0	0	0	0	0	0	0	0	0	0
Series 2013		0	0	0	0	0	0	0	0	0	0	0
Series 2014			0	0	0	0	0	0	0	0	0	0
Series 2015				0	0	0	0	0	0	0	0	0
Series 2016					0	0	0	0	0	0	0	0
Series 2017						0	0	0	0	0	0	0
Series 2018							0	0	0	0	0	0
Series 2019								0	0	0	0	0
Series 2020									0	0	0	0
Series 2021										0	0	0
Series 2022											0	0
Series 2023												0
Total New Debt Service Subject to Coverage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Anticipated Debt Service Not Subject to Coverage												
Series 2011	0	0	0	0	0	0	0	0	0	0	0	0
Series 2012	0	0	0	0	0	0	0	0	0	0	0	0
Series 2013		0	0	0	0	0	0	0	0	0	0	0
Series 2014			0	0	0	0	0	0	0	0	0	0
Series 2015				0	0	0	0	0	0	0	0	0
Series 2016					0	0	0	0	0	0	0	0
Series 2017						0	0	0	0	0	0	0
Series 2018							0	0	0	0	0	0
Series 2019								0	0	0	0	0
Series 2020									0	0	0	0
Series 2021										0	0	0
Series 2022											0	0
Series 2023												0
Total New Debt Service not Subject to Coverage	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Refinanced Debt	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Debt Service	\$678,329	\$678,529	\$683,329	\$452,529	\$400,654	\$400,654	\$400,654	\$400,655	\$400,654	\$400,654	\$400,654	\$400,654

Table 10  
Pagosa Area Water and Sanitation District  
Wastewater Rate Study  
Calculation of Debt Service Coverage (No CIF)

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Estimated Gross Revenues												
User Charge Revenues	\$1,519,690	\$1,630,848	\$1,644,288	\$1,657,728	\$1,671,168	\$1,684,608	\$1,698,048	\$1,711,488	\$1,724,928	\$1,738,368	\$1,751,808	\$1,765,248
Other Revenues	405,395	395,500	387,453	384,949	512,138	509,714	507,328	504,979	502,668	500,393	498,153	495,947
Interest Earning	3,149	2,029	1,476	1,244	1,449	1,941	2,531	2,863	2,817	2,909	3,222	3,383
Total Gross Revenues	\$1,928,234	\$2,028,377	\$2,033,217	\$2,043,921	\$2,184,755	\$2,196,263	\$2,207,907	\$2,219,331	\$2,230,413	\$2,241,670	\$2,253,183	\$2,264,578
Less: O&M	\$1,044,199	\$1,083,537	\$1,110,018	\$1,137,161	\$1,164,982	\$1,193,499	\$1,222,729	\$1,252,690	\$1,283,399	\$1,314,877	\$1,347,141	\$1,380,212
Net Revenues	\$884,035	\$944,840	\$923,199	\$906,760	\$1,019,773	\$1,002,764	\$985,178	\$966,641	\$947,014	\$926,793	\$906,042	\$884,366
Annual Debt Service	\$678,329	\$678,529	\$683,329	\$452,529	\$400,654	\$400,654	\$400,654	\$400,655	\$400,654	\$400,654	\$400,654	\$400,654
Coverage	1.30	1.39	1.35	2.00	2.55	2.50	2.46	2.41	2.36	2.31	2.26	2.21
Coverage Goals												
Required Coverage	0.50	0.50	1.16	1.12	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Target Coverage	0.50	0.50	1.16	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Revenue Deficit												
Required Coverage	0	0	0	0	0	0	0	0	0	0	0	0
Target Coverage	0	0	0	0	0	0	0	0	0	0	0	0

Table 11  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Calculation of Debt Service Coverage (W/ CIF)

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Estimated Gross Revenues												
User Charge Revenues	\$1,519,690	\$1,630,848	\$1,644,288	\$1,657,728	\$1,671,168	\$1,684,608	\$1,698,048	\$1,711,488	\$1,724,928	\$1,738,368	\$1,751,808	\$1,765,248
Other Revenues	405,395	395,500	387,453	384,949	512,138	509,714	507,328	504,979	502,668	500,393	498,153	495,947
CIF	22,915	18,750	50,645	50,645	50,645	50,645	50,645	50,645	50,645	50,645	50,645	50,645
Interest Earning	3,149	2,029	1,476	1,244	1,449	1,941	2,531	2,863	2,817	2,909	3,222	3,383
Total Gross Revenues	\$1,951,149	\$2,047,127	\$2,083,862	\$2,094,566	\$2,235,400	\$2,246,908	\$2,258,552	\$2,269,976	\$2,281,058	\$2,292,315	\$2,303,828	\$2,315,223
Less: O&M	\$1,044,199	\$1,083,537	\$1,110,018	\$1,137,161	\$1,164,982	\$1,193,499	\$1,222,729	\$1,252,690	\$1,283,399	\$1,314,877	\$1,347,141	\$1,380,212
Net Revenues	\$906,950	\$963,590	\$973,844	\$957,405	\$1,070,418	\$1,053,409	\$1,035,823	\$1,017,286	\$997,659	\$977,438	\$956,687	\$935,011
Annual Debt Service	\$678,329	\$678,529	\$683,329	\$452,529	\$400,654	\$400,654	\$400,654	\$400,655	\$400,654	\$400,654	\$400,654	\$400,654
Coverage	1.34	1.42	1.43	2.12	2.67	2.63	2.59	2.54	2.49	2.44	2.39	2.33
Coverage All Debt	1.34	1.42	1.43	2.12	2.67	2.63	2.59	2.54	2.49	2.44	2.39	2.33
Coverage Goals												
Required Coverage	0.50	0.50	1.16	1.12	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Target Coverage	0.50	0.50	1.16	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Revenue Deficit												
Required Coverage	0	0	0	0	0	0	0	0	0	0	0	0
Target Coverage	0	0	0	0	0	0	0	0	0	0	0	0

Table 12  
Pagosa Area Water and Sanitation District  
Wastewater Rate Study  
Estimated Revenues

Description	Include in Cvg Test?	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Assumptions</b>													
Rate Revenue Increases		11.87%	6.76%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Month of Rate Increase		1	1	1	1	1	1	1	1	1	1	1	1
Prorated Percent Impact of Increase		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
System Growth		0.02%	0.52%	0.82%	0.82%	0.81%	0.80%	0.80%	0.79%	0.79%	0.78%	0.77%	0.77%
Number of Equivalent Customers		4,224	4,225	4,247	4,282	4,317	4,352	4,387	4,422	4,457	4,492	4,527	4,562
Growth in the Number of Equivalent Customers		1	22	35	35	35	35	35	35	35	35	35	35
<b>Revenues</b>													
<i>Retail Rate Revenues:</i>													
Retail Rates Before Increases		\$1,519,690	\$1,527,603	\$1,644,288	\$1,657,728	\$1,671,168	\$1,684,608	\$1,698,048	\$1,711,488	\$1,724,928	\$1,738,368	\$1,751,808	\$1,765,248
Revenues from Current Year Increase (Prorated)		0	103,245	0	0	0	0	0	0	0	0	0	0
Prorated Revenues from Previous Increase		0	0	0	0	0	0	0	0	0	0	0	0
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Rate Revenue		\$1,519,690	\$1,630,848	\$1,644,288	\$1,657,728	\$1,671,168	\$1,684,608	\$1,698,048	\$1,711,488	\$1,724,928	\$1,738,368	\$1,751,808	\$1,765,248
		29.97	29.97	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00	32.00
<b>O&amp;M-Related Nonrate Revenue</b>													
Availability Charges	1	\$312,598	\$309,000	\$306,453	\$303,949	\$301,484	\$299,060	\$296,674	\$294,326	\$292,014	\$289,739	\$287,499	\$285,293
Wastewater Mitigation Fee	1	0	0	0	0	0	0	0	0	0	0	0	0
Waste Hauler Revenue	1	13,652	11,000	7,800	7,800	7,800	7,800	7,800	7,800	7,800	7,800	7,800	7,800
PSSGID Treatment Charges		0	0	0	100,375	100,375	100,375	100,375	100,375	100,375	100,375	100,375	100,375
Inclusion Fee	1	0	0	0	0	0	0	0	0	0	0	0	0
Interest	1	4,605	3,500	0	0	0	0	0	0	0	0	0	0
Interest on Delinquent Taxes	1	1,000	500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Penalty & Interest Delin. Accounts	1	64,910	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000
Current TAX Interest	1	2,147	1,500	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200
Other Revenues	1	6,483	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Bond Proceeds Interest	0	0	0	0	0	0	0	0	0	0	0	0	0
Transfer from General Fund	0	165,000	172,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000
Transfer from DS - Bond INT	1	0	0	0	0	129,654	129,654	129,654	129,654	129,654	129,654	129,654	129,654
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Other O&M Revenues		\$570,395	\$567,500	\$519,453	\$617,324	\$744,513	\$742,089	\$739,703	\$737,354	\$735,043	\$732,768	\$730,528	\$728,322
Total Operating Revenues Revenue		\$2,090,085	\$2,198,348	\$2,163,741	\$2,275,052	\$2,415,681	\$2,426,697	\$2,437,751	\$2,448,842	\$2,459,971	\$2,471,136	\$2,482,336	\$2,493,570
<b>Capital-Related Nonrate Revenue</b>													
Customer Hookups		\$6,195	\$6,227	\$6,279	\$6,330	\$6,381	\$6,433	\$6,484	\$6,535	\$6,586	\$6,638	\$6,689	\$6,740
Capital Investment Fees				0	0	0	0	0	0	0	0	0	0
Tap Fee		132	0	0	0	0	0	0	0	0	0	0	0
Interest from Bond Issue		0	0	0	0	0	0	0	0	0	0	0	0
Interest		0	0	0	0	0	0	0	0	0	0	0	0
Connection Fee													
		-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Total Other Capital Nonrate Revenues		\$6,327	\$6,227	\$6,279	\$6,330	\$6,381	\$6,433	\$6,484	\$6,535	\$6,586	\$6,638	\$6,689	\$6,740
Total Revenues		\$2,096,412	\$2,204,575	\$2,170,020	\$2,281,382	\$2,422,062	\$2,433,129	\$2,444,234	\$2,455,378	\$2,466,558	\$2,477,774	\$2,489,025	\$2,500,311

Table 13  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Calculation of Revenue Proration by Month (FY)

Month	Month	Average Revenue	Percent of Fiscal Year	Cumulative Percent Earnings	Historical Revenues Earned:			
					FY2007	FY2008	FY2009	FY2010
July	1	\$1	8%	100%	\$1	\$1	\$1	\$1
August	2	1	8%	92%	1	1	1	1
September	3	1	8%	83%	1	1	1	1
October	4	1	8%	75%	1	1	1	1
November	5	1	8%	67%	1	1	1	1
December	6	1	8%	58%	1	1	1	1
January	7	1	8%	50%	1	1	1	1
February	8	1	8%	42%	1	1	1	1
March	9	1	8%	33%	1	1	1	1
April	10	1	8%	25%	1	1	1	1
May	11	1	8%	17%	1	1	1	1
June	12	1	8%	8%	1	1	1	1
Total		----- \$12			----- \$12	----- \$12	----- \$12	----- \$12



Table 14  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 CIF Revenues

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Number of SFREs, total	1	22	35	35	35	35	35	35	35	35	35	35
Action Parameters												
Capital Investment Fee (CIF)	1,017	1,017	1,017	1,017	1,017	1,017	1,017	1,017	1,017	1,017	1,017	1,017
Connection Fee	430	430	430	430	430	430	430	430	430	430	430	430
Capital Investment Fee Revenues	\$22,915	\$18,750	\$35,595	\$35,595	\$35,595	\$35,595	\$35,595	\$35,595	\$35,595	\$35,595	\$35,595	\$35,595
Connection Fee Revenues	0	0	15,050	15,050	15,050	15,050	15,050	15,050	15,050	15,050	15,050	15,050
<b>Total CIF Rev</b>	<b>\$22,915</b>	<b>\$18,750</b>	<b>\$50,645</b>	<b>\$50,645</b>	<b>\$50,645</b>	<b>\$50,645</b>	<b>\$50,645</b>	<b>\$50,645</b>	<b>\$50,645</b>	<b>\$50,645</b>	<b>\$50,645</b>	<b>\$50,645</b>

Table 15  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Computation of User Charge Revenue Requirement

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Expenditures</b>												
Operation and Maintenance	\$1,044,199	\$1,083,537	\$1,110,018	\$1,137,161	\$1,164,982	\$1,193,499	\$1,222,729	\$1,252,690	\$1,283,399	\$1,314,877	\$1,347,141	\$1,380,212
Capital-Related												
Transfers:												
Transfer to CIF Fund	198,377	(198,377)	0	0	0	0	0	0	0	0	0	0
Lease Purchase Payments	28,679	28,679	0	0	0	0	0	0	0	0	0	0
Unused	0	0	0	0	0	0	0	0	0	0	0	0
Transfer to Wastewater R&R Fund	365,736	1,239,825	320,552	648,375	549,961	460,760	382,428	765,580	817,608	539,023	507,417	696,942
Unused Transfer 6	0	0	0	0	0	0	0	0	0	0	0	0
Debt Service Fund	678,329	678,529	683,329	452,529	400,654	400,654	400,654	400,655	400,654	400,654	400,654	400,654
Increase (Decrease) in Fund Balance	(347,955)	(627,086)	56,490	43,761	307,172	379,439	440,260	38,649	(32,903)	225,566	236,504	25,391
Prorated Rate Increase	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Expenditures</b>	<b>\$1,967,365</b>	<b>\$2,205,106</b>	<b>\$2,170,389</b>	<b>\$2,281,825</b>	<b>\$2,422,769</b>	<b>\$2,434,351</b>	<b>\$2,446,071</b>	<b>\$2,457,574</b>	<b>\$2,468,758</b>	<b>\$2,480,118</b>	<b>\$2,491,716</b>	<b>\$2,503,198</b>
<b>O&amp;M Non-Rate Revenues</b>												
Interest Earned - Operating Fund	\$1,019	\$531	\$369	\$444	\$707	\$1,222	\$1,837	\$2,196	\$2,200	\$2,345	\$2,691	\$2,888
Availability Charges	312,598	309,000	306,453	303,949	301,484	299,060	296,674	294,326	292,014	289,739	287,499	285,293
Wastewater Mitigation Fee	0	0	0	0	0	0	0	0	0	0	0	0
Waste Hauler Revenue	13,652	11,000	7,800	7,800	7,800	7,800	7,800	7,800	7,800	7,800	7,800	7,800
PSSGID Treatment Charges	0	0	0	100,375	100,375	100,375	100,375	100,375	100,375	100,375	100,375	100,375
Inclusion Fee	0	0	0	0	0	0	0	0	0	0	0	0
Interest	4,605	3,500	0	0	0	0	0	0	0	0	0	0
Interest on Delinquent Taxes	1,000	500	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Penalty & Interest Delin. Accounts	64,910	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000	65,000
Current TAX Interest	2,147	1,500	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200	2,200
Other Revenues	6,483	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Bond Proceeds Interest	0	0	0	0	0	0	0	0	0	0	0	0
Transfer from General Fund	165,000	172,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000	132,000
Transfer from DS - Bond INT	0	0	0	0	129,654	129,654	129,654	129,654	129,654	129,654	129,654	129,654
<b>Capital Non-Rate Revenues</b>												
Customer Hookups	6,195	6,227	6,279	6,330	6,381	6,433	6,484	6,535	6,586	6,638	6,689	6,740
Tap Fee	132	0	0	0	0	0	0	0	0	0	0	0
<b>Total Non-Rate Revenues</b>	<b>\$577,741</b>	<b>\$574,258</b>	<b>\$526,101</b>	<b>\$624,097</b>	<b>\$751,601</b>	<b>\$749,743</b>	<b>\$748,023</b>	<b>\$746,086</b>	<b>\$743,830</b>	<b>\$741,750</b>	<b>\$739,908</b>	<b>\$737,950</b>
<b>Revenue Required from Rates</b>	<b>\$1,389,624</b>	<b>\$1,630,848</b>	<b>\$1,644,288</b>	<b>\$1,657,728</b>	<b>\$1,671,168</b>	<b>\$1,684,608</b>	<b>\$1,698,048</b>	<b>\$1,711,488</b>	<b>\$1,724,928</b>	<b>\$1,738,368</b>	<b>\$1,751,808</b>	<b>\$1,765,248</b>

Table 16  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Annualized User Charge Revenue Requirements

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Total Revenue Requirements:												
Operation & Maintenance	\$1,044,199	\$1,083,537	\$1,110,018	\$1,137,161	\$1,164,982	\$1,193,499	\$1,222,729	\$1,252,690	\$1,283,399	\$1,314,877	\$1,347,141	\$1,380,212
Capital	1,271,121	1,748,656	1,003,881	1,100,904	950,615	861,413	783,082	1,166,234	1,218,262	939,676	908,071	1,097,595
Total	<u>\$2,315,320</u>	<u>\$2,832,193</u>	<u>\$2,113,898</u>	<u>\$2,238,064</u>	<u>\$2,115,597</u>	<u>\$2,054,912</u>	<u>\$2,005,811</u>	<u>\$2,418,924</u>	<u>\$2,501,661</u>	<u>\$2,254,553</u>	<u>\$2,255,212</u>	<u>\$2,477,807</u>
User Charge Revenue Requirements:												
Operation & Maintenance	\$472,785	\$515,506	\$590,196	\$519,393	\$419,762	\$450,189	\$481,190	\$513,139	\$546,156	\$579,764	\$613,922	\$649,002
Capital	916,839	1,115,342	1,054,092	1,138,335	1,251,406	1,234,419	1,216,858	1,198,349	1,178,772	1,158,604	1,137,886	1,116,246
Total	<u>\$1,389,624</u>	<u>\$1,630,848</u>	<u>\$1,644,288</u>	<u>\$1,657,728</u>	<u>\$1,671,168</u>	<u>\$1,684,608</u>	<u>\$1,698,048</u>	<u>\$1,711,488</u>	<u>\$1,724,928</u>	<u>\$1,738,368</u>	<u>\$1,751,808</u>	<u>\$1,765,248</u>

Table 17  
Pagosa Area Water and Sanitation District  
Wastewater Rate Study  
Combined Debt Service Coverage Calculation

Item	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Estimated Gross Revenues												
User Charge Revenues	\$4,968,285	\$4,930,848	\$5,403,632	\$5,940,296	\$6,549,716	\$7,242,002	\$8,028,664	\$8,922,813	\$9,939,377	\$9,982,413	\$10,025,448	\$10,068,484
Other Revenues	1,189,255	1,137,116	1,120,954	1,117,467	1,243,686	1,240,304	1,236,973	1,233,692	1,230,460	1,227,276	1,224,139	1,221,049
Interest Earning	5,275	4,183	3,640	3,762	4,676	6,471	8,914	11,747	8,648	5,145	8,129	11,915
Total Gross Revenues	\$6,162,815	\$6,072,147	\$6,528,226	\$7,061,524	\$7,798,079	\$8,488,777	\$9,274,551	\$10,168,252	\$11,178,485	\$11,214,834	\$11,257,717	\$11,301,448
Less: O&M	\$3,342,433	\$3,479,916	\$3,578,288	\$3,679,479	\$3,783,570	\$3,890,645	\$4,000,789	\$4,114,091	\$4,230,643	\$4,350,538	\$4,473,872	\$4,600,745
Net Revenues	\$2,820,382	\$2,592,231	\$2,949,938	\$3,382,045	\$4,014,509	\$4,598,132	\$5,273,762	\$6,054,160	\$6,947,842	\$6,864,296	\$6,783,845	\$6,700,703
Annual Debt Service	\$1,460,544	\$1,702,731	\$2,016,985	\$2,021,269	\$2,019,186	\$2,021,281	\$2,020,775	\$2,017,194	\$2,016,176	\$2,019,234	\$2,016,368	\$2,016,933
Coverage	1.93	1.52	1.46	1.67	1.99	2.27	2.61	3.00	3.45	3.40	3.36	3.32
Coverage Goals												
Required Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Target Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Revenue Deficit												
Required Coverage	0	0	0	0	0	0	0	0	0	0	0	0
Target Coverage	0	0	0	0	0	0	0	0	0	0	0	0

Table 18  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Calculation of Minimum Operating Fund Balance

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Assumptions												
Days of O&M Expenses	90	90	90	90	90	90	90	90	90	90	90	90
Percent of Year	24.66%	24.66%	24.66%	24.66%	24.66%	24.66%	24.66%	24.66%	24.66%	24.66%	24.66%	24.66%
Minimum Balance	\$257,474	\$216,846	\$273,703	\$280,396	\$287,256	\$294,287	\$301,495	\$308,882	\$316,455	\$324,216	\$332,172	\$340,326
Override Calculation		216,846										

Table 19  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Defined Minimum Fund Balances

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Operating Fund	\$257,474	\$216,846	\$273,703	\$280,396	\$287,256	\$294,287	\$301,495	\$308,882	\$316,455	\$324,216	\$332,172	\$340,326
Debt Service Fund	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CIF Fund	0	0	0	0	0	0	0	0	0	0	0	0
R&R Fund	0	0	0	0	0	0	0	0	0	0	0	0
Total Combined Fund Balance Minimum	257,474	216,846	273,703	280,396	287,256	294,287	301,495	308,882	316,455	324,216	332,172	340,326

Table 20  
Pagosa Area Water and Sanitation District  
Wastewater Rate Study  
Sources and Uses of Funds -- Operating Fund

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Interest Rate on Operating Fund	0.10%	0.10%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
<b>Sources of Funds</b>												
Beginning Fund Balance	\$1,192,525	\$844,570	\$217,484	\$273,974	\$317,735	\$624,907	\$1,004,346	\$1,444,607	\$1,483,256	\$1,450,353	\$1,675,918	\$1,912,423
Total Revenues	2,096,412	2,204,575	2,170,020	2,281,382	2,422,062	2,433,129	2,444,234	2,455,378	2,466,558	2,477,774	2,489,025	2,500,311
Transfer from CIF Fund	0	0	0	0	0	0	0	0	0	0	0	0
Transfer from Debt Service Fund	0	0	0	0	0	0	0	0	0	0	0	0
Interest Earnings	1,019	531	369	444	707	1,222	1,837	2,196	2,200	2,345	2,691	2,888
<b>Total Sources of Funds</b>	<b>\$3,289,956</b>	<b>\$3,049,676</b>	<b>\$2,387,872</b>	<b>\$2,555,799</b>	<b>\$2,740,504</b>	<b>\$3,059,258</b>	<b>\$3,450,417</b>	<b>\$3,902,180</b>	<b>\$3,952,014</b>	<b>\$3,930,471</b>	<b>\$4,167,635</b>	<b>\$4,415,621</b>
<b>Uses of Funds</b>												
O&M Costs	\$1,044,199	\$1,083,537	\$1,110,018	\$1,137,161	\$1,164,982	\$1,193,499	\$1,222,729	\$1,252,690	\$1,283,399	\$1,314,877	\$1,347,141	\$1,380,212
<b>Transfers to:</b>												
Transfer to CIF Fund	198,377	(198,377)	0	0	0	0	0	0	0	0	0	0
Lease Purchase Payments	28,679	28,679	0	0	0	0	0	0	0	0	0	0
Transfer to Wastewater R&R Fund	365,736	1,239,825	320,552	648,375	549,961	460,760	382,428	765,580	817,608	539,023	507,417	696,942
Debt Service Fund	678,329	678,529	683,329	452,529	400,654	400,654	400,654	400,655	400,654	400,654	400,654	400,654
Adjustment	\$130,066											
<b>Ending Fund Balance</b>	<b>\$844,570</b>	<b>\$217,484</b>	<b>\$273,974</b>	<b>\$317,735</b>	<b>\$624,907</b>	<b>\$1,004,346</b>	<b>\$1,444,607</b>	<b>\$1,483,256</b>	<b>\$1,450,353</b>	<b>\$1,675,918</b>	<b>\$1,912,423</b>	<b>\$1,937,814</b>
<b>Total Uses of Funds</b>	<b>\$3,289,956</b>	<b>\$3,049,676</b>	<b>\$2,387,872</b>	<b>\$2,555,799</b>	<b>\$2,740,504</b>	<b>\$3,059,258</b>	<b>\$3,450,417</b>	<b>\$3,902,180</b>	<b>\$3,952,014</b>	<b>\$3,930,471</b>	<b>\$4,167,635</b>	<b>\$4,415,621</b>

Table 21  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Sources and Uses of Funds -- Debt Service Fund

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Interest Rate on Debt Service Fund	0.10%	0.10%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
<b>Sources of Funds</b>												
Beginning Fund Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfers from Operating Fund	678,329	678,529	683,329	452,529	400,654	400,654	400,654	400,655	400,654	400,654	400,654	400,654
Other Funding												
Interest Earnings	0	0	0	0	0	0	0	0	0	0	0	0
<b>Total Sources of Funds</b>	<b>\$678,329</b>	<b>\$678,529</b>	<b>\$683,329</b>	<b>\$452,529</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,655</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,654</b>
<b>Uses of Funds</b>												
Debt Service Payments	\$678,329	\$678,529	\$683,329	\$452,529	\$400,654	\$400,654	\$400,654	\$400,655	\$400,654	\$400,654	\$400,654	\$400,654
Transfer to Operating Fund	0	0	0	0	0	0	0	0	0	0	0	0
Adjustment												
<b>Ending Fund Balance</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Uses of Funds</b>	<b>\$678,329</b>	<b>\$678,529</b>	<b>\$683,329</b>	<b>\$452,529</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,655</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,654</b>	<b>\$400,654</b>



Table 22  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Sources and Uses of Funds -- CIF Fund

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Interest Rate on CIF Fund	0.10%	0.10%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
<b>Sources of Funds</b>												
Beginning Fund Balance	\$2,181,973	\$2,085,907	\$910,903	\$565,009	\$502,008	\$487,420	\$471,536	\$454,322	\$435,743	\$386,751	\$365,293	\$342,361
Transfer from Operating Fund - Calibrating	198,377	(198,377)	0	0	0	0	0	0	0	0	0	0
Other Sources <u>more</u>												
Grants, General Fund Transfers and Other Proceeds	0	0	0	0	0	0	0	0	0	0	0	0
Bond Proceeds	0	0	0	0	0	0	0	0	0	0	0	0
CIF Revenues	22,915	18,750	35,595	35,595	35,595	35,595	35,595	35,595	35,595	35,595	35,595	35,595
Interest Earnings	2,130	1,498	1,107	800	742	719	694	668	617	564	531	495
<b>Total Sources of Funds</b>	<b>\$2,405,396</b>	<b>\$1,907,778</b>	<b>\$947,605</b>	<b>\$601,404</b>	<b>\$538,345</b>	<b>\$523,734</b>	<b>\$507,825</b>	<b>\$490,584</b>	<b>\$471,955</b>	<b>\$422,910</b>	<b>\$401,418</b>	<b>\$378,451</b>
<b>Uses of Funds</b>												
CIP	\$326,381	\$996,875	\$382,596	\$99,396	\$50,925	\$52,198	\$53,503	\$54,841	\$85,204	\$57,617	\$59,058	\$60,534
Bond Issuance Costs	0	0	0	0	0	0	0	0	0	0	0	0
Transfer To Operating Fund	0	0	0	0	0	0	0	0	0	0	0	0
Transfers To R&D Fund	0	0	0	0	0	0	0	0	0	0	0	0
Adjustment	(\$6,892)											
<b>Ending Fund Balance</b>	<b>2,085,907</b>	<b>910,903</b>	<b>565,009</b>	<b>502,008</b>	<b>487,420</b>	<b>471,536</b>	<b>454,322</b>	<b>435,743</b>	<b>386,751</b>	<b>365,293</b>	<b>342,361</b>	<b>317,917</b>
<b>Total Uses of Funds</b>	<b>\$2,405,396</b>	<b>\$1,907,778</b>	<b>\$947,605</b>	<b>\$601,404</b>	<b>\$538,345</b>	<b>\$523,734</b>	<b>\$507,825</b>	<b>\$490,584</b>	<b>\$471,955</b>	<b>\$422,910</b>	<b>\$401,418</b>	<b>\$378,451</b>

Table 23  
 Pagosa Area Water and Sanitation District  
 Wastewater Rate Study  
 Sources and Uses of Funds -- Wastewater R&R Fund

Description	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
Interest Rate on R&R Fund	1.00%	1.00%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%
<b>Sources of Funds</b>												
Beginning Fund Balance	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Transfer from Operating Fund	365,736	1,239,825	320,552	648,375	549,961	460,760	382,428	765,580	817,608	539,023	507,417	696,942
Transfers from Capital	0	0	0	0	0	0	0	0	0	0	0	0
Bond Proceeds	0	0	0	0	0	0	0	0	0	0	0	0
Other Funding												
Interest Earnings	0	0	0	0	0	0	0	0	(0)	0	0	(0)
<b>Total Sources of Funds</b>	<b>\$365,736</b>	<b>\$1,239,825</b>	<b>\$320,552</b>	<b>\$648,375</b>	<b>\$549,961</b>	<b>\$460,760</b>	<b>\$382,428</b>	<b>\$765,580</b>	<b>\$817,608</b>	<b>\$539,023</b>	<b>\$507,417</b>	<b>\$696,942</b>
<b>Uses of Funds</b>												
Wastewater R&R CIP	365,736	1,239,825	320,552	648,375	549,961	460,760	382,428	765,580	817,608	539,023	507,417	696,942
Bond Issuance Costs	0	0	0	0	0	0	0	0	0	0	0	0
Adjustment												
<b>Ending Fund Balance</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>Total Uses of Funds</b>	<b>\$365,736</b>	<b>\$1,239,825</b>	<b>\$320,552</b>	<b>\$648,375</b>	<b>\$549,961</b>	<b>\$460,760</b>	<b>\$382,428</b>	<b>\$765,580</b>	<b>\$817,608</b>	<b>\$539,023</b>	<b>\$507,417</b>	<b>\$696,942</b>

Table 24  
Pagosa Area Water and Sanitation District  
Wastewater Rate Study  
Calibration Table

Description	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023
<b>Informational Items</b>											
Debt Service Coverage (w/o CIF)	1.39	1.35	2.00	2.55	2.50	2.46	2.41	2.36	2.31	2.26	2.21
Debt Service Coverage (w CIF)	1.42	1.43	2.12	2.67	2.63	2.59	2.54	2.49	2.44	2.39	2.33
Target Coverage	0.50	1.16	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Additional Funds Needed	0	0	0	0	0	0	0	0	0	0	0
Minimum Coverage	0.50	1.16	1.12	1.10	1.10	1.10	1.10	1.10	1.10	1.10	1.10
Additional Funds Needed	0	0	0	0	0	0	0	0	0	0	0
Debt Service Coverage All Debt	1.42	1.43	2.12	2.67	2.63	2.59	2.54	2.49	2.44	2.39	2.33
Cash-Needs Revenue Requirement-- Wastewater	1,630,848	1,644,288	1,657,728	1,671,168	1,684,608	1,698,048	1,711,488	1,724,928	1,738,368	1,751,808	1,765,248
Percent Increase/Decrease from Previous	7%	1%	1%	1%	1%	1%	1%	1%	1%	1%	3%
<b>Ending Fund Balances</b>											
<i>Operating Fund</i>											
Target Operating Fund Balance	217,484	273,974	317,735	624,907	1,004,346	1,444,607	1,483,256	1,450,353	1,675,918	1,912,423	1,937,814
Difference from Target Fund Balance	216,846	273,703	280,396	287,256	294,287	301,495	308,882	316,455	324,216	332,172	340,326
Debt Service Fund	638	271	37,339	337,652	710,059	1,143,112	1,174,374	1,133,898	1,351,702	1,580,251	1,597,488
<i>Debt Service Fund</i>											
Target Debt Service Fund Balance	0	0	0	0	0	0	0	0	0	0	0
Difference from Target Fund Balance	0	0	0	0	0	0	0	0	0	0	0
<i>CIF Fund</i>											
Target Construction Fund Balance	910,903	565,009	502,008	487,420	471,536	454,322	435,743	386,751	365,293	342,361	317,917
Difference from Target Fund Balance	0	0	0	0	0	0	0	0	0	0	0
<i>R&amp;R Fund</i>											
Target Wastewater R&R Fund Balance	910,903	565,009	502,008	487,420	471,536	454,322	435,743	386,751	365,293	342,361	317,917
Difference from Target Fund Balance - FYI Only	0	0	0	0	0	0	0	0	0	0	0
<i>Combined Available Fund Balance</i>											
Target Minimum Combined Balance	1,128,387	838,983	819,743	1,112,328	1,475,882	1,898,929	1,919,000	1,837,104	2,041,211	2,254,783	2,255,731
Fund Surplus/(Shortfall) - excludes Rate Stabilization	216,846	273,703	280,396	287,256	294,287	301,495	308,882	316,455	324,216	332,172	340,326
	911,541	565,280	539,348	825,072	1,181,595	1,597,434	1,610,117	1,520,649	1,716,995	1,922,612	1,915,404
<b>Action Items</b>											
New Debt issued - Subject to Bond Ordinance	0	0	0	0	0	0	0	0	0	0	0
New Debt issued - Not Subject to Bond Ordinance	0	0	0	0	0	0	0	0	0	0	0
<b>New Debt Issued Percentage by Fund</b>											
CIF Fund	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
R&R Fund	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
<b>Transfers:</b>											
Operating Fund to CIF Fund	(198,377)										
Operating Fund to Wastewater R&D Fund	1,239,825	320,552	648,375	549,961	460,760	382,428	765,580	817,608	539,023	507,417	696,942
CIF Fund to Operating Fund	0	0	0	0	0	0	0	0	0	0	0
CIF Fund to Wastewater R&D Fund	0	0	0	0	0	0	0	0	0	0	0
Debt Service to Operating Fund	0	0	0	0	0	0	0	0	0	0	0
Grants, General Fund Transfers and Other Proceeds	0	0	0	0	0	0	0	0	0	0	0
Debt Issue Early Payoff	0	0	0	0	0	0	0	0	0	0	0
<b>CIP Costs</b>											
Total Cash Financing CIP	2,236,700	703,149	747,771	600,887	512,958	435,932	820,421	902,813	596,640	566,475	902,813
Debt Funded CIP	0	0	0	0	0	0	0	0	0	0	0
Other Funds	0	0	0	0	0	0	0	0	0	0	0
Rate Revenue Increase	6.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Target Rate Increase	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>Combined Debt Service Coverage</b>											
Combined Target Coverage (w/o CIF)	1.52	1.46	1.67	1.99	2.27	2.61	3.00	3.45	3.40	3.36	3.32
Target Coverage	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25	1.25
Additional Funds Needed	0	0	0	0	0	0	0	0	0	0	0
Monthly Wastewater Rate per Unit	\$23.00	\$32.0	\$32.0	\$32.0	\$32.0	\$32.0	\$32.0	\$32.0	\$32.0	\$32.0	\$32.0
<b>Performance Factors &amp; Goals</b>											
Difference in Target Fund Balances	911,541	565,280	539,348	825,072	1,181,595	1,597,434	1,610,117	1,520,649	1,716,995	1,922,612	1,915,404
Difference in Rate Target	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Annualized Rate per Unit	\$23.00	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00
Total Cumulative Revenue Increase	40.92%	40.92%	40.92%	40.92%	40.92%	40.92%	40.92%	40.92%	40.92%	40.92%	40.92%
Debt Issues Early Payoff	2,013	2,014	2,015	2,016	2,017	2,018	2,019	2,020	2,021	2,022	2,020
2006 Refunding Bonds	0	0	0	0	0	0	0	0	0	0	0
2009 Wastewater Revenue CWRDPA (ARRA)	0	0	0	0	0	0	0	0	0	0	0
2009 ARRA Base Loan	0	0	0	0	0	0	0	0	0	0	0

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