
50 LARGEST CITIES WATER/WASTEWATER RATE SURVEY

A BLACK & VEATCH 2012/2013 REPORT



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EXECUTIVE SUMMARY

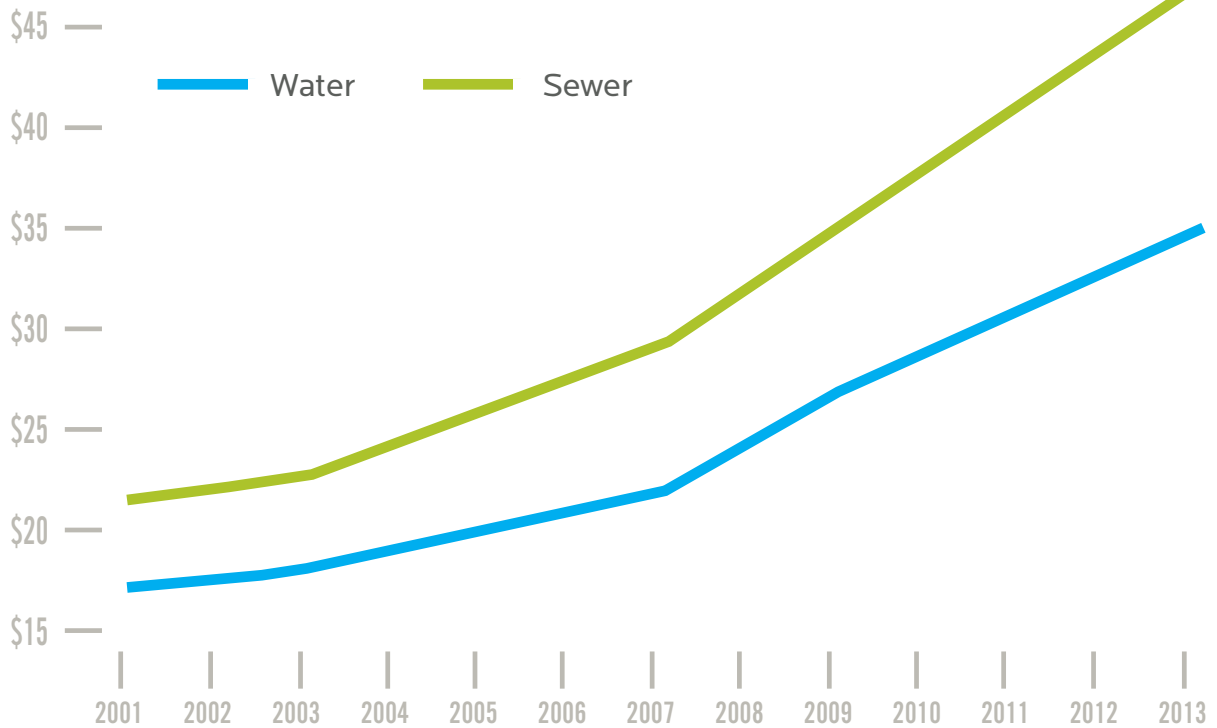
This survey of water and sewer rates is provided by Black & Veatch Management Consulting as a service to the water and sewer industry. A typical bill has been calculated for various residential, commercial and industrial user profiles, focusing on the top 50 cities as determined by population. This year, we have included a minimum bill or zero usage typical bill as part of the survey. The specific cities included in the survey have changed over time as warranted by population shifts in some communities. Since 2001 Black & Veatch Management Consulting has produced 6 surveys. The results of the 2013 survey reflect rates in effect as of April 2, 2013.

AVERAGE RESIDENTIAL TYPICAL BILLS CONTINUE TO SEE UPWARD PRESSURE

Since 2001, the typical bills for a residential user consuming 7,500 gallons per month (1,000 cubic feet) have increased at a rate of over two and a half times the rate of increase in the consumer price index, defined as the Bureau of Labor Statistics CPI U average annual index.

Figure 1 illustrates the trend in the average typical bill for a resident consuming 7,500 gallons per month across all top 50 cities since the 2001 survey. Note that in most regions the actual dollar impact on consumers tends to be slightly less than these figures as a result of ongoing reductions in water consumption.

FIGURE 1
RESIDENTIAL 7,500 GALLONS TREND

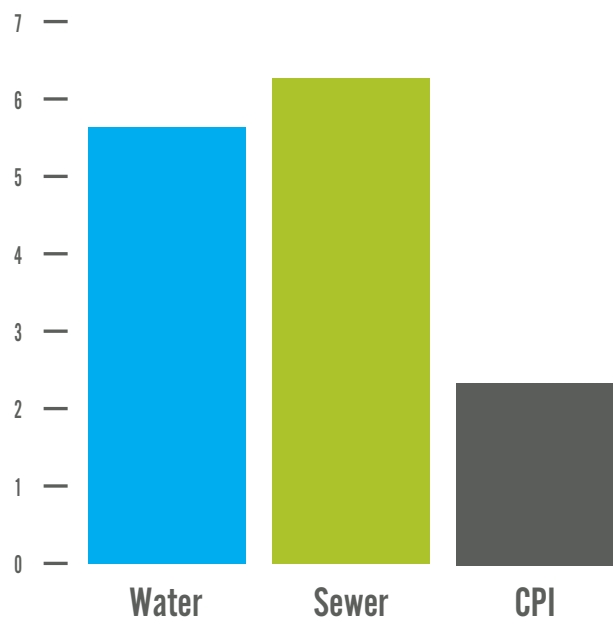


*Survey Results for these years are extrapolated based on the average of the preceding and following year.

Figure 2 demonstrates that the compound average annual increase in residential water typical bills is approximately 5.6% from 2001 through the first quarter of 2013. For residential sewer typical bills, the compound average increase is approximately 6.1%. The CPI-U average rate of change over the same timeframe is approximately 2.4%.

Over the past 12 years, the minimum residential bill for water customers (zero usage) has increased at a rate of 5.6% while the corresponding sewer bill has increased more than 20.1%. The higher sewer minimum bill reflects the institution of sewer system customer charges or minimum bills in addition to charges for water service in many locations, as well as a continuing trend among the 50 largest cities to institute a variety of rate changes to manage revenue volatility due to declining consumption.

FIGURE 2
COMPOUND ANNUAL INCREASE IN SURVEYED TYPICAL BILLS 2001-2013



EXECUTIVE SUMMARY

KEY FACTORS DRIVING TYPICAL BILLS UP

Several of the dynamics impacting the increasing trend of water and sewer typical bills include:

- **Economic Downturn.** The impacts of the aftermath of the financial crisis of 2008 are still being felt by agencies across the United States. Reductions in economic activity have directly translated into reductions in sales volumes in many communities as plants have closed or reduced the number of shifts being worked. Further, managers at many utilities were surprised to realize the extent to which they were relying on cash flow from expansion of their customer base. The elimination or dramatic reduction in growth has emphasized the critical importance of fully recovering costs through user charges to existing customers.
- **Commodity Price Increases.** Particularly in the areas of electricity, chemicals, and fuel. Inflationary pressure on natural gas has abated somewhat since 2010, but still remains volatile.
- **Lower Consumption and Higher Fixed Costs.** Drought conditions in many of areas of the country serves to only highlight that per capita consumption levels are at their lowest levels since the 1950s. Finding solutions to deal with declining consumption in an industry where fixed costs may be as high as 90% remains an on-going challenge.
- **Influence of Wastewater Consent Decrees.** Significant capital programs are being implemented in most major cities to comply with consent decrees regarding the performance of wastewater systems.
- **Aging Infrastructure.** Rehabilitation and replacement of aging infrastructure remains a significant liability for most water and sewer utilities. Funding this liability will undoubtedly create additional inflationary pressure for the foreseeable future.
- **Lack of Capital Funding.** Further hampering the ability to re-invest in water and sewer assets is the lack of available, low-cost funding. Tightening financing requirements for long-term debt are changing how utilities look at prioritizing capital needs, manage cash reserves, and plan for rate increases.
- **Recognizing the Value of Water and Wastewater.** Increased public outreach is helping consumers understand the true value they receive from their water and sewer utilities. As seen in Figure 3, the increase in the average water and sewer bill since 2001 is significantly less than the increases seen in the typical bundled cable, mobile phone, and energy bills.

2012/2013 SURVEY BY THE NUMBERS

89%
MONTHLY
RESIDENTIAL BILLS

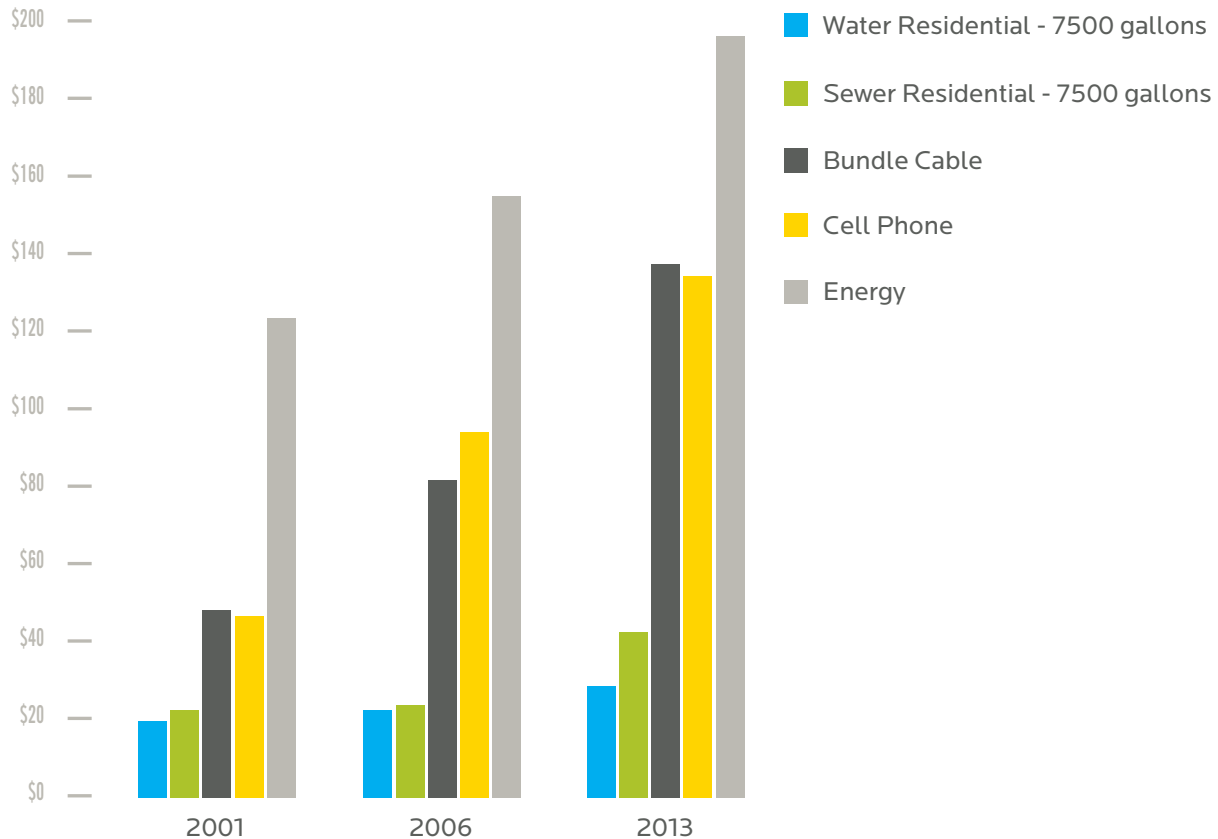
36.5%
OTHER CHARGES ON BILL

13%
SEASONAL
WATER RATES

13%
SEWER RATES BASED ON ACTUAL WATER USE

21%
UNIFORM
WATER RATES

FIGURE 3
TRENDS IN AVERAGE MONTHLY UTILITY BILLS



According to US Census data, the national median household income in 2011 was just over \$50,000. Applying the average CPI-U increase and looking at the USEPA's affordability guidelines of 2% (water) and 2.5% (sewer) of median income, we see that the affordability threshold is about \$80/month for water and \$100/month for sewer for 2012/2013. Recognizing that the realities of local economic conditions vary widely within every service area, let alone between service areas, and that many utilities and organizations are working to improve USEPA's affordability guidelines, it is still true that taken nationally, current typical bills are still significantly less than current USEPA affordability threshold levels.

A B&V MANAGEMENT CONSULTING SURVEY

Should you have any questions regarding this survey, need additional copies, or if you would like to speak with us regarding innovative ways to address the financial and strategic challenges specific to your utility, please visit our website at www.bv.com, call us (949) 302 – 6017, or email your inquiry to us at BuiAT@bv.com.

TYPICAL MONTHLY BILLS

TYPICAL MONTHLY WATER AND WASTEWATER BILLS: RESIDENTIAL CUSTOMERS – NO BILLABLE WATER USAGE RANKED FROM LOWEST (1) TO HIGHEST (50)

Community	Water (\$)	Rank	Sewer (\$)	Rank	Combined (\$)	Rank
Albuquerque (a)	11.80	38	7.86	25	19.66	31
Arlington	8.57	28	8.05	26	16.62	26
Atlanta	6.56	18	6.56	20	13.12	20
Austin (b)	9.10	29	10.00	29	19.10	29
Baltimore (c)	10.66	34	14.33	38	24.99	35
Boston	0.00	1	0.00	1	0.00	1
Charlotte	2.41	5	4.56	13	6.97	6
Chicago (d)	0.00	1	0.00	1	0.00	1
Cleveland	7.00	20	2.10	7	9.10	11
Colorado Springs (e)	14.13	44	15.28	39	29.41	39
Columbus (f)	7.27	21	6.69	21	13.96	23
Dallas	4.40	10	4.20	11	8.60	9
Denver (g)	6.33	17	8.90	27	15.23	25
Detroit (h)	5.28	14	4.82	14	10.10	13
El Paso (i)	11.57	36	10.93	31	22.50	34
Fort Worth (j)	7.50	23	5.10	15	12.60	19
Fresno (k)	14.55	45	25.75	46	40.30	47
Houston (l)	4.73	13	10.05	30	14.78	24
Indianapolis	9.63	30	7.72	24	17.35	27
Jacksonville (m)	12.60	40	14.10	36	26.70	37
Kansas City	10.85	35	11.55	33	22.40	33
Las Vegas (n)	15.10	47	18.41	41	33.51	41
Long Beach (o)	12.54	39	20.17	43	32.71	40
Los Angeles (p)	0.00	1	0.00	1	0.00	1
Louisville (q)	8.48	26	25.75	46	34.23	43
Memphis	8.48	26	0.00	1	8.48	8
Mesa (r)	20.73	50	14.11	37	34.84	45
Miami	3.20	7	3.25	10	6.45	5
Milwaukee (s)	6.76	19	5.14	16	11.90	17
Minneapolis	2.00	4	3.00	8	5.00	4

Community	Water	Rank	Sewer	Rank	Combined	Rank
Nashville	3.13	6	7.62	23	10.75	15
New York (t)	13.80	43	21.94	44	35.74	46
Oakland (u)	13.37	41	42.43	50	55.80	49
Oklahoma City	10.55	33	3.01	9	13.56	22
Omaha (v)	15.08	46	18.54	42	33.62	42
Philadelphia	6.12	16	6.30	19	12.42	18
Phoenix (w)	4.36	9	5.50	17	9.86	12
Portland (x)	10.04	31	0.53	6	10.57	14
Raleigh	5.81	15	5.81	18	11.62	16
Sacramento (y)	20.16	49	41.10	49	61.26	50
San Antonio (z)	7.31	22	11.54	32	18.85	28
San Diego (aa)	19.33	48	15.33	40	34.66	44
San Francisco (aa)	7.90	24	0.00	1	7.90	7
San Jose (bb)	10.44	32	33.83	48	44.27	48
Seattle (cc)	13.50	42	11.65	34	25.15	36
Tucson (dd)	8.27	25	11.86	35	20.13	32
Tulsa	4.50	12	4.50	12	9.00	10
Virginia Beach (ee)	4.41	11	24.86	45	29.27	38
Washington, D.C. (ff)	3.86	8	9.57	28	13.43	21
Wichita	11.62	37	7.52	22	19.14	30
Average	8.72		11.04		19.75	
Median	8.38		7.96		15.93	

Assumes 0 gallons (or 0 cubic feet) monthly usage and a 5/8" (or nearest equivalent) meter size. Actual average use will vary by utility. Rates effective April 2, 2013.

TYPICAL MONTHLY BILLS

TYPICAL MONTHLY WATER AND WASTEWATER BILLS RESIDENTIAL CUSTOMERS – 3,750 GALLONS BILLABLE WATER USAGE RANKED FROM LOWEST (1) TO HIGHEST (50)

Community	Water \$	Rank	Sewer \$	Rank	Combined \$	Rank
Albuquerque (a)	19.58	28	13.93	7	33.50	10
Arlington	14.95	10	20.54	18	35.48	13
Atlanta	24.98	42	63.06	50	88.04	49
Austin (b)	14.95	11	34.23	41	49.18	34
Baltimore (c)	15.99	14	21.50	21	37.48	19
Boston	22.25	35	28.81	34	51.06	35
Charlotte	8.95	5	26.16	30	35.11	12
Chicago (d)	10.78	7	9.92	3	20.70	4
Cleveland	18.95	26	29.83	35	48.77	33
Colorado Springs (e)	29.68	46	27.58	32	57.26	40
Columbus (f)	20.25	30	25.29	28	45.54	31
Dallas	11.04	8	22.20	25	33.24	9
Denver (g)	16.04	15	12.19	5	28.23	7
Detroit (h)	5.28	2	4.82	1	10.10	1
El Paso (i)	13.13	9	12.31	6	25.44	6
Fort Worth (j)	17.35	18	19.35	17	36.70	16
Fresno (k)	17.59	20	25.75	29	43.34	27
Houston (l)	19.11	27	21.30	20	40.41	24
Indianapolis	23.23	38	21.12	19	44.35	28
Jacksonville (m)	17.48	19	34.01	40	51.49	37
Kansas City	29.20	45	30.65	37	59.85	41
Las Vegas (n)	20.59	32	18.41	14	39.00	22
Long Beach (o)	23.52	39	21.90	23	45.42	30
Los Angeles (p)	18.58	24	17.99	11	36.57	15
Louisville (q)	17.83	22	37.00	42	54.83	38
Memphis	7.37	4	6.36	2	13.73	2
Mesa (r)	22.68	37	16.32	9	39.00	21
Miami	5.10	1	10.23	4	15.33	3
Milwaukee (s)	15.16	12	25.04	27	40.20	23
Minneapolis	18.45	23	18.70	16	37.15	18

Community	Water	Rank	Sewer	Rank	Combined	Rank
Nashville	10.12	6	21.84	22	31.96	8
New York (t)	30.75	48	48.89	48	79.64	48
Oakland (u)	25.47	43	45.75	47	71.22	46
Oklahoma City	20.11	29	16.70	10	36.81	17
Omaha (v)	20.32	31	26.53	31	46.85	32
Philadelphia	23.94	40	18.67	15	42.61	26
Phoenix (w)	6.26	3	14.77	8	21.03	5
Portland (x)	26.65	44	41.53	45	68.17	44
Raleigh	18.73	25	22.56	26	41.29	25
Sacramento (y)	24.28	41	41.10	43	65.38	43
San Antonio (z)	16.20	16	18.41	13	34.61	11
San Diego (aa)	37.39	50	33.32	38	70.71	45
San Francisco (aa)	30.00	47	42.62	46	72.62	47
San Jose (bb)	22.32	36	33.83	39	56.15	39
Seattle (cc)	36.38	49	58.25	49	94.63	50
Tucson (dd)	16.72	17	27.88	33	44.60	29
Tulsa	15.64	13	22.16	24	37.80	20
Virginia Beach (ee)	20.95	33	41.31	44	62.26	42
Washington, D.C. (ff)	20.96	34	30.47	36	51.43	36
Wichita	17.73	21	18.32	12	36.05	14
Average	19.22		26.03		45.25	
Median	18.84		22.38		41.95	

Note: Assumes 3,750 gallons (or 500 cubic feet) monthly usage and a 5/8" (or nearest equivalent) meter size. Actual average usage for a 5/8" residential customer will vary by utility. Rates effective April 2, 2013.

TYPICAL MONTHLY BILLS

TYPICAL MONTHLY WATER AND WASTEWATER BILLS RESIDENTIAL CUSTOMERS – 7,500 GALLONS BILLABLE WATER USAGE RANKED FROM LOWEST (1) TO HIGHEST (50)

Community	Water \$	Rank	Sewer \$	Rank	Combined \$	Rank
Albuquerque (a)	27.35	20	19.99	5	47.34	7
Arlington	22.52	8	33.03	16	55.55	11
Atlanta	54.96	47	139.46	50	194.42	50
Austin (b)	30.10	26	67.68	45	97.78	42
Baltimore (c)	31.97	27	42.99	28	74.96	31
Boston	45.39	44	58.38	44	103.77	44
Charlotte	23.11	9	47.76	34	70.87	26
Chicago (d)	21.56	6	19.84	4	41.40	3
Cleveland	33.69	29	57.55	42	91.24	40
Colorado Springs (e)	45.26	43	39.88	25	85.14	36
Columbus (f)	34.68	30	43.89	29	78.57	34
Dallas	23.91	12	40.20	26	64.11	18
Denver (g)	25.76	17	24.38	8	50.13	9
Detroit (h)	25.12	14	45.77	33	70.89	27
El Paso (i)	20.93	5	19.21	3	40.14	2
Fort Worth (j)	28.86	24	33.60	17	62.46	17
Fresno (k)	20.63	4	25.75	9	46.38	5
Houston (l)	37.27	36	48.23	35	85.49	37
Indianapolis	36.82	34	34.53	21	71.35	28
Jacksonville (m)	24.86	13	55.55	41	80.40	35
Kansas City	49.19	46	49.75	38	98.94	43
Las Vegas (n)	28.39	21	18.41	2	46.80	6
Long Beach (o)	35.72	33	23.64	7	59.35	14
Los Angeles (p)	37.16	35	35.97	22	73.13	30
Louisville (q)	28.55	23	48.25	36	76.80	32
Memphis	14.74	1	12.72	1	27.46	1
Mesa (r)	32.43	28	23.62	6	56.05	12
Miami	17.03	3	32.59	15	49.62	8
Milwaukee (s)	23.56	10	44.94	31	68.50	21
Minneapolis	34.90	31	34.40	19	69.30	24

Community	Water	Rank	Sewer	Rank	Combined	Rank
Nashville	21.77	7	45.54	32	67.31	20
New York (t)	47.70	45	75.84	46	123.54	46
Oakland (u)	39.31	40	49.06	37	88.37	38
Oklahoma City	29.68	25	30.39	13	60.06	15
Omaha (v)	25.74	16	34.51	20	60.25	16
Philadelphia	41.75	41	31.04	14	72.79	29
Phoenix (w)	16.47	2	28.54	10	45.01	4
Portland (x)	43.25	42	82.53	47	125.78	47
Raleigh	37.73	38	39.31	23	77.04	33
Sacramento (y)	28.39	22	41.10	27	69.49	25
San Antonio (z)	26.54	18	29.83	12	56.37	13
San Diego (aa)	56.37	49	51.31	39	107.68	45
San Francisco (aa)	56.00	48	92.77	48	148.77	48
San Jose (bb)	35.28	32	33.83	18	69.11	23
Seattle (cc)	61.43	50	116.50	49	177.93	49
Tucson (dd)	25.17	15	43.89	30	69.06	22
Tulsa	26.78	19	39.83	24	66.60	19
Virginia Beach (ee)	37.49	37	57.76	43	95.25	41
Washington, D.C. (ff)	38.06	39	51.37	40	89.43	39
Wichita	23.85	11	29.12	11	52.97	10
Average	32.70		44.52		77.22	
Median	29.89		40.04		70.18	

Assumes 7,500 gallons (or 1,000 cubic feet) monthly usage and a 5/8" (or nearest equivalent) meter size. Actual average use will vary by utility. Rates effective April 2, 2013.

TYPICAL MONTHLY BILLS

TYPICAL MONTHLY WATER AND WASTEWATER BILLS RESIDENTIAL CUSTOMERS – 15,000 GALLONS BILLABLE WATER USAGE RANKED FROM LOWEST (1) TO HIGHEST (50)

Community	Water \$	Rank	Sewer \$	Rank	Combined \$	Rank
Albuquerque (a)	42.91	8	32.12	5	75.03	5
Arlington	42.47	7	58.00	19	100.47	13
Atlanta	116.56	49	296.36	50	412.92	50
Austin (b)	91.10	44	134.58	46	225.68	46
Baltimore (c)	59.84	25	85.98	33	145.82	30
Boston	93.58	45	118.75	44	212.33	45
Charlotte	74.11	35	90.96	38	165.07	37
Chicago (d)	43.12	9	39.67	8	82.79	7
Cleveland	63.17	26	113.00	43	176.17	40
Colorado Springs (e)	103.66	47	64.48	22	168.14	39
Columbus (f)	63.71	27	81.09	31	144.80	29
Dallas	59.13	24	77.65	29	136.78	28
Denver (g)	55.54	20	48.75	11	104.29	14
Detroit (h)	47.59	11	86.72	34	134.31	25
El Paso (i)	36.53	4	33.01	6	69.54	4
Fort Worth (j)	56.86	22	62.40	20	119.26	18
Fresno (k)	26.70	1	25.75	3	52.45	1
Houston (l)	81.35	40	103.35	40	184.70	42
Indianapolis	64.26	28	62.71	21	126.96	23
Jacksonville (m)	53.43	18	110.52	42	163.95	36
Kansas City	90.84	43	87.95	36	178.79	41
Las Vegas (n)	47.67	12	18.41	1	66.08	3
Long Beach (o)	66.21	30	27.11	4	93.31	9
Los Angeles (p)	81.19	39	71.95	25	153.14	32
Louisville (q)	53.15	17	70.75	24	123.90	20
Memphis	29.48	2	25.44	2	54.92	2
Mesa (r)	55.80	21	40.79	9	96.59	11
Miami	49.19	15	79.25	30	128.43	24
Milwaukee (s)	40.36	6	84.74	32	125.10	22
Minneapolis	68.80	31	67.30	23	136.10	27

Community	Water	Rank	Sewer	Rank	Combined	Rank
Nashville	52.56	16	106.95	41	159.51	33
New York (t)	81.60	41	129.74	45	211.34	44
Oakland (u)	72.03	33	49.06	12	121.09	19
Oklahoma City	48.80	13	57.76	18	106.56	15
Omaha (v)	43.51	10	50.48	13	93.99	10
Philadelphia	78.37	38	57.20	17	135.57	26
Phoenix (w)	53.69	19	56.08	16	109.77	16
Portland (x)	76.46	36	164.53	47	240.99	47
Raleigh	89.13	42	73.51	26	162.64	35
Sacramento (y)	36.63	5	41.10	10	77.73	6
San Antonio (z)	57.26	23	52.69	15	109.95	17
San Diego (aa)	98.42	46	87.30	35	185.72	43
San Francisco (aa)	109.80	48	193.07	48	302.87	48
San Jose (bb)	64.53	29	33.83	7	98.36	12
Seattle (cc)	122.62	50	233.00	49	355.62	49
Tucson (dd)	76.62	37	75.92	28	152.54	31
Tulsa	49.05	14	75.15	27	124.20	21
Virginia Beach (ee)	71.71	32	90.66	37	162.37	34
Washington, D.C. (ff)	72.46	34	93.17	39	165.63	38
Wichita	36.07	3	50.72	14	86.79	8
Average	64.99		81.43		146.42	
Median	61.50		72.73		134.94	

Assumes 15,000 gallons (or 2,000 cubic feet) monthly usage and a 3/4" (or nearest equivalent) meter size.
Actual average usage for a 3/4" residential customer will vary by utility. Rates effective April 2, 2013.

TYPICAL MONTHLY BILLS

TYPICAL MONTHLY WATER AND WASTEWATER BILLS COMMERCIAL CUSTOMERS – 100,000 GALLONS BILLABLE WATER USAGE RANKED FROM LOWEST (1) TO HIGHEST (50)

Community	Water \$	Rank	Sewer \$	Rank	Combined \$	Rank
Albuquerque (a)	341.68	22	327.08	12	668.77	12
Arlington	295.34	15	389.35	19	684.69	14
Atlanta	818.80	50	2,085.02	50	2,903.82	50
Austin (b)	594.33	44	833.00	45	1,427.33	45
Baltimore (c)	284.08	10	576.07	35	860.14	24
Boston	686.09	46	855.55	46	1,541.64	46
Charlotte	331.49	21	615.38	36	946.87	32
Chicago (d)	288.90	12	265.79	8	554.70	7
Cleveland	405.90	31	745.13	43	1,151.03	40
Colorado Springs (e)	634.28	45	380.94	16	1,015.22	37
Columbus (f)	390.07	28	509.77	30	899.84	28
Dallas	327.91	20	348.63	14	676.54	13
Denver (g)	273.83	9	325.00	11	598.83	8
Detroit (h)	289.96	13	621.23	37	911.19	30
El Paso (i)	270.53	8	246.72	6	517.25	5
Fort Worth (j)	327.32	19	489.02	27	816.34	22
Fresno (k)	131.11	1	239.80	4	370.91	1
Houston (l)	398.86	29	559.97	34	958.83	34
Indianapolis	377.50	25	382.10	18	759.60	18
Jacksonville (m)	286.80	11	808.20	44	1,095.00	39
Kansas City	496.90	42	523.43	31	1,020.33	38
Las Vegas (n)	377.47	24	244.86	5	622.34	10
Long Beach (o)	379.09	26	246.77	7	625.85	11
Los Angeles (p)	725.73	49	482.06	26	1,207.79	42
Louisville (q)	359.84	23	509.46	29	869.30	25
Memphis	209.47	4	227.26	2	436.73	3
Mesa (r)	294.82	14	235.44	3	530.26	6
Miami	296.93	16	635.36	38	932.29	31
Milwaukee (s)	263.92	7	548.56	33	812.48	20
Minneapolis	456.86	35	444.76	22	901.62	29

Community	Water	Rank	Sewer	Rank	Combined	Rank
Nashville	315.11	18	635.97	39	951.08	33
New York (t)	468.06	39	744.22	42	1,212.28	43
Oakland (u)	464.39	37	496.75	28	961.14	35
Oklahoma City	311.23	17	381.04	17	692.27	15
Omaha (v)	251.70	5	163.22	1	414.92	2
Philadelphia	419.86	33	359.38	15	779.23	19
Phoenix (w)	478.53	41	334.85	13	813.38	21
Portland (x)	475.13	40	1,100.10	47	1,575.24	47
Raleigh	410.96	32	464.56	23	875.52	26
Sacramento (y)	169.69	2	439.59	20	609.28	9
San Antonio (z)	384.80	27	311.68	10	696.48	16
San Diego (aa)	578.88	43	682.33	40	1,261.21	44
San Francisco (aa)	713.60	48	1,107.76	48	1,821.36	48
San Jose (bb)	423.78	34	467.66	24	891.44	27
Seattle (cc)	686.69	47	1,561.10	49	2,247.79	49
Tucson (dd)	404.53	30	441.06	21	845.59	23
Tulsa	261.52	6	481.02	25	742.54	17
Virginia Beach (ee)	461.41	36	535.44	32	996.85	36
Washington, D.C. (ff)	465.82	38	687.72	41	1,153.54	41
Wichita	178.41	3	305.43	9	483.84	4
Average	398.80		548.05		946.85	
Median	378.29		481.54		872.41	

Assumes 100,000 gallons (or 13,400 cubic feet) monthly usage and a 2" (or nearest equivalent) meter size.
Actual average usage for a 2" commercial customer will vary by utility. Rates effective April 2, 2013.

TYPICAL MONTHLY BILLS

TYPICAL MONTHLY WATER AND WASTEWATER BILLS INDUSTRIAL CUSTOMERS – 10,000,000 GALLONS BILLABLE WATER USAGE RANKED FROM LOWEST (1) TO HIGHEST (50)

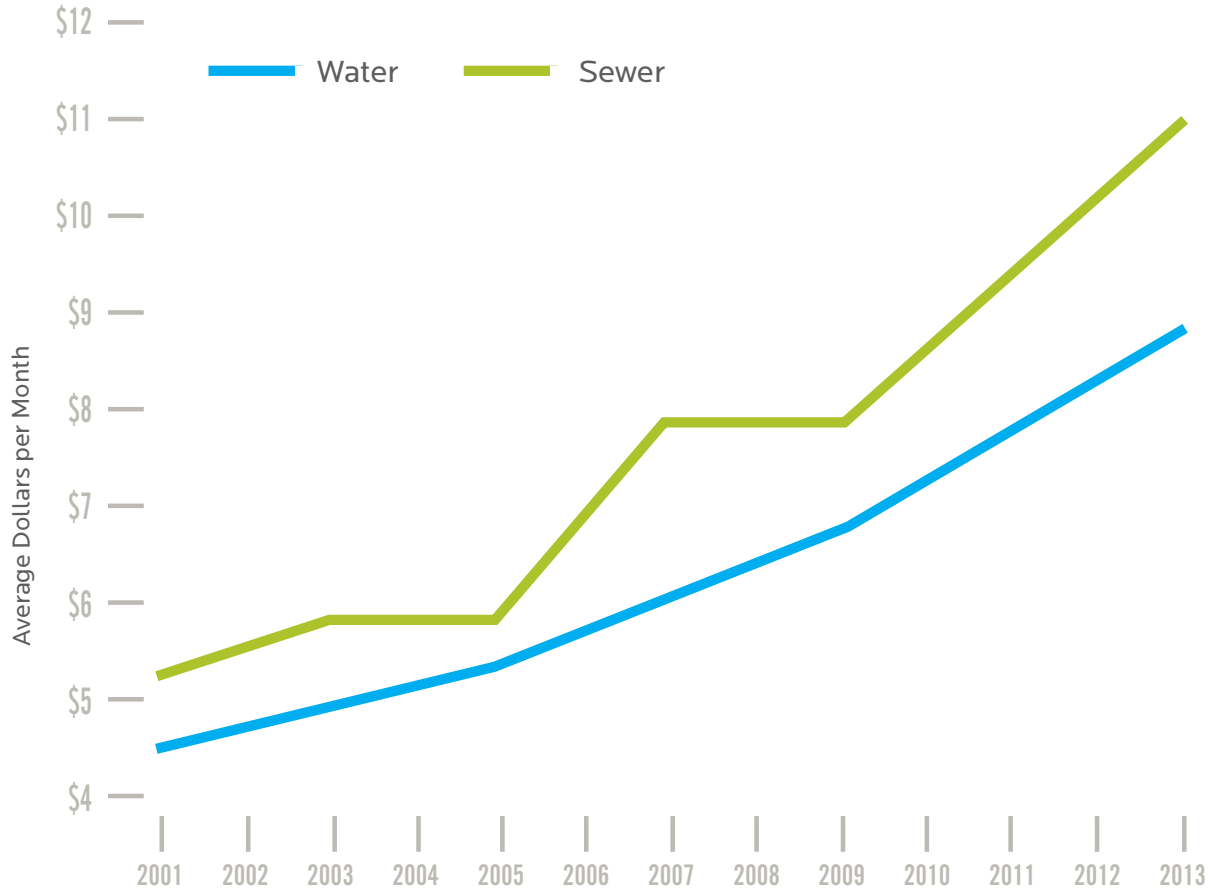
Community	Water \$	Rank	Sewer \$	Rank	Combined \$	Rank
Albuquerque (a)	22,889.03	13	19,347.22	4	42,236.25	5
Arlington	24,513.24	14	33,624.78	16	58,138.02	11
Atlanta	82,537.36	50	210,228.56	50	292,765.92	50
Austin (b)	48,848.17	41	75,110.00	45	123,958.17	44
Baltimore (c)	18,226.57	8	57,606.60	36	75,833.17	23
Boston	74,542.65	48	93,366.12	46	167,908.77	47
Charlotte	31,348.48	24	58,127.53	37	89,476.01	34
Chicago (d)	28,890.40	22	26,579.17	9	55,469.57	10
Cleveland	39,583.74	32	74,305.10	44	113,888.84	40
Colorado Springs (e)	58,045.80	45	35,137.86	17	93,183.66	37
Columbus (f)	26,033.58	18	53,618.97	34	79,652.55	27
Dallas	30,904.40	23	32,592.05	13	63,496.45	17
Denver (g)	26,756.33	20	32,500.00	12	59,256.33	13
Detroit (h)	22,157.31	12	55,131.62	35	77,288.93	26
El Paso (i)	21,292.28	11	18,841.52	3	40,133.80	4
Fort Worth (j)	28,241.00	21	48,024.50	29	76,265.50	24
Fresno (k)	10,053.53	1	14,400.00	1	24,453.53	1
Houston (l)	38,867.15	31	60,126.55	38	98,993.70	38
Indianapolis	19,380.40	10	39,372.72	19	58,753.12	12
Jacksonville (m)	19,230.00	9	64,957.50	40	84,187.50	30
Kansas City	39,768.04	34	51,199.55	32	90,967.59	36
Las Vegas (n)	34,897.28	28	24,547.16	8	59,444.45	14
Long Beach (o)	32,998.17	26	21,728.14	5	54,726.31	8
Los Angeles (p)	79,438.24	49	48,206.37	30	127,644.61	45
Louisville (q)	24,933.60	15	47,561.57	28	72,495.17	22
Memphis	10,768.06	2	22,726.00	6	33,494.06	3
Mesa (r)	26,248.24	19	22,906.44	7	49,154.68	7
Miami	50,241.63	43	62,383.78	39	112,625.41	39
Milwaukee (s)	14,536.18	5	53,412.28	33	67,948.46	19
Minneapolis	44,186.00	36	42,226.00	20	86,412.00	32

Community	Water	Rank	Sewer	Rank	Combined	Rank
Nashville	24,940.34	16	44,920.96	24	69,861.30	21
New York (t)	45,439.80	39	72,249.28	43	117,689.08	43
Oakland (u)	42,058.77	35	48,519.67	31	90,578.44	35
Oklahoma City	25,992.37	17	36,640.48	18	62,632.85	16
Omaha (v)	13,719.18	4	15,815.38	2	29,534.56	2
Philadelphia	35,618.28	29	33,317.46	14	68,935.74	20
Phoenix (w)	49,758.24	42	33,385.76	15	83,144.00	29
Portland (x)	44,531.52	38	109,634.98	47	154,166.50	46
Raleigh	39,604.71	33	44,964.71	25	84,569.42	31
Sacramento (y)	11,392.14	3	43,959.31	22	55,351.45	9
San Antonio (z)	31,942.03	25	30,476.98	11	62,419.01	15
San Diego (aa)	50,784.53	44	66,715.22	41	117,499.75	42
San Francisco (aa)	68,503.20	47	110,776.46	48	179,279.66	48
San Jose (bb)	36,878.69	30	46,230.00	26	83,108.69	28
Seattle (cc)	66,449.42	46	156,110.00	49	222,559.42	49
Tucson (dd)	33,533.71	27	42,932.06	21	76,465.77	25
Tulsa	18,185.19	7	47,127.46	27	65,312.65	18
Virginia Beach (ee)	44,216.31	37	44,708.50	23	88,924.81	33
Washington, D.C. (ff)	46,096.14	40	68,772.00	42	114,868.14	41
Wichita	16,341.99	6	28,922.24	10	45,264.23	6
Average	35,526.87		52,521.49		88,048.36	
Median	32,470.10		45,597.36		76,877.35	

Assumes 10,000,000 gallons (or 1,340,000 cubic feet) monthly usage and a 6" (or nearest equivalent) meter size, vary by utility. Actual average usage for a 6" industrial customer will vary by utility. Rates effective April 2, 2013.

50 LARGEST CITIES TRENDS

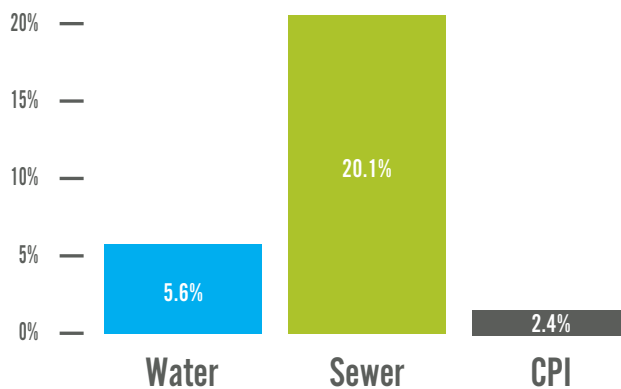
50 LARGEST CITIES TRENDING RESIDENTIAL TYPICAL BILL - NO BILLABLE USAGE



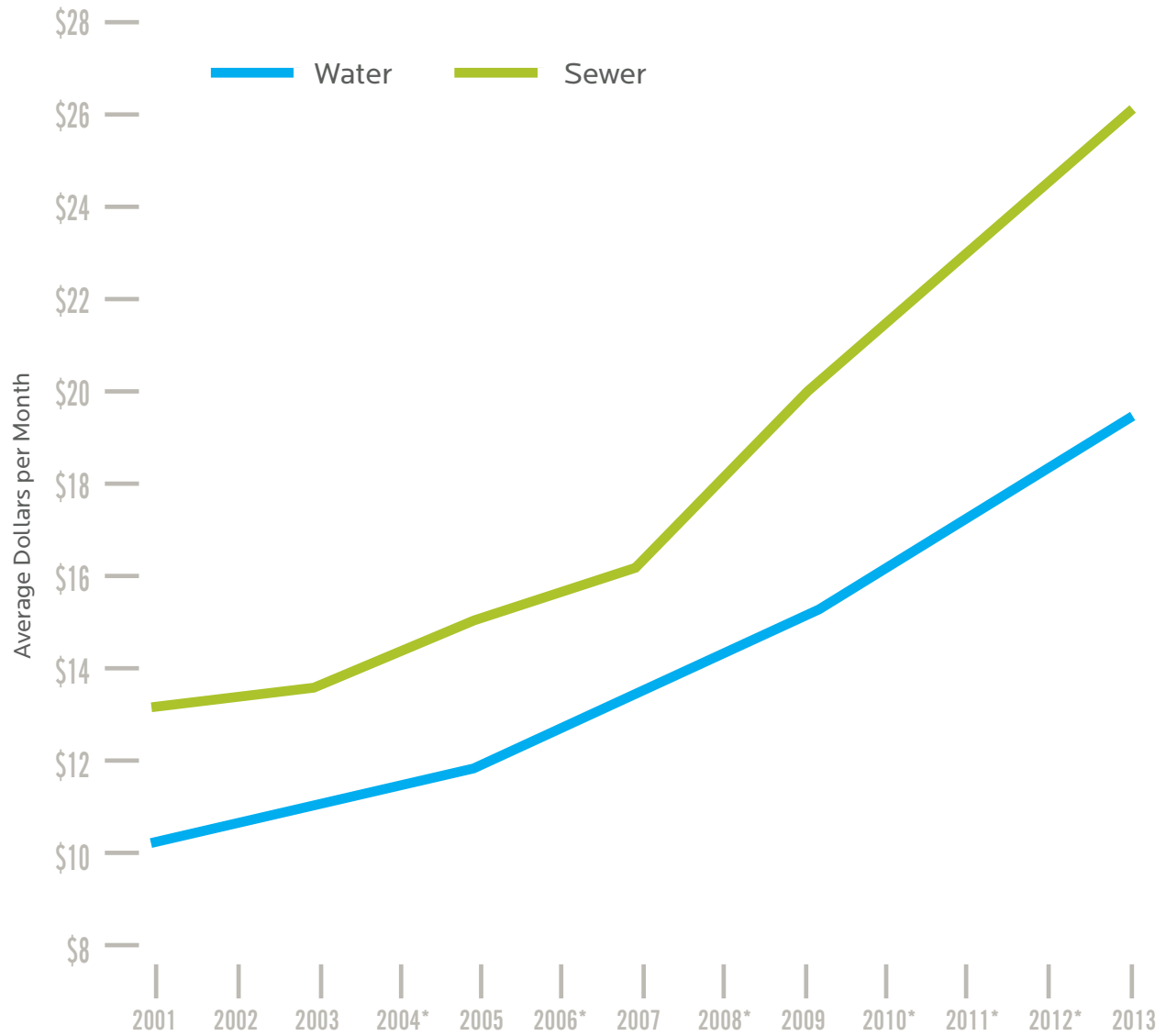
	2001	2002	2003	2004*	2005	2006*	2007	2008*	2009	2010*	2011*	2012*	2013
WATER	\$4.52	\$4.74	\$4.95	\$5.14	\$5.33	\$5.73	\$6.13	\$6.50	\$6.86	\$7.32	\$7.79	\$8.25	\$8.72
SEWER	\$5.12	\$5.51	\$5.89	\$5.93	\$5.97	\$6.90	\$7.83	\$7.88	\$7.92	\$8.70	\$9.48	\$10.26	\$11.04

* Survey results for these years are extrapolated based on the average of the preceding and following year.

COMPOUND ANNUAL INCREASE IN SURVEYED TYPICAL BILLS 2001 - 2013



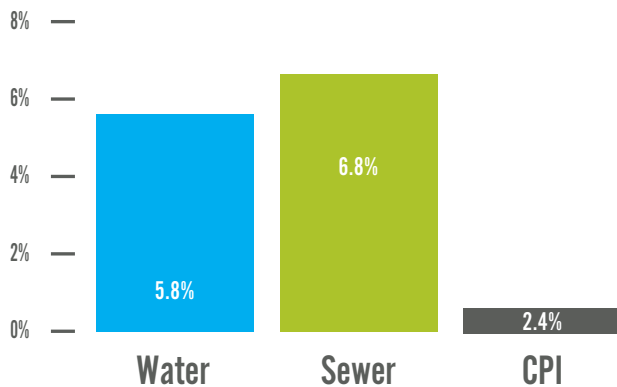
**50 LARGEST CITIES TRENDING
RESIDENTIAL TYPICAL BILL – 3,750 GALLONS BILLABLE USAGE**



	2001	2002	2003	2004*	2005	2006*	2007	2008*	2009	2010*	2011*	2012*	2013
WATER	\$10.10	\$10.55	\$11.00	\$11.49	\$11.97	\$12.67	\$13.37	\$14.36	\$15.35	\$16.32	\$17.28	\$18.25	\$19.22
SEWER	\$13.39	\$13.65	\$13.91	\$14.56	\$15.21	\$16.04	\$16.86	\$18.44	20.03	\$21.53	\$23.03	24.53	26.03

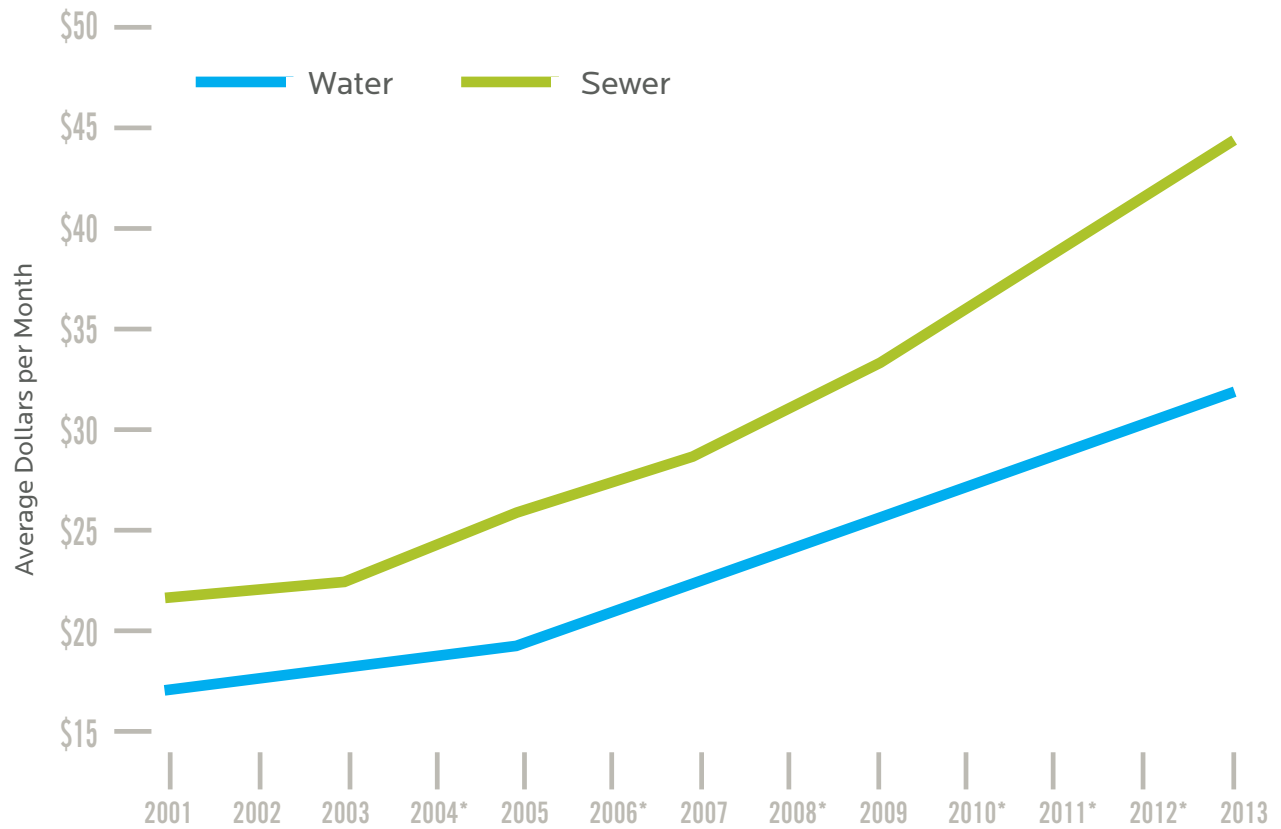
* Survey results for these years are extrapolated based on the average of the preceding and following year.

COMPOUND ANNUAL INCREASE IN SURVEYED TYPICAL BILLS 2001 - 2013



50 LARGEST CITIES TRENDS

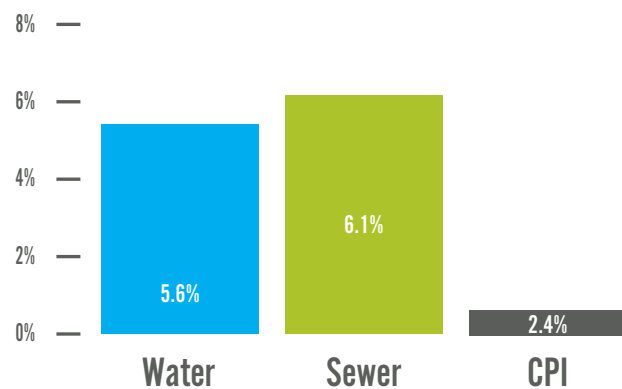
50 LARGEST CITIES TRENDING RESIDENTIAL TYPICAL BILL – 7,500 GALLONS BILLABLE USAGE



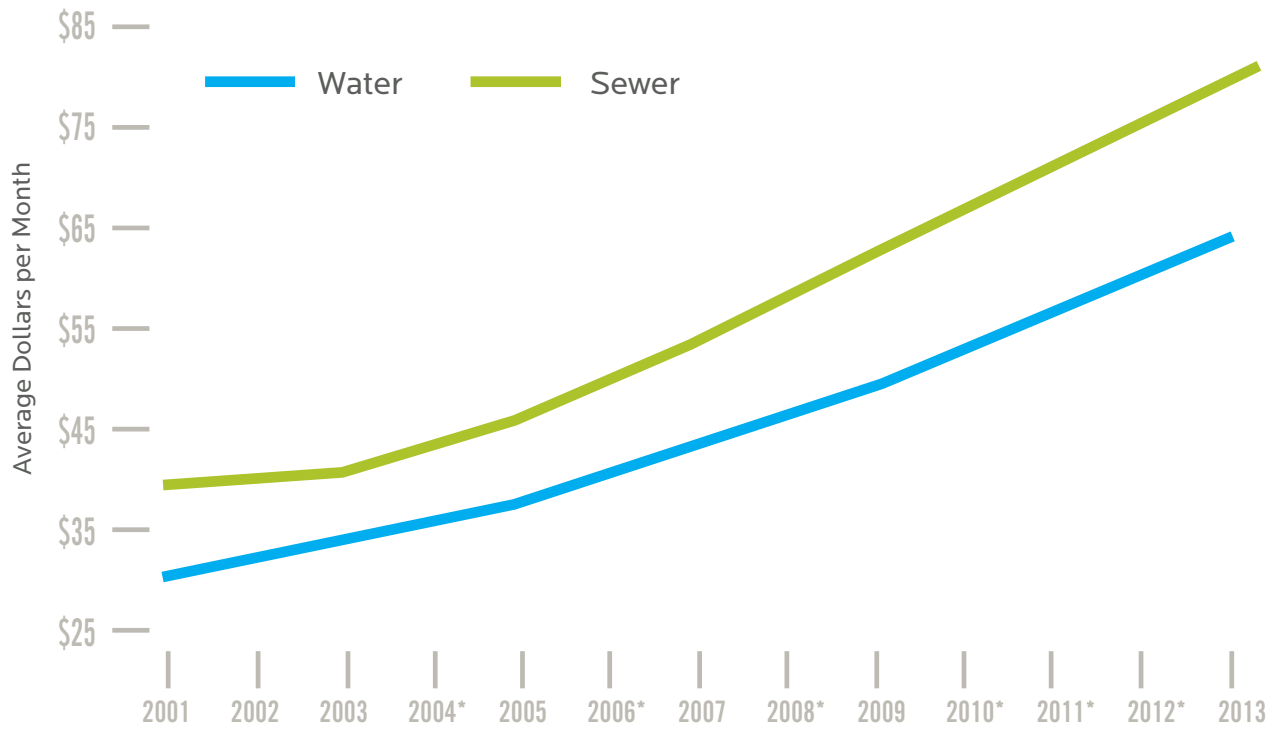
	2001	2002	2003	2004*	2005	2006*	2007	2008*	2009	2010*	2011*	2012*	2013
WATER	\$17.01	\$17.31	\$17.77	\$18.67	\$19.57	\$20.40	\$21.23	\$23.45	\$25.66	\$27.42	\$29.18	\$30.94	\$32.70
SEWER	\$21.97	\$22.39	\$22.93	\$24.52	\$26.10	\$27.44	\$28.78	\$31.29	\$33.80	\$36.48	\$39.16	\$41.84	\$44.52

* Survey results for these years are extrapolated based on the average of the preceding and following year.

COMPOUND ANNUAL INCREASE IN SURVEYED TYPICAL BILLS 2001 - 2013



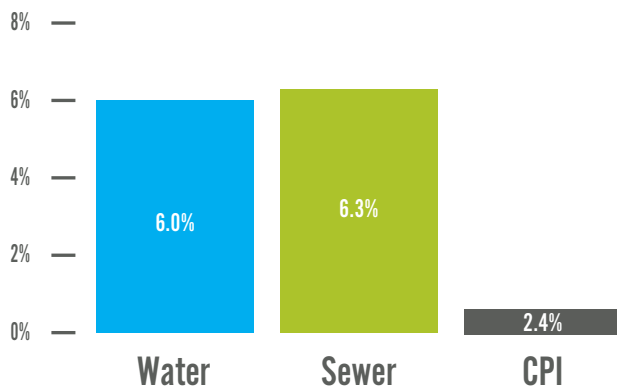
**50 LARGEST CITIES TRENDING
RESIDENTIAL TYPICAL BILL – 15,000 GALLONS BILLABLE USAGE**



	2001	2002	2003	2004*	2005	2006*	2007	2008*	2009	2010*	2011*	2012*	2013
WATER	\$32.35	\$33.06	\$34.09	\$35.92	\$37.74	\$39.80	\$41.85	\$45.97	\$50.09	\$53.81	\$57.54	\$61.27	\$64.99
SEWER	\$39.06	\$40.19	\$41.39	\$43.88	\$46.36	\$49.61	\$52.85	\$58.06	\$63.28	\$67.81	\$72.35	\$76.89	\$81.43

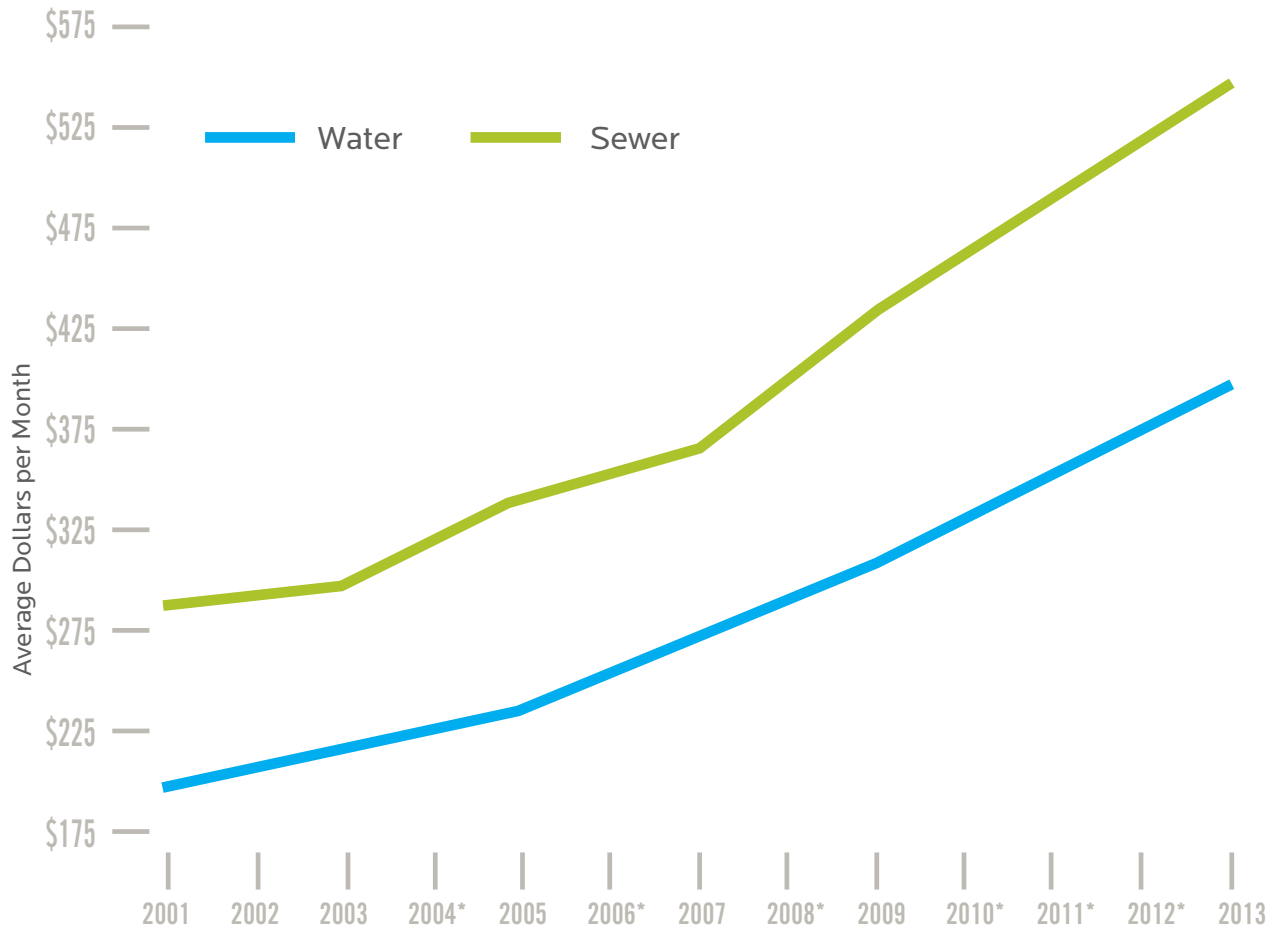
* Survey results for these years are extrapolated based on the average of the preceding and following year.

COMPOUND ANNUAL INCREASE IN SURVEYED TYPICAL BILLS 2001 - 2013



50 LARGEST CITIES TRENDS

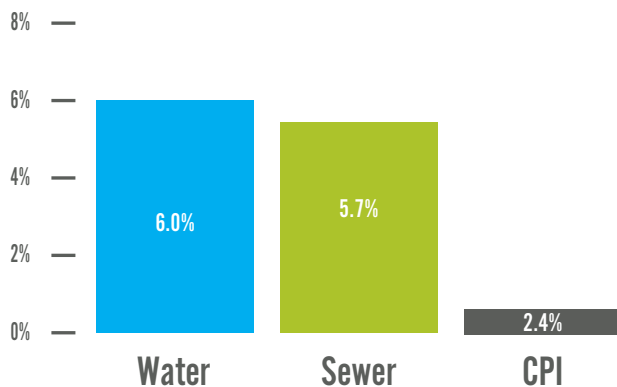
50 LARGEST CITIES TRENDING COMMERCIAL TYPICAL BILL – 100,000 GALLONS BILLABLE USAGE



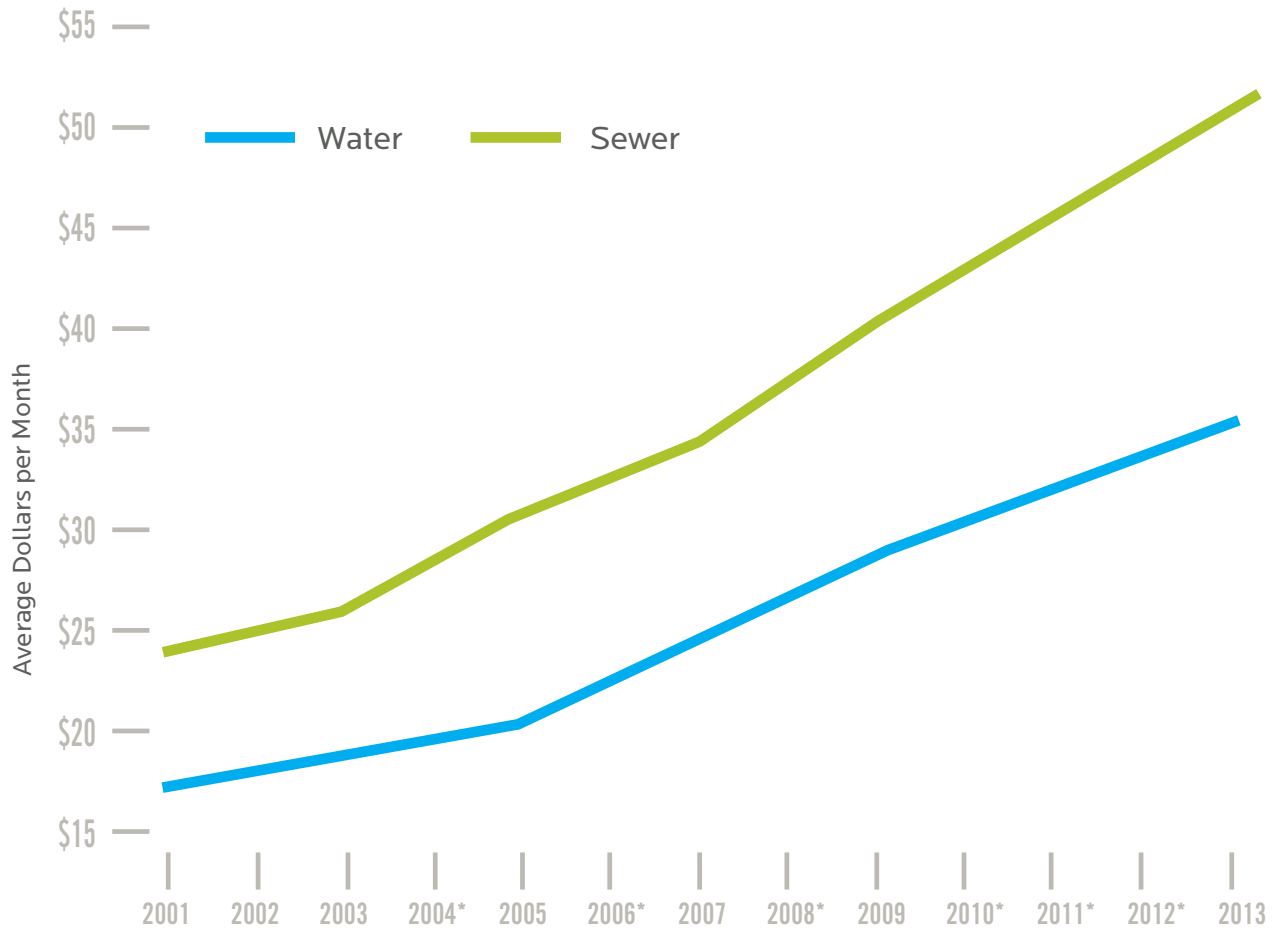
	2001	2002	2003	2004*	2005	2006*	2007	2008*	2009	2010*	2011*	2012*	2013
WATER	\$198.44	\$201.40	\$211.00	\$222.91	\$234.81	\$250.16	\$265.51	\$286.69	\$307.87	\$330.60	\$353.33	\$376.07	\$398.80
SEWER	\$280.32	\$286.20	\$293.78	\$316.08	\$338.37	\$353.42	\$368.46	\$401.49	\$434.52	\$462.90	\$491.29	\$519.67	\$548.05

* Survey results for these years are extrapolated based on the average of the preceding and following year.

COMPOUND ANNUAL INCREASE IN SURVEYED TYPICAL BILLS 2001 - 2013



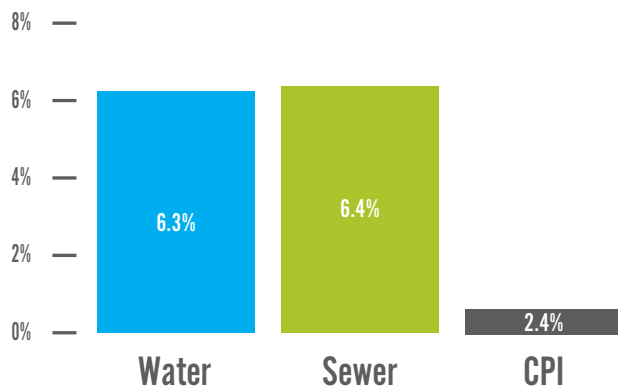
**50 LARGEST CITIES TRENDING
INDUSTRIAL TYPICAL BILL – 10,000,000 GALLONS BILLABLE USAGE**



In \$000's	2001	2002	2003	2004*	2005	2006*	2007	2008*	2009	2010*	2011*	2012*	2013
WATER	\$17.11	\$17.13	\$18.28	\$19.56	\$20.84	\$22.27	\$23.70	\$25.73	\$27.77	\$29.71	\$31.65	\$33.59	\$35.53
SEWER	\$24.87	\$25.62	\$26.77	\$28.94	\$31.11	\$32.90	\$34.68	\$37.85	\$41.01	\$43.89	\$46.77	\$49.64	\$52.52

* Survey results for these years are extrapolated based on the average of the preceding and following year.

COMPOUND ANNUAL INCREASE IN SURVEYED TYPICAL BILLS 2001 - 2013



FOOTNOTES

The following footnotes apply to all tables presented in the survey.

- (a) Water charge includes a fixed based Strategy Implementation fee and commodity based Sustainable Water Supply Program and State Water Conservation fees.
- (b) Water rates for commercial and industrial uses weighted average of peak and off-peak rates.
- (c) Water and sewer minimum metered charge includes a usage allowance based on meter size.
- (d) Sewer charge is based on 89% of water bill.
- (e) Water rates for commercial and industrial uses weighted seasonal rates.
- (f) Sewer charge includes a fixed Clean River Fund fee.
- (g) Water rates for commercial and industrial uses weighted winter and summer rates.
- (h) Sewer commercial and industrial charge includes industrial waste control charge.
- (i) Water and sewer minimum monthly charge includes a usage allowance a set CCF regardless of meter size. Water charge includes a fixed Water Supply Replacement Charge.
- (j) Sewer residential charge capped at 15 CCF per month.
- (k) Water residential charge based on metered accounts rates. Traditionally rate was based on square footage. Water commercial rate based on medium strength and industrial rate based on low strength.
- (l) Water and sewer minimum residential metered charge includes a usage allowance based on meter size.
- (m) Water and sewer charge includes commodity based Environmental Charge.
- (n) Water charge includes commodity based SNWA Volume Charge, fixed based SNWA Infrastructure Charge and SNWA Reliability Surcharge. Sewer charge based on equivalent residential units. Rate includes CWC rebate.
- (o) Sewer charge includes Los Angeles County Sanitation District treatment charge.
- (p) Water rates are based on location, lot size, and temparture. Rates adjusted quarterly.
- (q) Water charges exclude all pressure zone charges. Sewer charges includes EPA surcharge.
- (r) Water and sewer minimum charge includes a set CCF usage allowance regardless of meter size.
- (s) Sewer charge includes City of Milwaukee commodity based collection fee.
- (t) Sewer charge is based on 159% of water bill.
- (u) Water charge includes commodity based seismic improvement charge. Sewer residential charge by EBMUD capped at 10 CCF per month and includes fixed SF Bay Pollution Prevention fee. Sewer charges includes City of Oakland collection charge.
- (v) Water commodity rate incorporates a weighted average of peak and off-peak rates. Water includes. Water Infrastructure Replacement Rider fee based on meter size.
- (w) Water and sewer charge includes a commdity based Environmental Charge. Water rates average low, medium and high seasons. Water and sewer minimum charge includes a set CCF usage allowance regardless of meter size and by winter and summer seasons.
- (x) Sewer charge includes a square footage based Portland Harbor Superfund Charge.
- (y) Sewer residential charge includes flat Sacramento Regional County Sanitation District treatment charge. Commercial and industrial charge is based on equivalent single family dwelling.

- (z) Water and sewer charge include fixed TCEQ pass-through fee. Water charge includes a commodity based Water Supply Fee and Edwards Aquifer Permit Fee. Water rates for residential uses weighted standard and seasonal rates.
- (aa) Sewer commercial and industrial charge assumes COD and SS strength discharges of 250 and 250 mg/l respectively.
- (bb) Water charges are based on Pressure Zone 1. Sewer residential charges are based on a flat rate.
- (cc) Water rates uses weighted average of peak and off-peak rates.
- (dd) Water charge includes a commodity based CAP fee and conservation fee.
- (ee) Sewer charge includes Hampton Roads Sanitary District treatment charge.
- (ff) Sewer charge includes an additional CSO-LTCP fee.

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