

County Service Area #3 – Castella Water

Rate Report – 2017



INTRODUCTION

County Service Area #3 – Castella Water (CSA) currently has 73 active meters 28 standby accounts. The system was constructed in the 1970's with expansion in the 1990's. Castella was originally served by a private water company. Untreated water was served through an open ditch system. In 1976, a County Service Area was established and is operated by the Public Works Department. A water right was established in 1977. In 1980 an intake structure, water treatment plant and welded steel storage tank were constructed.

In 2008 a US Department of Agriculture combination grant and loan was secured to fund major improvements to the water system. The work consisted of modifying the existing water filters to meet current day standards, adding pipeline to increase flocculation and chlorine contact time, treatment plant operational improvements and new service laterals complete with radio-equipped water meters.

The CSA and all of California recently weathered two years of drought. Reduced water use has reduced revenue. Recent rains have required additional staff time to reduce cloudiness in the water. The system's intake is becoming difficult to service and will need replacement in the near future. While grant funds have been sought, the exact nature of funding is unknown.

EXPENSES

Operational revenue and expense for fiscal year (FY) 2014/15 and FY 2015/16 are shown in **Table 1**. A full accounting of costs and revenues for those fiscal years is included in **Exhibit A**. **Table 1** does not include depreciation as an expense.

Table 1 – Operational Revenue and Expense

	FY 2014/15	FY 2015/16
Revenue	\$44,131	\$43,015
Expense	\$51,645	\$70,929

Table 1 includes as expenses Central Service Cost A-87, which is a charge the CSA pays for work in various County departments other than Public Works, such as the Treasurer/Tax Collector and County Counsel. Expenses include a one-time, \$1,000 fine from the State Water Resources Control Board, Division of Drinking Water (DoDW), which regulates the CSA. **Table 1** includes as revenues S/A Del Water Curr, which is an amount that comes in as the water system is made whole for unpaid bills collected through property taxes. The debt is usually more than a year old, but it is included as revenue even though it does not correlate to current use.

During FY 2014/15 and FY 2015/16, expenses exceeded revenue.

FY 2015/16 saw a sudden increase in expenses. Many of these are related to emergency activities, such as the response to a tank draining line break. Field staff billed 25 overtime hours in FY 2015/16 versus 4 in FY 2014/15. Day-to-day costs also increased as the DoDW has asked that operators spend more time at the plant and changed the testing regime.

Table 2 revises expense figures for the reported years and takes an average. Though valid charges to the CSA, they appear to be exceptional. Costs are reduced as follows:

FY 2014/15 Utilities are reduced by \$1,680, the additional cost of transferred water during the water supply cutback.

FY 2015/16 Prof & Special Services are reduced by \$5,350 for road repairs after a leak was discovered and repaired. Prof Maintenance Svs are reduced by \$6,800 for pipe repairs and additional water testing after a leak was discovered and repaired. Utilities are reduced by \$2,890, the additional cost of transferred water during the water supply cutback. And Fines & Forfeitures are reduced by \$1,000, the amount DoDW fined the system after the leak caused negative pressure in the system briefly.

Table 2 – Average Operational Revenue and Expense and Depreciation

	FY 2014/15	FY 2015/16	Average
Revenue	\$44,131	\$43,015	\$43,573
Expense	\$49,965	\$54,889	\$52,427
Depreciation	\$41,199	\$41,199	\$41,199

Depreciation is an annual expense value assigned by accounting practice to offset future system replacement. No depreciation is being collected.

FINANCIAL TRENDS

During FY 2014/15 and FY 2015/16, expenses exceeded revenue. Expenses are expected to exceed revenue again this year. Cash on hand, which is the CSA's reserve to make unexpected repairs and invest in long term capital improvements, has diminished. Annual revenue must increase by almost \$9,000 just to meet average operational expenses. No depreciation is being collected and no operating reserves are being set aside for future emergencies.

The most recent rate structure went into effect on September 1, 2015, with Ordinance No. 706. That rate increase only recovered costs for transferred water when it is needed. It kept the rates of the previous ordinance, which established a \$77.62 bi-monthly charge for the first 20,000 gallons (gal) of water used and adds \$2.05 for every 1,000 gal used after that up to 50,000 gal. Above 50,000 gal, \$1.65 is charged for every 1,000 gal. Vacation and standby fees are set at \$30.00 bi-monthly.

The previous Rate Ordinance (No. 654) brought the regular rates into effect in 2009.

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 \$1,400 at the end of three years.

Including the additional \$1,400 for labor rates, average annual operational revenue needs are around \$53,800. A rate increase for water is critical as less than \$43,600 is being collected annually. The water system is not collecting enough revenue to recover annual operational costs. Operating reserves and depreciation are not being serviced. An increase in annual revenue is needed.

Water district practice guides recommend keeping at least three months of operating capital on hand. That is about \$13,000. Current cash reserves are about \$7,400. The raw water intake structure is becoming difficult to service and will need replacement; while grant funds have been sought, the exact nature of funding is unknown. Other maintenance may be required.

PROPOSED WATER RATES

To meet operating needs, revenue should be \$53,800. This rate study separates fixed and variable costs. Fixed costs are those that occur independent of use, such as daily plant operations, bi-monthly meter reads and postage. The most obvious variable cost is for utilities (electrical use is driven by demand), but chemicals and some maintenance is also a function of the amount of water produced. Current fixed costs are about \$40,800 and variable are about \$13,000.

There is no clear production cost break to justify a second tier (currently \$1.65 per 1,000 gallons for use above 50,000 gallons). Similarly, current ratesetting practice discourages setting punitive rates for high use. A second rate tier will not be considered.

Current, non-zero, average use is 13,611 gallons. Current, non-zero, median use is 8,135 gallons, meaning half of all bi-monthly use is below 8,135 gallons. For the two-year period beginning July 1, 2011, average use was 19,463 gallons and median was 9,926. CSA customers were responsive to the drought.

Using the current base quantity and use graduations – 20,000 gallons and 1,000 gallons – the operational goal could be achieved at a base rate of \$84.10 and tiered rate of \$7.95/1,000 gallons.

Only about 5% of customer invoices are for more than 20,000 gallons. There is a mismatch between the current average and median use, and the current rate structure, which sets base use at 20,000 gallons. 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). A simple meter fee could be implemented: all customers with meters would pay the base rate and graduated fees for use. The base quantity could reasonably be reduced to 14,000 gallons or 8,000 gallons. A 14,000 gallon base quantity option was considered. About a third of all non-zero use is for more than 14,000 gallons. A potential downside is that the economic incentive to conserve would be minimal. Conservation remains the state's policy though local precipitation has been ample. The existence of a conservation ordinance has so far shielded the CSA from potential fines.

With an 8,000 gallon base quantity, modelling shows operating cost recovery at \$83.65 for base use (the first 8,000 gallons) and \$0.41 per 100 gallons used after the first 8,000. A per 100 gallon rate shows slightly lower average and median bills. After the first year, rates can be increased less than 5% annually. At the end of the fourth year, this nets slightly less than an additional \$5,000 annually. Overages will be reserved for planned future work and emergencies.

Table 3 – 8,000 Gallon Base Quantity Rate and Revenue Comparison

	Current 20,000 Gal Base	Year 1 8,000 Gal Base	Year 2 8,000 Gal Base	Year 3 8,000 Gal Base	Year 4 8,000 Gal Base
Base	\$77.62	\$83.65	\$87.65	\$90.65	\$93.65
Variable/100 Gal	\$0.205	\$0.41	\$0.41	\$0.42	\$0.42
Average Bill	\$77.62	\$107.02	\$111.02	\$114.59	\$117.58
Median Bill	\$77.62	\$84.47	\$88.47	\$91.49	\$94.48
Revenue	\$41,074	\$53,806	\$55,558	\$57,194	\$58,508

OTHER FEES

The extraordinary commodity cost fee established in Ordinance 706 covered the increased cost of transferred water during the drought and should be retained.

Other fees and charges were considered during this review. See **Exhibit B** 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 \$85. There is currently one BFP device in the CSA and the work load cannot be split.

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 eight years. Existing and proposed revenues per the rate model are shown in **Table 5** below.

Table 4: Nine Year Revenue

	2009-2017	2021	% Increase	Annual % Increase
Water Revenues	\$41,074	\$58,508	42.4	2.6

The final rates compare 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 C**. 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. After the fourth year, approximately \$4,700 is set aside. Barring unanticipated costs the stage to accumulate reserve operational funding and savings for future maintenance and improvements. After the fourth year, the rates should be re-evaluated to make certain fixed and variable costs are balance.

Attachment:

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

EXHIBIT A

Shasta County DPW
CSA #3 Castella Water Admin.
Organization Code 00374

ACCT NOS.	CLASSIFICATION	ACTUAL BALANCE 2014-15	ACTUAL BALANCE 2015-16	ESTIMATED BALANCE 2016-17
EXPENSES:				
<u>SERVICES AND SUPPLIES</u>				
032500	COMMUNICATIONS	209	241	205
033103	MISC INSURANCE	204	192	194
033500	MAINTENANCE OF EQUIPMENT	1,027	2,699	1,629
033791	CHS FAC MGMT MAINT STR	2,464	0	0
034100	MEMBERSHIPS	153	163	161
034591	CHGS OC POSTAGE SVS	547	478	542
034800	PROF & SPECIAL SERVICES	2,381	7,357	1,970
034826	PROF LAB SVS	3,974	4,193	2,855
034829	PROF MAINTENANCE SVS	19,964	30,598	20,037
034900	PUB & LEGAL NOTICES	0	254	212
035100	RENTS & LEASES OF EQUIPMENT	110	0	0
035700	SPECIAL DEPARTMENTAL EXPENSE	1,019	848	1,213
035900	TRANS/TRAVEL	6,296	6,348	5,572
036100	UTILITIES	10,527	13,266	12,826
	TOTAL SERVICES AND SUPPLIES	48,873	66,637	47,416
<u>OTHER CHARGES</u>				
050001	CENTRAL SERVICE COST A-87	2,792	3,264	4,109
050800	TAXES & ASSESSMENTS	0	47	49
050900	DEPRECIATION	41,199	41,199	41,199
051100	BAD DEBTS	(21)	(19)	0
051600	FINES & FORFEITURES	0	1,000	0
	TOTAL OTHER CHARGES	43,971	45,492	45,357
	TOTAL EXPENDITURES	92,844	112,128	92,773
REVENUE:				
<u>REVENUE FROM MONEY & PROPERTY</u>				
420000	INTEREST	194	95	37
	TOTAL REVENUE FROM MONEY & PROPERTY	194	95	37
<u>CHARGES FOR SERVICES</u>				
668194	S/A DEL WATER CURR	1,519	1,055	494
693020	WATER SERVICE COLLECTIONS	42,418	41,865	42,327
	TOTAL CHARGES FOR SERVICES	43,937	42,920	42,821
	TOTAL REVENUES	44,131	43,015	42,858
	EXPENSES (OVER) UNDER REVENUES	(48,713)	(69,114)	(49,915)

EXHIBIT B

CSA 03 - Castella

2017 Rate Study

Rate for Backflow Prevention Device Checking

\$	78.08	Water/Wastewater 2, 2016 Rate
\$	84.49	3% - 3% - 2% Wage Increases, 2017-2019
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\$	81.29	Average
	1.00	Test time
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\$	81.29	

	1.74	Typical CSA Box Truck per Mile Rate, 2016
	5	Assumed Mileage
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\$	3.37	

\$ 84.66 Total

\$ 85.00 Recommend

Rate for Restoration of Service

\$	78.08	Water/Wastewater 2, 2016 Rate
\$	84.49	3% - 3% - 2% Wage Increases, 2017-2019
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\$	81.29	Average
	0.75	Restoration time
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\$	60.96	

	1.74	Typical CSA Box Truck per Mile Rate, 2016
	5	Assumed Mileage
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\$	3.37	

\$ 64.33 Total

\$ 65.00 Recommend

Exhibit C

