# VILLAGE OF BOSQUE FARMS WATER UTILITY FINANCIAL PLAN

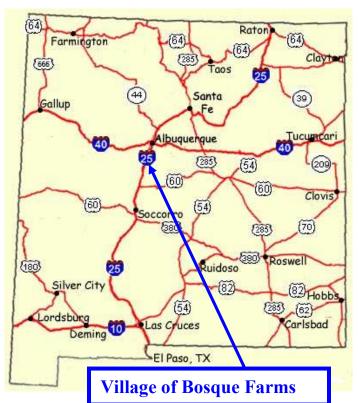
April 26, 2007

Prepared by:

**Rural Community Assistance Corporation** 

# Village of Bosque Farms Water Utility Financial Plan

Bosque Farms in an incorporated community located on the east side of the Rio Grande on the flat valley lands. It is bordered on the north and the east by the Isleta Indian Reservation. Highway NM 47 is the main north-south road through the Village and provides a direct link to the City of Albuquerque. The Village of Bosque Farms was incorporated as a municipality in 1974. It has since been operating under its own elected its governing body. The primary sources of revenue for the Village residents are housing and commercial development. According to the 2000 Census Data, the Village has a population of 3,931.



As an incorporated community, the Village provides water and wastewater services to its residents. According to the Village administration, during the 2005-2006 periods, the Village serviced 1,352 residential connections and 87 commercial connections. The sources of drinking water are two ground water wells which have arsenic levels in excess of the Safe Drinking Water Act (SDWA) standard of 10ug/l. The water delivered to the Bosque Farm residents is strictly for domestic purposes as residents are encouraged to drill their own wells to supplement their non-drinking water needs. Since the water system was initially constructed.

the Village has been charging its customers the same \$20.00 per month as the monthly minimum fee. The monthly minimum fee includes 7,000 gallons of water per month. Water usage in excess of 7,001 is charged at the rate of \$2.00 per 1,000 gallons.

Over the last few months, RCAC has been working on the development of a financial plan for the drinking water portion of the utility of the Village. Enclose herein is the Village of Bosque Farms Water Utility Financial Plan and its components.

# The Financial Management Plan, Purpose and Elements

The objective for developing a financial plan for the Village of Bosque Farms are to determine cash needs, revenue requirements, and the anticipated timing of utility costs in order to ensure adequate funds are available to meet these requirements as they occur, over time. The basic financial plan for a small government-owned utility includes:

- Revenues-operating;
- Operation and maintenance (O&M) expenses;
- Reserve requirements;
- · Rate Structure; and
- 6 –yr. Budget Projection.

The development of the Village's water financial plan includes a comprehensive analysis, which was conducted using historical data and financial data provided by the Village. The analysis also included a 6-yr. budget projection which attempts to assist the Village Council to make better financial decisions in regards to the utility's future.

The development of a financial plan determines on the annual cash requirements of the utility to conduct its normal day-to-day operations and it identifies its future operating and capital needs. It also attempts to determine whether the projected revenue under existing rates will satisfy those needs. The primary objective of this analysis process is to ensure that the utility has the ability to obtain sufficient funds to develop, construct, and operate, maintain the water system on a continuing basis in full compliance with federal, state, and local requirements.

Financial information considered in developing this proposed plan includes:

- Fiscal year 2003-2004 Actual;
- Fiscal year 2004-2005 Actual;
- Fiscal year 2005-2006 Current Budget, and;
- Fiscal year 2006-2007 Proposed Budget\*.

<sup>\*</sup> Fiscal year 2006-2007 Proposed Budget Data is the primary information shared within this financial plan.

# **Step 1: Operating Expenses Budget Review**

Operating expenses are only one portion of the revenue required to run a self-sustaining utility, the main cost categories also include, debt service, and reserve requirements. Table 1 reviews the 2006-2007 proposed expense budget as determined with the community during the financial budgeting process.

Table 1. FY06-07 Proposed Expense Budget 2006-2007 Proposed Expense Budget

14	Salaries & Wages	\$ 93,812.00
15	Employee Benefits	\$ 25,317.00
16	Travel	\$ 5,000.00
17	Building Maintenance	\$ 150.00
18	Maintenance Contracts	\$ 4,176.00
19	Maintenance/Repair Vehicles	\$ 2,600.00
20	Maintenance/Repair Equipment	\$ 1,500.00
21	Computer Maintenance Repair	\$ -
22	Professional Services	\$ 5,700.00
23	Other Contractual Services	\$ 1,000.00
24	Government Gross Receipt Taxes	\$ 19,695.00
25	Office Supplies	\$ 1,500.00
26	Operating Chemicals	\$ 2,200.00
27	Noncapital-Furn, Fix, Eqip & Tools	\$ 600.00
28	Safety Equipment	\$ 1,000.00
29	Uniforms	\$ 550.00
30	Over/Under Cash Drawer	\$ -
31	Maintenance Supplies	\$ 475.00
32	Employee Training	\$ 1,200.00
33	Water Conservation Fee	\$ 3,045.00
34	Insurance	\$ 9,153.00
35	Liability Ins. Deductible	\$ 2,499.00
36	Postage	\$ 3,100.00
37	Printing & Publications	\$ 900.00
38	Fees - Bank, Filing, Etc.	\$ 240.00
39	Dues & Subscriptions	\$ 965.00
40	Telephone	\$ 3,108.00
41	W/C Premium	\$ 29,916.00
42	Penalties	\$ -
43	Structure	\$ 100,000.00
44	Equipment	\$ -
45	Vehicles	\$ -
46	Water Rights	\$ -
47	System Components	\$ 5,100.00
48	System Component Replacement	\$ 5,325.00
49	Water Loan Principal	\$ 82,767.00
50	Water Loan Interest	\$ 16,542.00
51	Total Expenses:	\$ 429,135.00

# **Step 2: Operating Revenue Budget Review**

Most utilities generate two different types of revenues:

- 1. <u>Operating revenue</u> the stable and reliable income from the operations of the Village of Bosque Farms water system include:
  - Income from water sales
  - Service fees

For most water systems, income from service fees and water sales are the sources of operating revenue.

- 2. *Non-operating revenue* includes:
  - Interest on checking and reserve accounts\*
  - Meter deposits\*
  - Connection fees\*
  - Late payments, penalties and reconnection fees\*

Table 3 identifies the operating and non-operating revenues sources for the Village.

Table 2. FY06-07 Projected Revenue Budget

Line Item	Revenue/Expense Item	2006-2007 Proposed Budget	
	Operating Revenue:		
1	Water Sales	\$	393,900.00
2	Government Gross Receipt Taxes	\$	19,695.00
3	Total Operating Revenues:	\$	413,595.00
	Non-Operating Revenue:		
4	Unapplied Service Payments	\$	-
5	Connection Fees	\$	25,000.00
6	Reconnect Fees	\$	11,500.00
7	NSF Bank Charges	\$	500.00
8	Interest Income	\$	7,700.00
9	Late Fees	\$	10,000.00
10	Reimbursement/Refunds	\$	-
11	Water Rights	\$	4,370.00
12	Total Non-Operating Revenues:	\$	78,765.00
13	Total Operating and Non-Operating Revenues:	\$	492,360.00

<sup>\*</sup>Connection fees and income from late payments, penalties and reconnection fees may also be considered operating revenue sources if they are stable and dependable revenue sources. For example, a system with consistent growth that is expected to continue may consider connection fees as an operating revenue source.

# **Step 3: Comparing Operating Revenues vs. Operating Expenses**

In comparing the FY06-07 proposed operating revenues from Table 3 against the proposed operating expenses from Table 2, a deficit is identified. This indicates that the current water rates are NOT generating sufficient revenues to cover the utility's operating costs, as shown in Table 4 below.

Table 3. FY06-07 Proposed Operating Revenues\* against proposed Operating Expenses

FY 06-07 Proposed Operating	\$	413,595.00
Revenues		
FY 06-07 Proposed Operating	\$	429,135.00
Expenses		
	(\$	15,540.00)
Net Profit/Loss	•	

Please note: The major cost categories listed for FY06-07 do not include any reserve set aside.

\*When estimating revenues, it is best to ignore non-operating revenues and only rely on operating revenue to cover your system's expenses.

## **Step 4:** Projected Expenses

The cost of operating a utility normally increases from year to year. According to the Consumer Price Index (CPI), inflation rates or cost of living, over the last 20 year, has been at or around 3% per year. The CPI during 2006 was estimated at 2.68% less energy Table 5 reflects the proposed budget for FY06-07 and projects the Expense Budget for FY07-08.

Table 4. FY07-08 Projected Expense Budget

	1107 00 110jeeted Expense Budget	2	006-2007				2007-2008	
Line		Proposed 2.68%			2.68%	Projected		
Item	Expenses:	F	Expenses	Iı	ıflation		Expense	
9	Salaries & Wages	\$	93,812.00	\$	2,514.16	\$	96,326.16	
10	Employee Benefits	\$	25,317.00	\$	678.50	\$	25,995.50	
11	Travel	\$	5,000.00	\$	134.00	\$	5,134.00	
12	Building Maintenance	\$	150.00	\$	4.02	\$	154.02	
13	Maintenance Contracts	\$	4,176.00	\$	111.92	\$	4,287.92	
14	Maintenance/Repair Vehicles	\$\$	2,600.00	\$	69.68	\$	2,669.68	
15	Maintenance/Repair Equipment	\$	1,500.00	\$	40.20	\$	1,540.20	
16	Computer Maintenance Repair	\$	-	\$	-	\$	-	
17	Professional Services	\$\$	5,700.00	\$	152.76	\$	5,852.76	
18	Other Contractual Services	\$	1,000.00	\$	26.80	\$	1,026.80	
19	GGRT	\$	19,695.00	\$	527.83	\$	20,222.83	
20	Office Supplies	\$	1,500.00	\$	40.20	\$	1,540.20	
21	Operating Chemicals	\$	2,200.00	\$	58.96	\$	2,258.96	
22	Noncapital-Furn, Fix, Eqip & Tools	\$	600.00	\$	16.08	\$	616.08	
23	Safety Equipment	\$	1,000.00	\$	26.80	\$	1,026.80	
24	Uniforms	\$	550.00	\$	14.74	\$	564.74	
25	Over/Under Cash Drawer	\$	-	\$	-	\$	-	
26	Maintenance Supplies	\$	475.00	\$	12.73	\$	487.73	
27	Employee Training	\$	1,200.00	\$	32.16	\$	1,232.16	
28	Water Conservation Fee	\$	3,045.00	\$	81.61	\$	3,126.61	
29	Insurance	\$\$	9,153.00	\$	245.30	\$	9,398.30	
30	Liability Ins. Deductible	\$	2,499.00	\$	66.97	\$	2,565.97	
31	Postage	\$	3,100.00	\$	83.08	\$	3,183.08	
32	Printing & Publications	\$\$	900.00	\$	24.12	\$	924.12	
33	Fees - Bank, Filing, Etc.	\$	240.00	\$	6.43	\$	246.43	
34	Dues & Subscriptions	\$	965.00	\$	25.86	\$	990.86	
35	Telephone	\$	3,108.00	\$	83.29	\$	3,191.29	
36	W/C Premium	\$	29,916.00	\$	801.75	\$	30,717.75	
37	Penalties	\$	-	\$	-	\$	-	
38	Structure	\$	100,000.00	\$	2,680.00	\$	102,680.00	
39	Equipments	\$	-	\$	-	\$	-	
40	Vehicles	\$	-	\$	-	\$	-	
41	Water Rights	\$	-	\$	-	\$	-	
42	System Components	\$	5,100.00	\$	136.68	\$	5,236.68	
43	System Components Replacements	\$	5,325.00	\$	142.71	\$	5,467.71	
44	Water Loan Principal	\$	82,767.00	\$	-	\$	82,767.00	
45	Water Loan Interest	\$	16,542.00	\$	-	\$	16,542.00	
46	Total Expenses:	\$ 4	429,135.00	\$ 1	11,500.82	\$	440,635.82	

#### **Creating Reserves**

According to the information gathered, the Village currently does not have a reserve set aside system in place. Reserves are an accepted way to stabilize and support utility financial management. Common reasons to include reserves are to have funds set aside for a specific upcoming financial need or project, to provide rate stabilization in years when revenues are unusually low or expenditures are unusually high. The basis for or rationale related to the maintenance of adequate reserve balance levels is twofold. First, it helps to assure the utility that it will have adequate funds available to meet its financial obligations in times of varying needs. More important, it provides a framework around which financial decisions can be made to determine when reserve balances are inadequate or excessive and what specific actions need to be taken to remedy the situation. Water utilities are dynamic and require budget and revenues that reflect their needs.

Utility reserve balances can be thought of as similar to a savings account. Reserve balances are funds that are set aside for a specific cash flow requirement, financial need, project, task, or legal covenant. These balances are maintained in order to meet short-term cash flow requirements and, at the same time, minimize the risk associated with meeting financial obligations and continued operational needs under adverse conditions.

The most common reserve balances are usually established around the following areas: debt service reserve, short-lived asset reserves, operating reserve, capital improvement a.k.a. depreciation, emergency, and debt service reserve. This rate analysis proposes the incorporation and management of a reserve set aside systems.

#### 1. Debt Service Reserve

Utilities systems that have issued debt to pay for capital assets will often have required reserves that are specifically defined to meet the legal covenants of the debt. Normally, debt service reserve represents 10% of the annual loan payment and it is set aside into a dedicate account to be used only for its intended purpose and which is to be replenished every time it is used. Currently, the Village has an annual debt service of \$99,309. However, a reserve account for this debt service was not identified. RCAC strongly recommends the Village to adopt a reserve set aside for this purpose at an annual target of \$9,930.90 per year.

#### 2. Short Lived Assets Reserve

This reserve is intended to be used to repair or replace parts and/or components of the utility system, which have a life span of 5 years or less.

#### 3. Capital Improvement Reserve

A capital reserve balance, or a repair and replacement reserve is intended to be used to replace system assets that have become worn out or obsolete. For this reason, annual depreciation expense is frequently used as a metric to determine the minimum level of funding for this capital reserve. It is important to understand that depreciation expense is an accounting concept for estimating the decline in useful life of an asset and does not represent the current replacement cost of that asset. Therefore, an optimal balance may be an amount that is greater than the annual depreciation expense to the approximate replacement cost. Capital replacement reserves for equipment and main replacements or other normal annual capital additions are typically estimated at the rate of 1% to 2% of total original cost asset value of the utility's property. RCAC strongly recommends the set up of a reserve account to help the Village decision making body adequately plan for infrastructure projects.

#### 4. Operating Reserve

Operating reserves are typically established to provide the utility with the ability to withstand cash-flow fluctuations. There can be a significant length of time between when a system provides a service and when a customer may pay for that service. A 45 day (approximately 6 weeks) operating reserve is frequently used as the industry norm. Because of the potential delay in payment, many utilities attempt to keep an amount of cash equal to at least 45 days or one eighth of their annual cash O&M expenses in an operating reserve to mitigate potential cash flow problems. Using this standard, RCAC recommends a target of \$39,805.31 or 12.5% of the FY 07-08 Projected Expense Budget minus debt service (See Table 2). However, in an effort to reduce the impact to the Village customers, RCAC proposes to meet the reserve target over a 3-year period, which translates into \$13,268.44 per year between FY07-08 and FY09-10. Additionally, the operating reserve should be increased and/or adjusted to reflect the true expense budget from year to year as inflation and/or expansions occur. This reserve, as any other, should be replenished to their target level within the fiscal year the funds are used.

#### 5. Emergency Reserve

An emergency reserve is cash on hand for unplanned major maintenance/failure. How much should be set aside? Some specialists suggest setting aside enough cash to cover cost of replacement of the most "vulnerable component", or the component most prone for failure, of the system. Replacement of the largest pumping piece of equipment or key transmission lines, are examples the most vulnerable component for a water system. The cost of replacement or repair of one or more of these components may be used to determine necessary emergency reserves. To determine an emergency reserve, consider things such as emergencies

that occurred in the last 12-24 months, and how much each cost to resolve; the age of the utility system and the condition it's in; operator input/involvement. RCAC recommends the set up of an emergency reserve account considering the criteria listed above.

Table 5 outlines the recommended reserve set asides for the Village water utility. The reserve recommended should assist the council and/or the decision making body to better plan for the future and/or to react to unplanned events.

Table 5. FY07-08 Recommended Reserve Set Asides

Reserves	
Debt Service Reserve	\$9,930.90
Short Lived Assets	\$0.00
Capital Improvement Reserve	\$0.00
Emergency Reserve	\$0.00
Operating Reserve	\$14,111.06
Total reserves	\$24,041.96

Based on the historical information provided, RCAC proposes an annual target for the debt service reserve and the operating reserve and further recommends that the Village Council develops and implements reserve accounts for the short live assets, emergency reserve and particularly for the Capital Improvement Reserve. Based on the financial information provided, the Council might be able to either partially or fully fund these reserves from the non-operating revenue source in an effort to reduce further impact to the Village resident's water rates.

# Proposed Rates to Meet Major Cost Categories Including Reserves

As showed in the comparison made in Table 4, the Village water utility is currently operating under a deficit. Adding to the current operating expenses, the inflation rate, and the proposed reserve set asides, the margin of deficit increases significantly. In order for the Village to generate sufficient revenues to cover all major costs categories, the Village must increase their water rates. Table 6 below proposes an increase to the water rates as follows:

# **Table 6. Bosque Farms Proposed Water Rate Structure**

2007-2008 Projected Operating Expenses Including Inflation and Recommended Reserves	\$443,612.33
Recommended minimum monthly fee to cover 85% of the fixed cost of operating the utility including reserves	\$ 377,070.48
Number of Customers (Residential + Commercial)	1439
Proposed Monthly Minimum per customer	\$ 21.84
Recommended Monthly Minimum per customer	\$ 22.00
Variable Expenses are covered by the /1,000 gal. fee	\$ 66,541.85
Average Commodity Rate (per 1,000 gal. fee)	\$ 2.66
Recommended commodity rate	\$2.75

## 6 - Year Financial Plan

A financial plan forecasting 6-years for the Village's water utility was developed using the above listed information. The plan incorporates the revenue and cost data described earlier in the report. The plan begins with the FY06-07 proposed budget and forecasts from FY07-08 through FY11-12.

The 6-year financial plan calculates the needs for rate adjustments to provide positive operating revenue. In other words, how much revenue is required to operate a healthy and self-sustaining enterprise? Analysis of this scenario determined that in order to adequately fund all major cost categories and recommended reserves a rate increase which should yield an additional 12.65% during fiscal year 2007-2008 should be implemented. However, in order for the water utility system to operate as a self-sustaining enterprise, an annual rate adjustment to cover inflation cost between 1.5 and 3% must be implemented during subsequent years.

It is strongly recommended that after a 12 month period of the new rate implementation, a thorough assessment of the revenues vs. expenses and reserves be conducted. During the assessment, the Village might determine that the recommended annual rate adjustments are not sufficient as proposed and that additional adjustments might be necessary. Additionally, RCAC recommends that the Village decision making body reviews the budget projection and modifies it accordingly if any of the information used to calculate this analysis changes and/or any of the operating conditions of the utility experience a significant increase/decrease. It is recommended that every utility system reviews its rates once a year or more often if needed.

Table 7 provides the 6-year budget projection beginning with FY06.

Table 7. Village of Bosque Farms Water System 6—Yr. Budget Projection

FY 07-08 FY 06-07 Projected **Proposed** Annual Line **Year Budget FY 08 FY 09 FY 10 FY 11** Budget **REVENUE** Operating Revenues \$ 413,595.00 \$ 413,595.00 \$465,915 \$479,892 \$489,490 \$496,832 Service Revenue -Water Proposed Rate Increase/Rate Adjustment 0.00% 12.65% 3.00% 2.00% 1.50% 3.00% Additional Revenue from Increase/Adjustment \$ \$ 52,319.77 13,977.44 9,597.84 \$ 7,342.35 14,904.97 1d Revenue from Service Fees \$ 413,595.00 465,914.77 479,892.21 489,490.05 \$ 496,832.41 511,737.38 **Total Operating Revenues** \$ 413,595.00 465,914.77 479,892.21 489,490.05 \$ 496,832.41 511,737.38 **Total Revenue** \$ 413.595.00 \$ 465,914.77 479.892.21 \$ 489,490.05 \$ 496,832.41 511,737.38 **Total O&M Expenses** \$ 429,135.00 \$ 440,635.82 453.854.89 \$ 467,470.54 \$ 481,494.66 495,939.50 **Subtotal- Net Operating Income** (\$15,540.00) \$ 25,278.95 \$ 26,037.32 \$ 22,019.51 \$ 15,337.75 \$ 15,797.88 **Debt Service** \$ \$ \$ \$ \$ \$ 15,797.88 **NET INCOME (LOSS) FROM OPERATIONS** (\$15,540.00) \$ 25,278.95 \$ 26,037.32 \$ 22,019.51 \$ 15,337.75 \$ Plus: Beginning Cash Balance \$ \$ 3,232.34 \$ 3,189.64 \$ \$ 1,236.99 1,209.90 \$ **Ending Cash Balance Before Reserves** \$ 25,278.95 27,274.30 \$ 25,251.86 \$ 16,547.64 18,987.52 **RESERVES** Debt Service Reserve \$ \$ 9,930.90 \$ 9,930.90 \$ 9,930.90 \$ 9,930.90 \$ 9,930.90 **Short-Lived Assets** \$ \$ \$ \$ \$ 19 Capital Improvement Reserve \$ \$ \$ \$ \$ \$ 21 **Emergency Reserve** \$ \$ \$ \$ \$ \$ Operating Reserve \$ \$ 5,000.00 14,111.06 \$ 14,111.06 14,111.06 3,427.10 **Total Reserves** 24,041.96 24,041.96 24,041.96 13,358.00 14,930.90 **ENDING CASH BALANCE AFTER RESERVES** (15,540.00)1,236.99 3,232.34 1,209.90 3,189.64 4,056.62

# Findings & Recommendations

- 1. The financial plan concludes that the current water rates are inadequate to cover the current major cost categories, causing the Village to operate the water utility under a deficit. In order to achieve good financial footing. It is recommended that a rate increase be implemented immediately before the deficit gap increases. The analysis proposes an increase to the rates which should yield an additional 12.65% in operating revenues for the 2007-2008 fiscal year.
- 2. Additionally, the 6-year financial plan reflects the need for annual rate adjustment, and it further recommends the annual review of the rates prior to the development of the following year's budget to better forecast the necessary revenue to cover all the major cost categories. As a norm, it is not uncommon to underestimate expenses and overestimate revenues. Adequate review and implementation of the rate structure increases the potential to adequately cover the operating expenses of the utility should keep the Village's Council from having to implement rate increases.
- 3. Information regarding additional cost to achieve compliance with the Safe Drinking Water Act was not included in the calculations. It is recommended that if the Village implements an arsenic treatment program to achieve compliance that the rates be reviewed because treating the water to meet standards is an operating expense and it should be recovered as a fixed expense. Historically, RCAC has assisted communities which have had to implement treatment systems and the rates have been dramatically impacted. If assistance is needed to determine impact to the current rates, please contact RCAC.
- 4. Under the current water rates the Village covers 85% of the fixed expenses through the monthly minimum fee; however, only a small portion of the water produced is actually "sold". For example, according with the information provided, during 2006, the system pumped a total of 128, 329,000 gallons. RCAC estimated that approximately 20% of that production was "sold", meaning, water consumed outside the 7,000 gallon allotted under the monthly minimum. If the Village desires to continue recovering the cost of operating at the current rate, the monthly minimum fee must be revised and increase regularly. Otherwise the amount of gallons allotted as part of the monthly minimum must be reduced to a lower number and the commodity rate will have to be increased. The bottom line is that in order to operate as a self sustaining enterprise, ALL operating expenses should be covered by the operating revenues generated either from the monthly minimum fee or from the commodity rate. Non-operating revenues are, in most cases, unpredictable and

unreliable and can, at the end of the year, create the need to subsidize the utility from other revenue sources.

# **Summary**

In conclusion, a rate increase should be implemented which should generate sufficient revenues to adequately cover ALL major operating costs and the recommended reserve set asides guaranteeing reliable water services to the Village residents. Once the rate increase is implemented as proposed, the Village will be able to reach its self-sustaining enterprise standard under which it has operated for many years. Additional minor adjustments to the water rates during subsequent years will ensure adequate financial capacity to reliably and consistently provide water services to the Village residents.

The Village Council should review this financial plan and contact RCAC if any of the information utilized for any of the calculations is either incorrect or has significantly changed. RCAC can be reached at (505) 382-6992. We thank you for the opportunity to have worked with the Village and look forward to provide any additional technical assistance.

This project was funded by the State of New Mexico Department of Finance and Administration and the New Mexico Office of the State Engineer.