

**WATER RATE STUDY
FOR THE
WILLOW CREEK COMMUNITY SERVICES DISTRICT**



**CLIENT:
WILLOW CREEK COMMUNITY SERVICES DISTRICT
BOARD OF DIRECTORS
POST OFFICE BOX 8
WILLOW CREEK, CA 95573**

**JULY, 2008
By: Josh McKnight, P.E.
Project #209.4**

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WATER RATE STUDY
WILLOW CREEK COMMUNITY SERVICES DISTRICT
WILLOW CREEK, CALIFORNIA

1. Executive Summary

The Willow Creek Community Services District (WCCSD) has implemented a Rate Study to determine the rate needed to cover the additional debt service from the new water filtration, as well as increased operational costs for the system as a whole. The primary objective of the Rate Study is to evaluate the water systems projected revenue using the current rate schedule and comparing with projected expenses.

The development of water rates as quoted from the M1 manual "Water Rates", published by the American Water Works Association, involves the following procedures:

1. Determination of the total annual revenue requirements for the period for which the rates are to be effective.
2. Allocation of the total annual revenue requirements to the basic functional cost components.
3. Distribution of the component costs to the various customer classes in accordance with their requirements for service.
4. Design of water rates that will recover from each class of customer, within practical limits, the cost to serve that class of customer.

The current rate structure consists of base charges for the various meter sizes, uniform consumption charges, and fixed rates for multi-use facilities. The base rate is based on a maximum usage of 5,610 gallons for 5/8" meter, with additional charges for consumption. A survey of other water utilities showed that the community of Willow Creek charges the same or less than other comparable communities. Operating costs were found to not be excessive, and no significant areas were found to reduce costs.

It is the WCCSD's priority to provide customers with the highest quality water service at the lowest possible price. With the increased operation costs and new loan repayment, the WCCSD can no longer offset the operating costs with the current revenue. As revenue is generally stable, and no significant increases in water sales are anticipated in the near future, the water rates must be increased to compensate for the anticipated budget shortfall. With the proposed rate adjustment, the WCCSD will be in a better position to cover the increasing costs of doing business and to continue to provide quality water service and maintenance to the system to the customer's satisfaction.

The proposed rate increase would consist of increasing the base rates by 10% and consumption rates by 50% in 2009, and then increase the base rate by 5% and consumption rate by 10% for the next four years. This increase will serve to cover operating expenses, fund other repairs that are needed, and create reserve funds for future emergency needs.

Upon review, the WCCSD should enact the proper resolutions to provide the following:

1. Update water rate schedule
2. Solicit biannual quotes for insurance
3. Update policies for delinquent or non-use accounts.

With these changes it is anticipated that the WCCSD will be able to pay for all of the anticipated operating costs, fund projects that are identified as being necessary within the next five years, and create reserve funds should additional monies be needed in the future.

2. Scope of Work

Trinity Valley Consulting Engineers, Inc. (TVCE) was hired by the WCCSD to perform a Water Rate Study with recommendations on whether or not adjustments to the current rate schedule for water service within the district are adequate.

Revenue and expenses data were reviewed and evaluated under a cash basis approach, which is typically used for publicly owned utilities, to assist in the development of this rate study. Annual revenue requirements consist of operations and maintenance expenses and capital expenditures. Capital expenditures include debt services and current revenue funded. Data utilized in developing the revenue requirements were obtained from the WCCSD's financial statements, budgets, and other information provided by the WCCSD.

TVCE has taken into account the added expense of running and maintaining the new water filtration plant. A comparison of other similar sized water facilities in the surrounding area was taken to assist in this rate study to see if the current or future water rates are reasonable.

3. System Description

3.1 District Description

The WCCSD was first incorporated in 1964, combining several small private water systems in Willow Creek, with the goal of providing reliable water to the Willow Creek Community. The District borders the Trinity River from the South Fork of the Trinity River northerly to Knights Campground, a distance of approximately eight miles (Chart 3.1a)

The District's source of drinking water comes from Willow Creek, a tributary of the Trinity River, located in the unincorporated community of Willow Creek, in Humboldt County, approximately 50 miles northeast of the city of Eureka, at the junction of Highway 299 and Highway 96 (Chart 3.1b).

Population recorded in the 2000 census in the Willow Creek area was 1,743 with the average household size of 2.26 and a total number of housing units of 772. The population is generally composed of year round and seasonal residents, the population decreases in the winter season by approximately one-third. The year round residents are composed of retirees, government workers, and businesspersons, with a small percentage that commute to work in the Eureka-Arcata area.

Chart 3.1a
District Boundaries

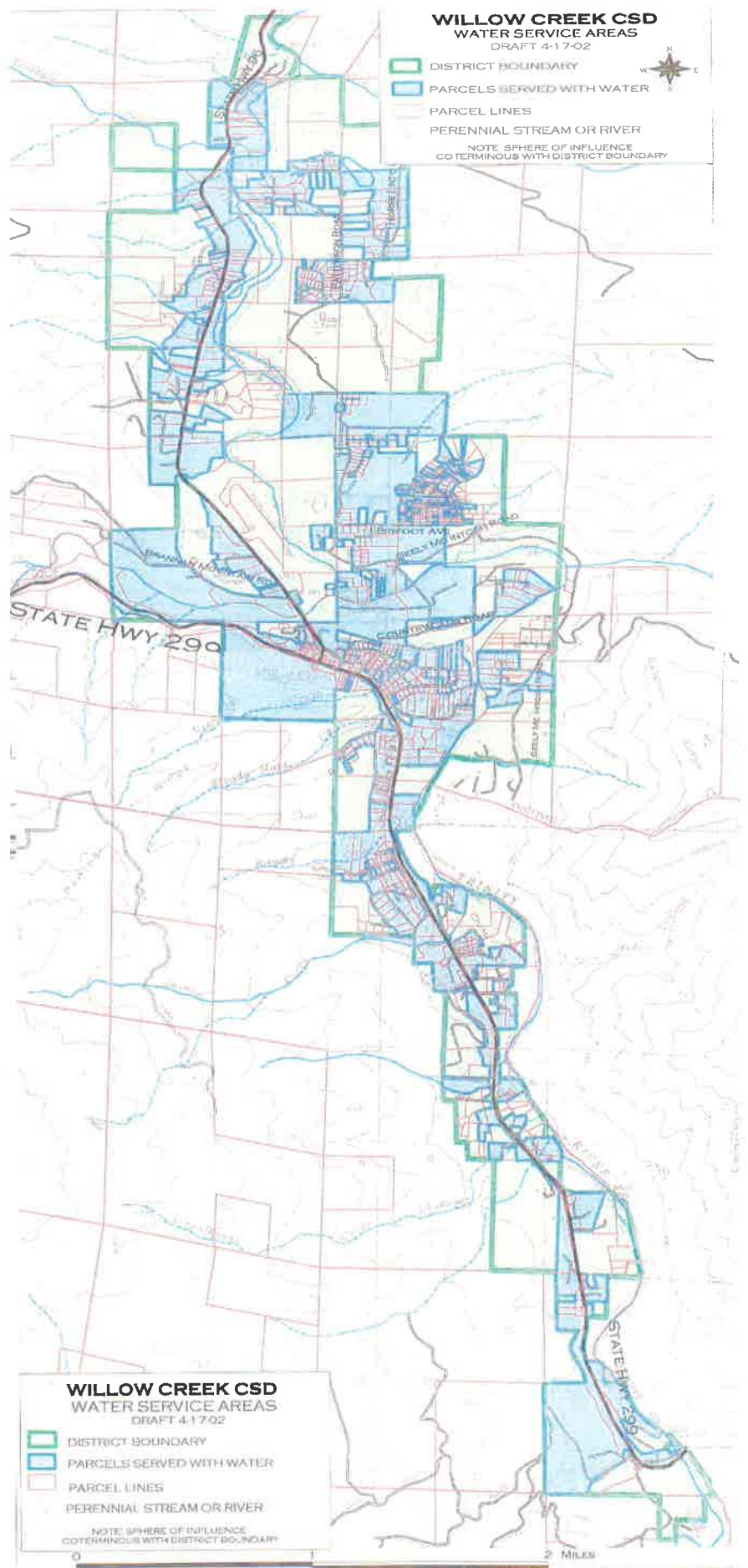
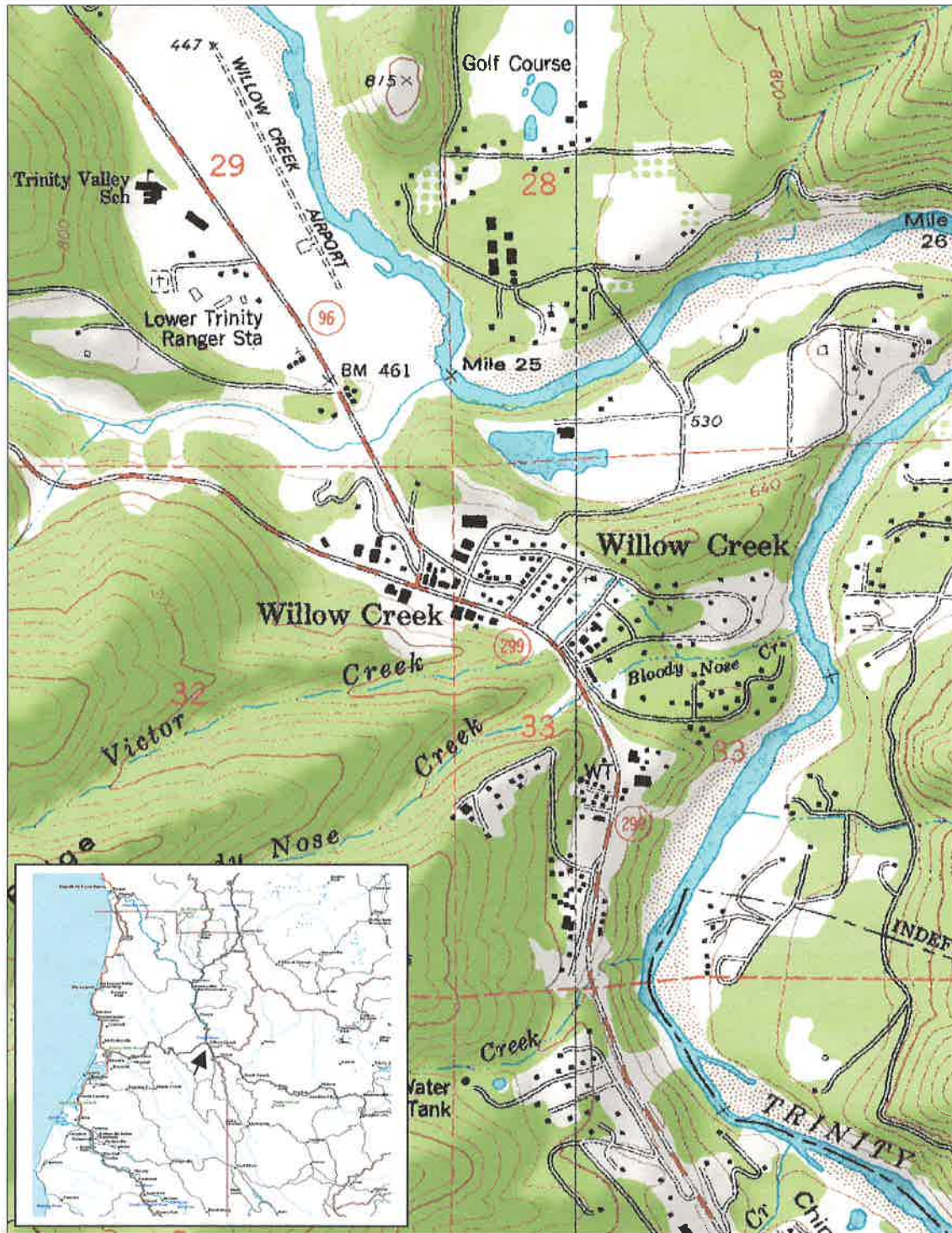


Chart 3.1b
Location Map



3.2 System Description

The District's public water system is 40+ years old; a new water filtration plant was installed in 2007. The system employs three methods of raw water intake to draw water from Willow Creek and supply it to the water plant. The water plant is a pressure media filtration plant that includes three filter media vessels. The raw water is injected with chlorine and polymer prior to entering the plant. Treated water from the filter vessels is then fed into a manifold from which the treated water is released into the distribution system. The distribution system consists of approximately 932-service connection, 24 miles of main-line piping, 76 fire hydrants, 11 wharf hydrants, and 90 backflow prevention devices. There are seven storage tank locations within the district: 1) Willow Towers tank includes one 400,000 gallon steel tank and one 250,000 gallon steel tank; 2) Panther Storage Tank is a 10,000 gallon redwood tank; 3) Hodgson Storage Tank holds 100,000 gallons of water; 4) Bigfoot Storage Tank is a 220,000 gallon steel tank; 5) Bussell Storage Tank is redwood and hold 100,000 gallons of water; 6) the Peach Tree site has two 1,000 gallon pressure tanks on site; and 7) the Bradburn site, also is using two 1,000 gallon pressure tanks for storage.

The Willow Creek Community Services District's water system produces a high quality drinking water, which meets and exceeds all state and federal requirements.

3.3 Water Usage

The District uses 250,000,000 to 270,000,000 gallons annually, with a peak demand of 1,800 gpm. The daily average water production of 720,000/gad serves domestic water to 932 service connections with approximately 1700 users. The majority of water connection is residential; however, there are large agricultural users such as Sun Valley Bulb Farm, Vinatura Vineyard, Winnett Vinyard, Neukom Family Farm, Flying Blue Dog Nursery, and the Willow Creek Golf and Country Club. There are also several trailer parks and multi-unit apartment type users. Chart 3.3 shows the number and classification of the different accounts.

3.4 Growth Projections

The billing system used is based on the quantity of water used and does not differentiate between types of use. Due to the type of billing system utilized, information regarding tracking customer water usage was not available. This would have been useful in analyzing growth trends, however, the total number of water accounts is anticipated to relatively remain stable due to the fact that there is minimal room for growth within the Willow Creek community due to the lack of available land. Currently, there are plans for a 10 parcel subdivisions within the district in the near future and a larger development is in the planning stage to be developed within the next 10 years.

In 2005 TVCE performed an analysis on the projected population growth in the Willow Creek area as part of the feasibility study for the water filtration plant. In

that study it was determined that the population in the Willow Creek area had the potential to increase by a maximum of 33 % over the next forty years (see 2005 report by TVCE).

As this study covers a five year period, it is anticipated that the growth rate would be at 3% per year for this time, which corresponds to growth trends that the district has experienced over the last five years.

Chart 3.3 WILLOW CREEK COMMUNITY SERVICES DISTRICT
Customer Base Count
As of March, 2008

Rate Code	Line Size	Customer Count	Min Charge	Extension
1	5/8"	766	26.50	20,299.00
2	Fire Systems		12.50	0.00
3	1"	22	44.55	980.10
4	1 1/2"	4	65.55	262.20
5	2"	8	100.35	802.80
6	2" Irrigation	1	1267.61	1,267.61
7	2 Unit Min	22	53.00	1,166.00
8	No Charge on Min	1		0.00
9	Knights Park	1	53.00	53.00
10	3 Unit Min	3	79.50	238.50
11	4 Unit Min	2	106.00	212.00
12	1" + 25.00	1	69.55	69.55
13	Bigfoot Mobile Home	1	450.50	450.50
14	Gambi Hill (1")	1	256.55	256.55
15	Rite Spot	1	450.50	450.50
16	Non-Fee Usage	10		0.00
17	Meters Turned Off	99		0.00
18	Fair Oaks Mobile (1")	1	71.05	71.05
19	3/4"	40	29.87	1,194.80
20	Camp Kimtu (1")	1	44.55	44.55
20	6 Unit Min	4	159.00	636.00
21	Small Water Trucks		26.50	0.00
22	5 Unit Min	2	132.50	265.00
23	5/8" Flat Rate	1	26.50	26.50
24	3"	1	117.75	117.75
Total Customer Count:		993		
Total Minimum Month Intake:				28,863.96

#16 Non-Fee Usage is meters that are used by WCCSD

#20 Camp Kimtu (1") is also Umpqua Bank rating

#23 5/8" Flat Rate is applied to Bigfoot Books, WCCSD's rental property

#24 3" meter, this is a flat fee charged to Sun Valley Farm

4. Expenses

The revenue and expense requirements of most publicly owned utilities are based on the cash or budget requirements of the system. The cash basis is an appropriate approach to use in defining the revenue and expense requirements of WCCSD's water system since the system had debt and expenses whose retirement must be provided for on an annual basis.

4.1 Current Expenses

A review of previous years expenses submitted by the District was evaluated for the past 5 years. The District's fiscal year begins July 1 and ends on June 30. There may be drastic changes from previous year's figures and 2008 figures due to the new water filtration plant. Expenses are broken down into six categories, as described below, and expense figures are shown in Chart 4.1

Administration is the largest expense with an annual expenditure of around \$278,000.00. Included in this figure are all employee payroll, worker's compensation insurance, employee benefits, PERS contributions, taxes and health insurance.

System Maintenance includes all expenses involved in keeping the system maintained. This includes all maintenance of the water system, supplies to the system, and water treatment lab fees and licenses.

Purchased Power is the cost to run the new filtration plant, and water pumps at the various water towers. This power is purchased from Pacific Gas and Electric.

Operating Expense refers to all expenses associated with the operation of the water district; this includes utilities, operating supplies, office and equipment maintenance, vehicles, director fees, travel and training fees, and audit service fees.

Insurance Expense includes liability, vehicle, and public official liability insurance coverage.

Debt Repayment includes the Gambi Project remaining debt of less than \$1,000, Farmers Home Association remaining debt of less than \$25,000, and a SRF Loan that will begin repayment in September 2008 in the amount of \$25,000 a year. The Davis/Grunsky debt service is not included in this chart because it is paid with tax funds that are credited into a restricted account for the sole purpose of this specific loan repayment.

The repayment of the SRF Loan for the new water filtration plant caused the high increase in Debt Service expenditures, as well as the normal increases associated with

operating a municipal utility. Normal increase would include energy costs, replacement parts, insurance, employee wages and benefits, etc. As with all systems, expenses also increase with the more water usage and with the age of the system.

Chart 4.1
Willow Creek Community Services District
Five Year Review of Past Expenses

Expenses	%	2008	2007	2006	2005	2004
Administration		\$278,698	\$260,912	\$260,284	\$233,590	\$253,267
System Maintenance		\$23,246	\$19,303	\$14,834	\$14,576	\$8,408
Purchased Power		\$84,743	\$72,358	\$54,223	\$52,445	\$62,266
Office/Field Operation		\$61,227	\$50,875	\$41,602	\$46,058	\$37,025
Insurance		\$25,141	\$18,345	\$20,042	\$10,428	\$8,796
Debt Repayment		\$6,174	\$3,069	\$3,117	\$2,796	\$2,728
Total Expenses:		\$479,232	\$424,865	\$394,104	\$359,896	\$372,492

4.2 Expense Growth

An increase in expenses is a trend for all municipal utilities due to increases in energy costs, construction materials, replacement parts, insurance, health care, wages, fuel, inflation and other factors. Expenses also increase with increased usage as additional chemicals and operations and maintenance is required. Finally, expenses for water systems tend to increase with age as additional maintenance is required and water pumping is less efficient due to older pumps and water lines.

4.3 Expense Projections

Projected future expenses were developed for the WCCSD based on analysis of past trends of cost increases and other anticipated costs. For the projected cost, the new debt repayment of \$25,000 was added to the base costs, and then a 7% per annum increase was added to account for increased operational costs. Projected costs are as shown on the chart below.

	2009	2010	2011	2012	2013
Projected Expenses	\$537,771	\$573,664	\$612,070	\$653,164	\$699,235

4.4 Future Projects

The projects listed below are proposed to be completed within the next five years, with the project being funded by revenue collected from water sales.

1. Two new poly tanks for Panther Road, including foundations, strapping, etc.
Estimated costs is \$25,000 – \$30,000

2. New digital controls at all other tanks that will link into the Filtration Plant's computer system. Plans are to purchase one set of controls for each tank over the next five years.
Estimated costs is \$2,000 for each tank
3. Repair or replacement of the Hodgson redwood tank. Liners are estimated at \$25,000 – \$30,000 each, and liner lifespan is estimated at 20 years; estimated cost of replacing the redwood tank with a steel tank will cost \$150,000 – \$200,000. Estimated project set for five to seven years.
4. Repair or replacement of the Bussell redwood tank. Liners are estimated at \$25,000 – \$30,000 each, and liner lifespan is estimated at 20 years; estimated cost of replacing the redwood tank with a steel tank will cost \$150,000 – \$200,000. Estimated project set for five to seven years.
5. Repair of the Bigfoot steel tank. Current liner is 18 years old, and tank needs paint, repairs, etc.
6. Repair of the two tanks at Willow Towers. Both tanks will need an exterior coat of paint. The older tank will require extra sandblasting of the inside as well as a new coat of epoxy.
Estimated costs are \$30,000 - \$40,000 for repairs.

Ten Year Proposed Future Planning

Funding for a 500,000 gallon storage tank for Highway 96 on Brannon Mtn. and another tank near Wooden Ranch on Highway 299

5. Revenue

5.1 Current Revenue

The WCCSD receives 96 percent of its income from water sales from metered and unmetered water service. Income from the rental of the WCCSD meeting room is one percent of total amount received within a year, and interest income received during the year is less than one percent. These incomes are minimal and cannot be relied upon to cover water system expenses, thus they are not included in the Previous Years Revenue Summary, Chart 5.1.

Water meters are read and billed once a month with the average billing for residential users being \$27.09, during the winter months, and \$40.38, during the summer months. The minimal amount to be received monthly is \$28,863.00. There are currently 853 billed connections within the Willow Creek Community Services District. The majority, 766 connections, are on a 5/8" meter, most being single family residences. During a peak summer month of 2007, the water district

brought in \$50,000 (an average of \$42.00 per customer) in water revenue. Higher water usage is between the months of June and September.

Unbilled water usage is attributed to those properties owned by the Willow Creek Community Services District, such as Veteran's Park, Creek Side Park, China-Flat Museum, Camp Kimtu, Water Filtration Plant and the WCCSD office.

Monies collected to connect to the District's system is anywhere from \$3,500 to \$56,000, depending on the size of the meter, including all installation fees, cost of parts, equipment rental, permits and labor. All monies collected for new system installation are allocated to the system expansion fund account. This account is a restricted account only to be used for system expansions.

Accounts that are disconnected because of nonpayment of funds are charged a \$20.00 service fee to reconnect. The average number of reconnect fees collected is about five accounts a month, bringing in an additional \$120.00 a month. There currently is no system set up to collect outstanding funds.

Recoverable property taxes are estimated to be around \$38,000.00, this amount is split between the recreational department and the water department. The WCCSD Board of Directors have pledged \$18,000.00 to the water department budget for annual audit and liability insurance. This income is not reliable, as the state can decide to allocate the monies differently in the following year.

Monies gained from property taxes are paid to the district and held in a restricted fund for repayment of the Davis/Grunsky debt service, which was acquired at the time of startup.

Chart 5.1
Previous Years Revenue Summary

Income	%	2008	2007	2006	2005	2004
Sales	96	\$459,571	\$483,685	\$413,338	\$383,922	\$378,834
Recreation Fund	3	\$15,000	\$0	\$15,000	\$25,000	\$35,000
Usable Income:		\$474,571	\$483,685	\$428,338	\$408,922	\$413,834
Water Adjustments		\$702	\$269	\$3,192	\$4,063	\$495
Uncollected Accounts		\$909	\$0	\$616	-\$1,035	\$1,563
Total Adjustments:	0%	\$1,611	\$269	\$3,808	\$3,028	\$2,058
Usable Income with Adjustments:		\$472,960	\$483,416	\$424,530	\$405,894	\$411,776

5.2 Future Revenue

It is not anticipated that Future Income will increase substantially within the next 5 years, as growth within the area is limited. As described in Section 3.4, the

projected water use is not anticipated to increase by more than 3 % per year for the next five years.

The projected revenue from the sale of water is charted (Chart 5.2) using the current phased increase plan that was implemented beginning February 2008 and annual increases of 3 % per year.

Chart 5.2
Projected Revenue

	2009	2010	2011	2012	2013
Previous Years Projections	\$472,960	\$487,148	\$501,762	\$516,814	\$532,318
3%					
Projected Income	14,188	14,614	15,052	15,504	15,969
	\$487,148	\$501,762	\$516,814	\$532,318	\$548,287

6. Water Rate Schedule

6.1 Current Rate Schedule

Beginning on February 1, 2008, a new rate increase was in effect (see Chart 6.1). This is part of an annual increase that will be based on this report to address the debt from the new filtration plant and to create an operating reserve.

Chart 6.1

WILLOW CREEK COMMUNITY SERVICES DISTRICT
WATER RATES
Effective February 1, 2008

Base Rate			Consumption Charge				
Line Size	Minimum Monthly Charge	Maximum Monthly Charge	Range				Per 100 cf
			CF		Gallons		<2,000 cf
			0	750	0	5,610	
5/8"	26.50	29.80	751	1,124	5,617	8,407	0.90
3/4"	29.87	37.74	1,125	2,000	8,415	14,960	0.90
3/4"	29.87	43.65	2,001	2,848	14,967	21,303	
1"	44.55	65.54	2,849	5,473	21,310	40,938	
1 1/2"	65.55	100.35	5,474	9,824	40,945	73,483	
2"	100.35	117.74	9,825	11,999	73,491	89,752	
3"	117.75		>12,000		>89,760		

6.2 Other Water Rate Schedules

Various neighboring community water systems were solicited for information to assist in a comparison; however, the comparison cannot be used to directly influence WCCSD rates because of system and financial differences. However, we are able to see from Chart 6.2, Comparison of Water Rates, that WCCSD is currently inline with the neighboring water districts within our area.

Chart 6.2
Comparison of Water Rates

Water Districts	5/8" Base Rate	Water Included in Base Rate	Consumption Additional Charge	Average Water Bill
Willow Creek	\$ 26.50	5,610 gal	.90/per 748	33.74
Orleans	\$ 35.00	10,000 gal	1.50/per 1000	35.00
Weaverville	\$ 16.50	3,740 gal	.94/per 100	31.90
Trinity Village	\$ 34.60	0 gal	.72/per 1000	52.50
Rio Dell	\$ 22.00	748 gal	2.00/per 100	38.00

Orleans Community Services District

Orleans, California is located in Humboldt County approximately 80 miles north east of Eureka on Highway 96, ten miles south of the Humboldt/Siskiyou County line.

The water district services a customer base of 168 customers utilizing 150 meters (some meters have two residences on one meter, and are charged per residence). The average daily water production rate is 60,000 gallons per day, distributed into the average meter being a $\frac{3}{4}$ " meter. The system consists of a 100,000 gallon tank which draws water from Perch Creek, north of Orleans. Customers are charged monthly a flat rate of \$35.00 per resident for the first 10,000 gallons of water. Additional water usage is charged per every 1,000 gallons, see chart below.

ORLEANS COMMUNITY SERVICES DISTRICT WATER RATES As of September, 2005

Base Rate			Consumption Charge				
Line Size	Minimum Monthly Charge	Maximum Monthly Charge	Range				Per Addl 1000 gallon
			CF		Gallons		
All Sizes	35.00			1,336.89	0	10,000	
		42.50	1,337.03	2,005.34	10,001	15,000	1.50
		44.40	2,005.48	2,673.79	15,001	20,000	0.94
		54.80	2,673.93	5,347.59	20,001	40,000	0.66
		54.80+	5,347.72		>40001		0.40

Weaverville Community Services District

Weaverville Community Services District has a customer base of 1,634 from a population of 3800. Average daily consumption is 632,000 gallons of water from 50 miles of pipe line and seven holding tanks. Water is taken from East Weaver Creek, West Weaver Creek and the Trinity River. The average usage per customer is 166 gallons per day with an average monthly bill of \$31.90

WEAVERVILLE COMMUNITY SERVICES DISTRICT WATER RATES

Base Rate			Consumption Charge				
Line	Minimum	Usage	Range				Per Addl
Size	Monthly	Levels	CF		Gallons		100 gallon
	Charge	CF					
5/8"	16.50	500	0	500	748	3,740	0.94
3/4"	23.08	900	>500		3,740		1.40
1"	36.24	1700					
1 1/2"	49.40	2500					
2"	65.85	3500					
3"	82.30	4500					
All customers pay same rate of 1.65 per unit. Unit rate is 748 gallons							

Trinity Village Water Company

Trinity Village Water Company is a private water system encompassing 200 lots located approximately 11 miles southeast of Willow Creek in Trinity County. Currently there are only 175 metered lots billed on a bimonthly basis, paying an average bill of \$105.00 bimonthly. Customers are billed a ready-to-serve fee of \$34.60 per month, and an additional consumption fee per 1,000 gallon used (see chart below). The District produces a daily average of 20,000 gallons of water from the Hawkins Bar Creek, which is chlorinated and then placed into a 120,000 holding tank.

TRINITY VILLAGE WATER COMPANY WATER RATES As of June 6, 2007

Base Rate			Consumption Charge				
Line Size	Minimum Bi-Monthly Charge	Maximum Bi-Monthly Charge	Range				Per Addl 100 cf
			CF		Gallons		
			5/8"	77.22		0	1100
3/4"	115.84		>1100		>8228		1.99
1"	193.06						

Rio Dell Water Company

Rio Dell Public Works Department is located 27 miles south of Eureka and pulls water out of the Eel River. Raw water is pumped from infiltration galleries under the Eel River to the treatment plant, then into a network of water mains, valves and storage tanks to water customers. The current average monthly billing for a family of four is \$38.00. There are 1100 service connections within the district with a population of 3,250.

The City is nearing completion of an approximately \$8.5 million project to establish a new raw water intake below the Eel River, improve filtration, and rehabilitate the water distribution infrastructure that, upon completion, will lift a water emergency declaration within the City that has been in place for over five years.

RIO DELL PUBLIC WORKS DEPARTMENT WATER RATES As of October 18, 2005

Base Rate			Consumption Charge				
Line Size	Minimum Monthly Charge	Usage Levels CF	Range				Per Addl 100 gallon
			CF		Gallons		
All Users	22.00	Residential	0	100	0	748	
			100	1000	748	7,480	2.00
			>1000		>7,480		3.00
All Users	22.00	Commercial	0	100	0	748	
			>100		>748		2.00

7. Discussion

Taking an average of the total expenses from the past five years, as shown in Chart 4.1, Five Year Review of Past Expenses, our calculations show an increase average of 7%, not including the new SFA Loan repayment that begins in September, 2008. Projected expenses were calculated by adding 7% to the previous years' expenses and adding 25,000 for the loan repayment see Chart 7.1 below.

Current water rates revenue were calculated by taking the previous years' water revenue as shown in Chart 5.1, and adding the current proposed water rate schedule increase of 3% annual over the next 5 years as described in section 6.1, Current Water Rates.

7.1 Analysis of Current Revenue

Chart 7.1
Projected Expenses vs. Current Water Rate Revenue

	2009	2010	2011	2012	2013
Projected Current Revenue	\$487,148	\$501,763	\$516,816	\$532,320	\$548,290
Projected Expenses	\$537,771	\$573,664	\$612,070	\$653,164	\$699,235
Differences	-\$50,623	-\$71,901	-\$95,254	-\$120,884	-\$150,945

As shown above, when comparing the projected costs to the projected revenue, there are not sufficient funds to cover the differences. Analysis of the WCCSD expenses showed no potential areas for significant savings, so consequently more revenue is needed to make up the budget shortfall.

7.2 Proposed Water Rates

In order to compensate for the budget deficiencies listed above, an increase in revenue is necessary. As the vast majority of the district's revenue derives from water sales, water rates must be increased in order to produce any significant increases in revenue. As such, TVCE developed a proposed rate schedule increase for the next five years.

These increases are recommended with the intent of accomplishing the following goals:

1. **Pay Operational Costs:** The rate increases are designed with the intent to produce sufficient funds to cover the increased operational costs as mentioned in Section 4.
2. **Provide for Reserve Funds:** The proposed rate increases will be sufficient to allow for the creation of reserve funds to be used in the event of unanticipated costs that may arise in the future. These funds would be two separate funds;

one emergency reserve of \$20,000; and one operation and maintenance reserve of \$30,000.

3. Other Projects: The increased revenue may also be used to fund other projects as identified in Section 4.4.

The rate increases proposed by TVCE are shown in Appendix C. These show an increase in 2009 of 10% for the base rate and 50% for additional use. Thence every year after that the base rate will increase by 5% and the use rate by 10%.

Chart 7.2

Projected Expenses vs. Proposed Water Rate Revenue

	2009	2010	2011	2012	2013
Projected Increased Revenue	\$581,346	\$629,159	\$673,009	\$720,720	\$777,047
Projected Expenses	\$537,771	\$573,664	\$612,070	\$653,164	\$699,235
Differences	\$43,575	\$55,495	\$60,939	\$67,556	\$77,812

The above projections show that with the proposed rate increases the WCCSD will be able to pay for the anticipated costs and show a surplus of approximately \$305,377.00 over the next five years. As identified in Section 4, the WCCSD is in need of reserve funds as well as funds for projects that are identified to be performed within the next five years. The cost of creating these funds and constructing these projects is anticipated to be approximately \$200,000. Therefore, the anticipated earnings are sufficient to cover all of the recommended expenditures with a remainder for unanticipated costs which may arise.

7.3 Expense Reduction

The WCCSD current water system expenses are not excessive, and it's budget does not have many line items which could easily be reduced or eliminated without reducing the quality of water or jeopardizing the safety and reliability of the WCCSD's water system. Current staffing of the District is not excessive and should not be cut to decrease expenses. The largest possible line item reduction could be Insurance. The District should consider bidding insurance coverage on a bi-annual basis to get the best possible insurance rates.

Based on the current budget for the water system, no immediate reductions are recommended to decrease expenses.

7.4 Lost Revenue

Water loss is a common lost revenue for a water district; however, the WCCSD's water loss is at 9%, below the acceptable level of 15%, depending on the water

system. Values greater than 15% can be an indicator of excessive leaks from buried lines and service connections, inaccurate water meters, illegal connections, or simply unmetered permitted connection. Decreasing the amount of unaccounted water will reduce lost revenue associated with the cost to treat, pump, and store this unused resource.

7.5 Inactive Meters

The District has 99 meters that are turned off; these meters should be charged a monthly ready to serve fee that is billed to all structures which have a water meter. This charged should be assessed because the vacant structure could begin using water at some point, for which the District has to be prepared to provide service at that time. Collection of this fee does not change projection of revenue; however, it should be implemented to be equitable and fair to all ratepayers.

Delinquent Accounts is a problem with all types of service businesses. The WCCSD does not assess interest penalties on delinquent accounts or request a deposit for those accounts that are known to be continuously delinquent or foreseeable uncollectible. This is a minimal revenue and will not change revenue projections; however, an interest rate should be implemented to be equitable and fair to all ratepayers. Three items should be utilized to provide financial incentive for payment of delinquent accounts:

1. Monthly interest penalties on total of past due balance at the current.
2. Service Charge of 10% on balance past 30 days.
3. Ready of serve fee assessed after water is shut off.

8. Recommendations

In order to cover all of the WCCSD costs and provide a continued high level of water service, TVCE recommends the following:

1. Approve a water rate increase such as the one recommended in Section 7.2.
2. Solicit biannual quotes for insurance in order to obtain the best rates possible
3. Initiate rate charges and service fees for delinquent accounts.
4. Reevaluate the rate schedule after the five year period

9. Conclusion

Based on the data obtained and the analysis performed in this report, it was concluded that the WCCSD will need to obtain additional revenue in order to meet anticipated cost increases. As such, TVCE proposed to increase revenue primarily by increasing the water rates. The current water rates were compared to those in other communities of similar size, and it was found that our rates are at or below those of other districts. These rate increases would also serve to create reserve

funds for future, unanticipated costs, and to fund other improvements needed in the near future.

Currently and in the past the WCCSD has been committed to providing a high level of water service. These recommendations will help to insure that this level of service is provided in the future.

References

Willow Creek Community services District Financial Statements
2004 to 2008

Developing Rates for small Systems
American Water Works Association (AWWA Manual M54)
2004



**WILLOW CREEK COMMUNITY SERVICES DISTRICT
WATER RATE STUDY
APPENDIX A**

**REVENUE DETAIL
WORK SHEET**

Willow Creek Community Services District
REVENUE DETAIL

Description		%	2008	2007	2006	2005	2004
1	Sales						
	a. Water Sales		\$459,572	\$429,396	\$398,638	\$373,068	\$338,980
	b. Reconnect Fees		\$0	\$0	\$20	\$160	\$120
	c. Field Collections		\$1,075	\$1,335	\$1,090	\$340	\$0
	d. Installation		\$0	\$0	\$0	\$5,329	\$2,703
	e. Property Tax General		\$29,017	\$52,954	\$13,589	\$5,025	\$37,032
	Total Income Sales:	96%	\$489,664	\$483,685	\$413,338	\$383,922	\$378,834
2	Contributions	0	\$0	\$0	\$303	\$0	\$0
3	Rental	1%	\$4,500	\$1	\$1	\$1	\$1
4	Interest Income	0	\$210	\$131	\$130	\$153	\$89
6	Recreation Fund	3%	\$15,000	\$0	\$15,000	\$25,000	\$35,000
7	Water Adjustments		\$955	\$269	\$3,192	\$4,063	\$495
8	Uncollectible Accounts		\$810	\$0	\$616	-\$1,035	\$1,563
	Total Adjustments:	0%	\$1,765	\$269	\$3,808	\$3,028	\$2,058
	Usable Income		\$504,664	\$483,685	\$428,338	\$408,922	\$413,834
	w/Adjustments		\$502,899	\$483,416	\$424,530	\$405,895	\$411,776



**WILLOW CREEK COMMUNITY SERVICES DISTRICT
WATER RATE STUDY
APPENDIX B**

**EXPENSE DETAIL
WORK SHEETS**

Willow Creek Community
Services District
OPERATIONAL EXPENSES
2008

Administration Expenses:		
SOS Supervision	5265.76	
Pumping Supervision	5265.76	
Water Treatment Supervision	5265.76	
Trans & Dist Supervision	5265.76	
Customer Accouts Supervision	5265.76	
Pumping Maint/Improvements	489.72	
Water Treatment Maint/Improvements	97.41	
Trans & Dist Maint/Improvements	16108.83	
SOS Labor	16768.27	
Pumping Labor	16768.29	
Water Treatment Labor	16768.33	
Trans & Distribution Labor	16768.41	
Meter Reading Labor	16768.34	
Salyer Rest Area Labor	733.82	
Salaries	58041.69	
Other Payroll	13227.50	
Payroll Taxes	15900.75	
Health Insurance	37969.38	
Pers 457 Program	12598.86	
Benefit Monies	1196.85	
Pers Expense	12163.33	
		278698.58
System Maintenance Expenses:		
SOS Maintenance	1898.80	
Pumping Maintenance	260.44	
Water Treatment Maintenance	1793.45	
Trans & Dist Maintenance	207.00	
Operating Supplies	14293.88	
Water Treatment Labs Fees	4451.00	
Water Treatment Fees/Licenses	342.00	
Filtration	0.00	
		23246.57
Purchased Power Expense:		
Purchased Power	84743.84	
		84743.84
Operational Expenses:		
Office Supplies	6135.03	
Bank Fees	16.72	
Postage	3744.54	
Printing	587.31	
Telephone	3658.24	
Office Utilities	5617.36	
Maintenance (Yard & Office)	4475.13	
Tractor Maintenance	1142.26	
Equipment Maintenance & Repair	1105.57	
Uniforms	1060.80	
Miscellaneous Expenses	441.44	
Salyer Rest Area Expenses	191.56	
Outside Services	112.50	
Travel	1205.01	
Education/Training	1691.95	
Trucks	10644.98	
Director Fees	1525.00	
Professional Fees	11762.10	
Audit Fees	6110.00	
		61227.50
Insurance Expense:		
Insurance	25141.86	
		25141.86
Loan Repayment Expenses:		
Gambi Project	1359.51	
FMHA	4814.61	
		6174.12
Operating Expenses for 2008		\$ 479,232.47

Willow Creek Community Services District
OPERATIONAL EXPENSES
2007

Administration Expenses:		
SOS Supervision	5192.00	
Pumping Supervision	5192.00	
Water Treatment Supervision	5192.00	
Trans & Dist Supervision	5192.00	
Customer Accouts Supervision	5192.00	
Pumping Maint/Improvements	578.74	
Water Treatment Maint/Improvements	458.23	
Trans & Dist Maint/Improvements	13546.28	
SOS Labor	16637.84	
Pumping Labor	16637.79	
Water Treatment Labor	16637.65	
Trans & Distribution Labor	16637.58	
Meter Reading Labor	16637.52	
Salaries	53297.06	
Other Payroll	10660.00	
Payroll Taxes	14134.81	
Health Insurance	35302.16	
Pers 457 Program	11663.88	
Benefit Monies	859.02	
Pers Expense	11264.29	
		260912.85
System Maintenance Expenses:		
SOS Maintenance	1334.80	
Pumping Maintenance	22.49	
Water Treatment Maintenance	1404.50	
Trans & Dist Maintenance	0.00	
Operating Supplies	9882.34	
Water Treatment Labs Fees	6427.00	
Water Treatment Fees/Licenses	232.00	
Filtration	0.00	
		19303.13
Purchased Power Expense:		
Purchased Power	72358.97	
		72358.97
Operational Expenses:		
Office Supplies	7780.62	
Bank Fees	-41.40	
Postage	3418.80	
Printing	1156.49	
Telephone	4104.64	
Office Utilities	3710.90	
Maintenance (Yard & Office)	4574.33	
Tractor Maintenance	2558.31	
Equipment Maintenance & Repair	702.26	
Uniforms	701.31	
Miscellaneous Expenses	0.00	
Travel	1654.87	
Education/Training	1008.76	
Trucks	11003.40	
Director Fees	1450.00	
Professional Fees	1152.00	
Audit Fees	5940.00	
		50875.29
Insurance Expense:		
Insurance	18345.75	
		18345.75
Loan Repayment Expense:		
Gambi Project	1314.10	
FMHA	1755.75	
		3069.85
Operating Expenses for 2007		\$ 424,865.84

Willow Creek Community Services District
OPERATIONAL EXPENSES
2006

Administration Expenses:

SOS Supervision	4123.24	
Pumping Supervision	4123.24	
Water Treatment Supervision	4123.24	
Trans & Dist Supervision	4123.25	
Customer Accouts Supervision	4123.25	
Water Treatment Maint/Improvements	645.90	
Trans & Dist Maint/Improvements	5605.18	
SOS Labor	14270.61	
Pumping Labor	14270.58	
Water Treatment Labor	14270.42	
Trans & Distribution Labor	14407.62	
Meter Reading Labor	14270.41	
Salaries	66608.70	
Other Payroll	19328.22	
Payroll Taxes	15089.43	
Health Insurance	33809.93	
Pers 457 Program	15507.07	
Benefit Monies	927.94	
Pers Expense	<u>10656.36</u>	260284.59

System Maintenance

SOS Maintenance	1073.80	
Pumping Maintenance	159.31	
Water Treatment Maintenance	885.00	
Trans & Dist Maintenance	60.00	
Operating Supplies	6194.01	
Water Treatment Labs Fees	6186.00	
Water Treatment Fees/Licenses	276.00	
Filtration	<u>0.00</u>	14834.12

Purchased Power Expense:

Purchased Power	<u>54223.20</u>	54223.20
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Operational Expenses:

Office Supplies	8191.39	
Bank Fees	70.00	
Postage	3343.00	
Printing	713.65	
Telephone	3500.67	
Maintenance (Yard & Office)	4779.02	
Tractor Maintenance	951.94	
Equipment Maintenance & Repair	92.42	
Uniforms	547.73	
Miscellaneous Expenses	141.14	
Travel	799.96	
Education/Training	147.00	
Trucks	10821.85	
Director Fees	1225.00	
Professional Fees	478.00	
Audit Fees	<u>5800.00</u>	41602.77

Insurance Expense:

Insurance	<u>20042.16</u>	20042.16
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Debt Repayment:

Gambi Project	1354.61	
FMHA	<u>1763.18</u>	3117.79

Operating Expenses for 2006

\$ 394,104.63

Willow Creek Community Services District
OPERATIONAL EXPENSE
2005

Administration Expenses:		
SOS Supervision	3312.00	
Pumping Supervision	3312.00	
Water Treatment Supervision	3312.00	
Trans & Dist Supervision	3312.00	
Customer Accouts Supervision	3312.00	
SOS Maint/Improvements	150.00	
Pumping Maint/Improvements	290.07	
Water Treatment Maint/Improvements	542.79	
Trans & Dist Maint/Improvements	12881.10	
SOS Labor	13598.09	
Pumping Labor	13598.10	
Water Treatment Labor	13598.12	
Trans & Distribution Labor	13598.10	
Meter Reading Labor	13598.10	
Salaries	47633.60	
Other Payroll	18317.50	
Payroll Taxes	23772.86	
Health Insurance	21036.40	
Pers 457 Program	19481.88	
Benefit Monies	0.00	
Pers Expense	4934.19	
		233590.90
System Maintenance Expenses:		
SOS Maintenance	313.00	
Pumping Maintenance	1964.02	
Water Treatment Maintenance	808.15	
Trans & Dist Maintenance	0.00	
Operating Supplies	4617.22	
Water Treatment Labs Fees	5859.22	
Water Treatment Fees/Licenses	944.00	
Filtration	71.02	
		14576.63
Purchased Power Expense:		
Purchased Power	52445.62	
		52445.62
Operational Expenses:		
Office Supplies	9570.24	
Bank Fees	125.00	
Postage	2923.86	
Printing	926.42	
Telephone	3492.37	
Maintenance (Yard & Office)	4736.23	
Tractor Maintenance	1856.19	
Equipment Maintenance & Repair	0.00	
Uniforms	787.24	
Miscellaneous Expenses	278.40	
Travel	1312.97	
Education/Training	0.00	
Trucks	8888.71	
Director Fees	1400.00	
Professional Fees	4161.00	
Audit Fees	5600.00	
		46058.63
Insurance Expense:		
Insurance	10428.95	
		10428.95
Debt Repayment:		
Gambi Project	1310.48	
FMHA	1485.59	
		2796.07
Operating Expenses for 2005		\$ 359,896.80

Willow Creek Community Services District
OPERATIONAL EXPENSES
2004

Administration Expenses:

SOS Supervision	4327.86	
Pumping Supervision	4327.86	
Water Treatment Supervision	4327.85	
Trans & Dist Supervision	4327.84	
Customer Accouts Supervision	4327.86	
SOS Maint/Improvements	67.71	
Pumping Maint/Improvements	5.10	
Water Treatment Maint/Improvements	604.79	
Trans & Dist Maint/Improvements	17471.66	
SOS Labor	13638.59	
Pumping Labor	13638.59	
Water Treatment Labor	13638.56	
Trans & Distribution Labor	13638.54	
Meter Reading Labor	13638.54	
Salaries	51719.78	
Other Payroll	18252.75	
Payroll Taxes	30340.65	
Health Insurance	19677.01	
Pers 457 Program	20994.16	
Benefit Monies	0.00	
Pers Expense	4301.67	
		253,267.37

System Maintenance Expenses:

SOS Maintenance	100.00	
Pumping Maintenance	0.00	
Water Treatment Maintenance	539.79	
Trans & Dist Maintenance	240.00	
Operating Supplies	5089.19	
Water Treatment Labs Fees	1511.67	
Water Treatment Fees/Licenses	928.00	
Filtration	0.00	
		8408.65

Purchased Power Expense:

Purchased Power	62266.08	
		62266.08

Operation Expenses:

Office Supplies	6628.90	
Bank Fees	95.00	
Postage	2668.55	
Printing	1921.93	
Telephone	2583.36	
Maintenance (Yard & Office)	3983.44	
Tractor Maintenance	1505.49	
Equipment Maintenance & Repair	0.00	
Uniforms	0.00	
Miscellaneous Expenses	372.93	
Travel	604.56	
Education/Training	0.00	
Trucks	6180.25	
Director Fees	1725.00	
Professional Fees	3355.74	
Audit Fees	5400.00	
		37025.15

Insurance Expense:

Insurance	8796.27	
		8796.27

Debt Repayment:

Gambi Project	1266.53	
FMHA	1462.38	
		2728.91

Operating Expenses for 2004: \$ 372,492.43



***WILLOW CREEK COMMUNITY SERVICES DISTRICT
WATER RATE STUDY
APPENDIX C***

PROPOSED RATE SCHEDULE

**PROPOSED RATE SCHEDULE INCREASES
WILLOW CREEK COMMUNITY SERVICES DISTRICT**

Existing Water Rate Schedule

Meter Size	Minimum Charge	Usage	Usage per 100 cf	Usage per 100 cf	Usage per 100 cf	# of Services	Excess Use (Yr)	Revenue (Yearly)
5/8"	26.50	750	1250 / \$0.90	2000 / \$0.80	\$0.90 / \$0.80	766	7401735	\$ 314,855.99
3/4"	29.87	1125	875 / \$0.90	2000 / \$0.80	\$0.90 / \$0.80	40	875520	\$ 24,841.76
1"	44.55	2850	2850 / \$0.90		\$0.80	22	391335	\$ 21,161.88
1 1/2"	65.55	5475	5475 / \$0.80		\$0.80	4	44235	\$ 5,427.48
2"	100.35	9825	9825 / \$0.80		\$0.80	4	751965	\$ 14,290.92
3"	117.75	12000	12000 / \$0.80		\$0.80	1	2114840	\$ 19,387.72
Fixed Charges								\$ 59,605.25

Total Estimated Revenue: \$ 459,571.00

Proposed 2009 Water Rate Schedule - 10% increase on Minimum, 50% on consumption

Meter Size	Minimum Charge	Usage	Usage per 100 cf	Usage per 100 cf	Usage per 100 cf	# of Services	Excess Use (Yr)	Revenue (Yearly)
5/8"	30.00	750	1250 / \$1.35	2000 / \$1.20	\$1.35 / \$1.20	766	7401735	\$ 401,482.60
3/4"	33.80	1125	875 / \$1.35	2000 / \$1.20	\$1.35 / \$1.20	40	875520	\$ 31,980.24
1"	50.00	2850	2850 / \$1.35		\$1.20	22	391335	\$ 27,301.02
1 1/2"	73.00	5475	5475 / \$1.20		\$1.20	4	44235	\$ 6,925.62
2"	111.50	9825	9825 / \$1.20		\$1.20	4	751965	\$ 19,563.18
3"	130.50	12000	12000 / \$1.20		\$1.20	1	2114840	\$ 28,528.08
Fixed Charges								\$ 65,565.78

Total Estimated Revenue: \$ 581,346.52

Proposed 2010 Water Rate Schedule - 5% increase on Minimum, 10% on consumption

Meter Size	Minimum Charge	Usage	Usage per 100 cf	Usage per 100 cf	Usage per 100 cf	# of Services	Excess Use (Yr)	Revenue (Yearly)
5/8"	31.50	750	1250 / \$1.50	2000 / \$1.35	\$1.50 / \$1.35	766	7401735	\$ 433,627.19
3/4"	35.50	1125	875 / \$1.50	2000 / \$1.35	\$1.50 / \$1.35	40	875520	\$ 34,687.02
1"	52.50	2850	2850 / \$1.50		\$1.35	22	391335	\$ 29,582.57
1 1/2"	76.50	5475	5475 / \$1.35		\$1.35	4	44235	\$ 7,915.52
2"	117.00	9825	9825 / \$1.35		\$1.35	4	751965	\$ 22,310.98
3"	137.00	12000	12000 / \$1.35		\$1.35	1	2114840	\$ 32,192.34
Fixed Charges								\$ 68,844.07

Total Estimated Revenue: \$ 629,159.69

Proposed 2011 Water Rate Schedule - 5% increase on Minimum, 10% on consumption

Meter Size	Minimum Charge	Usage	Usage per 100 cf	Usage per 100 cf	Usage per 100 cf	# of Services	Excess Use (Yr)	Revenue (Yearly)
5/8"	33.00	750	1250 / \$1.65	2000 / \$1.48	\$1.65 / \$1.48	766	7401735	\$ 464,753.59
3/4"	37.25	1125	875 / \$1.65	2000 / \$1.48	\$1.65 / \$1.48	40	875520	\$ 37,249.70
1"	55.00	2850	2850 / \$1.65		\$1.48	22	391335	\$ 31,798.40
1 1/2"	80.30	5475	5475 / \$1.48		\$1.48	4	44235	\$ 8,521.16
2"	122.80	9825	9825 / \$1.48		\$1.48	4	751965	\$ 23,421.52
3"	143.80	12000	12000 / \$1.48		\$1.48	1	2114840	\$ 34,978.83
Fixed Charges								\$ 72,286.27

Total Estimated Revenue: \$ 673,009.46

Proposed 2012 Water Rate Schedule - 5% increase on Minimum, 10% on consumption

Meter Size	Minimum Charge	Usage	Usage per 100 cf	Usage per 100 cf	Usage per 100 cf	# of Services	Excess Use (Yr)	Revenue (Yearly)
5/8"	34.60	750	1250 / \$1.8	2000 / \$1.80	\$1.80 / \$1.63	766	7401735	\$ 497,624.34
3/4"	39.00	1125	875 / \$1.8	2000 / \$1.80	\$1.80 / \$1.63	40	875520	\$ 39,980.48
1"	57.75	2850	2850 / \$1.8		\$1.63	22	391335	\$ 34,145.95
1 1/2"	84.25	5475	5475 / \$1.63		\$1.63	4	44235	\$ 9,138.46
2"	129.00	9825	9825 / \$1.63		\$1.63	4	751965	\$ 25,495.52
3"	151.00	12000	12000 / \$1.63		\$1.63	1	2114840	\$ 38,435.49
Fixed Charges								\$ 75,900.58

Total Estimated Revenue: \$ 720,720.82

Proposed 2013 Water Rate Schedule - 5% increase on Minimum, 10% on consumption

Meter Size	Minimum Charge	Usage	Usage per 100 cf	Usage per 100 cf	Usage per 100 cf	# of Services	Excess Use (Yr)	Revenue (Yearly)
5/8"	36.30	750	1250 / \$2.00	2000 / \$1.80	\$2.00 / \$1.80	766	7401735	\$ 536,778.01
3/4"	41.00	1125	875 / \$2.00	2000 / \$1.80	\$2.00 / \$1.80	40	875520	\$ 43,209.36
1"	60.60	2850	2850 / \$2.00		\$1.80	22	391335	\$ 36,961.83
1 1/2"	88.45	5475	5475 / \$1.80		\$1.80	4	44235	\$ 9,903.63
2"	122.80	9825	9825 / \$1.80		\$1.80	4	751965	\$ 28,154.37
3"	158.50	12000	12000 / \$1.80		\$1.80	1	2114840	\$ 42,345.12
Fixed Charges								\$ 79,695.61

Total Estimated Revenue: \$ 777,047.93