



BELLA VISTA WATER DISTRICT

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COST-BASED RATE STUDY

ANALYSIS AND RECOMMENDATIONS

February 27, 2023

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The District is proposing rate adjustments due to increasing costs of operating, maintaining and replacing the District's public water system; increasing costs of purchasing, treating and delivering safe and reliable water. The District's cost to provide water service includes: (1) operations and maintenance; (2) repair and rehabilitation of the water system; and (3) purchased water supply expenses. Water supply expenses are based on the District's main suppliers of water: the Central Valley Project (Converted Repayment Contract), the Anderson-Cottonwood Irrigation District (long-term transfer agreement), and operating costs for the District's groundwater wells. Additionally, the statewide drought and mandatory water use restrictions have altered customer water demands.

For the past several months, the District has engaged in an extensive analysis of its water costs, revenues and rates. The consulting firm of Provost and Pritchard along with staff conducted a lengthy analysis to determine the true cost of water service and their corresponding impacts to customers. This analysis identified a number of key drivers that resulted in the proposed rates. The District is proposing water rate and charge adjustments because:

1. The existing rates are based on a rate study that was performed in 2017. The new rates reflect District expense and revenue experienced over the most recent five years and in some cases on specific quantities rather than historical, as we are being faced with unseen inflationary factors.
2. Changes to existing rates and charges are needed to cover the water system's fixed costs which do not vary with water sales.
3. Major components of the District's water system are now more than 50 years old and approaching the end of their original design life. Proposed rates fund the extraordinary operations, maintenance and replacement (EOMR) program to rehabilitate and replace aging infrastructure required to maintain service reliability and water quality.
4. The higher rates fund prudent contingency reserves to avoid large rate increases.
5. The District's wholesale water costs continue to rise.

EXPLANATION OF PROPOSED WATER RATE INCREASE

The District is proposing an increase in the total revenue it receives from customers through its water service charges and rates over the next five years. The Cost of Service Rate Study is available on the District's website including how to calculate your bimonthly water bill utilizing the proposed water rates.

The total revenue increase per year results in the rate increases shown in the enclosed tables. The District's water rate structure has three components: (1) the bimonthly service charge, (2) the consumption rate, and (3) the Water Treatment Fee which repays a portion of the required debt service. The following tables show both the proposed service charge and consumption rates for the next five fiscal years. The rates were developed using the cost of service principles as set forth in the American Water Works Association M1 Manual - Principles of Water Rates, Fees, and Charges.

The proposed rates are set forth on the Tables enclosed herewith.

PROPOSED WATER RATES

1. Rates for M&I Water customers (Residential, Commercial, Rural and Public/Institutional Service)

a. Water Usage Charges (for all M&I Customer Classifications) per 100 cubic feet (HCF):

Current Rate	Proposed Water Usage Charges (\$/HCF)				
	2023	2024	2025	2026	2027
\$0.69	\$0.71	\$0.75	\$0.80	\$0.85	\$0.90

b. Bimonthly Base Rates:

Meter Class	Current Rate	Proposed Bimonthly Base Rates				
		2023	2024	2025	2026	2027
20	\$47.01	\$46.97	\$49.79	\$52.78	\$55.94	\$59.30
30	\$50.38	\$50.24	\$53.25	\$56.45	\$59.84	\$63.43
50	\$55.60	\$55.42	\$58.75	\$62.27	\$66.01	\$69.97
100	\$64.90	\$64.94	\$68.84	\$72.97	\$77.34	\$81.99
160	\$73.09	\$73.54	\$77.95	\$82.63	\$87.59	\$92.84
200	\$77.63	\$78.40	\$83.10	\$88.09	\$93.38	\$98.98
300	\$87.14	\$88.73	\$94.05	\$99.70	\$105.68	\$112.02
450	\$98.53	\$101.38	\$107.46	\$113.91	\$120.75	\$127.99
900	\$123.56	\$129.93	\$137.73	\$145.99	\$154.75	\$164.03
1200	\$136.47	\$145.01	\$153.71	\$162.93	\$172.71	\$183.07
1500	\$147.69	\$158.30	\$167.80	\$177.87	\$188.54	\$199.85
2000	\$163.93	\$177.77	\$188.44	\$199.74	\$211.73	\$224.43
2500	\$178.07	\$194.93	\$206.63	\$219.02	\$232.16	\$246.09
3300	\$197.75	\$219.12	\$232.27	\$246.20	\$260.98	\$276.63
4500	\$222.85	\$250.44	\$265.47	\$281.39	\$298.28	\$316.17
6000	\$249.47	\$284.16	\$301.21	\$319.28	\$338.44	\$358.75

2. Rates for Irrigation Water Customers (Agriculture Service)

a. Water Usage Charges (for all Agricultural Customers) per Acre-Foot (AF):

Current Rate	Proposed Water Usage Charges (\$/AF)				
	2023	2024	2025	2026	2027
\$104.66	\$107.02	\$113.44	\$120.25	\$127.46	\$135.11

b. Bimonthly Base Rates:

Meter Class	Current Rate	Proposed Bimonthly Base Rates				
		2023	2024	2025	2026	2027
50	\$76.42	\$77.36	\$82.00	\$86.92	\$92.14	\$97.67
100	\$85.74	\$87.82	\$93.09	\$98.67	\$104.60	\$110.87
160	\$93.92	\$97.28	\$103.12	\$109.30	\$115.86	\$122.81
200	\$98.46	\$102.62	\$108.78	\$115.30	\$122.22	\$129.56
300	\$107.95	\$113.97	\$120.81	\$128.06	\$135.74	\$143.88
450	\$119.35	\$127.87	\$135.54	\$143.67	\$152.30	\$161.43
900	\$144.38	\$159.26	\$168.82	\$178.94	\$189.68	\$201.06
1200	\$157.29	\$175.84	\$186.39	\$197.57	\$209.43	\$221.99
1500	\$168.52	\$190.44	\$201.87	\$213.98	\$226.82	\$240.43
2000	\$184.76	\$211.84	\$224.55	\$238.02	\$252.30	\$267.44
2500	\$198.89	\$230.70	\$244.54	\$259.21	\$274.77	\$291.25
3300	\$218.57	\$257.29	\$272.73	\$289.09	\$306.44	\$324.82
4500	\$243.67	\$291.72	\$309.22	\$327.78	\$347.44	\$368.29
6000	\$270.30	\$328.78	\$348.51	\$369.42	\$391.58	\$415.08

c. The agricultural base rates on the preceding page include the costs for the purchase and treatment of 0.75 acre-foot of M&I water per year. Agricultural accounts that have no domestic use (NDU) will receive a \$19.66 “NDU Credit” bimonthly to offset the inclusion of these costs in their base rate.

3. PRIVATE FIRE PROTECTION SYSTEMS – Bimonthly Charge

Size of Fire Service Line	Current Rate	Proposed Bimonthly Fire Service Rates				
		2023	2024	2025	2026	2027
2	\$30.09	\$27.62	\$29.28	\$31.03	\$32.90	\$34.87
3	\$42.92	\$39.06	\$41.40	\$43.89	\$46.52	\$49.31
4	\$57.77	\$58.60	\$62.12	\$65.84	\$69.79	\$73.98
6	\$79.43	\$82.87	\$87.84	\$93.11	\$98.70	\$104.62
8	\$99.89	\$106.98	\$113.40	\$120.20	\$127.41	\$135.06
10	\$125.17	\$138.11	\$146.40	\$155.18	\$164.49	\$174.36

4. WATER TREATMENT PLANT IMPROVEMENT LOAN REPAYMENT – The charge per account will remain at \$14.00 bimonthly for all customers.

5. ANNUAL ADJUSTMENTS TO WATER RATES

- a. Annually, upon receipt of notice from the U.S. Bureau of Reclamation (USBR) and Anderson-Cottonwood Irrigation District (ACID) regarding the rates and charges that they will charge Bella Vista Water District under their respective contracts for water deliveries starting on March 1 of each year, the usage charges shall be adjusted by an amount equal to the increase or decrease in the wholesale water costs. The water usage charges shown above reflect an annual increase of 6.0%; however, the actual rate will also pass through the annual changes (increases and decreases) in the wholesale water charges under the District’s contracts with USBR and ACID.
- b. Annually, upon notice from the U.S. Bureau of Reclamation (USBR) and Anderson-Cottonwood Irrigation District (ACID) regarding the water supply allocation that is available under their respective contracts pursuant to supply shortage provisions, the District will compare the standard water supply portfolio costs compared to the current years' supply portfolio costs. Resulting increases or decreases in overall supply portfolio costs will be passed through with an increase or decrease to the water rate.
- c. On or after March 1st annually, the Base Rates, Usage Charges (excluding wholesale water costs), and Fire Service Charges shall be adjusted by the 12-month increase or decrease in the Consumer Price Index – All Urban Consumers (CPI-U) U.S. city average for the preceding December plus up to 2%. Over the past 5 years, the 12-month increase in the CPI-U has ranged between 0.1 and 9.1 percent and has averaged 3.6 percent. The above tables of proposed base rates and fire service rates show what the base rates will be at an annual adjustment of 6.0%. Note: the actual rates may be higher or lower than the listed rates depending on the annual change in the CPI-U and the additional adjustment of up to 2.0%.
- d. The proposed usage rates for M&I water service for 2023 through 2028 include \$0.07 per HCF for placement in the District’s M&I Rate Stabilization fund to help offset the need for rate increases due to reduced water supplies during water shortage years.
- e. The proposed usage rates for Agriculture water service for 2023 through 2028 include \$10.00 per acre-foot (AF) to pay towards accumulated USBR O&M Deficit for Irrigation water, as well as any USBR O&M Deficits incurred during the 2018 through 2022 water years.
- f. These rates will be reviewed annually by the District’s Board of Directors and may be reduced or increased from the rates shown based on the cost factors and adjustments described above.

Note: There is a 120 day statute of limitations for challenging any new, increased or extended fee or charge. The 120 day period begins on the effective date of the fee or charge or on the final passage or adoption of the fee or charge, whichever is later.

9. GLOSSARY

Terms	Descriptions
AF	acre-foot (1 AF = 43,560 CF or 435.6 HCF)
AG	Agricultural
AWWA	American Water Works Association
CalPERS	California Public Employees Retirement System
CII	Commercial / Industrial / Institutional
CIP	Capital Improvement Projects
COS	Cost of Service
CPI	Consumer Price Index
CVP	Central Valley Project (federal)
CY	Calendar Year
District	Bella Vista Water District
ENR CCI	Engineering News-Record Construction Cost Index
EOMR	Extraordinary Operations Maintenance and Replacement (20-year forward projection)
FY	Fiscal Year (July 1 – June 30)
GPM	Gallons per minute
GPCD	Gallons per capita per day
HCF	Hundred cubic feet (1 HCF = 100 cf)
M&I	Municipal and Industrial
MC	Meter Class (maximum safe operating capacity of the meter, expressed in gpm)
MCE	Meter Capacity Equivalents (The MCE factors are based on the meter class, with a Class 30 meter being equal to 1.0 MCE)
O&M	Operations and Maintenance
OPEB	Other Post Employment Benefits
USBR	U.S. Bureau of Reclamation

10. REFERENCES

Central Valley Project (CVP) Ratesetting Process Overview, U.S. Bureau of Reclamation, January 4, 2023
<https://www.usbr.gov/mp/cvpwaterrates/rate-process/overview.html>

Central Valley Project (CVP) Annual Ratebooks & Schedules, U.S. Bureau of Reclamation, January 4, 2023
<https://www.usbr.gov/mp/cvpwaterrates/ratebooks/index.html>

Principles of Water Rates, Fees, and Charges, Manual of Water Supply Practices M1, Seventh Edition, American Water Works Association, 2017

Proposition 218 Guide for Special Districts, California Special Districts Association, 2013
https://www.waterboards.ca.gov/drought/pricing/docs/csda_guide_proposition_218.pdf

Rate Setting Process Overview, U. S. Bureau of Reclamation, California-Great Basin, January 4, 2023,
<https://www.usbr.gov/mp/cvpwaterrates/rate-process/overview.html>

U.S. Department of the Interior, Bureau of Reclamation, Long-Term Renewal Contract Between the United States and Bella Vista Water District Providing for Project Water Service from Trinity River Division, Contract No.14-06-200-851A-LTR1, February 25, 2005.

U.S. Department of the Interior, Bureau of Reclamation, Amendment to the Existing Contract Providing for Project Water Service and Facilities Repayment, Contract No.14-06-200-851A-P, September 15, 2020.