

## Combined Annual Water and Sewer Charges for Communities Receiving Services from the MWRA 2010

(Charges include MWRA, community, and alternatively supplied services  
Rates based on average annual household use of 120 hundred cubic feet (HCF), or approximately 90,000 gallons)

	Water	Sewer	Combined	Change
Arlington (W/S)*	\$517.10	\$505.20	\$1,022.30	15.4%
Ashland (S)	\$408.40	\$1,226.40	\$1,634.80	6.3%
Bedford (S/partial W)	\$503.00	\$953.00	\$1,456.00	6.4%
Belmont (W/S)	\$688.56	\$1,203.80	\$1,892.36	6.7%
Boston (W/S)	\$479.30	\$616.53	\$1,095.83	4.0%
Braintree (S)	\$259.00	\$734.40	\$993.40	0.0%
Brookline (W/S)	\$594.00	\$822.00	\$1,416.00	6.3%
Burlington (S)	\$181.50	\$371.50	\$553.00	17.1%
Cambridge (S/partial W)	\$380.00	\$980.00	\$1,360.00	6.1%
Canton (S/partial W)	\$621.40	\$736.40	\$1,357.80	7.4%
Chelsea (W/S)	\$469.20	\$884.40	\$1,353.60	10.5%
Chicopee (W)	\$324.00	\$592.00	\$916.00	6.9%
Clinton (W/S)	\$343.60	\$257.70	\$601.30	0.0%
Dedham (S/partial W)	\$527.44	\$969.60	\$1,497.04	0.0%
Everett (W/S)	\$181.20	\$493.20	\$674.40	0.0%
Framingham (W/S)	\$529.08	\$567.24	\$1,096.32	8.8%
Hingham (S)	\$918.98	\$1,020.00	\$1,938.98	0.0%
Holbrook (S)	\$459.60	\$774.00	\$1,233.60	0.0%
Leominster (partial W)	\$378.60	\$385.40	\$764.00	12.8%
Lexington (W/S)	\$422.80	\$838.40	\$1,261.20	1.7%
Lynn (partial W)	\$400.80	\$736.92	\$1,137.72	3.8%
Malden (W/S)	\$452.16	\$549.36	\$1,001.52	1.6%
Marblehead (W)	\$521.00	\$752.00	\$1,273.00	5.2%
Marlborough (partial W)	\$609.60	\$409.20	\$1,018.80	0.0%
Medford (W/S)	\$637.20	\$912.00	\$1,549.20	1.3%
Melrose (W/S)	\$600.00	\$987.12	\$1,587.12	1.9%
Milton (W/S)	\$603.60	\$1,113.36	\$1,716.96	5.1%
Nahant (W/S)*	\$684.00	\$949.20	\$1,633.20	-1.4%
Natick (S)	\$316.00	\$951.20	\$1,267.20	7.9%
Needham (S/partial W)	\$483.00	\$997.80	\$1,480.80	0.0%
Newton (W/S)	\$658.00	\$932.00	\$1,590.00	11.3%
Northborough (partial W)	\$547.08	\$632.60	\$1,179.68	15.5%
Norwood (W/S)	\$504.72	\$741.10	\$1,245.82	4.7%
Peabody (partial W)	\$306.00	\$409.80	\$715.80	0.0%
Quincy (W/S)	\$565.20	\$928.20	\$1,493.40	3.7%
Randolph (S)	\$423.00	\$740.20	\$1,163.20	5.7%
Reading (W/S)	\$963.60	\$1,012.80	\$1,976.40	4.6%
Revere (W/S)	\$386.40	\$1,206.00	\$1,592.40	14.5%
Saugus (W)	\$472.40	\$344.00	\$816.40	5.3%
Somerville (W/S)	\$564.00	\$815.58	\$1,379.58	4.3%
Stoneham (W/S)	\$516.00	\$1,032.00	\$1,548.00	2.4%
Stoughton (S/partial W)	\$467.88	\$1,064.40	\$1,532.28	14.5%
Swampscott (W)	\$812.00	\$633.80	\$1,445.80	4.8%
Wakefield (S/partial W)	\$527.04	\$1,019.52	\$1,546.56	2.4%
Walpole (S)	\$562.20	\$759.26	\$1,321.46	5.3%
Waltham (W/S)	\$356.64	\$664.32	\$1,020.96	2.2%
Watertown (W/S)	\$455.36	\$871.20	\$1,326.56	4.5%
Wellesley (S/partial W)	\$434.28	\$872.40	\$1,306.68	5.1%
Westwood (S/partial W)	\$527.44	\$748.00	\$1,275.44	0.0%
Weymouth (S)	\$608.88	\$877.40	\$1,486.28	4.8%
Wilbraham (W)	\$378.00	\$492.00	\$870.00	3.6%
Wilmington (S/partial W)	\$449.60	\$598.80	\$1,048.40	2.2%
Winchester (S/partial W)*	\$275.60	\$313.20	\$588.80	0.0%
Winthrop (W/S)	\$598.80	\$998.40	\$1,597.20	0.0%
Woburn (S/partial W)	\$205.00	\$328.00	\$533.00	-5.3%
Worcester (partial W)	\$378.00	\$485.76	\$863.76	7.8%
<b>AVERAGE</b>	<b>\$489.95</b>	<b>\$764.47</b>	<b>\$1,254.42</b>	<b>4.6%</b>

AVERAGE COST PER GALLON  
 $\frac{\$1,254}{90,000} = 1.4\%$

Let's say you now pay a **combined water and sewer charge of only 1.4 cents for each gallon of water you use on your lawn** (Average Combined Annual Water and Sewer Charges for MWRA Communities in 2010). You also have a typical **automatic sprinkler system** that runs twice a day - one hour each time. If the sprinkler system sprays 10 gallons of water every minute its on, (or 10 gallons per minute = \$.14 per minute) in one hour it will spray 600 gallons (or 10 gallons per minute x 60 minutes = 600 gallons = \$8.40 per hour). If you run your sprinkler system 2 hours a day that's 1200 gallons or \$17 per day. During an average summer, if you use your sprinkler for 90 days you will spray 108,000 gallons of water onto your lawn. **At 1.4 cents per gallon you will spend \$1,500.00 to water your lawn.**

Now, let's say you installed a water well and had it hooked up to your sprinkler system. **Instead of paying \$1,500.00 per year to water your lawn, you don't pay anything.** That's right. **The ground water is free,** and because it will be used on your lawn there will be no sewer charge either!

**The well is paying for itself!** Instead of paying the water and sewer department for watering your lawn, you're making payments on a well that increases the value of your home and supplies water for years to come.

### CALCULATE YOUR ANNUAL SAVINGS - EXAMPLE

**Step 1:** Calculate your **COST PER GALLON**. Find current "Combined Annual Water and Sewer Charge" on your latest water bill.

**Step 2:** Calculate your **TOTAL WATER USE**. See last years water bill(s) or add up all outside water uses including irrigation system, pool, washing cars, etc.

**Step 3:** Calculate your **ANNUAL SAVINGS** by multiplying your Total Water Use by your Cost Per Gallon. The following simple formula can be used if you have an automatic sprinkler system. The constant 54 is based on just 90 days of summer watering (60 mins per hour x 90 days divided by 100 pennies = 54).

54	X	Cost Per Gallon (in pennies)	X	Flow in gallons per minute	X	Usage in hours per day
54	X	1.4	X	10	X	2

**ANNUAL SAVINGS = \$1,500.00**

# How Much Water Does My Sprinkler System Use?

ZONE #	# HEADS Per ZONE (A)	GALLONS Per HEAD Per MINUTE (B)	MINUTES Per CYCLE (C)	CYCLE Per DAY (D)	GALLONS Per DAY (AxB)x(CxD)
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
<b>Total # Gallons Used Per Day (E)</b>					

WATER & SEWER COST IN PENNIES PER GALLON?

\$ \_\_\_\_\_ (F)

ESTIMATED DAYS PER MONTH RUN SPRINKLER SYSTEM?

\_\_\_\_\_ (G)

ESTIMATED MONTHS PER YEAR RUN SPRINKLER SYSTEM

\_\_\_\_\_ (H)

COST SAVINGS PER YEAR = ExFxGxH \_\_\_\_\_ = \$ \_\_\_\_\_