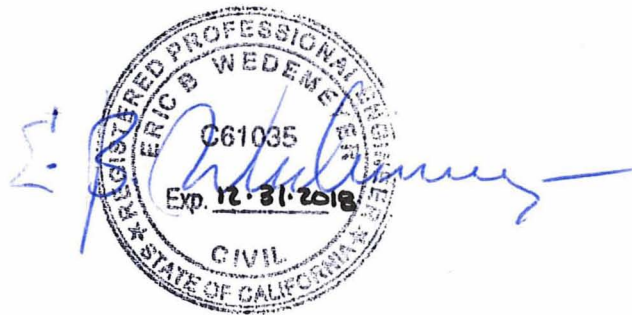


County Service Area #6 – Jones Valley Water

Rate Report – 2017



INTRODUCTION

County Service Area #6 – Jones Valley (CSA) was formed in 1980 and currently encompasses 3,033 acres. The system has been rebuilt and added onto a number of times, with the most recent expansion completed in 2013.

The water source is Shasta Lake. Most years, the CSA has access to 350 acre foot water right with 1980 priority. Because of its late date the water right has a “window” June 16 through August 31 every year, when Central Valley Project (CVP) water is taken through a contract with the Shasta County Water Agency (SCWA). The SCWA contract has a face value of 190 acre feet. Silverthorn Summer Homes has a separate SCWA contract for 15 acre feet of CVP water. The 2013 expansion included a transfer of 100 acre feet of water from County Service Area #25 – Keswick.

The CSA has had two years of operation since the Elk Trail Expansion. Operational costs have exceeded income. Depreciation and replacement costs have not been collected. Maintenance is needed and there are insufficient funds to cover the cost of supplies and work.

EXISTING OPERATIONAL FUND

Complete financials for Fiscal Year (FY) 2014-15 and FY 2015-16 are included in **Exhibit A**. Because of the system expansion in 2013-14, only FY 2014-15 and 2015-16 are considered in this rate report. **Table 1** shows revenue and expense.

Table 1 – Water Revenue and Expense

	FY 2014-15	FY 2015-16
Revenue	\$177,502	\$181,370
Expense	\$221,111	\$211,649

Depreciation is not shown in **Table 1**.

Even accounting with the most optimistic revenue and most conservative expense information, the current rate structure does not collect enough to cover regular operating costs. Revenue needs to increase almost 21% to meet current operational needs.

SYSTEM NEEDS

Revenue collected must cover all operating costs, overhead and some depreciation. Depreciation is collected to offset the cost of future equipment replacement and repairs.

Labor agreements were renegotiated in 2016. A 3% increase in the first year was negotiated, 3% the second and 2% in the third. This increases average costs by about \$7,800 at the end of three years.

Table 2 shows average expenses for (FY) 2014-15 and FY 2015-16 and increased labor costs. Full depreciation is also shown separately.

Table 2 – Additional Labor and Depreciation

	Average
Average Expense	\$216,380
Additional Labor	\$7,800
Total	\$224,180
Depreciation	\$277,857

The CSA must collect at least \$224,000 to cover basic operating needs in the next three years. An additional \$278,000 could be collected through rates to fully offset future replacement costs.

Collecting all operating costs and depreciation would push revenue 187% beyond current levels. The corresponding rates would be too high for many customers.

The Drinking Water State Revolving Fund offers guidance on rates. Their rule of thumb is that rates should be greater than or equal to 1.5% of the Median Household Income (MHI) to cover operating costs, set aside an operating reserve and recover some depreciation. The MHI used in a recent grant application for the CSA was \$44,461. So, the average annual water bills should exceed \$667 to meet the 1.5% threshold. Dividing current revenue by the 657 parcels currently in the CSA

shows the average household spends \$273 annually on water. Rates set at 1.5% of MHI would produce a 144% cost increase.

However, the 1.5% MHI calculation can include assessments. A list of assessments is included in **Exhibit B**. The oldest assessment, Account No. 50003, is likely to be paid off in FY 18-19, so it will not be used. The combined annual assessment of the remaining two assessments divided by the total number of parcels is approximately \$257. The amount necessary to reach the 1.5% threshold is reduced to \$410 annually. If \$410 was collect for each parcel in the CSA annually, \$269,370 in revenue would be generated. This revenue would exceed projected normal operating expenses and make about \$45,000 available for operating reserves and depreciation.

EXISTING WATER USE PATTERNS

The treatment and distribution systems are adequately sized to serve the current district.

During development of this rate report, individual meter use from bi-monthly billings for the service period from July 1, 2014, through June 30, 2016, was examined. This period coincided with a drought. Average use during single billing cycles is 14,935 gallons and median use is 7,140 gallons. Prior to the drought, average use was 20,232 gallons and median use 8,500 gallons. Water use in the CSA proved responsive to the drought. The drought appears to have waned locally, but future climate and customer actions remain unknown.

PROPOSED WATER RATES

Rate Ordinance 707 went into effect on July 28, 2015. It preserved the prior standard rate structure, shown in **Figure 3** but added a commodity charge to offset the cost of water purchased at a rate greater than CVP supplies. The commodity charge is revenue neutral, functional, and will be retained.

Figure 3 – Existing Rate Structure

QUANTITIES	RATES
0 to 2,000 gallons	\$33.95
2,000 to 10,000 gallons	\$0.23 per 100 gallons used
More than 10,000 gallons	\$0.13 per 100 gallons used

The new rate structure should more closely match recurring fixed costs to the base rate and variable costs to the per gallon charge. Fixed costs are those that occur independent of the quantity of water produced. For instance, an operator must check the plant daily and meters must be read bi-monthly as long as the system is operating. The most obvious variable cost is for utilities; chemical costs and a certain amount of maintenance is also based on the amount of water produced. Standby and vacation rates are set at \$10 per billing cycle and treated as fixed.

A second tier is not viable for the new rate structure. Proposition 218 requires that costs match fees. A break point between fixed and variable costs is apparent, but there is no such visible change in costs based on water consumption after that.

TABLE 1 OPERATION ONLY

Cost recovery based on the average operating costs shown in **Table 2** is:

Base Rate/Fixed Costs:	\$157,000
Metered/Variable Costs:	\$ 67,000

With a base use of 2,000 gallons, this equates to a \$49.85 base rate and a per-100 gallons served rate of \$0.18. \$224,059 of revenue is produced for the CSA. Under this structure, the bi-monthly bill for a customer using 14,935 gallons of water would be \$73.25, or \$439.50 annually. A customer using 7,140 gallons would pay \$59.21 bi-monthly, or \$355.26 annually. The per-parcel average annual revenue is \$341 and does not meet the 1.5% MHI test.

Other water districts often set the average or median use as the base rate quantity; some use zero as the base quantity (a meter fee). There is a mismatch between the current average and median use, 14,935 and 7,140 gallons, and the current rate structure, which sets base use at 2,000 gallons. A simple meter fee could also be implemented: all customers with a meter would pay the base rate and graduated fees for use. Approximately 15% of customer invoices are for 2,000 gallons or less. So, the base quantity could reasonably be increased to 15,000 gallons or 7,000 gallons. The 15,000 gallon base quantity option was considered. A potential downside is that the economic incentive to conserve would be reduced. Drought conservation remains the state's policy though local precipitation has been ample. The existence of a drought ordinance has so far shielded the CSA from potential fines. Most users would, however, have no cost incentive to conserve water with a 15,000 gallon base rate and would behave rationally by increasing water use to nearer the base value.

Table 3 considers possible base and variable rate structures to meet system operating needs.

Table 3 – Rate Structures and Effects

	Meter Fee	2,000 Gallon Base	7,000 Gallon Base
Base Rate	\$49.80	\$49.85	\$49.50
Rate per 100 Gallons	\$0.16	\$0.18	\$0.24
Average Use Bill	\$73.80	\$73.25	\$68.70
Median Use Bill	\$61.32	\$59.21	\$49.98
Revenue	\$224,087	\$224,059	\$224,100

Meter-driven fees would drive down use and variable cost recovery would be decreased. Therefore, the 7,000 gallon base quantity is recommended and will be pursued this report.

OPERATION PLUS DEPRECIATION RECOVERY TO 1.5% of MHI

Considering assessments, the average annual water bill should exceed \$410 to meet the 1.5% MHI threshold. With a base use of 7,000 gallons, this equates to a \$60.45 base rate and a per-100 gallons served rate of \$0.29. This equates to bi-monthly bills of \$83.65 for average users and \$61.03 for median users.

Recovery using model data would be:

Base Rate/Fixed Costs:	\$187,989
Metered/Variable Costs:	<u>\$ 81,464</u>
	\$269,453

This would generate approximately \$45,000 annually to set aside for emergencies, replacement and improvements.

FOUR YEAR PHASE IN

To reduce financial impact, rates may be increased over a period of years. The most important, short-term goal is for revenue to exceed operating costs. **Table 4** reaches average, current operating costs at the end of year one, then proposes three more years of rate increases to reach 1.5% of MHI by the end of year 4. Revenue in **Table 4** only includes standby, billed water and assessments for standby. Revenue item 668194, S/A Del Water Curr, is not counted: it is billed water from previous years recovered through taxes.

Table 4 – Four Year Proposal - 7,000 Gallon Base Quantity

	Current	Year 1	Year 2	Year 3	Year 4
Base Rate	\$33.95	\$47.65	\$51.95	\$56.25	\$60.45
Per 100 Gallon	\$0.23	\$0.23	\$0.25	\$0.27	\$0.29
Average Bi-Monthly	\$58.85	\$66.05	\$71.95	\$77.85	\$83.65
Percent Increase	-	12.2%	8.9%	8.2%	7.5%
Median Bi-Monthly	\$45.91	\$48.11	\$52.45	\$56.79	\$61.03
Percent Increase	-	5.0%	9.0%	8.3%	7.4%
Revenue	\$175,176	\$216,001	\$230,962	\$255,686	\$269,453

The rate structure and schedule proposed in **Table 4** eases the impact of increased rates. The goal of 1.5% MHI is reached. After the fourth year, water use, revenue and capital needs should be reconsidered and rates adjusted accordingly.

OTHER FEES

Other fees and charges were considered during this review. See **Exhibit C** for calculations.

It is recommended that a fee for annual backflow prevention device (BFP) checking be established. A BFP is required in Shasta County when a customer develops a private well to prevent the possibility of cross-connecting untested water supplies with the public supply. The recommended fee for annual testing is \$57.

Restoring a disconnected service takes approximately 45 minute for a utility worker already in the field. The recommended fee is \$65.

TRENDS AND COMPARISONS

Base water rates were last increased in 2012. The proposed increases would be phased in over an additional three years. The proposed increase thus covers nine years. Existing and proposed revenues per the rate model are shown in **Table 5** below.

Table 5: Nine Year Revenue

	2012-2017	2021	% Increase	Annual % Increase
Water Revenues	\$175,176	\$269,453	53.8	5.1

The final rates compare favorably with similar rates in the larger community. The proposed rates are in line with other systems in the region as shown in the graphs in **Exhibit D**. It should also be noted that the CSA serves a small customer base whereas many comparison systems serve larger customer bases and thus enjoy economies of scale.

CONCLUSION

After the first year, the rate structure and schedule proposed in **Table 4** recovers current operating costs. In the second year, it begins capital accumulation for future maintenance and replacement. It sets the stage to accumulate reserve operational funding and savings for future maintenance and improvements.

Attachment:

- Exhibit A:** Expense and Revenue Statement
- Exhibit B:** Assessments
- Exhibit C:** Other Fee Calculations
- Exhibit D:** Local Water Use Comparisons

EXHIBIT A

		Actual	Actual	Budget
Acct No.s	Classification	2014-15	2015-16	2016-17
EXPENSES:				
SERVICES AND SUPPLIES				
032500	COMMUNICATIONS	1,245	834	1,500
033103	MISC INSURANCE	1,452	1,380	1,389
033500	MAINTENANCE OF EQUIPMENT	10,690	10,215	10,000
033700	MAINTENANCE OF STRUCTURES	22	0	3,000
033791	CHS FAC MGMT MAINT STR	300	683	300
034100	MEMBERSHIPS	153	163	163
034591	CHGS OC POSTAGE SVS	4,080	3,118	3,415
034800	PROF & SPECIAL SERVICES	18,582	10,383	9,303
034826	PROF LAB SVS	6,292	6,062	6,000
034829	PROF MAINTENANCE SVS	91,600	97,270	103,134
034892	CHGS IT PROFESSIONAL SVS	0	224	0
034900	PUB & LEGAL NOTICES	0	122	250
035100	RENTS & LEASES OF EQUIPMENT	243	441	500
035500	SMALL TOOLS & EQUIPMENT	374	27	500
035700	SPECIAL DEPARTMENTAL EXPENSE	3,150	2,955	4,000
035900	TRANS/TRAVEL	2,598	3,202	3,000
036100	UTILITIES	63,465	63,155	64,000
	TOTAL SERVICES AND SUPPLIES	204,245	200,234	210,454
OTHER CHARGES				
050001	CENTRAL SERVICE COST A-87	16,875	10,924	6,657
050800	TAXES & ASSESSMENTS	0	582	600
050900	DEPRECIATION	277,857	277,857	500,000
051100	BAD DEBTS	(9)	(91)	0
	TOTAL OTHER CHARGES	294,723	289,272	507,257
OTHER FINANCING USES				
096629	TRANS OUT CSA#6 ELK TRAIL S/A	4,694	0	0
	TOTAL OTHER FINANCING USES	4,694	0	0
	TOTAL EXPENDITURES	503,663	489,506	717,711
REVENUE:				
REVENUE FROM MONEY & PROPERTY				
420000	INTEREST	366	121	200
420001	CHANGE IN FAIR VAL INV	0	0	0
	TOTAL REVENUE FROM MONEY & PROPERTY	366	121	200
INTERGOVERNMENTAL REVENUES				
560502	FED WATER SYSTEM IMPROVE GRANT	0	0	0
	TOTAL INTERGOVERNMENTAL REVENUES	0	0	0

EXHIBIT A

		Actual	Actual	Budget
Acct No.s	Classification	2014-15	2015-16	2016-17
CHARGES FOR SERVICES				
668132	SPECIAL ASSESSMENT	0	0	0
668144	S/A IN LIEU PARCEL CHGS CURR	13,601	13,781	13,780
668194	S/A DEL WATER CURR	4,432	3,289	4,400
693020	WATER SERVICE COLLECTIONS	158,568	163,300	170,000
693060	INSPECTION FEES	450	0	500
693900	CONNECTION FEES	450	1,000	500
	TOTAL CHARGES FOR SERVICES	177,502	181,370	189,180
MISCELLANEOUS REVENUES				
795100	PRIOR YEAR VOIDED WRTS/CHECKS	0	0	0
799300	MISCELLANEOUS REVENUE	36	108	0
799390	MISCELLANEOUS REVENUE		3,067	0
799391	PRIOR PERIOD ADJUSTMENT	3,247,593	0	0
799850	REIMB MISC COSTS	0	0	0
799851	REIMB DAMAGES COUNTY	1,610	0	0
	TOTAL MISCELLANEOUS REVENUES	3,249,239	3,175	0
OTHER FINANCING SOURCES TRAN IN				
806350	TRNS IN CSA#6 JONES VLY 350	0	25,000	13,000
806371	TRAN IN SHASTA CO WATER AGENCY	0	0	0
	TOTAL OTHER FIN SRCS TRAN IN	0	25,000	13,000
OTHER FINANCE SRCS L/T DEBT PRCD				
850000	L/T DEBT PROCEEDS	0	0	0
	TOTAL OTH FINANCE CRCS L/T DEBT PRCD	0	0	0
	TOTAL REVENUES	3,427,107	209,666	202,380
EXPENSES (OVER) UNDER REVENUES				
		2,923,445	(279,840)	(515,331)

EXHIBIT B
ANNUAL ASSESSMENT INCOME

Account No. 50003¹

Assessment \$ 27,389.00
Silverthorn² \$ 4,514.00
\$ 31,903.00 Total 513 Parcels
Public Works report to Auditor, 2016

Note 1: This assessment likely to sunset in FY 18-19.

Note 2: Properties in Silverthorn are leased from public lands, so assessment billed.

AD 1997-1

Assessment \$ 41,764.70 377
Fiscal Year 2016/17 Annual District Administration Report, Willdan Financial Services

AD 2010-2

Assessment \$127,008.70 195
Fiscal Year 2016/17 Annual District Administration Report, Willdan Financial Services

Average Assessment, All Parcels

$\$200,676.40 / 657 = \$ 305.44$ per parcel

Average Assessment Excluding Value of 50003

$\$168,773.40 / 657 = \$ 256.88$ per parcel

EXHIBIT C

CSA 06 - Jones Valley

2017 Rate Study

Rate for Backflow Prevention Device Checking

\$ 6,540.77 2016 BFP Testing Cost, Labor and Equipment

116 Devices

\$ 56.39

\$ 57.00 Recommend

Rate for Restoration of Service

Billing staff indicates that it takes approximately 3/4 of an hour to restore service while in the CSA.

\$ 78.08 Water/Wastewater 2, 2016 Rate

\$ 84.49 3% - 3% - 2% Wage Increases, 2017-2019

\$ 81.29 Average

0.75 Restoration time

\$ 60.96

1.74 Typical CSA Box Truck per Mile Rate, 2016

5 Assumed Mileage

\$ 3.37

\$ 64.33 Total

\$ 65.00 Recommend

Exhibit D

Local Rate Comparisons

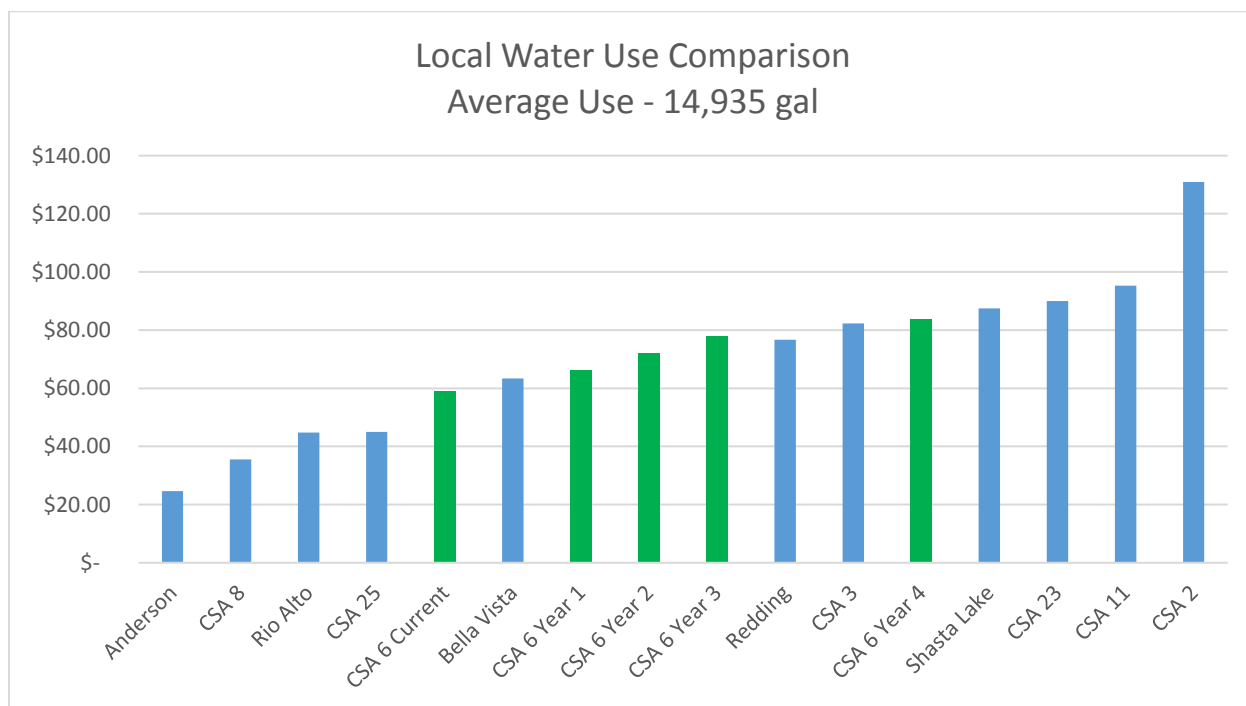
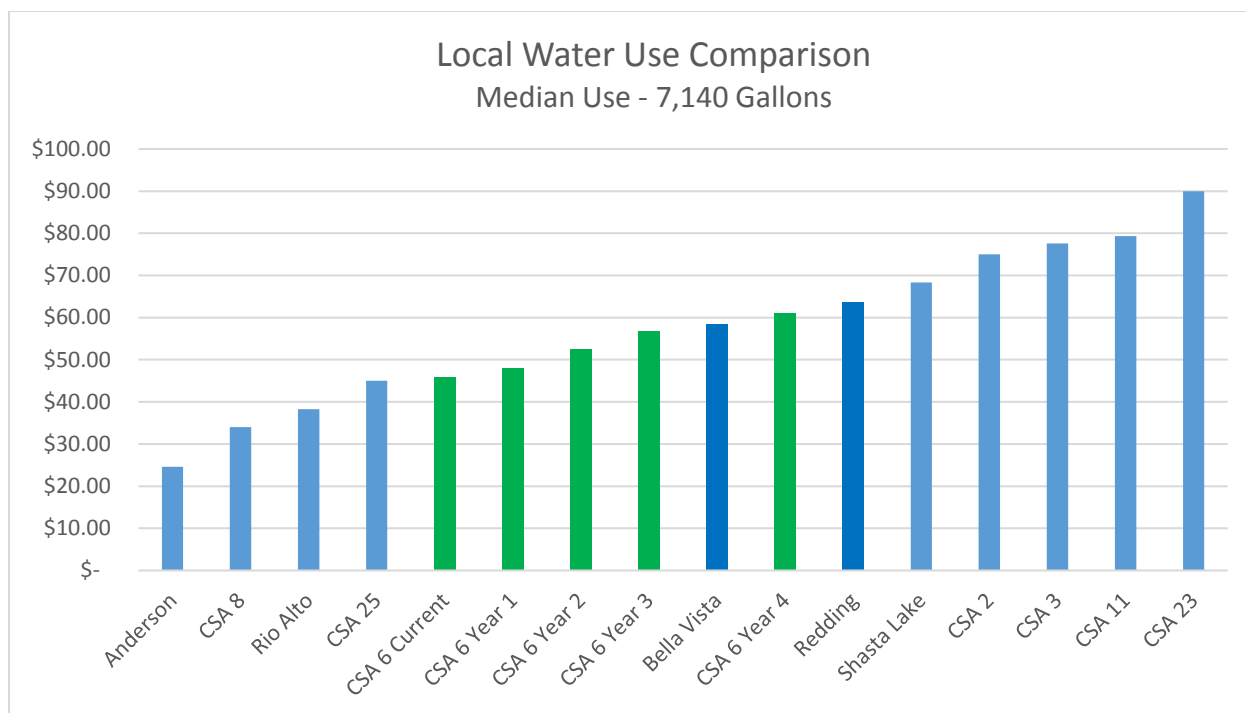
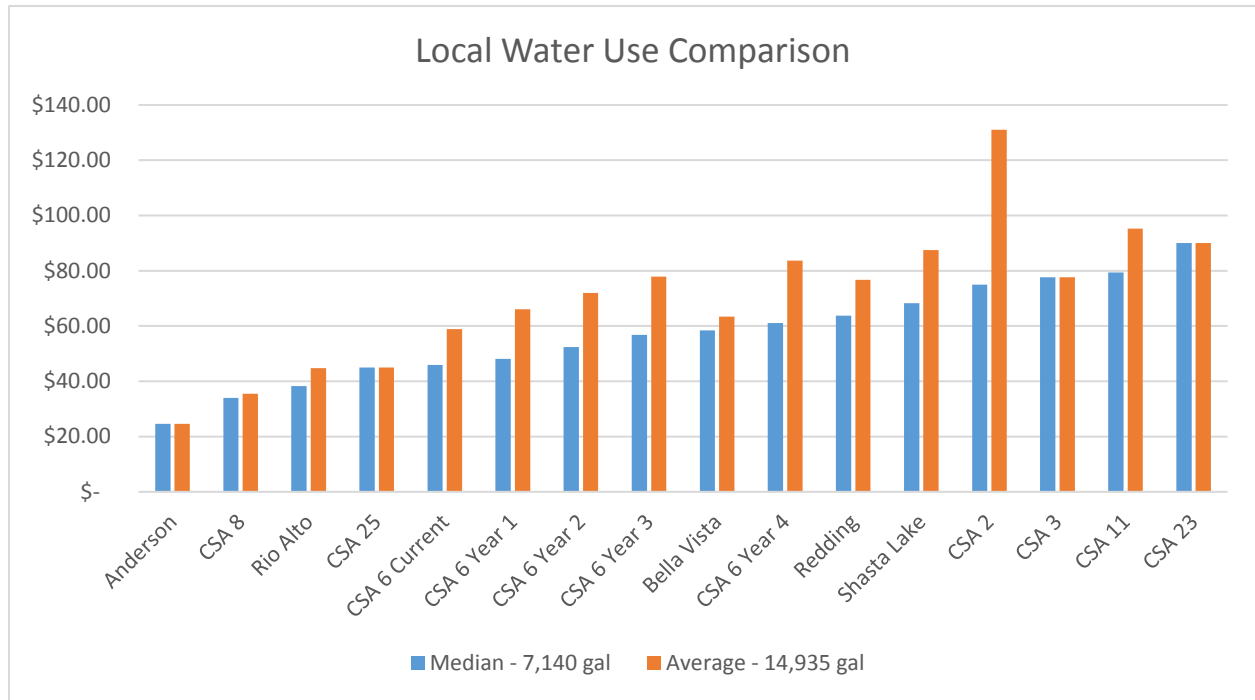


Exhibit D

Local Rate Comparisons



Addendum to County Service Area #6 – Jones Valley Rate Report – 2017

On March 8, 2017, the County Service Area #6 – Jones Valley Rate Report – 2017 was completed. On March 23, 2017, a public meeting was held at the Jones Valley Fire Hall. Staff present reports that many customers in attendance thought the water use projection was overly conservative. With the drought over, or at least skipping a year, they asserted more water would be used.

To account for this, a schedule with only three years of increases is considered.

At the end of three years, the 1.5% Median Household Income (MHI) goal will not be reached. This may impact the CSA's ability to received Drinking Water State Revolving Fund construction money. However, MHI seems to be trending up, so an adjustment was likely even in the Rate Reports four year scenario.

Table 5 requires modification.

Table 5: Eight Year Revenue

	2012-2017	2020	% Increase	Annual % Increase
Water Revenues	\$175,176	\$255,686	46.0	4.9

At the end of three years, the model predicts annual revenue of \$255,686. This is above anticipated operating costs and money will be set aside for emergency and capital needs.

March 24, 2017

