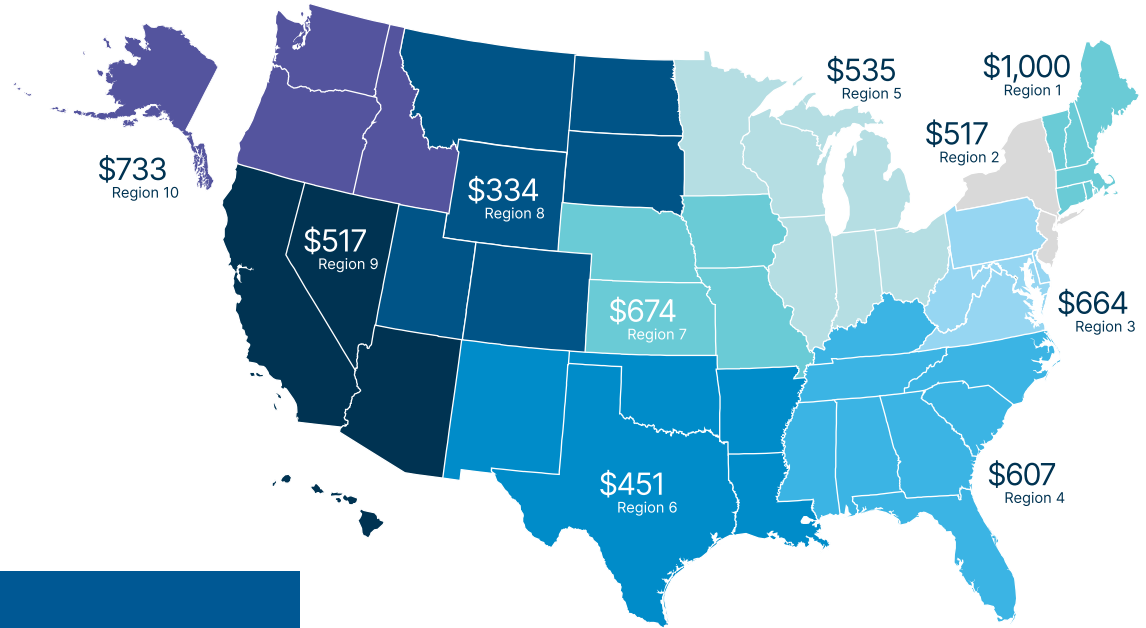


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Cost of Clean Water Index



Regional Average Annual Charges, 2022
All Respondents

107 Million
POPULATION SERVED

173
UTILITY RESPONDENTS

\$569
AVERAGE NATIONAL ANNUAL
SEWER SERVICE CHARGE

4.5%
INCREASE IN SEWER CHARGES
2021-2022

8.0%
INCREASE IN CONSUMER
PRICE INDEX 2021-2022

Average Charge for Wastewater Services Increased 4.5% in 2022

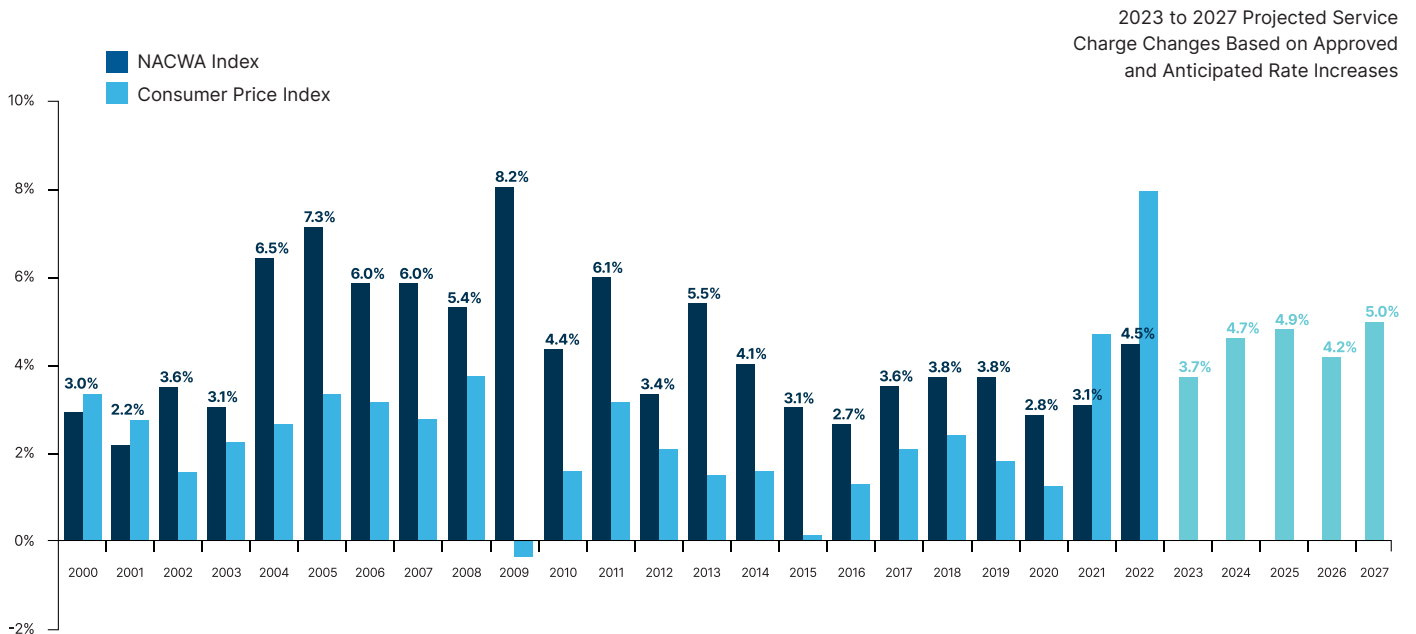
NACWA's 2022 *Cost of Clean Water Index* indicates that the average cost of wastewater services rose 4.5 percent in 2022. The average increase was the highest reported since 2013, but lower than the increase in the rate of inflation as measured by the Consumer Price Index (CPI) (see *Annual Change in Cost of Clean Water Index vs. Inflation* chart on page 2). This marks the second straight year that national charges for wastewater collection and treatment services have been outpaced by inflation.

In 2022, the national average amount that a single-family residence paid for wastewater services was \$569. Wastewater service charges vary widely among EPA regions and states, and are affected by demographics, geography, system age, regulatory requirements, and a range of other issues. To illustrate these variations, the *Regional Average Annual Charge* map (above) shows a breakdown of average charges by EPA region. The average service charge by Region varies from a low of \$334 in EPA Region 8 to a high of \$1,000 in EPA Region 1.



Annual Change in Cost of Clean Water

Index vs. Inflation



The *Annual Change in Cost of Clean Water Index vs. Inflation* chart (above) presents a national snapshot of the increase in service charges, as compared to inflation, since 2000. Table A-1 provides additional detail, including a breakdown of *NACWA Index* values and service charges back to 1985, the base year for the *Index*. The values for 2022 are based on the responses from 173 NACWA members serving over 107 million people.

Customers pay for sewer services in a variety of ways. Charges may be based on property values, gallons of water used, on a flat rate, or include some combination of these values. Because of this variability, the *NACWA Index* uses what the average single-family residence pays annually because it is a more consistent measure to track the cost of services over time. In 2022, the majority of clean water utilities implemented rate structures that resulted in increases in the average annual household service charge. However, in some communities, volume-based rates increased, but average service charges dropped due to reductions in actual or estimated residential water use or decreased revenues. Additional national and regional data are included in Tables A-1 and A-3.

Average Annual Service Charge Has Doubled in Past 17 Years

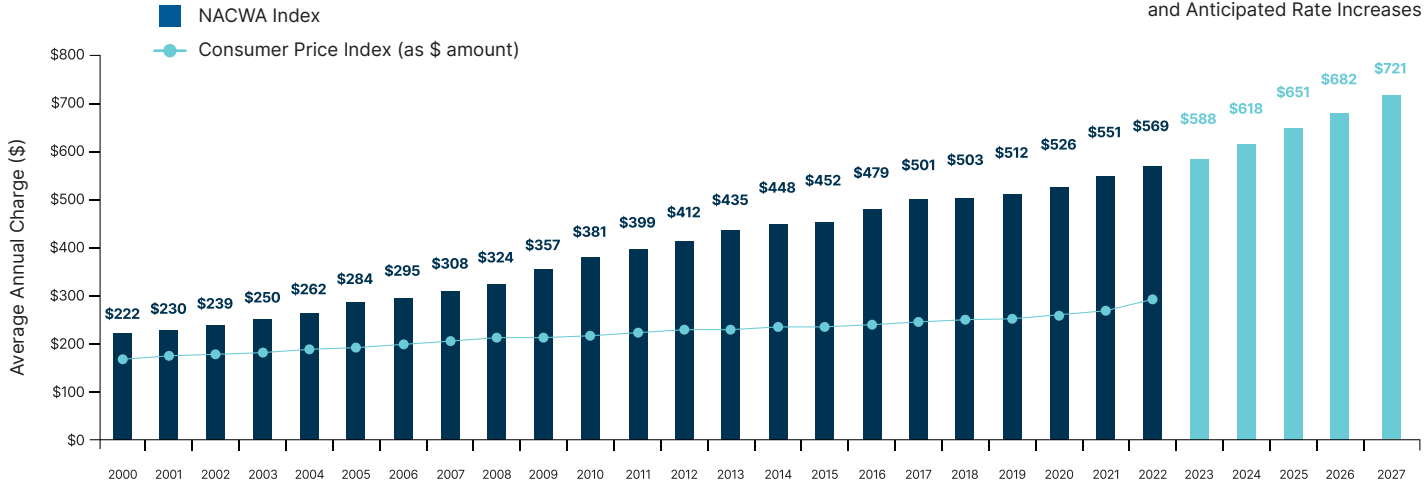
The *Average Annual Service Charge* chart (page 3) presents a national snapshot of wastewater service charges since 2000 and provides a projection of average charges through 2027. In comparison to the Consumer Price Index (CPI), the annual sewer service charge has increased at double the rate of the CPI since 2000 and has doubled in value since 2005. The average annual sewer charge of \$569 represents 2.0 percent of the 2022 Federal poverty income threshold (\$27,750) for a family of four.



Average Annual Service Charge

2000 – 2022 & Projected

2023 to 2027 Projected Service Charge Changes Based on Approved and Anticipated Rate Increases



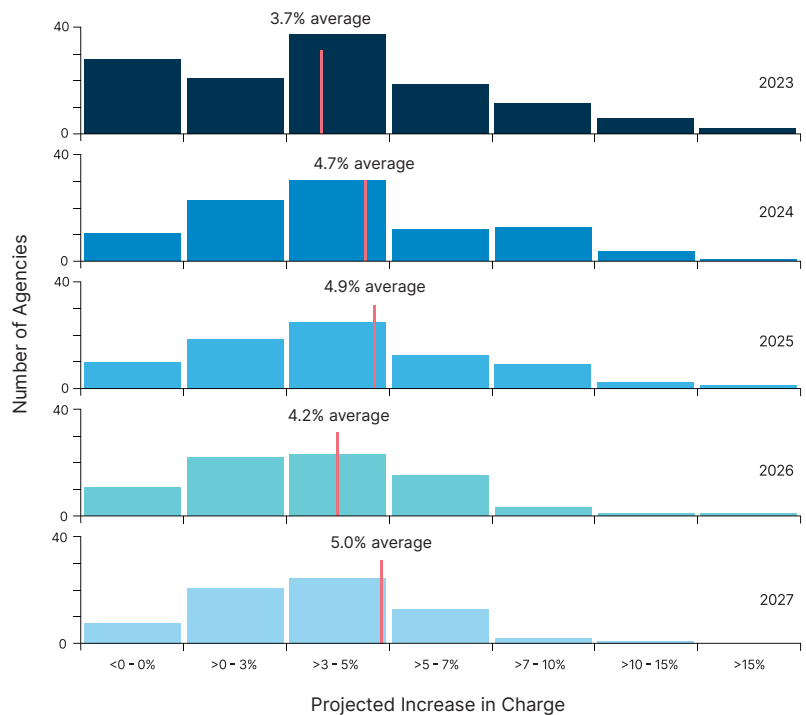
Rate Increases Projected to Climb Higher for 2023 to 2027

Fewer agencies reported no change in rates for the upcoming two years than in the 2021 survey. Many agencies appear to be offsetting delayed rate increases due to the pandemic and adjusting rates higher than in previous years to keep pace with inflationary costs and regulatory requirements. Projected rate increases in the 3 to 5 percent category were predominate among those agencies providing estimates.

From 2023-2027, rates are projected to rise approximately 4 to 5 percent per year (see *Projected Increases in Charges* chart which shows the distribution of projected increases in charges among agency respondents). Increasing costs due to inflation impacts on both O&M and capital spending, as well as costs of consent decree and regulatory compliance with nutrients, CSOs, and sewer system improvements were the top reasons cited by respondents for large projected rate increases. Other related drivers for rate increases included: replacement of aging infrastructure, plant improvements, plant construction due to growth, and decreases in per capita consumption.

Projected Increases in Charges

2023 - 2027



Disclaimers: The NACWA Index strives to use the best available data each year when determining current and historical household charges and trends. These data are intended for comparison purposes only, and are subject to change from one year to the next. While this document presents the most up-to-date data available, if better data become available in the future, the data presented here may be modified.

Additional data and information on the NACWA Index and past year's surveys are available on NACWA's website.

Table A-1: NACWA Service Charge Index, 1985 to 2022

Year	NACWA Index ⁽¹⁾	Change from Previous Year ⁽²⁾	Average Service Charge (\$)	Change from Previous Year (\$)	Change to Consumer Price Index	Total Responses	Population represented (in millions)	Total Responses in Both Previous and Current Year
1985	100.0		\$102.75			155	88.6	
1986	106.8	6.8%	\$109.69	\$6.95	1.9%	158	88.8	155
1987	112.4	5.3%	\$115.51	\$5.82	3.6%	157	88.8	157
1988	119.9	6.9%	\$123.17	\$7.99	4.1%	163	91.3	157
1989	130.1	8.4%	\$133.65	\$10.35	4.8%	166	92.0	163
1990	141.0	8.4%	\$144.84	\$11.25	5.4%	169	92.3	166
1991	153.7	8.9%	\$157.88	\$12.84	4.2%	171	92.5	169
1992	166.7	8.5%	\$171.33	\$13.84	3.0%	175	94.7	171
1993	183.1	8.3%	\$188.12	\$13.78	3.0%	184	100.5	170
1994	193.4	5.1%	\$198.68	\$10.32	2.6%	194	102.4	182
1995	197.8	2.2%	\$203.22	\$4.23	2.8%	199	99.6	189
1996	201.7	3.6%	\$207.28	\$6.44	3.0%	205	105.8	195
1997	203.9	1.3%	\$209.49	\$2.88	2.3%	208	107.9	202
1998	207.8	2.4%	\$213.52	\$4.89	1.6%	214	106.6	204
1999	209.8	0.7%	\$215.61	\$1.90	2.2%	224	109.4	210
2000	216.4	3.0%	\$222.31	\$6.41	3.4%	234	113.7	218
2001	223.5	2.2%	\$229.63	\$4.47	2.8%	238	113.5	227
2002	232.6	3.6%	\$238.99	\$8.45	1.6%	220	107.8	215
2003	243.0	3.1%	\$249.71	\$7.69	2.3%	232	108.4	198
2004	254.8	6.5%	\$261.79	\$16.10	2.7%	222	109.0	200
2005	276.3	7.3%	\$283.91	\$18.79	3.4%	213	108.7	188
2006	287.1	6.0%	\$295.03	\$17.23	3.2%	203	107.0	177
2007	299.4	6.0%	\$307.60	\$16.47	2.8%	196	104.6	173
2008	315.4	5.4%	\$324.11	\$18.00	3.8%	191	107.6	165
2009	347.3	8.2%	\$356.90	\$26.41	-0.4%	171	103.4	161
2010	371.2	4.4%	\$381.45	\$16.82	1.6%	181	100.7	143
2011	387.7	6.1%	\$398.57	\$23.78	3.2%	176	104.0	158
2012	401.6	3.3%	\$412.17	\$13.97	2.1%	179	108.1	148
2013	424.3	5.5%	\$435.26	\$22.53	1.5%	183	107.8	155
2014	436.0	4.1%	\$447.99	\$17.45	1.6%	184	112.8	164
2015	439.8	3.1%	\$451.93	\$13.53	0.1%	176	110.6	160
2016	466.3	2.7%	\$479.07	\$11.85	1.3%	173	104.4	156
2017	487.8	3.6%	\$501.21	\$11.49	2.1%	180	105.4	144
2018	489.5	3.8%	\$503.01	\$19.77	2.4%	178	109.6	154
2019	498.3	3.8%	\$512.01	\$6.30	1.8%	178	110.3	149
2020	512.3	2.8%	\$526.44	\$14.57	1.2%	175	104.4	154
2021	536.1	3.1%	\$550.81	\$15.73	4.7%	171	105.5	144
2022	553.7	4.5%	\$568.89	\$23.83	8.0%	173	107.2	143

Note 1: The value of the Service Charge Index is based on all responses received. The base year, 1985 has been indexed to a value of 100 at the national level.

Note 2: The annual percent change in the Index is based on the responses of those agencies that responded in both the previous year and current year using the same calculation method.



Table A-2: Projected Annual Service Charge Increases, 2023-2027

	2023	2024	2025	2026	2027
Average Annual Increase (%)	3.7%	4.7%	4.9%	4.2%	5.0%
Average Service Charge (Projected \$)	\$588.01	\$618.15	\$651.08	\$682.07	\$720.55
Change from Previous Year (\$)	\$19.12	\$30.14	\$32.93	\$30.99	\$38.48
# of Total Responses	134	122	115	145	144
# of Responses with Numeric Estimates	126	95	79	76	71
Approved	52%	24%	15%	7%	6%
Planned	25%	50%	51%	59%	58%
No Change	17%	8%	8%	8%	6%
Uncertain	5%	18%	26%	26%	31%

Table A-3: Regional Annual Average Sewer Service Charges, 2022 Summary

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	National
# of Agencies	11	12	17	23	30	15	13	12	25	15	173
Population	3.5	13.8	10.9	10.6	19.5	11.1	5.0	3.5	22.1	7.1	107.2
2022 Charge											
Average	\$1,000.36	\$517.34	\$663.95	\$606.66	\$534.52	\$451.47	\$673.91	\$334.45	\$516.74	\$733.57	\$568.89
Median	\$581.40	\$440.81	\$501.88	\$504.36	\$466.63	\$442.56	\$543.30	\$406.01	\$530.22	\$651.72	\$504.00
Minimum	\$382.00	\$199.82	\$278.08	\$244.44	\$223.92	\$327.12	\$55.75	\$269.88	\$246.44	\$450.24	\$55.75
Maximum	\$1,174.59	\$630.40	\$1,046.64	\$1,056.28	\$725.52	\$926.40	\$842.02	\$564.24	\$1,325.04	\$998.64	\$1,325.04
% Change⁽³⁾											
1-year (2021-22)	5.3%	3.6%	4.8%	3.7%	3.1%	7.1%	4.8%	3.5%	4.5%	-1.5%	4.5%
3-year (2019-22)	11.3%	6.3%	14.0%	8.1%	13.0%	9.2%	12.8%	11.9%	8.3%	10.8%	10.6%
5-year (2017-22)	18.9%	18.8%	18.8%	13.3%	19.8%	13.1%	23.1%	25.4%	14.0%	21.2%	18.2%

Note 3: The percent change values in Table A-3 are based on the responses of those agencies that responded in both the previous year and current year using the same calculation method.

