



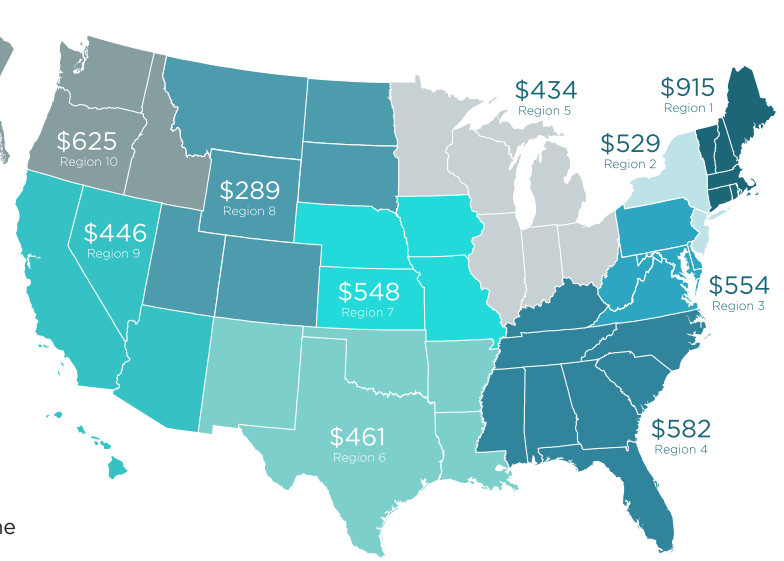
## NACWA COST OF CLEAN WATER INDEX

### Average Charge for Wastewater Services Increased 3.9% in 2018

NACWA's 2018 *Cost of Clean Water Index* indicates that the average cost of wastewater services rose 3.9 percent in 2018, surpassing the increase in the rate of inflation as measured by the Consumer Price Index (CPI) (see *Cost of Clean Water Index vs. Inflation* chart below). The national average amount that a single-family residence pays for wastewater collection and treatment is now \$504 per year. This is the 17th consecutive year that wastewater service charges have increased faster than inflation, doubling the average wastewater service charge since 2003 (see *Cost of Clean Water Index vs. Inflation* chart below). Rising costs of service are reflective of the efforts of our nation's clean water utilities, which are continually striving to improve and sustain service levels to address water quality and aging infrastructure, as well as changing demographics.

The national average of \$504 provides only part of the picture. Wastewater service charges vary widely among EPA regions and states, and are affected by demographics, geography, and a range of other issues. As an example of 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 \$289 in EPA Region 8 to a high of \$915 in EPA Region 1.

The *Cost of Clean Water Index vs. Inflation* chart (below) presents a national snapshot of the increase in service charges, as compared to inflation, since 2000. Table A-1 (see *Cost of Clean Water Index Annex*) provides a breakdown of *NACWA Index* values and service charges back to 1985, the base year for the *Index*. The values for 2018 are based on the responses from 174 NACWA members serving over 109 million people.



Regional Average Annual Charges (2018)

### 2018 NACWA Service Charge Index Summary

109 Million  
Population Served

174  
Utility Respondents

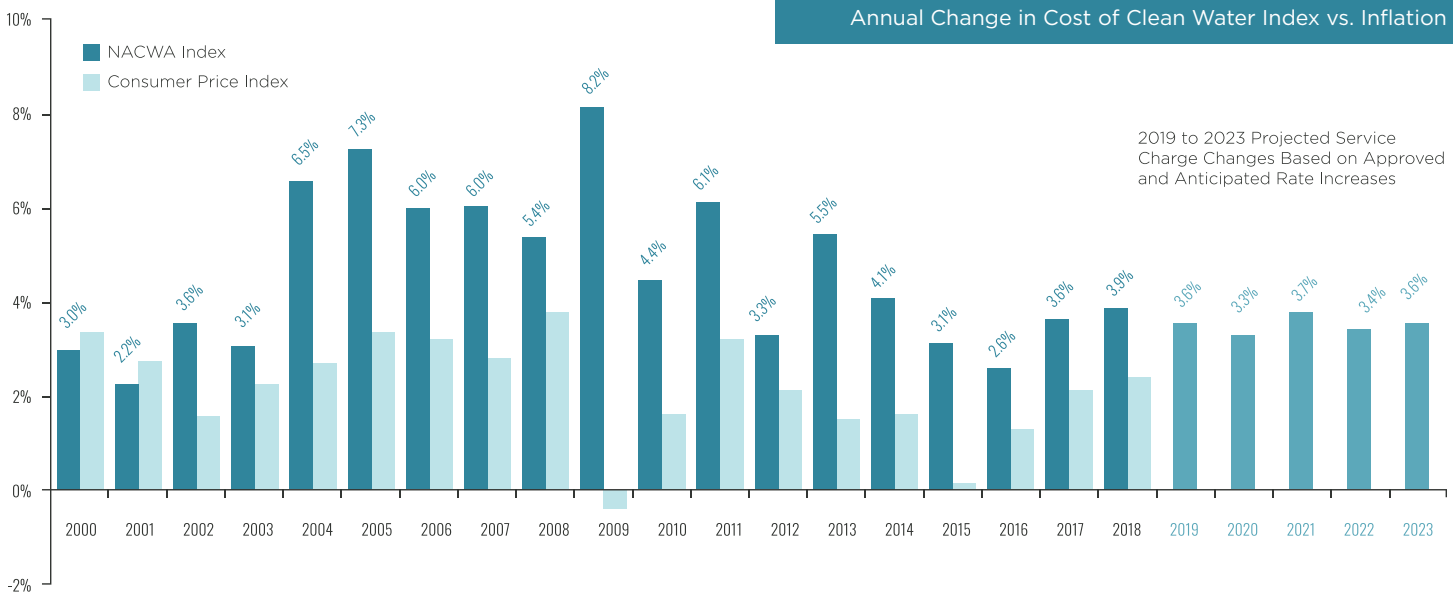
\$504

Average National Annual Wastewater Collection and Treatment Service Charge

3.9%  
Increase in Wastewater Service Charges from 2017-2018

2.4%  
Increase in Consumer Price Index 2017-2018

### Annual Change in Cost of Clean Water Index vs. Inflation



2019 to 2023 Projected Service Charge Changes Based on Approved and Anticipated Rate Increases

In 2018, a majority of clean water utilities implemented rate structures that resulted in increases in the average annual household service charge. However, in some communities (i.e., 6% of respondents), volume-based rates increased, but average service charges dropped due to reductions in residential water use. Additional national and regional data are included in Tables A-1 and A-3 (see *Cost of Clean Water Index Annex*).

## Projected Rates Expected to Increase 3.3% to 3.7% Per Year

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.

This year, *NACWA's Index* indicates that clean water utilities are expecting average rates to continue to increase from 3.3 to 3.7% per year for the next five years. Consent decree requirements for capital infrastructure and associated costs of debt-financing, utility tax increases, and aging infrastructure were some of the top reasons cited by respondents for projected rate increases greater than 20 percent (over 5 years). Other drivers for large rate increases include an expected rise in O&M costs and regulatory requirements associated with nutrients/TMDLs.

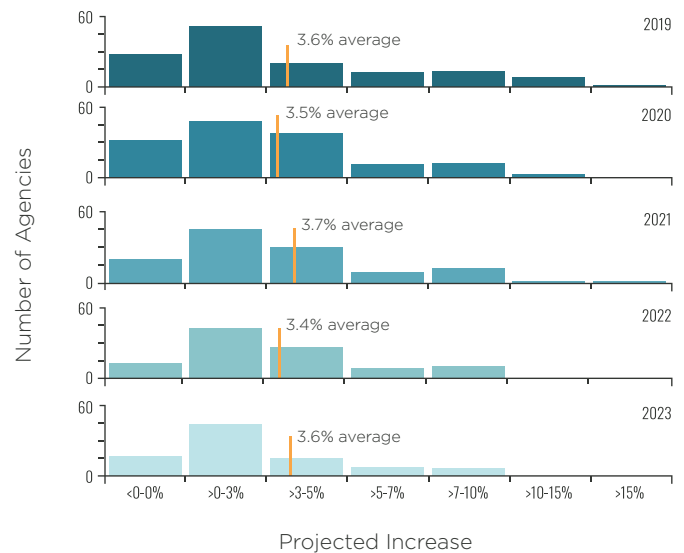
The *Projected Increases in Charges, 2019-2023* chart (right) shows the projected percentage increase in charges distributed among agency respondents. Of those utilities responding, 31 percent of agencies project cumulative five-year rate increases above 20 percent.

## Average Annual Service Charge Has Doubled in Last 15 Years

The *Average Annual Service Charge* chart (below) presents a national snapshot of wastewater service charges since 2000 and provides a projection of average charges through 2023. From 2003 to 2018, the average annual service charge has doubled (a 100% increase) in value from \$250 to \$504. Meanwhile, the Consumer Price Index (CPI) has increased only 36 percent in this same time period.

The average annual sewer charge of \$504 represents 2.0 percent of the 2018 Federal poverty income threshold (\$25,465) for a family of four. This proportion has risen from 1.3 percent in 2000. Projected increases in rates show the annual average charge exceeding \$600 by 2023.

### Projected Increases in Charges, 2019-2023



### Average Annual Service Charge, 2000 - 2018 & Projected



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*, past year's surveys, and regional summaries of the data from the 2018 *NACWA Index* are available on *NACWA's* website at [www.nacwa.org/utilitymanagement](http://www.nacwa.org/utilitymanagement)

Table A-1: NACWA Service Charge Index, 1985 to 2018 | Annex

Year	NACWA Index <sup>(1)</sup>	Change from Previous Year <sup>(2)</sup>	Average Service Charge(\$)	Change from Previous Year(\$) <sup>(2)</sup>	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	436.4	4.1%	\$448.40	\$17.43	1.6%	183	112.4	164
2015	439.7	3.1%	\$451.79	\$13.54	0.1%	172	109.8	157
2016	465.9	2.6%	\$478.72	\$11.52	1.3%	167	102.9	147
2017	488.2	3.6%	\$501.58	\$11.40	2.1%	174	104.0	137
2018	490.1	3.9%	\$503.53	\$20.50	2.4%	174	109.3	149

Note 1: The Index Value is based on all responses received. The base year, 1985, has been indexed to a value of 100.

Note 2: The percent change in the Index and dollar value change in average service charge from the previous year are based only 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, 2019-2023 | Annex

	2019	2020	2021	2022	2023
Average Annual Increase (%)	3.6%	3.3%	3.7%	3.4%	3.6%
Average Service Charge (Projected \$)	\$522.92	\$540.26	\$562.83	\$584.78	\$607.30
Change from Previous Year (\$)	\$19.39	\$17.34	\$22.57	\$21.95	\$22.52
Number of Total Responses	161	155	152	150	146
Number of Responses with Numeric Estimates	101	80	68	60	51
Approved	47%	23%	15%	8%	6%
Planned	30%	49%	52%	57%	51%
No Change	17%	12%	9%	5%	8%
Uncertain	6%	15%	24%	29%	36%

Table A-3: Regional Annual Average Sewer Service Charges, 2018 Summary | Annex

	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	National
Number of agencies	7	14	18	30	25	16	14	10	27	13	174
Population	3.0	14.4	10.6	12.2	15.3	14.8	4.5	3.3	26.1	5.2	109.3
<b>2018 Charge</b>											
Average	\$915.86	\$529.22	\$553.50	\$582.46	\$434.46	\$461.38	\$547.66	\$288.83	\$445.66	\$624.63	\$503.53
Median	\$477.27	\$385.95	\$456.77	\$468.42	\$458.11	\$441.79	\$404.76	\$283.28	\$468.00	\$543.12	\$457.00
Minimum	\$365.00	\$189.15	\$345.10	\$220.23	\$163.80	\$243.12	\$54.40	\$235.68	\$221.09	\$334.95	\$54.40
Maximum	\$1,024.41	\$662.68	\$715.08	\$1,171.44	\$760.00	\$926.40	\$711.34	\$486.12	\$1,325.04	\$835.80	\$1,325.04
<b>Percent Change<sup>(3)</sup></b>											
1-year (2017-18)	4.4%	3.0%	4.3%	1.4%	4.9%	11.5%	4.6%	4.3%	3.1%	3.2%	3.9%
3-year (2015-18)	12.1%	4.8%	8.7%	7.8%	8.9%	20.6%	26.0%	11.1%	7.3%	13.2%	10.0%
5-year (2013-18)	20.8%	12.4%	16.1%	15.4%	25.9%	22.1%	42.1%	24.6%	10.6%	19.1%	20.4%

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.

Table R-1 Service Charge Index by EPA Region (1985-2018)<sup>1</sup>

Year	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	National
1985	69.8	85.4	121.1	139.0	137.5	106.0	63.4	101.8	63.1	115.4	100.0
1986	80.0	89.6	137.2	144.0	141.3	121.4	68.2	101.9	68.0	124.8	106.8
1987	98.0	100.3	139.1	152.7	136.5	142.4	70.7	102.1	73.4	129.4	112.4
1988	106.2	110.1	142.8	148.1	139.5	155.2	72.2	108.8	85.2	139.0	119.9
1989	143.0	127.2	151.5	155.6	140.3	163.6	74.2	105.6	100.4	150.5	130.1
1990	166.7	147.0	154.3	163.4	145.3	176.0	73.6	115.3	114.8	158.6	141.0
1991	194.4	166.8	185.5	171.1	149.9	168.7	82.3	120.4	131.8	173.7	153.7
1992	218.5	195.3	187.1	178.4	158.0	171.0	92.8	125.8	147.6	193.0	166.7
1993	304.2	196.7	208.7	189.6	166.6	187.4	132.1	137.9	162.4	200.7	183.1
1994	306.0	222.5	213.5	203.8	173.3	191.7	141.6	136.2	173.2	224.9	193.4
1995	303.3	215.2	213.3	215.5	178.9	206.9	142.3	145.9	175.9	245.6	197.8
1996	320.6	206.4	222.6	224.2	180.4	212.1	144.9	143.9	183.2	258.7	201.7
1997	310.2	208.1	222.9	235.3	176.8	211.0	153.5	143.6	187.2	265.2	203.9
1998	314.7	214.6	228.7	234.1	177.8	208.6	160.5	145.3	196.6	272.7	207.8
1999	316.1	222.4	230.1	241.1	182.9	207.0	163.1	150.6	191.5	277.5	209.8
2000	312.6	222.1	237.2	251.5	186.7	212.3	163.9	151.2	202.0	297.5	216.4
2001	310.2	249.0	243.5	257.2	190.0	212.8	170.3	155.4	206.7	305.9	223.5
2002	316.9	268.7	242.9	261.6	201.8	219.6	175.3	154.2	215.1	338.9	232.6
2003	337.6	279.0	275.4	303.0	214.2	222.5	166.9	148.4	214.1	365.1	242.8
2004	364.5	280.9	275.4	292.0	212.7	257.9	179.7	171.2	230.3	376.7	254.8
2005	423.1	313.1	299.2	323.4	227.8	259.0	199.7	167.4	242.3	413.1	276.3
2006	438.3	328.7	319.8	308.8	250.5	278.8	231.0	169.5	260.6	352.9	287.1
2007	507.6	341.8	343.0	337.0	254.4	251.8	229.3	175.1	271.9	371.6	299.4
2008	558.8	365.1	357.3	317.6	270.5	265.3	240.7	175.5	304.5	396.5	315.5
2009	593.5	380.6	389.8	342.3	329.5	283.4	271.9	185.1	338.7	403.7	347.3
2010	587.2	386.5	398.8	386.7	353.4	281.6	268.3	194.0	411.8	403.1	371.2
2011	676.2	425.7	422.4	425.0	369.0	307.4	312.8	212.9	411.8	435.0	387.7
2012	680.2	424.3	450.2	469.4	376.7	325.4	347.7	213.4	377.1	459.3	401.6
2013	681.1	447.9	480.5	477.6	396.6	357.1	384.5	219.0	389.9	488.8	424.3
2014	703.0	468.7	474.1	457.9	426.6	361.7	427.6	226.1	408.1	497.7	436.4
2015	791.0	482.8	483.6	462.9	417.7	355.7	463.3	244.0	404.3	519.1	439.7
2016	837.1	496.7	532.6	573.6	391.0	358.0	488.5	251.5	423.9	539.1	465.9
2017	860.8	498.5	556.5	586.5	447.1	398.5	527.7	254.0	432.8	578.5	488.2
2018	891.3	515.1	538.7	566.9	422.8	449.0	533.0	281.1	433.7	607.9	490.1
Number of Responses (2018)	7	14	18	30	25	16	14	10	27	13	174
Population (millions)	3.0	14.4	10.6	12.2	15.3	14.8	4.5	3.3	26.1	5.2	109.3

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.

Table R-2 Service Charge Index Change vs. Inflation Rate by EPA Region (1986-2018)<sup>2</sup>

Year	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	National	CPI
1986	14.6%	4.9%	13.3%	4.1%	2.7%	14.6%	7.7%	0.1%	7.7%	8.2%	6.8%	1.9%
1987	22.4%	11.9%	1.4%	6.0%	-3.4%	17.3%	3.6%	0.2%	7.9%	3.7%	5.3%	3.6%
1988	8.9%	9.8%	2.8%	3.3%	2.2%	8.8%	2.1%	6.5%	15.7%	7.4%	6.9%	4.1%
1989	34.7%	15.6%	6.1%	5.1%	0.6%	5.4%	2.7%	-3.0%	17.1%	8.2%	8.4%	4.8%
1990	20.0%	15.6%	1.9%	5.0%	3.5%	7.6%	-0.8%	9.3%	14.1%	5.4%	8.4%	5.4%
1991	16.6%	13.4%	20.3%	3.7%	3.2%	-4.2%	11.8%	4.4%	14.8%	9.5%	8.9%	4.2%
1992	12.4%	16.9%	2.0%	4.3%	5.4%	1.0%	12.8%	4.4%	11.9%	11.1%	8.5%	3.0%
1993	34.9%	1.4%	1.4%	6.9%	6.1%	9.9%	42.3%	6.9%	10.1%	3.3%	8.3%	3.0%
1994	4.0%	5.0%	2.2%	8.8%	4.0%	2.3%	10.3%	2.8%	6.6%	12.4%	5.1%	2.6%
1995	0.6%	0.9%	-1.3%	4.6%	1.1%	7.9%	-2.8%	6.1%	1.4%	9.2%	2.2%	2.8%
1996	1.8%	4.4%	4.4%	4.0%	2.1%	2.0%	1.8%	0.1%	4.2%	5.3%	3.6%	3.0%
1997	0.4%	1.2%	0.1%	6.0%	-1.8%	-0.6%	6.0%	-0.3%	2.2%	2.5%	1.3%	2.3%
1998	1.6%	3.0%	1.7%	1.6%	0.8%	-1.1%	4.6%	0.5%	5.0%	2.9%	2.4%	1.6%
1999	0.4%	1.5%	0.7%	2.8%	2.4%	-0.6%	2.5%	3.6%	-2.3%	1.9%	0.7%	2.2%
2000	0.1%	1.8%	-0.1%	3.4%	2.3%	2.6%	-2.9%	0.4%	6.0%	7.2%	3.0%	3.4%
2001	1.5%	2.3%	2.6%	3.2%	1.4%	0.5%	3.9%	2.1%	2.1%	2.8%	2.2%	2.8%
2002	1.9%	5.1%	-0.2%	1.9%	6.3%	1.6%	3.2%	-0.8%	3.9%	10.2%	3.6%	1.6%
2003	7.3%	5.3%	-0.7%	5.6%	6.2%	1.1%	1.7%	-3.7%	0.1%	4.7%	3.1%	2.3%
2004	11.8%	2.7%	16.6%	7.0%	-0.5%	14.5%	11.4%	2.9%	5.8%	5.8%	6.5%	2.7%
2005	17.4%	4.6%	6.3%	9.0%	10.6%	4.4%	11.3%	0.2%	4.6%	9.0%	7.3%	3.4%
2006	6.3%	8.0%	6.6%	3.3%	8.9%	7.2%	3.7%	1.3%	4.3%	4.6%	6.0%	3.2%
2007	10.9%	4.3%	6.7%	5.5%	3.0%	-7.5%	0.9%	3.6%	10.0%	5.6%	6.0%	2.8%
2008	5.5%	11.1%	1.7%	1.8%	3.5%	3.6%	11.3%	1.7%	6.4%	2.8%	5.4%	3.8%
2009	6.0%	6.1%	8.5%	5.5%	12.7%	7.2%	5.9%	4.0%	9.9%	3.9%	8.2%	-0.4%
2010	4.4%	2.2%	3.8%	10.7%	6.9%	0.7%	9.0%	-3.4%	4.5%	-2.4%	4.4%	1.6%
2011	5.2%	8.0%	6.3%	4.6%	5.3%	6.8%	9.8%	12.5%	4.0%	9.6%	6.0%	3.2%
2012	4.7%	1.8%	3.3%	2.6%	1.2%	4.3%	8.4%	0.1%	5.3%	4.8%	3.4%	2.1%
2013	4.8%	6.6%	8.7%	2.1%	5.0%	8.6%	10.0%	2.1%	3.8%	5.6%	5.5%	1.5%
2014	2.7%	5.0%	1.6%	5.7%	7.4%	-0.4%	7.1%	3.7%	3.8%	3.3%	4.1%	1.6%
2015	4.2%	2.2%	7.0%	0.6%	7.9%	3.2%	8.5%	8.4%	-0.8%	2.3%	3.1%	0.1%
2016	5.8%	1.2%	2.7%	3.0%	1.0%	1.8%	8.9%	3.1%	2.4%	4.0%	2.6%	1.3%
2017	2.4%	0.5%	4.1%	4.3%	3.9%	4.8%	8.8%	3.7%	3.5%	5.4%	3.6%	2.1%
2018	4.4%	3.0%	4.3%	1.4%	4.9%	11.5%	4.6%	4.3%	3.1%	3.2%	3.9%	2.4%

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

# Regional Service Charge Index as a Percent of the National Average (1985-2018)

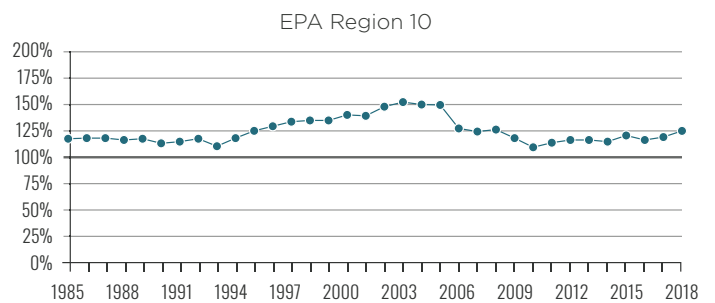
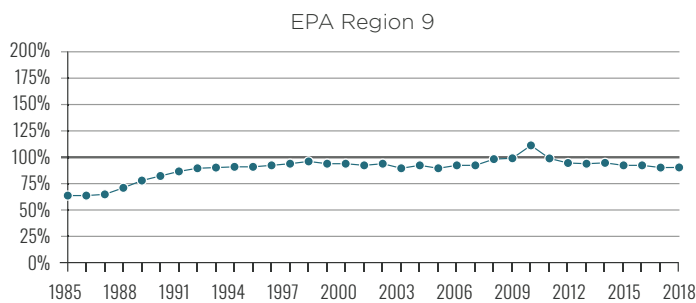
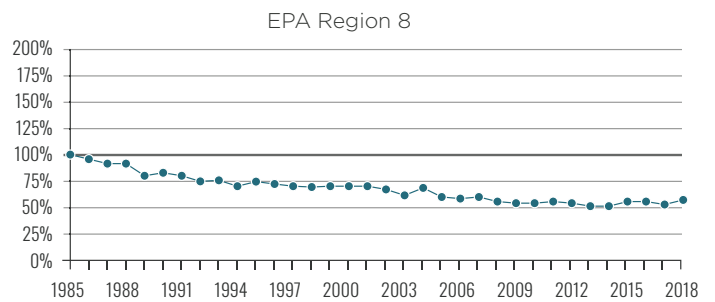
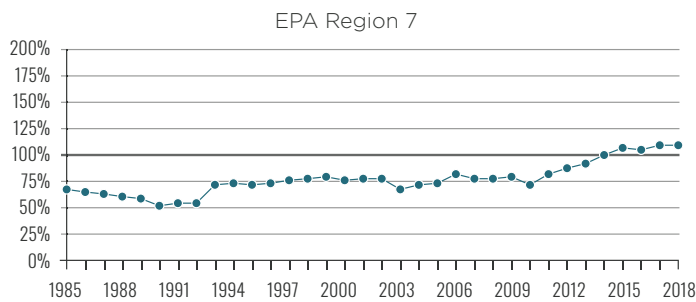
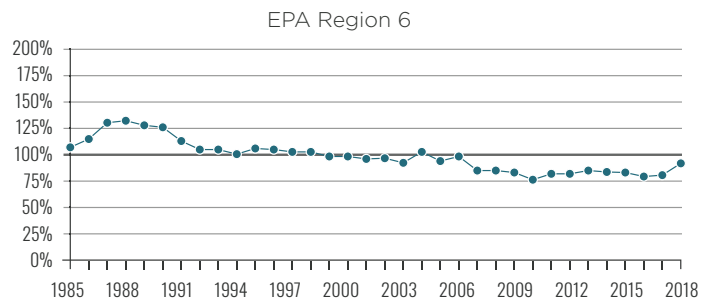
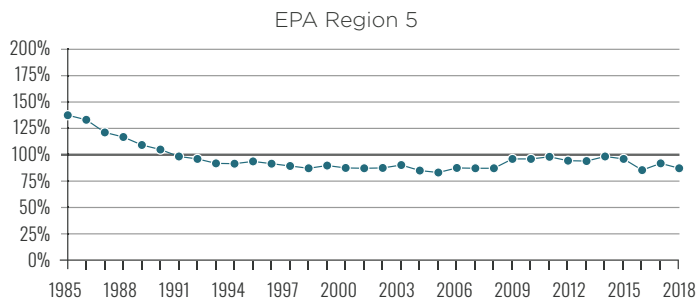
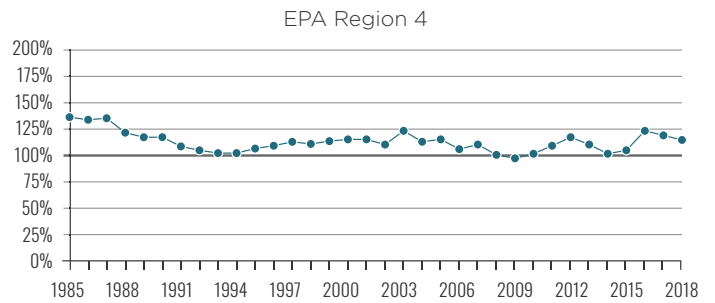
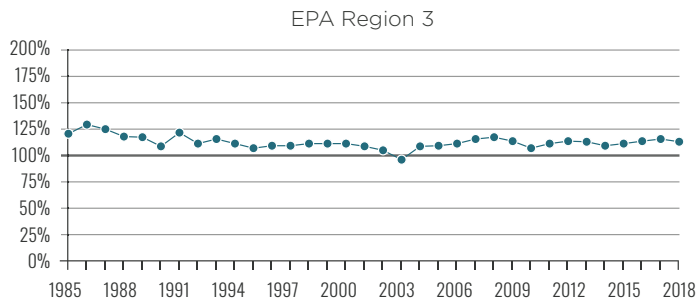
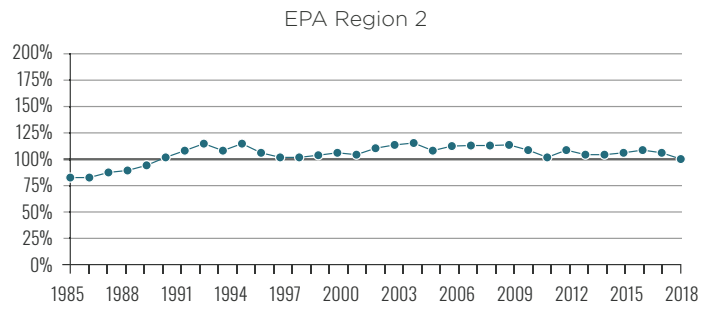
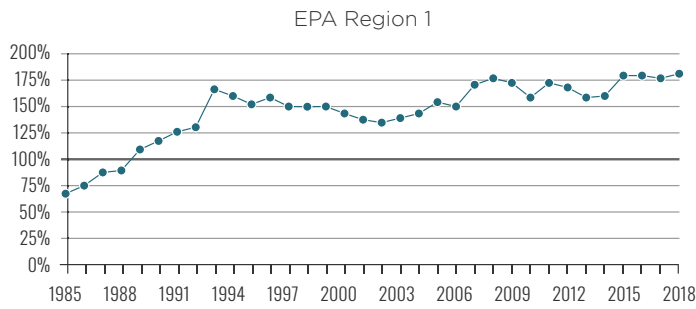
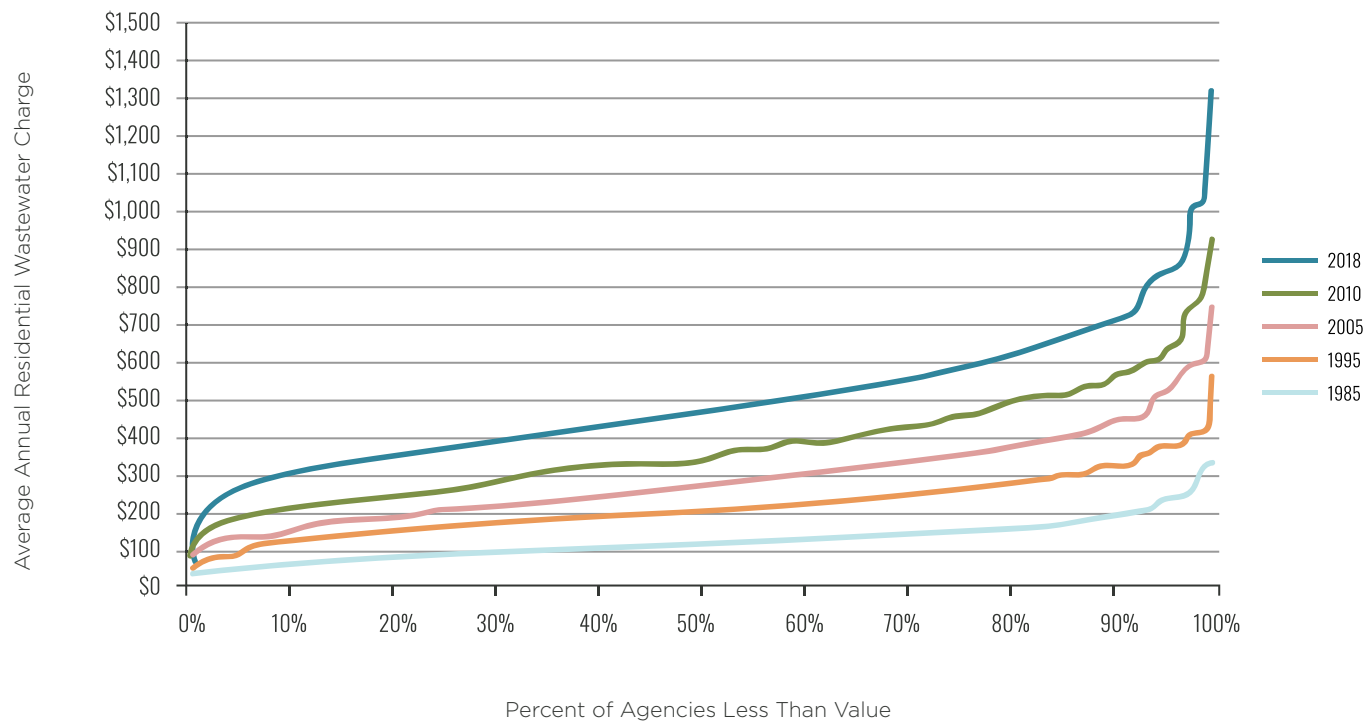


Table R-3 Average Annual Wastewater Service Charge by EPA Region (1985-2018)

Year	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8	Region 9	Region 10	National
1985	\$71.74	\$87.74	\$124.46	\$142.85	\$141.32	\$108.90	\$65.12	\$104.57	\$64.87	\$118.54	\$102.75
1986	\$82.23	\$92.07	\$140.97	\$147.95	\$145.19	\$124.77	\$70.12	\$104.70	\$69.87	\$128.23	\$109.69
1987	\$100.65	\$103.02	\$142.94	\$156.86	\$140.29	\$146.30	\$72.68	\$104.95	\$75.39	\$132.98	\$115.51
1988	\$109.09	\$113.10	\$146.69	\$152.13	\$143.33	\$159.47	\$74.20	\$111.79	\$87.50	\$142.84	\$123.17
1989	\$146.94	\$130.73	\$155.64	\$159.89	\$144.18	\$168.07	\$76.20	\$108.46	\$103.14	\$154.60	\$133.65
1990	\$171.31	\$151.08	\$158.54	\$167.91	\$149.25	\$180.86	\$75.60	\$118.51	\$117.91	\$162.91	\$144.84
1991	\$199.77	\$171.40	\$190.65	\$175.78	\$154.06	\$173.30	\$84.55	\$123.73	\$135.38	\$178.43	\$157.88
1992	\$224.52	\$200.66	\$192.20	\$183.28	\$162.39	\$175.65	\$95.38	\$129.22	\$151.63	\$198.31	\$171.33
1993	\$312.62	\$202.08	\$214.43	\$194.79	\$171.21	\$192.52	\$135.78	\$141.67	\$166.91	\$206.26	\$188.12
1994	\$314.46	\$228.65	\$219.33	\$209.38	\$178.02	\$196.97	\$145.44	\$139.99	\$177.98	\$231.06	\$198.68
1995	\$311.61	\$221.16	\$219.13	\$221.46	\$183.78	\$212.54	\$146.26	\$149.95	\$180.75	\$252.36	\$203.22
1996	\$329.39	\$212.09	\$228.72	\$230.37	\$185.35	\$217.93	\$148.84	\$147.90	\$188.26	\$265.79	\$207.28
1997	\$318.71	\$213.84	\$229.04	\$241.79	\$181.65	\$216.85	\$157.71	\$147.52	\$192.36	\$272.46	\$209.49
1998	\$323.37	\$220.48	\$234.95	\$240.56	\$182.65	\$214.37	\$164.92	\$149.30	\$202.00	\$280.25	\$213.52
1999	\$324.77	\$228.57	\$236.39	\$247.73	\$187.89	\$212.70	\$167.56	\$154.73	\$196.78	\$285.14	\$215.61
2000	\$321.19	\$228.20	\$243.75	\$258.41	\$191.88	\$218.11	\$168.41	\$155.33	\$207.56	\$305.72	\$222.31
2001	\$318.72	\$255.85	\$250.23	\$264.27	\$195.22	\$218.68	\$174.99	\$159.72	\$212.39	\$314.30	\$229.63
2002	\$325.60	\$276.08	\$249.55	\$268.74	\$207.32	\$225.66	\$180.12	\$158.41	\$220.99	\$348.21	\$238.95
2003	\$346.87	\$286.70	\$244.16	\$311.31	\$220.11	\$228.64	\$171.49	\$152.46	\$220.01	\$375.13	\$249.44
2004	\$374.54	\$288.61	\$282.95	\$300.02	\$218.75	\$264.95	\$184.68	\$175.91	\$235.86	\$387.05	\$261.48
2005	\$434.72	\$321.74	\$307.43	\$332.32	\$234.03	\$266.10	\$205.16	\$172.02	\$248.99	\$424.45	\$283.91
2006	\$450.31	\$337.77	\$328.61	\$317.28	\$257.38	\$286.47	\$237.39	\$174.16	\$267.69	\$362.64	\$294.98
2007	\$521.61	\$351.17	\$352.44	\$346.23	\$261.41	\$258.73	\$235.62	\$179.91	\$279.37	\$381.80	\$307.60
2008	\$574.21	\$375.19	\$367.16	\$326.15	\$277.94	\$272.61	\$247.33	\$180.30	\$312.89	\$407.39	\$324.11
2009	\$609.85	\$391.05	\$400.52	\$351.74	\$338.53	\$291.17	\$279.35	\$190.15	\$347.99	\$414.82	\$356.90
2010	\$603.38	\$397.14	\$409.75	\$397.34	\$363.08	\$289.33	\$275.64	\$199.36	\$423.15	\$414.22	\$381.45
2011	\$694.75	\$437.43	\$433.97	\$436.66	\$379.11	\$315.88	\$321.44	\$218.77	\$387.45	\$447.01	\$398.54
2012	\$698.93	\$435.98	\$462.55	\$482.27	\$386.52	\$334.36	\$357.31	\$219.23	\$387.48	\$471.93	\$412.17
2013	\$699.85	\$460.26	\$493.67	\$490.74	\$407.50	\$366.93	\$395.11	\$225.02	\$400.58	\$502.29	\$435.26
2014	\$722.31	\$481.8	\$487.14	\$470.44	\$438.32	\$371.67	\$439.35	\$232.31	\$419.37	\$511.42	\$448.40
2015	\$812.79	\$496.06	\$496.90	\$475.59	\$429.24	\$365.48	\$476.01	\$250.67	\$415.45	\$533.32	\$451.79
2016	\$860.09	\$510.38	\$547.29	\$589.42	\$401.72	\$367.84	\$501.97	\$258.41	\$435.60	\$553.95	\$478.72
2017	\$884.44	\$512.25	\$571.14	\$538.79	\$456.36	\$409.48	\$542.18	\$260.94	\$444.71	\$594.45	\$501.58
2018	\$915.86	\$529.22	\$553.50	\$582.46	\$434.46	\$461.38	\$547.66	\$288.83	\$445.66	\$624.63	\$503.53
Number of Responses (2018)	7	14	18	30	25	16	14	10	27	13	174
Population (millions)	3.0	14.4	10.6	12.2	15.3	14.8	4.5	3.3	26.1	5.2	109.3



## Distribution Trend of Average Annual Residential Wastewater Charge (National)



# Regional Distribution of Service Charges (2018)

## (Charge vs. Percent of Charges Less Than Value)

