



Public Hearing – Proposed multi-year rates for potable water, recycled water and wastewater services

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Jan. 11, 2022

PROPOSED ACTIONS



1. Hold a Public Hearing and Adopt a City Council Resolution approving three-year rates for wastewater services
2. Hold a Public Hearing and Adopt a Carlsbad Municipal Water District (CMWD) Resolution approving three-year rates for potable water and recycled water services

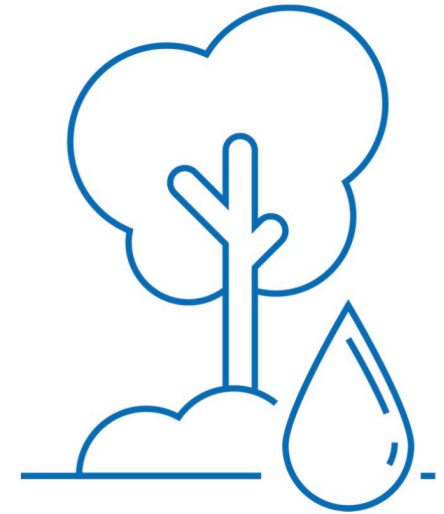
TODAY'S PRESENTATION



Water



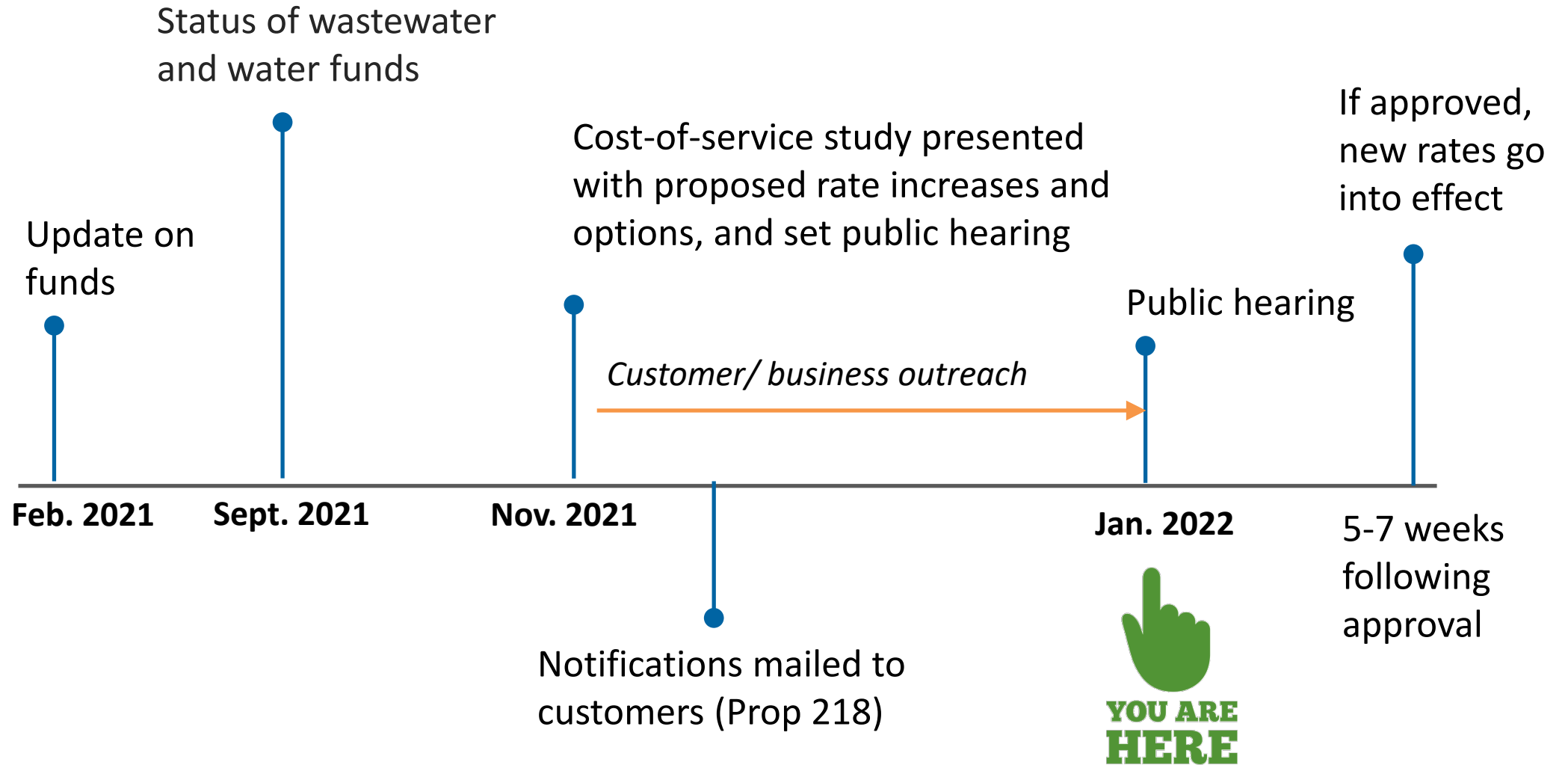
Wastewater



Recycled water

SCHEDULE

ITEM 10: WATER, RECYCLED WATER, & WASTEWATER RATES



PUBLIC HEARING REQUIREMENT CALIFORNIA PROPOSITION 218



Any increase in these rates requires:

- ✓ City Council's and the CMWD Board's establishment of the date and time of the majority-protest public hearing
- ✓ Notification of customers at least 45 days before such a hearing
- ✓ A public hearing
- ✓ Compliance with California's Proposition 218

PROTEST PROCESS

Customers have the right to protest the proposed rates

- By submitting their concerns in writing to the City Clerk's office any time before close of the public hearing
- If less than 50% of customers protest the proposed rates, the City Council and the CMWD Board may consider adopting the proposed changes at the public hearing



Why Increases?

\$2.1 billion in infrastructure

- 815 miles of underground pipelines
- Over 14,000 water valves
- Over 4,000 fire hydrants
- 12 reservoirs
- 11 wastewater lift stations and wet wells

WHY RATES NEED TO INCREASE



- Aging infrastructure
- Carlsbad's rates among the lowest in the county
- Encina Wastewater Authority capital improvement projects and treatment costs are increasing (pass-through)
- Increasing cost of water from San Diego Water Authority (pass through)
- Using a more accurate assessment of high-risk needs using data, technology and modeling and detailed asset management plans

THE COST OF AGING INFRASTRUCTURE

Age of our city

70 years

Infrastructure lifespan

30 - 50 years



INFLATION



2" copper tubing

83%



8" PVC pipe

144%

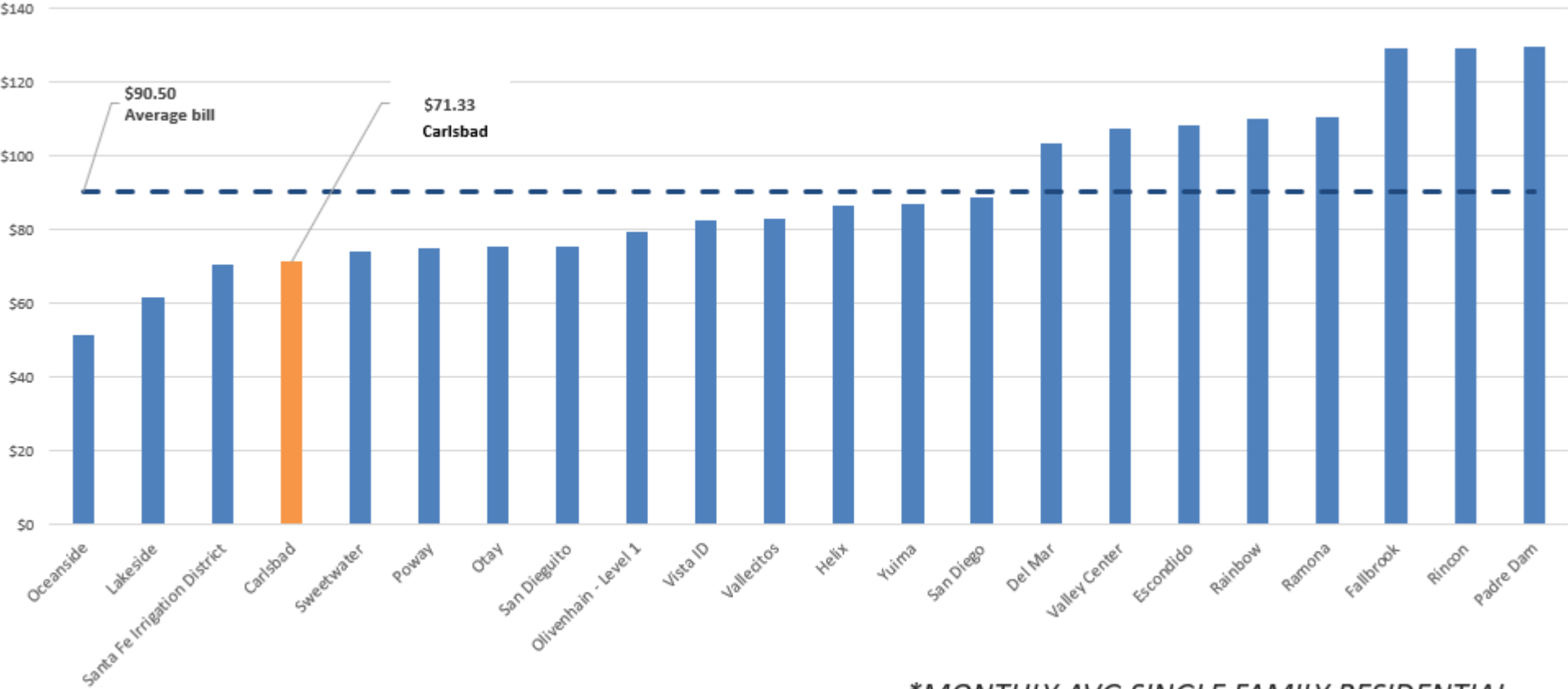


Steel reinforcing bars

31%

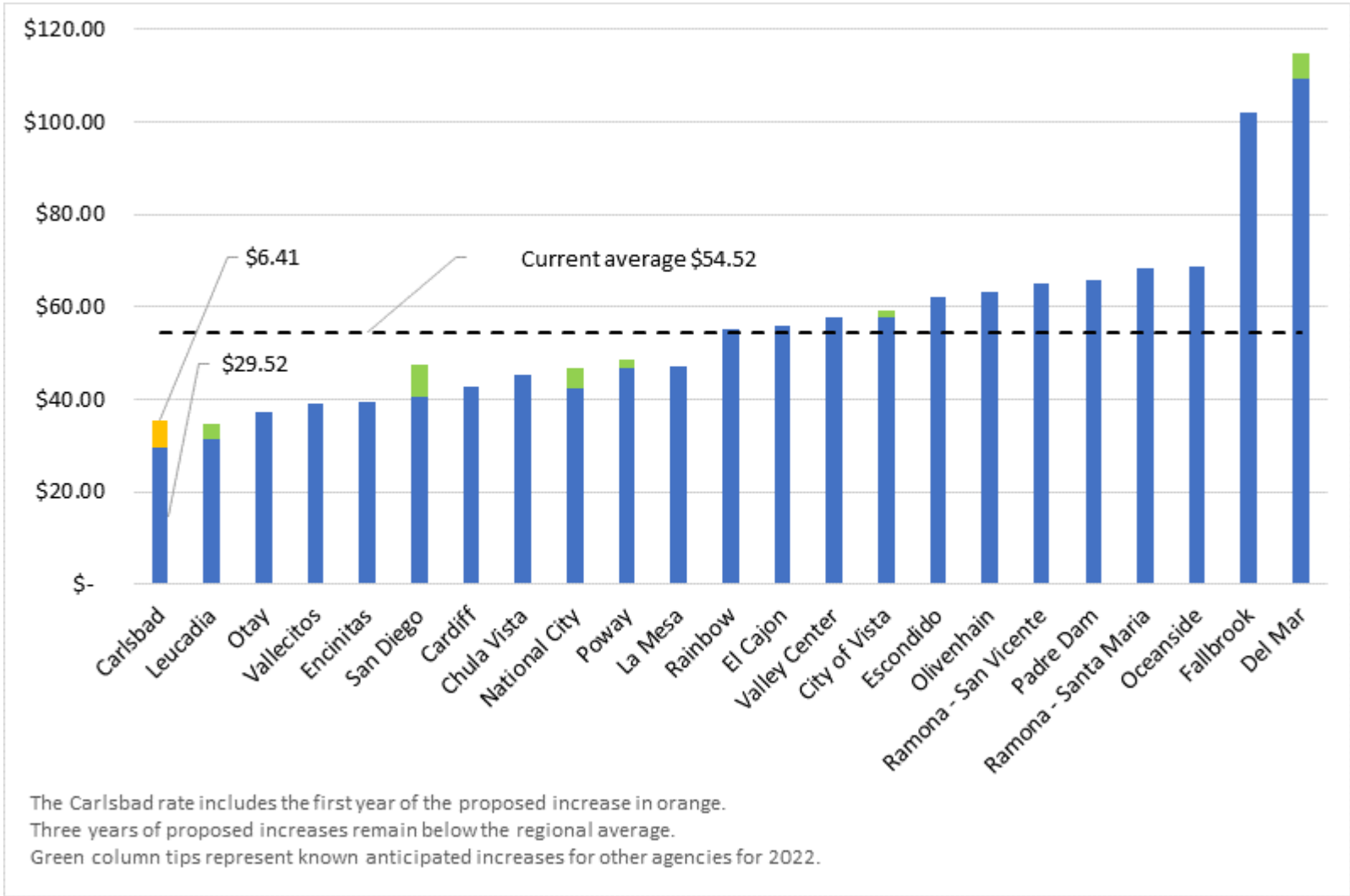


SOME OF THE LOWEST WATER RATES



**MONTHLY AVG SINGLE FAMILY RESIDENTIAL*

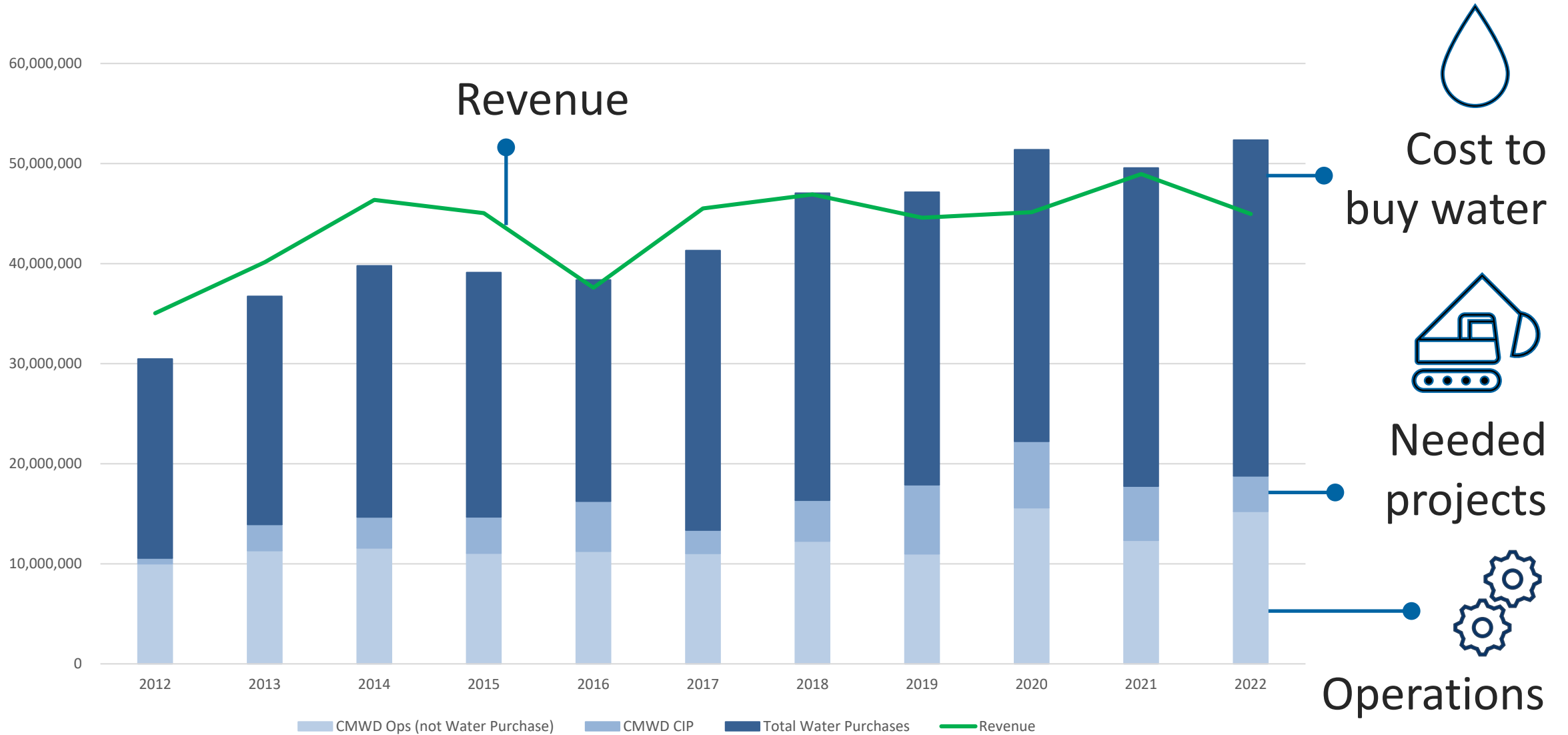
THE LOWEST WASTEWATER RATES



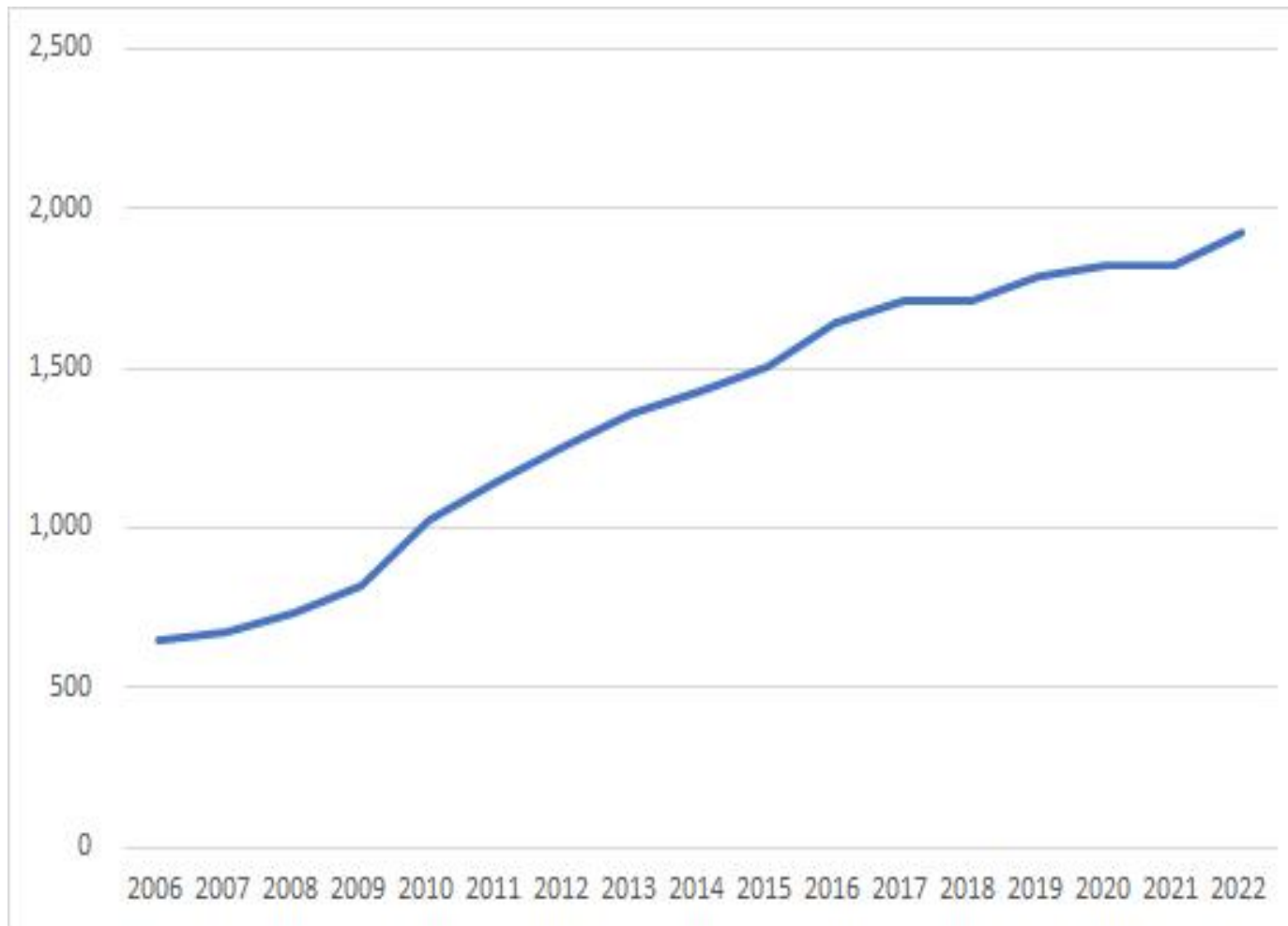
**MONTHLY SINGLE FAMILY RESIDENTIAL*

Water

WATER REVENUE VS EXPENDITURES



COST OF PURCHASED WATER



Cost per acre foot

POTENTIAL WATER RATES-Residential

Example for a single family residential customer




2021 (current)	2021 local average*	Potential decrease^	Potential 2022 cost	Potential increase	Potential 2023 cost	Potential increase	Potential 2024 cost
\$71.33	\$90.50	-\$0.35	\$70.98	\$1.46	\$72.44	\$1.45	\$73.89

*Average of comparable agencies in San Diego County

^The average residential bill will decrease slightly in 2022 as the tier one rate goes down.



SAMPLE WATER BILL INCREASES-Commercial

	 Gym	 Restaurant	 Resort
Starting bill	\$583	\$708	\$33,300
2022	\$12	\$14	\$667
2023	\$12	\$14	\$680
2024	\$12	\$14	\$680
Total proposed monthly increase	\$36	\$42	\$2,027

Wastewater

WASTEWATER FUND REVENUE VS EXPENDITURES






POTENTIAL WASTEWATER RATES-Residential

Example for a single-family residential customer

2021 (current)	2021 local average*	Potential increase	Potential 2022 cost	Potential increase	Potential 2023 cost	Potential increase	Potential 2024 cost
\$29.52	\$54.52	\$6.41	\$35.93	\$7.18	\$43.11	\$8.63	\$51.74

*Average of comparable agencies in San Diego County

SAMPLE WASTEWATER INCREASES-Commercial

	 Gym	 Restaurant	 Resort
Starting Bill	\$283	\$1,083	\$5,000
2022	\$57	\$217	\$1,000
2023	\$68	\$260	\$1,200
2024	\$70	\$269	\$1,240
Total proposed monthly increase	\$195	\$745	\$3,440

Recycled Water

RECYCLED WATER INCREASES

- Recycled water is more affordable than potable irrigation rates
- Local drought-proof supply
- Electricity costs are rising
- Keep up with expenses and inflation

POTENTIAL RECYCLED WATER RATES

Example for a commercial customer*

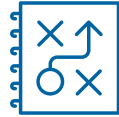
2021 (current)	Potential increase	Potential 2022 cost	Potential increase	Potential 2023 cost	Potential increase	Potential 2024 cost
\$1,420.85	\$56.91	\$1,477.76	\$56.45	\$1,534.21	\$63.60	\$1,597.81

* Industrial park site with 1.5" meter using 350 units in a summer month

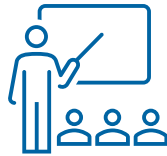
Outreach

ITEM 10: WATER, RECYCLED WATER, & WASTEWATER RATES

OUTREACH



Mailer to 27,000 customers



Webinar for commercial customers



Social media posts



Informational webpage



Direct outreach to largest customers



Public notice in the newspaper

PROPOSED ACTIONS



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2. Hold a Public Hearing and Adopt a Carlsbad Municipal Water District (CMWD) Resolution approving three-year rates for potable water and recycled water services

Thank you



Understanding Proposed Water Rates



Flat rate for water delivery



Rate based on amount of water used



Water portion of monthly bill

Residential and commercial water rates are made up of two parts:

1

A flat rate to cover the cost of delivering water based on the size of your meter.



2

A rate based on how much water you use.



Residential rates change depending on how much water you use each month. Check your typical usage by looking at a recent water bill. For example, if a single-family home typically uses 12 units of water, the rate for the first 10 units would be calculated based on the Tier 1 rate. The other two would be calculated at the Tier 2 rate.



Non-residential water users do not have tiered rates. Your water usage charge is calculated by multiplying the number of units used by the "per unit" rate.

Proposed water delivery fees (monthly)

1

Most single-family homes have a 5/8" meter

Meter Size	Current	2022	2023 ⁽²⁾	2024 ⁽²⁾
5/8"	\$25.52	\$27.81	\$28.37	\$28.94
3/4"	\$34.44	\$37.33	\$38.08	\$38.84
1"	\$52.28	\$56.37	\$57.50	\$58.65
1.5"	\$96.88	\$103.97	\$106.05	\$108.17
2"	\$150.40	\$161.09	\$164.31	\$167.60
2 1/2"	\$212.84	\$227.73	\$232.29	\$236.93
3"	\$275.28	\$294.37	\$300.26	\$306.26
4"	\$453.68	\$484.77	\$494.46	\$504.35
6"	\$899.69	\$960.76	\$979.97	\$999.57
8"	\$1,434.89	\$1,531.95	\$1,562.59	\$1,593.84
10"	\$2,059.30	\$2,198.33	\$2,242.30	\$2,287.15

Check your water bill to find out the size of your meter



Proposed water usage rates (monthly)

2

Customer Class	Current Rates			Proposed Rates				
	Tier	Water Units Used ⁽¹⁾	Rate Per Unit	Tier	Water Units Used ⁽¹⁾	2022	2023 ⁽²⁾	2024 ⁽²⁾
Single family residential	1	0-10	\$4.13	1	10	\$3.84	\$3.92	\$4.00
	2	11-18	\$4.51	2	18	\$4.77	\$4.87	\$4.97
	3	19+	\$7.18	3	19+	\$7.39	\$7.54	\$7.69
Multi-family residential per dwelling unit basis	1	5	\$3.95	1	5	\$3.79	\$3.87	\$3.95
	2	6+	\$5.04	2	5+	\$5.89	\$6.01	\$6.13
Commercial	N/A	Any	\$4.36	N/A	Any	\$4.34	\$4.43	\$4.52
Agricultural	N/A	Any	\$4.71	N/A	Any	\$4.70	\$4.80	\$4.89
Irrigation	N/A	Any	\$5.41	N/A	Any	\$5.47	\$5.58	\$5.69





How to Calculate

To estimate how your wastewater bill would be affected if the proposed increases are approved Jan. 11:

- 1 Determine your "customer class"
- 2 Single family homes pay a flat monthly rate.

Some multifamily housing and businesses in a business park may have one large meter that the property manager pays and then charges residents/businesses for separately. Consult with your property manager.
- 3 If you are a business, you can look at an old bill to see how many hundred cubic feet of water you use. Then calculate your new bill by multiplying your HCF by the new rate.
- 4 If a school, calculate your rate based on number of students.

Understanding Proposed Wastewater Rates

Proposed wastewater rates (monthly)

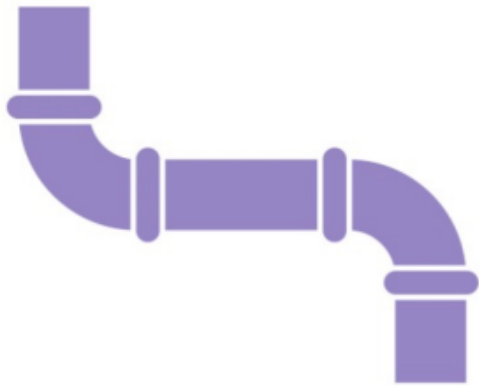
Customer Class	Current Rate	2022	2023 ⁽¹⁾	2024 ⁽¹⁾
1 Group I - Residential - monthly flat rate				
Single family detached home → Single family resident	\$29.52	\$35.93	\$43.11	\$51.74
Single family detached home with a second unit on the property → SFR w/ second dwelling unit	\$44.28	\$53.89	\$64.67	\$77.60
Group I - Residential - rates per hundred cubic feet				
Apartments and condos → Multi family resident(perHCF)	\$3.48	\$4.13	\$4.96	\$5.95
→ Mobile home (per HCF)	\$3.48	\$4.13	\$4.96	\$5.95
3 Commercial - rates per hundred cubic feet				
Group II - Commercial 2	\$2.88	\$3.51	\$4.21	\$5.06
Group III - Commercial 3	\$4.38	\$5.01	\$6.01	\$7.21
Group IV - Commercial 4	\$8.10	\$8.76	\$10.51	\$12.61
Industrial pretreatment class III	\$4.82	\$5.66	\$6.79	\$8.14
Group V - School - monthly rates per student				
Elementary school (per student)	\$0.59	\$0.71	\$0.85	\$1.02
Junior high school (per student)	\$0.87	\$1.06	\$1.27	\$1.53
High school (per student)	\$1.17	\$1.41	\$1.69	\$2.03
Boarding school (per student)	\$6.09	\$7.34	\$8.80	\$10.56
Breweries - rates per hundred cubic feet				
B1 - Brewery without a restaurant and hauls waste for outside treatment	\$2.88	\$3.51	\$4.21	\$5.06
B2 - Brewery without a restaurant that does not haul waste for outside treatment	\$9.34	\$9.76	\$11.72	\$14.06
B3 - Brewery with a restaurant and hauls waste for outside treatment	\$8.10	\$8.76	\$10.51	\$12.61
B4 - Brewery with a restaurant that does not haul waste for outside treatment	\$11.60	\$12.04	\$14.45	\$17.34

4

Understanding Proposed Recycled Water Rates

Recycled water customers pay a flat monthly rate for water delivery based on the size of their recycled water meter plus a rate based on how much water they use.

Some apartments, condos and business parks have one large meter and then pass along the charge to individual residents and business owners. You can check with your property manager to see if this applies to you.



Flat rate based on meter size
+
Rate based on amount of water used

Proposed recycled water delivery fees (monthly)

Meter Size	Current	2022	2023 ⁽¹⁾	2024 ⁽¹⁾
5/8"	\$23.34	\$23.45	\$24.39	\$25.36
3/4"	\$32.22	\$32.86	\$34.18	\$35.54
1"	\$49.97	\$51.69	\$53.76	\$55.91
1.5"	\$94.35	\$98.76	\$102.71	\$106.81
2"	\$147.59	\$155.23	\$161.44	\$167.90
2 1/2"	\$209.77	\$221.13	\$229.97	\$239.17
3"	\$271.92	\$287.02	\$298.50	\$310.44
4"	\$449.35	\$475.28	\$494.30	\$514.07
6"	\$893.11	\$945.95	\$983.78	\$1,023.14
8"	\$1,425.61	\$1,510.74	\$1,571.17	\$1,634.02
10"	\$2,046.87	\$2,169.67	\$2,256.45	\$2,346.71

(1) Proposed rates for 2023 and subsequent years are calculated by applying the proposed overall rate revenue increase from the Cost of Service Study to the 2022 rate proportionally

Proposed water usage rates (monthly)

Customer Class	Current Rates			Proposed Rates				
	Tier	Water Units ⁽¹⁾ Used	Rate Per Unit	Tier	Water Units ⁽¹⁾ Used	2022	2023 ⁽²⁾	2024 ⁽²⁾
Recycled	N/A	Any	\$3.79	N/A	Any	\$3.94	\$4.09	\$4.26

Proposed water rates (monthly)

Customer Class	Current Rate			Proposed Rates				
	Tier	Usage Limit	Rate	Tier	Usage Limit	2022 ⁽¹⁾	2023 ⁽²⁾	2024 ⁽²⁾
Single family residential	1	10	\$4.13	1	10	\$3.84	\$3.92	\$4.00
	2	18	\$4.51	2	18	\$4.77	\$4.87	\$4.97
	3	> 18 ccf	\$7.18	3	> 18 ccf	\$7.39	\$7.54	\$7.69
Multi-family residential per dwelling unit basis	1	5	\$3.95	1	5	\$3.79	\$3.87	\$3.95
	2	>5 ccf	\$5.04	2	>5 ccf	\$5.89	\$6.01	\$6.13
Commercial	N/A	All ccf	\$4.36	N/A	All ccf	\$4.34	\$4.43	\$4.52
Agricultural	N/A	All ccf	\$4.71	N/A	All ccf	\$4.70	\$4.80	\$4.89
Irrigation	N/A	All ccf	\$5.41	N/A	All ccf	\$5.47	\$5.58	\$5.69
Recycled	N/A	All ccf	\$3.79	N/A	All ccf	\$3.94	\$4.09	\$4.26

Water delivery fees (monthly)

Meter Size	Current	2022 ⁽¹⁾	2023 ⁽²⁾	2024 ⁽²⁾
5/8"	\$25.52	\$27.81	\$28.37	\$28.94
3/4"	\$34.44	\$37.33	\$38.08	\$38.84
1"	\$52.28	\$56.37	\$57.50	\$58.65
1.5"	\$96.88	\$103.97	\$106.05	\$108.17
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8"	\$1,434.89	\$1,531.95	\$1,562.59	\$1,593.84
10"	\$2,059.30	\$2,198.33	\$2,242.30	\$2,287.15

Fire service delivery fees (monthly)

Meter Size	Current	2022 ⁽¹⁾	2023 ⁽²⁾	2024 ⁽²⁾
5/8"	\$7.93	\$8.33	\$8.50	\$8.67
3/4"	\$8.05	\$8.45	\$8.62	\$8.79
1"	\$8.30	\$8.67	\$8.85	\$9.02
1.5"	\$8.92	\$9.24	\$9.43	\$9.62
2"	\$9.66	\$9.93	\$10.12	\$10.33
2 1/2"	\$10.53	\$10.72	\$10.94	\$11.15
3"	\$11.40	\$11.52	\$11.75	\$11.98
4"	\$13.89	\$13.79	\$14.07	\$14.35
6"	\$20.10	\$19.48	\$19.87	\$20.26
8"	\$27.55	\$26.30	\$26.83	\$27.36
10"	\$36.25	\$34.26	\$34.95	\$35.65
12"	\$57.37	\$53.60	\$54.67	\$55.76

Recycled water delivery fees (monthly)

Meter Size	Current	2022 ⁽¹⁾	2023 ⁽²⁾	2024 ⁽²⁾
5/8"	\$23.34	\$23.45	\$24.39	\$25.36
3/4"	\$32.22	\$32.86	\$34.18	\$35.54
1"	\$49.97	\$51.69	\$53.76	\$55.91
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10"	\$2,046.87	\$2,169.67	\$2,256.45	\$2,346.71

(1) Proposed rates for 2022 include a cost-of-service adjustment and increases for specific rates vary from the 2.0-percent (potable) and 4.0-percent (recycled) overall rate revenue increases.

(2) Proposed rates for 2023 and subsequent years are calculated by applying the proposed overall rate revenue increase to the 2022 rate proportionally.

Proposed wastewater rates (monthly)

Customer Class	Current Rate	2022 ⁽¹⁾	2023 ⁽²⁾	2024 ⁽²⁾
Group I-Residential-monthly flat rate				
Single family resident	\$29.52	\$35.93	\$43.11	\$51.74
SFR w/ second dwelling unit	\$44.28	\$53.89	\$64.67	\$77.60
Group I-Residential- rates per hundred cubic feet				
Multi family resident(per HCF)	\$3.48	\$4.13	\$4.96	\$5.95
Mobile home (per HCF)	\$3.48	\$4.13	\$4.96	\$5.95
Commercial- rates per hundred cubic feet				
Group II - Commercial 2	\$2.88	\$3.51	\$4.21	\$5.06
Group III - Commercial 3	\$4.38	\$5.01	\$6.01	\$7.21
Group IV - Commercial 4	\$8.10	\$8.76	\$10.51	\$12.61
Industrial pretreatment class III	\$4.82	\$5.66	\$6.79	\$8.14
Group V-School-monthly rates per student				
Elementary school (per student)	\$0.59	\$0.71	\$0.85	\$1.02
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Breweries-rates per hundred cubic feet				
B1 –Brewery without a restaurant and hauls waste for outside treatment	\$2.88	\$3.51	\$4.21	\$5.06
B2 –Brewery without a restaurant that does not haul waste for outside treatment	\$9.34	\$9.76	\$11.72	\$14.06
B3– Brewery with a restaurant and hauls waste for outside treatment	\$8.10	\$8.76	\$10.51	\$12.61
B4 – Brewery with a restaurant that does not haul waste for outside treatment	\$11.60	\$12.04	\$14.45	\$17.34
Other- rates per hundred cubic feet	\$2.97	\$3.43	\$4.12	\$4.94

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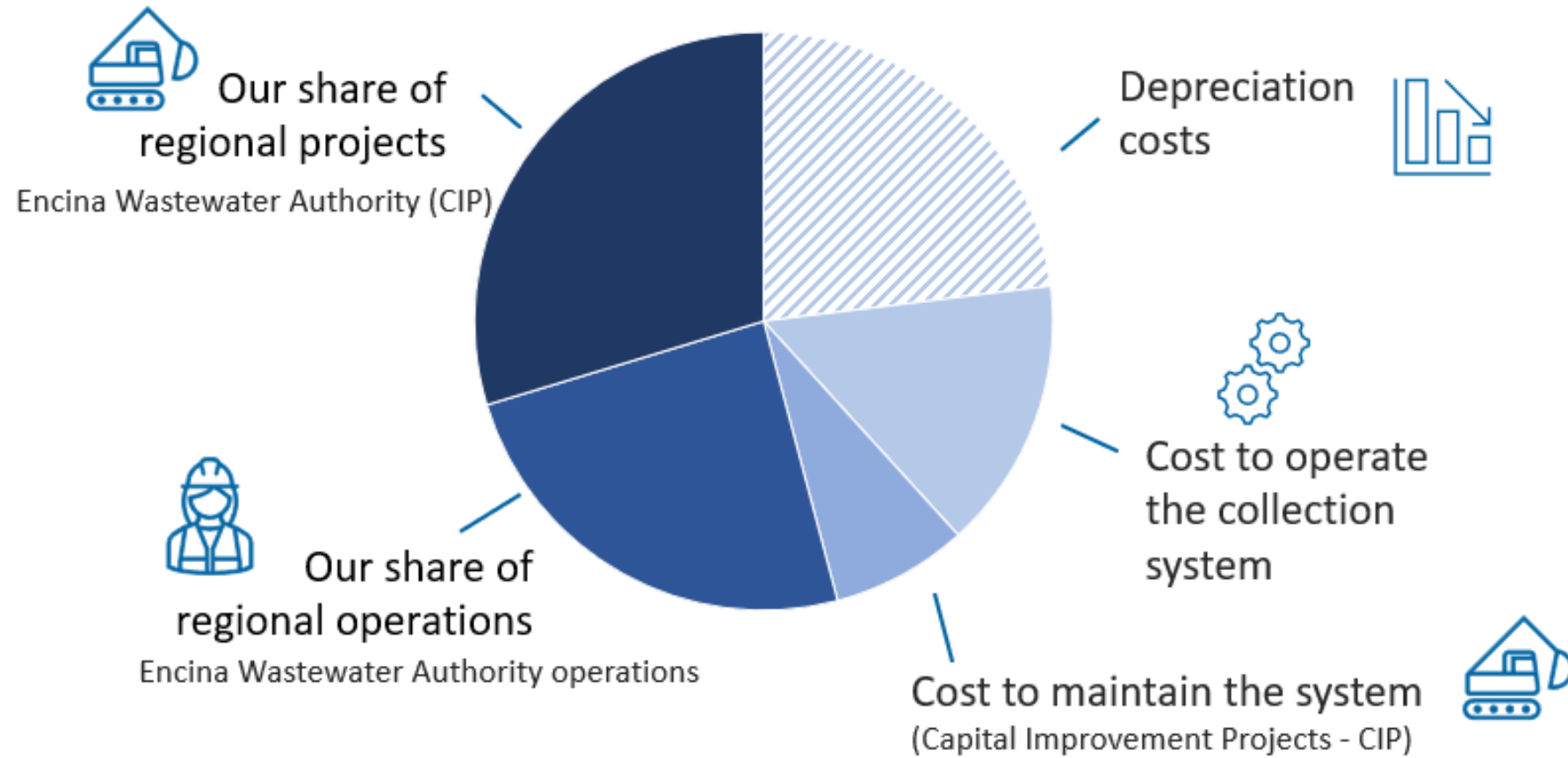
water@carlsbadca.gov

www.carlsbadca.gov/rates

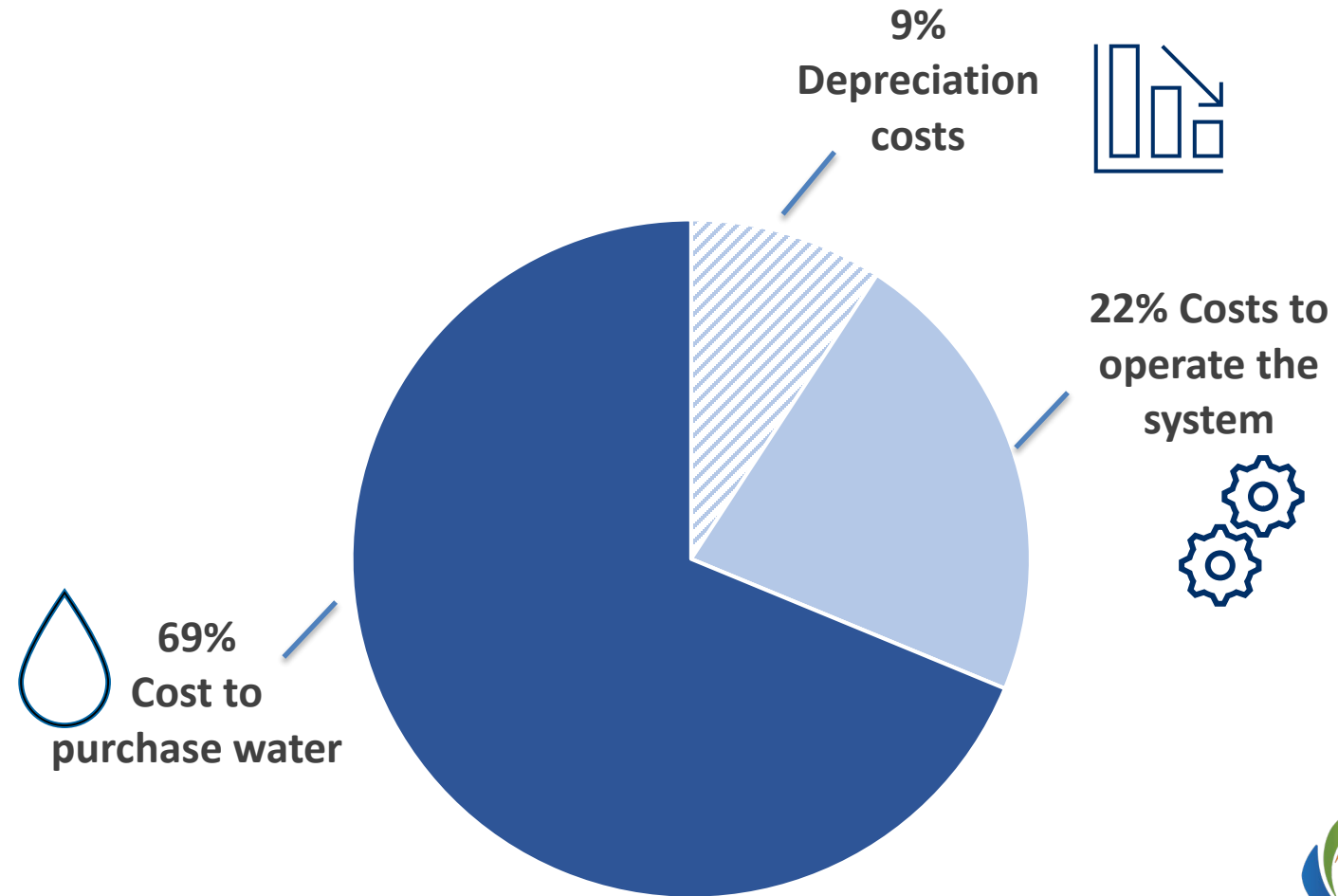


**1 gallon of Carlsbad's tap
water costs about a penny**

WASTEWATER COST



WATER COSTS



THE COST OF AGING INFRASTRUCTURE: ENCINA

Encina Treatment Facility

60 years

Infrastructure lifespan

30 - 50 years



ABOUT RATES

Cost to provide service



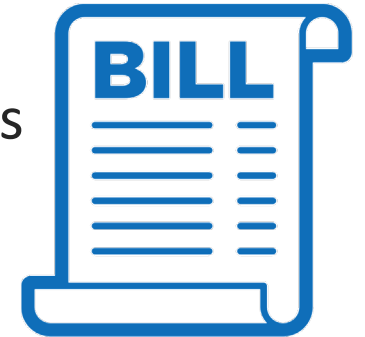
- Pass-through cost
- Water Quality
- Environmental Protection
- Repairs/Replacements
- Maintenance/Operations

Cost of Service
Studies

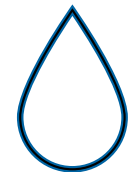
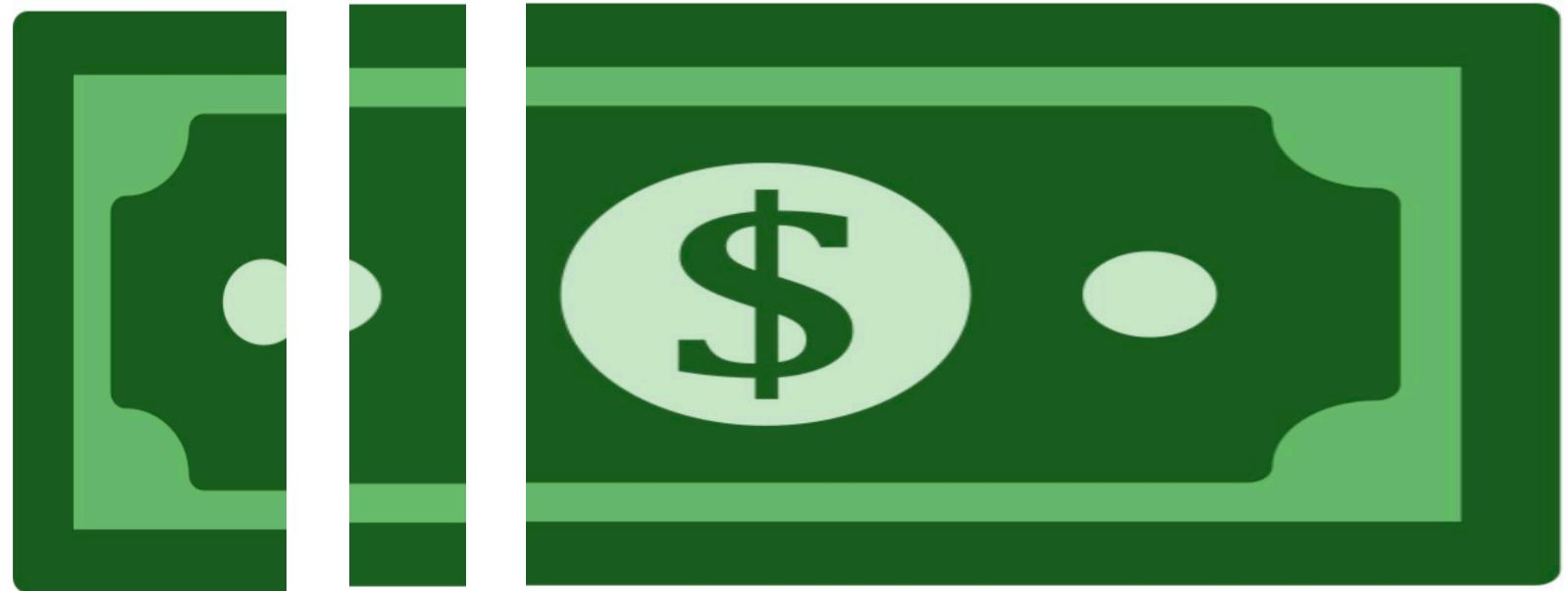


Price paid by customer

- Businesses
- Apartments/HOAs
- Industry
- Homes



ESTIMATED 2022 WATER BILL



SOME CONTROL

VERY LITTLE CONTROL

ADDITIONAL COST DRIVERS

- Aging infrastructure throughout the city's and the Encina Wastewater Authority
- Delayed project implementation by Encina, resulting in higher construction costs
- Decreasing wastewater volumes associated with water conservation are causing higher treatment costs due to more concentrated wastewater that is harder to treat
- The wastewater authority's decision to pay off 100% of the CalPERS retirement liability in three years, while other agencies choose to remain closer to 80% funded (City of Carlsbad) or payoff the liability over a longer time span
- The wastewater authority's \$95 million of capital requirements for infrastructure budgeted over the next 10 years
- Materials such as steel, copper, chlorine and odor control chemicals have not only risen in cost but are now difficult to obtain

RESERVES

- Past rate increases included the use of reserves, but much of those reserves have now been allocated to the updated Sewer Master Plan.
- In the FY 2021-22 budget for wastewater, there is an estimated \$24 million in capital reserves, however \$35 million is needed to execute the Sewer Master Plan, creating a \$9 million deficit.
- City and CMWD staff are developing a reserve policy for potable water, recycled water and wastewater, which will be in line with industry standards.
- Potable water capital funding is sufficient for planned projects.

Cost of Service Process – Water



Revenue requirement analysis

Compares existing revenues of the district to its operating, capital reserves, and policy driven costs to establish the adequacy of the existing cost recovery levels.



Water demand analysis

Forecasts water sales based on historical billings, modifications to the rate structure, and any regulatory restrictions.



Cost of service analysis

Identifies and apportions annual revenue requirements to functional components based on its application to the District's system, and then allocates to customer classes



Rate design and calculation

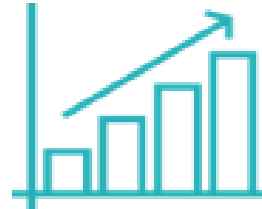
Considers both the level and structure of the rate design to collect the distributed revenue requirements from each class of service



Rate adoption

Study presents the basis for the rates proposed to be adopted in compliance with Proposition 218

Cost of Service Process – WasteWater



Revenue requirement analysis

Compares existing revenues of the utility to its operating, capital, and policy driven costs to establish the adequacy of the existing cost recovery levels



Cost of service analysis

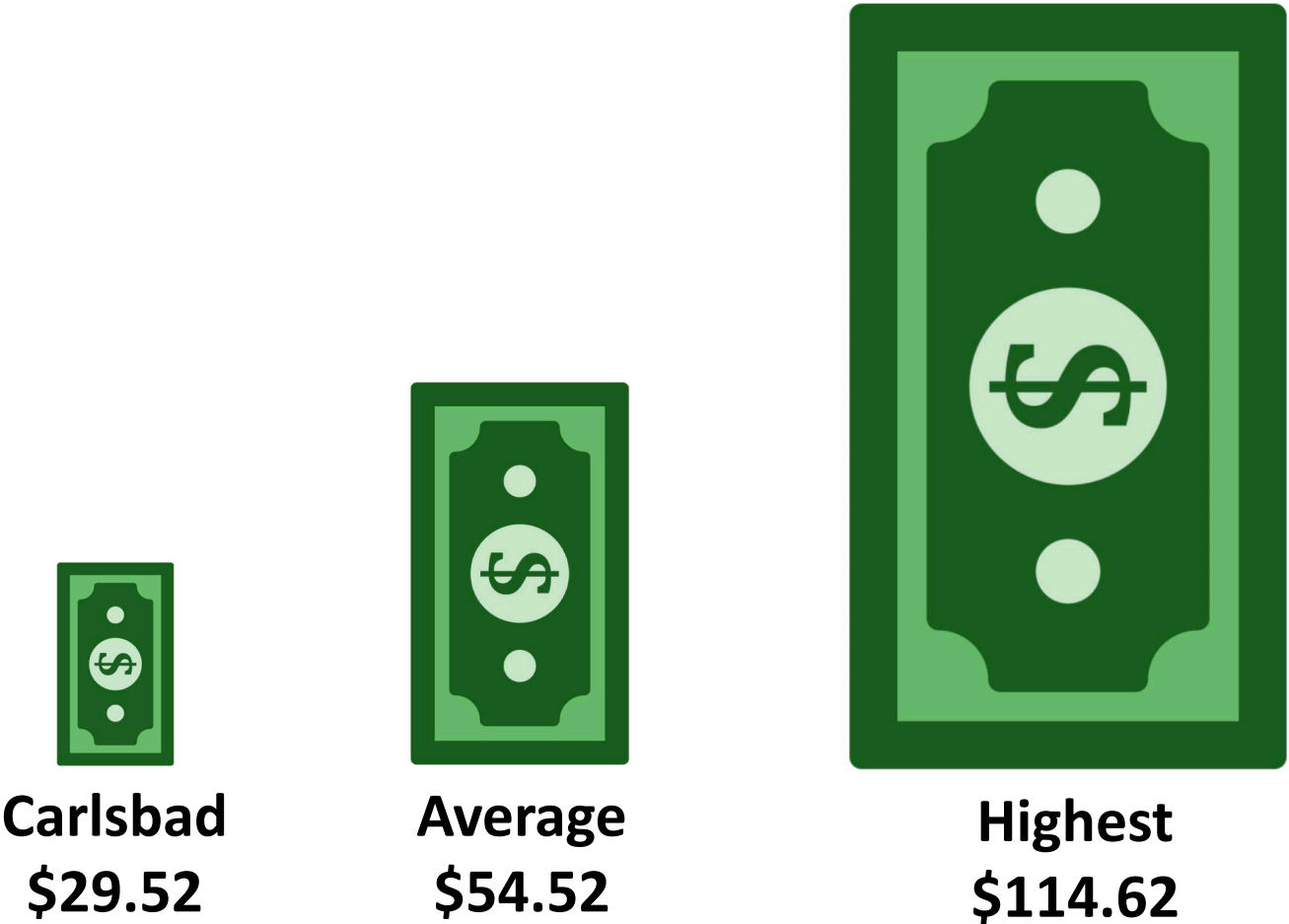
Identifies and apportions annual revenue requirements to functional rate components based on its application of the utility system.



Rate design analysis

Considers both the level and structure of the rate design to collect the distributed revenue requirements from each class of service.

WASTEWATER BILL COMPARISON



**MONTHLY SINGLE FAMILY RESIDENTIAL*

ABOUT WATER RATES



Water delivery fee

Fixed monthly charge based on meter size

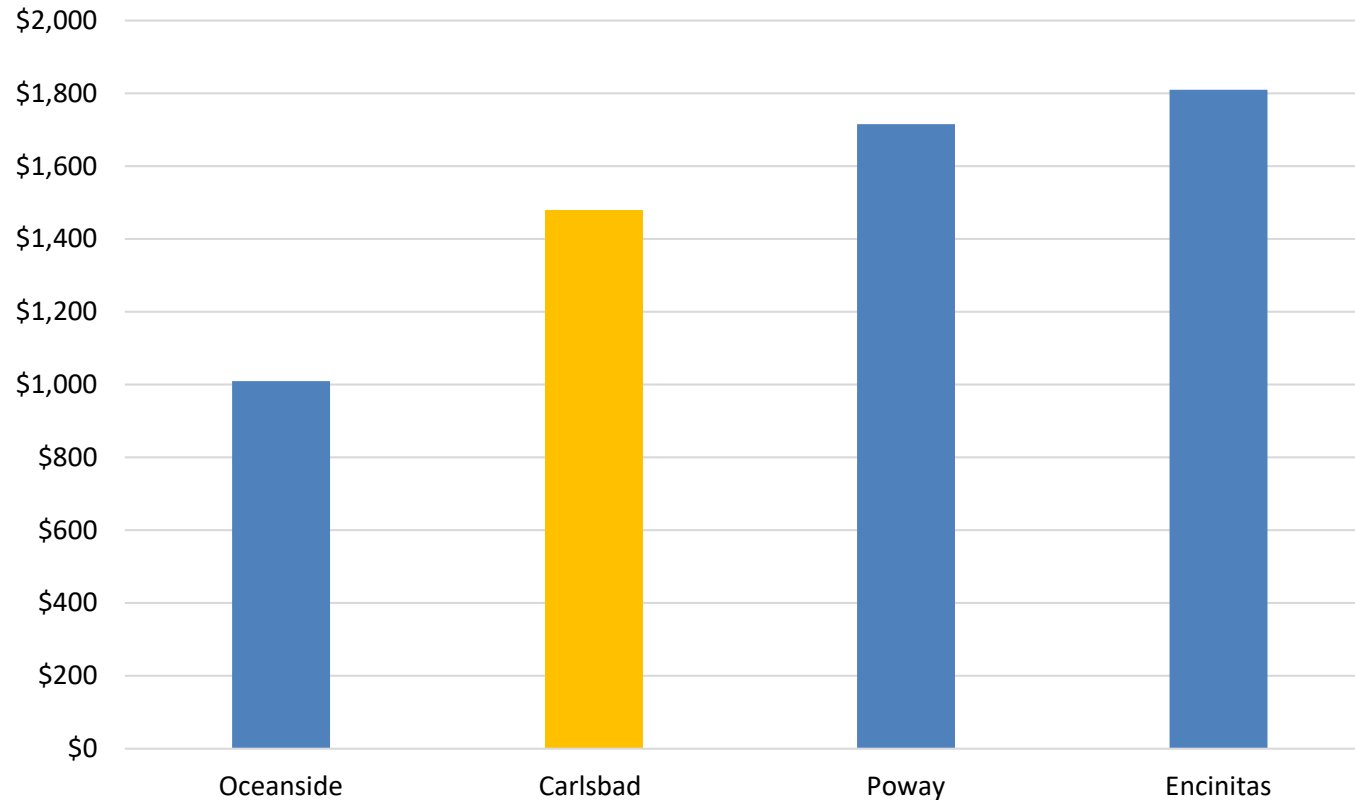
Equal to all customers in a particular class (e.g., commercial, single-family residential)

Water usage fee

Charged based on the amount of water in units consumed each month



RECYCLED WATER BILL COMPARISON - 2022



*A sample recycled water bill is for a 1.5" meter using 350 units of water per month.

ABOUT WASTEWATER RATES



Not individually metered

Equal to all customers in a particular class (e.g., commercial, breweries, single family residential)

Each class charged based on:

Water use

Wastewater quality (BOD, TSS)

Treatment costs





WASTEWATER TREATMENT - ENCINA

- More regional capital improvement projects are needed to maintain aging infrastructure
- Cost of projects is increasing significantly
- City has little control over regional capital improvement projects
- Impacts on customer rates are not presented when the Encina Board approves projects



COST OF SERVICE STUDY

- Revenues from rates must adequately fund utility operations, maintenance and capital investments
- Rates must adhere to the cost-of-service requirements of Prop 218
- Prop 218 requires rates cannot and do not exceed reasonable and proportional cost of providing the service
- The city and the CMWD make NO profit on utility rates
- Rates must be both equitable and reasonable

AVERAGE SINGLE FAMILY HOME WATER BILL

2022	-\$0.35
2023	\$1.46
2024	\$1.45
Total proposed increase	\$2.56

SAMPLE RECYCLED WATER BILL INCREASES

Starting Bill	\$1,421
2022	\$57
2023	\$56
2024	\$64
Total proposed 3-year monthly increase	\$177

*A sample recycled water bill is for a 1.5" meter using 350 units of water per month.