



March 15, 2022

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SENT BY EMAIL ONLY

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Muriel Terrell
Finance Director
City of Mt. Shasta
305 N. Mt. Shasta Boulevard
Mt. Shasta, CA 96067

Dear Muriel,

Subject: 2022 Water Utility Rate Study Update

The City of Mt. Shasta (City) conducted its last Water Utility Rate Study in early 2017 and adopted a five-year financial plan and rate schedule in May 2017 that established water rates through the end of Fiscal Year (FY) 21-22, which ends June 30, 2022. With the existing water rates timing out, it is necessary to conduct an evaluation of the Water Enterprise Fund and adopt a five-year financial plan and rate schedule.

This rate adjustment process began in October 2021 working with the City's Finance Department. Then, the City Council formed an Ad Hoc Rate Committee in late 2021 and began meeting on March 2, 2022. A subsequent Ad Hoc Rate Committee meeting was held on March 11, 2022, and recommendations are to be presented to City Council on March 21, 2022. It is recommended that the City Council vote to proceed with Proposition 218 proceedings with the goal to enact new utility rates by July 1, 2022.

The remainder of this letter summarizes our evaluation and recommendations for the Water Enterprise Fund. This letter is intended to be an update to the previous studies and provides updated financial information, cost-of-service analysis, and proposed rates. The rate making methodologies described in the previous studies are unchanged. Therefore, full rate study reports are not necessary.

Revenues and Expenditures

Water Enterprise Fund financials over the last five years were reviewed and compared against projections made in the 2017 Water Utility Rate Study. In general, actual annual revenues were very close to projections. However, actual expenditures were less than anticipated. The 2017 Water Utility Rate Study assumed a 2.5% per year inflation factor on expenditures. The actual inflation averaged approximately 1.2% per year.

Recent trends with inflation are concerning, and the low actual inflation the City has experienced may not continue into the future. For forecasting future expenditures, we have assumed expenses will increase at 4.0% per year.

Table 1 contains a summary of FY 21-22 budgeted expenditures, as well as a five-year forecast of future expenditures based on the noted inflation factors.

Capital Projects

In terms of capital improvement projects, the City has implemented seven of ten projects identified in the 2017 Water Utility Rate Study. The eighth, Tank 1 Replacement and Roseburg Water Improvements, is currently under construction at about 50%+ complete and is being funded primarily by a Drinking Water State Revolving Fund (DWSRF) grant.

The City has received a \$1.09M grant from the Department of Water Resources (DWR) Integrated Regional Water Management (IRWM) program and a \$3.50M grant from California's Community Development Block Grant (CDBG) program to begin construction this year on two water distribution system improvements projects. The City will need to contribute approximately \$393K to the CDBG project.

This year, the City is scheduled to receive a 100% grant commitment from the DWSRF to construct additional water distribution system improvements, which combined with the IRWM and CDBG projects, will complete the ninth identified project.

The tenth project, the Spring Hill Water Supply & Storage Project, is still in planning, and its continued efforts are included in the five-year financial plan. This tenth project will complete the list of recommended improvements in the City's 2010 Master Water Plan (MWP), which after 12 years, is recommended to be updated and the next round of identified recommended projects pursued for grant funding.

Table 2 contains a summary of capital project expenditures over the next five years. Funding for the noted projects would come from the City's Capital Project Reserve Fund.

Short-Lived Asset Reserves

A short-lived asset reserve is essentially revenue that is set aside each month that is intended to replace short-lived assets – those with expected lives of five to twenty years. Examples of short-lived assets include well pumps/motors, electrical/controls/Supervisory Control and Data Acquisition (SCADA) equipment, building maintenance and repair, vehicles, etc. This was accounted for in the 2017 rate study. One short-lived asset is the City's vacuum truck, which is currently 100% paid for by the Sewer Enterprise Fund; however, discussions with City staff indicate that it is utilized approximately 50/50 between water and sewer maintenance and repair efforts. Therefore, it is recommended that 50% of the City's vacuum truck, a 10-year asset, be added to the Water Enterprise Fund's short-lived assets to reflect its utilization.

Table 3 contains a summary of short-lived assets in the water utility that are incorporated into the proposed financial plan.

Financial Plan

Considering projected revenues, expenditures, and capital project needs, a five-year financial plan was developed. The financial plan considers beginning Water Enterprise Fund cash and reserve balances and establishes water rates to (1) fund required reserves and (2) fund identified capital improvements. Other considerations are as follows:

- Maintain 25% minimum operating reserve.
- Maintain a reasonable cash balance in the Capital Projects Reserve. In this case, we have established a target minimum balance of \$1.0M.

Table 4 contains the five-year financial plan that considers a summary of annual revenues, expenditures, debt obligations, capital improvements, and reserve balances. Proposed water rates are summarized in Table 5.

Figure 1 shows a graph comparing water rates for various public agencies in northern California based on consuming the City's average daily water use. The City's current water rate and proposed five-year rate are shown in the graph.

Please contact me with any questions.

Sincerely,



Curtis Paget, P.E.
Associate Engineer

Enclosures

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FINANCIAL TABLES

TABLE 1
City of Mt. Shasta – Water Enterprise Fund
Projected Expenditures and Transfers

	Inflation Factor	Actual (FY 20-21)	Budgeted (FY 21-22)	Projected (FY 22-23)	Projected (FY 23-24)	Projected (FY 24-25)	Projected (FY 25-26)	Projected (FY 26-27)
O&M Expenses								
6001 Salaries - Regular	4.0%	\$120,631	\$98,687	\$102,634	\$106,740	\$111,009	\$115,450	\$120,068
6003 Salaries - OT	4.0%	\$3,952	\$5,000	\$5,200	\$5,408	\$5,624	\$5,849	\$6,083
6005 Compensated Absences Earned	4.0%	-\$1,506	\$0	\$0	\$0	\$0	\$0	\$0
6007 Salary Diff In Lieu of Benefit	4.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6009 Misc Labor Cost	4.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6010 FICA	4.0%	\$10,465	\$7,550	\$7,852	\$8,166	\$8,493	\$8,832	\$9,186
6015 PERS	4.0%	\$19,956	\$20,276	\$21,087	\$21,931	\$22,808	\$23,720	\$24,669
6020 Worker's Comp Insurance	4.0%	\$24,060	\$22,768	\$23,679	\$24,626	\$25,611	\$26,635	\$27,701
6025 Health Insurance	4.0%	\$32,029	\$21,486	\$22,345	\$23,239	\$24,169	\$25,136	\$26,141
6250 Employee Training	4.0%	\$6,949	\$6,000	\$6,240	\$6,490	\$6,749	\$7,019	\$7,300
6275 Dues and Publications	4.0%	\$160	\$1,000	\$1,040	\$1,082	\$1,125	\$1,170	\$1,217
6280 Employee Travel and Conference	4.0%	\$97	\$1,000	\$1,040	\$1,082	\$1,125	\$1,170	\$1,217
- Additional Water Distribution Operator, DII	4.0%	\$0	\$0	\$80,000	\$83,200	\$86,528	\$89,989	\$93,589
7100 Professional Services	4.0%	\$6,087	\$6,000	\$6,240	\$6,490	\$6,749	\$7,019	\$7,300
7110 Contract Services	4.0%	\$75	\$3,000	\$3,120	\$3,245	\$3,375	\$3,510	\$3,650
7115 Engineering Consultant Services	4.0%	\$6,198	\$5,000	\$5,200	\$5,408	\$5,624	\$5,849	\$6,083
7143 City Attorney - Non-Routine	4.0%	\$2,178	\$1,000	\$1,040	\$1,082	\$1,125	\$1,170	\$1,217
7145 Legal Consultation Services	4.0%	\$0	\$500	\$520	\$541	\$562	\$585	\$608
7150 Public Notice Publication	4.0%	\$0	\$500	\$520	\$541	\$562	\$585	\$608
7165 Police Department Security Services	4.0%	\$6,824	\$3,412	\$3,548	\$3,690	\$3,838	\$3,992	\$4,151
7180 Contract Laboratory Analysis	4.0%	\$7,272	\$6,000	\$6,240	\$6,490	\$6,749	\$7,019	\$7,300
7200 Public Liability Insurance	4.0%	\$14,041	\$16,226	\$16,875	\$17,550	\$18,252	\$18,982	\$19,741
7220 Property Damage Insurance	4.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7245 Self-Insured Deductible Losses	4.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7250 Permits and License	4.0%	\$8,711	\$8,500	\$8,840	\$9,194	\$9,561	\$9,944	\$10,342
7280 County Property Taxes	4.0%	\$403	\$400	\$416	\$433	\$450	\$468	\$487
7310 Utilities - Elect and Heating Oil	4.0%	\$13,847	\$10,000	\$10,400	\$10,816	\$11,249	\$11,699	\$12,167
7320 Telephone Expenses	4.0%	\$4,271	\$4,000	\$4,160	\$4,326	\$4,499	\$4,679	\$4,867
7321 Internet Access	4.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7322 Service Fee	4.0%	\$2,433	\$12,000	\$12,480	\$12,979	\$13,498	\$14,038	\$14,600
7410 Heavy Equipment Maintenance	4.0%	\$63	\$1,000	\$1,000	\$1,040	\$1,082	\$1,125	\$1,170
7420 Shop Equipment Maintenance	4.0%	\$664	\$500	\$520	\$541	\$562	\$585	\$608
7430 Vehicle Maintenance	4.0%	\$1,510	\$2,000	\$2,080	\$2,163	\$2,250	\$2,340	\$2,433
7435 Tires and Chains Maintenance	4.0%	\$0	\$1,500	\$1,560	\$1,622	\$1,687	\$1,755	\$1,825
7440 Fuel and Oil Maintenance	4.0%	\$9,054	\$10,000	\$10,400	\$10,816	\$11,249	\$11,699	\$12,167
7460 Radio and Communication Maintenance	4.0%	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7470 Building Maintenance	4.0%	\$5,558	\$5,000	\$5,200	\$5,408	\$5,624	\$5,849	\$6,083
7475 Grounds Maintenance	4.0%	\$633	\$5,000	\$5,200	\$5,408	\$5,624	\$5,849	\$6,083
7520 System Repair and Maintenance	4.0%	\$11,428	\$60,000	\$62,400	\$64,896	\$67,492	\$70,192	\$72,999
7550 New Connections Expense	4.0%	\$0	\$500	\$520	\$541	\$562	\$585	\$608
7750 Roadway Maintenance Materials	4.0%	\$1,471	\$2,000	\$2,080	\$2,163	\$2,250	\$2,340	\$2,433
7770 Janitorial & Cleaning Supplies	4.0%	\$0	\$1,000	\$1,040	\$1,082	\$1,125	\$1,170	\$1,217
7790 Miscellaneous Supplies	4.0%	\$594	\$200	\$208	\$216	\$225	\$234	\$243

TABLE 1
City of Mt. Shasta – Water Enterprise Fund
Projected Expenditures and Transfers

	Inflation Factor	Actual (FY 20-21)	Budgeted (FY 21-22)	Projected (FY 22-23)	Projected (FY 23-24)	Projected (FY 24-25)	Projected (FY 25-26)	Projected (FY 26-27)
O&M Expenses								
7810	4.0%	\$4,386	\$1,000	\$1,040	\$1,082	\$1,125	\$1,170	\$1,217
7815	4.0%	\$644	\$500	\$520	\$541	\$562	\$585	\$608
7820	4.0%	\$212	\$0	\$0	\$0	\$0	\$0	\$0
7825	4.0%	\$1,043	\$1,000	\$1,040	\$1,082	\$1,125	\$1,170	\$1,217
9801	4.0%	\$80,486	\$80,486	\$83,705	\$87,054	\$90,536	\$94,157	\$97,924
Subtotal		\$406,878	\$431,991	\$529,231	\$550,400	\$572,416	\$595,312	\$619,125
DEBT SERVICE								
8100		\$1,128	\$0	\$0	\$0	\$0	\$0	\$0
8101		\$3,622	\$3,563	\$3,563	\$3,563	\$3,563	\$3,563	\$3,563
8150		\$0	\$3,300	\$3,300	\$3,300	\$3,300	\$3,300	\$3,300
Subtotal		\$4,750	\$6,863	\$6,863	\$6,863	\$6,863	\$6,863	\$6,863
TRANSFER TO WATER CAPITAL PROJECTS FUND								
DWSRF-Tank 1 Replacement & Roseburg Water Improvements (945)		\$94,582	\$4,222,000					
DWSRF-Spring Hill Water Supply & Storage (946)		\$21,277	\$323,505					
CDBG-Pine Street Area Water System Improvements			\$135,720	\$3,759,590				
IRWM-Oak Street Area Water System Improvements (910)		\$1,914	\$1,169,500					
DWSRF-Distribution System Improvements (947)								
Master Water Plan Update				\$100,000				
DWSRF Planning Grant Application					\$10,000	\$10,000		
DWSRF Construction Grant Application - Spring Hill Water Supply & Storage						\$20,000	\$10,000	
Water Rate Study Update								\$20,000
Subtotal		\$117,773	\$5,850,725	\$3,859,590	\$10,000	\$30,000	\$10,000	\$20,000
Total Expenditures and Transfers:		\$524,651	\$6,282,716	\$4,388,821	\$560,400	\$602,416	\$605,312	\$639,125

Table 2
City of Mt. Shasta – Water Enterprise Fund
Proposed Capital Projects

Description	Budgeted FY 21-22	Projected FY 22-23	Projected FY 23-24	Projected FY 24-25	Projected FY 25-26	Projected FY 26-27	Projected Totals
DWSRF-Tank 1 Replacement & Roseburg Water Improvements	\$4,222,000	\$0	\$0	\$0	\$0	\$0	\$4,222,000
DWSRF-Spring Hill Water Supply & Storage	\$323,505	\$0	\$0	\$0	\$0	\$0	\$323,505
CDBG-Pine Street Area Water System Improvements	\$135,720	\$3,759,590	\$0	\$0	\$0	\$0	\$3,895,310
IRWM-Oak Street Area Water System Improvements	\$1,169,500	\$0	\$0	\$0	\$0	\$0	\$1,169,500
DWSRF-Distribution System Improvements	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Master Water Plan Update	\$0	\$100,000	\$0	\$0	\$0	\$0	\$100,000
DWSRF Planning Grant Application	\$0	\$0	\$10,000	\$10,000	\$0	\$0	\$20,000
DWSRF Construction Grant Application Spring Hill Water Supply & Storage	\$0	\$0	\$0	\$20,000	\$10,000	\$0	\$30,000
Water Rate Study Update	\$0	\$0	\$0	\$0	\$0	\$20,000	\$20,000
Total:	\$5,850,725	\$3,859,590	\$10,000	\$30,000	\$10,000	\$20,000	\$9,780,315

Table 3
City of Mt. Shasta – Water Enterprise Fund
Short-Lived Asset Reserve

Short-Lived Asset	Replacement Period	Estimated Cost	Annual Reserve
Computer Server	5	\$5,630	\$1,126
Computer Work Stations	5	\$5,630	\$1,126
Lab Equipment	5	\$11,255	\$2,251
Replace Trash Pumps and Generators	5	\$3,375	\$675
Utility Locate Equipment Replacement	5	\$11,255	\$2,251
Trench Compaction Equipment	5	\$5,630	\$1,126
Meter Reading Equipment	5	\$33,775	\$6,755
Well No. 1 Pump and Motor	10	\$45,000	\$4,500
Well No. 2 Pump and Motor	10	\$45,000	\$4,500
Telemetry Equipment	10	\$33,775	\$3,378
Vacuum Truck (50% of \$375,000 to Water)	10	\$187,500	\$18,750
Emergency Chlorination Equipment Replacement	15	\$56,275	\$3,752
Maintenance on Well Buildings	15	\$56,275	\$3,752
Rebuild PRV Station Valves (six @ \$5,629 ea)	15	\$33,775	\$2,252
Work Truck - F150 (25% of \$33,400 to Water)	20	\$8,350	\$418
Total Annual Cost:			\$56,610

Table 4
City of Mt. Shasta – Water Enterprise Fund
Summary of Enterprise Fund Financial Plan

	Actual (FY 20-21)	Budgeted (FY 21-22)	Projected (FY 22-23)	Projected (FY 23-24)	Projected (FY 24-25)	Projected (FY 25-26)	Projected (FY 26-27)
ASSUMPTIONS USED							
Estimated Number of Connections	0	0	0	0	0	0	0
Estimated New Equivalent Dwelling Units (EDUs)	0	0	0	0	0	0	0
Annual Increase in Water Use	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Annual 5/8-Inch Rate Increase	-	3.7%	3.6%	3.4%	3.3%	3.2%	3.1%
WATER RATES USED							
3/4-Inch Meter Monthly Service Charge (Includes No Water)	\$13.50	\$14.00	\$14.50	\$15.00	\$15.50	\$16.00	\$16.50
Consumption Rate (\$/1,000 Gallons)	\$0.9000000	\$0.9333333	\$0.9667	\$1.0000	\$1.0333	\$1.0667	\$1.1000
BEGINNING FUNDS AVAILABLE BALANCE							
	\$1,117,800	\$1,351,527	\$1,531,676	\$1,130,377	\$1,211,688	\$1,269,216	\$1,341,842
REVENUES							
Fixed Service Charges	\$372,114	\$385,896	\$399,678	\$413,460	\$427,242	\$441,024	\$454,806
Consumption Charges	\$285,639	\$239,104	\$265,674	\$272,059	\$278,259	\$284,274	\$290,104
Investment Income - Local Agency Investment Fund (LAIF)	\$3,884	\$0	\$1,500	\$1,500	\$1,500	\$1,500	\$1,500
Special Utility Service Charges	\$9,564	\$14,000	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000
Other Operation Income - Penalties	\$5,258	\$6,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Income from Water Connection Fees (@ \$2,192.34/EDU)	\$904	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
Grant Reimbursement Revenue:							
DWSRF-Tank 1 Replacement and Roseburg Water Improvements (945)	\$94,582	\$4,222,000	\$0	\$0	\$0	\$0	\$0
DWSRF-Spring Hill Water Supply & Storage (946)	\$21,277	\$323,505	\$0	\$0	\$0	\$0	\$0
CDBG-Pine Street Area Water System Improvements	\$0	\$135,720	\$3,364,280	\$0	\$0	\$0	\$0
IRWM-Oak Street Area Water System Improvements (910)	\$1,914	\$1,169,500	\$0	\$0	\$0	\$0	\$0
DWSRF-Distribution System Improvements (947)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Revenue:	\$795,135	\$6,500,725	\$4,044,132	\$700,019	\$720,001	\$739,798	\$759,410
EXPENDITURES							
Water Enterprise	\$406,878	\$431,991	\$529,231	\$550,400	\$572,416	\$595,312	\$619,125
Debt Service - New Corporation Yard Garage	\$4,750	\$6,863	\$6,863	\$6,863	\$6,863	\$6,863	\$6,863
Total Expenditures:	\$406,878	\$431,991	\$529,231	\$550,400	\$572,416	\$595,312	\$619,125
RESERVES							
Short-Lived Asset Reserve	\$36,757	\$37,860	\$56,610	\$58,308	\$60,058	\$61,859	\$63,715
	\$36,757	\$37,860	\$56,610	\$58,308	\$60,058	\$61,859	\$63,715
CAPITAL PROJECT FUNDING							
DWSRF-Tank 1 Replacement & Roseburg Water Improvements (945)	\$94,582	\$4,222,000	\$0	\$0	\$0	\$0	\$0
DWSRF-Spring Hill Water Supply & Storage (946)	\$21,277	\$323,505	\$0	\$0	\$0	\$0	\$0
CDBG-Pine Street Area Water System Improvements	\$0	\$135,720	\$3,759,590	\$0	\$0	\$0	\$0
IRWM-Oak Street Area Water System Improvements (910)	\$1,914	\$1,169,500	\$0	\$0	\$0	\$0	\$0
DWSRF-Distribution System Improvements (947)	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Master Water Plan Update	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0
DWSRF Planning Grant Application	\$0	\$0	\$0	\$10,000	\$10,000	\$0	\$0
DWSRF Construction Grant Application - Spring Hill Water Supply & Storage	\$0	\$0	\$0	\$0	\$20,000	\$10,000	\$0
Water Rate Study Update	\$0	\$0	\$0	\$0	\$0	\$0	\$20,000
	\$0	\$0	\$0	\$0	\$0	\$0	\$0
	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Capital Project Funding:	\$117,773	\$5,850,725	\$3,859,590	\$10,000	\$30,000	\$10,000	\$20,000
TOTAL UNRESTRICTED CASH	\$1,351,527	\$1,531,676	\$1,130,377	\$1,211,688	\$1,269,216	\$1,341,842	\$1,398,412
OPERATING RESERVE AT 25% OF ANNUAL EXPENSES	\$101,719	\$107,998	\$132,308	\$137,600	\$143,104	\$148,828	\$154,781
WATER IMPROVEMENT FUND - END OF YEAR BALANCE	\$1,249,808	\$1,423,678	\$998,070	\$1,074,088	\$1,126,112	\$1,193,014	\$1,243,631

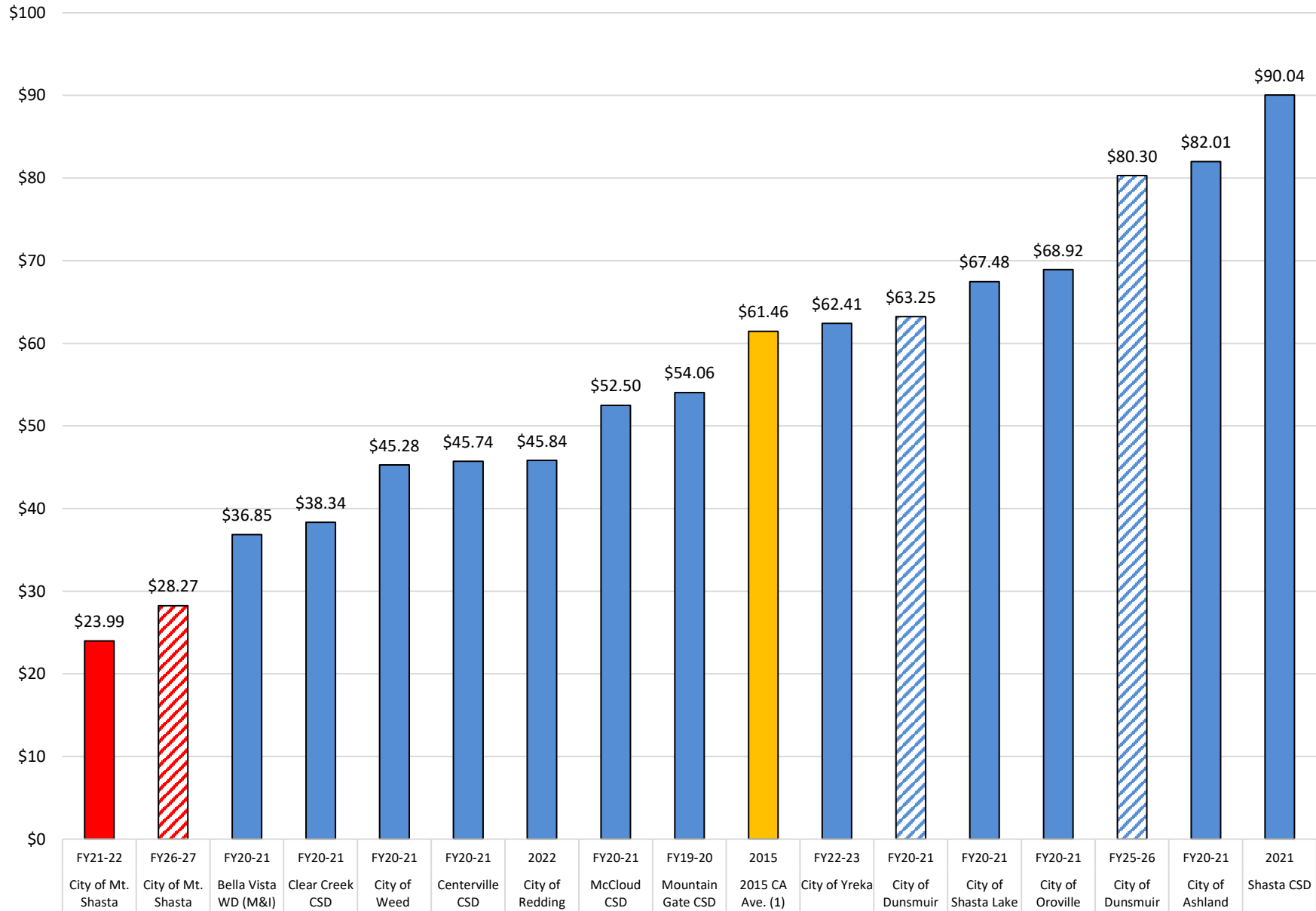
Table 5
City of Mt. Shasta – Water Enterprise Fund
Recommended Water Rates

		Existing FY 21-22	Proposed FY 22-23	Proposed FY 23-24	Proposed FY 24-25	Proposed FY 25-26	Proposed FY 26-27
CONSUMPTION CHARGES (\$/1,000 Gal)							
\$/1,000 Gal		\$0.9333	\$0.9667	\$1.0000	\$1.0333	\$1.0667	\$1.1000
METER SIZE	METER FACTOR	MONTHLY SERVICE CHARGES (\$/Mo)					
5/8" Meter	0.67	\$9.38	\$9.72	\$10.05	\$10.39	\$10.72	\$11.06
3/4" Meter	1	\$14.00	\$14.50	\$15.00	\$15.50	\$16.00	\$16.50
1" Meter	1.67	\$23.38	\$24.22	\$25.05	\$25.89	\$26.72	\$27.56
1-1/2" Meter	3.33	\$46.62	\$48.29	\$49.95	\$51.62	\$53.28	\$54.95
2" Meter	5.33	\$74.62	\$77.29	\$79.95	\$82.62	\$85.28	\$87.95
3" Meter	10	\$140.00	\$145.00	\$150.00	\$155.00	\$160.00	\$165.00
4" Meter	16.67	\$233.38	\$241.72	\$250.05	\$258.39	\$266.72	\$275.06
6" Meter	33.33	\$466.62	\$483.29	\$499.95	\$516.62	\$533.28	\$549.95
8" Meter	53.33	\$746.62	\$773.29	\$799.95	\$826.62	\$853.28	\$879.95

FIGURES

MONTHLY WATER BILL COMPARISON

(Based on average household equivalent monthly usage of 10,700 gallons per month)



(1) Based on the 2015 California-Nevada Water and Wastewater Rate Survey for Northern California by Raftelis Financial Consultants, Inc. and American Water Works Association (AWWA).

Figure 1