

COMPARISON REOFFERING YIELDS (Massachusetts) - PAGE 1

May 2018

MUNICIPALITY:	Dudley		Attleboro		Stockbridge		Bedford		Littleton		Boston Water & Sewer	
BANK QUALIFIED:	Yes		No		Yes		No		Yes		No	
RATING:	AA		AA		AA+		AAA		AAA		Aa1/AA+	
AMOUNT:	\$6,405,000		\$13,180,000		\$2,300,000		\$5,485,000		\$6,454,000		\$78,400,000	
SALE DATE:	5/1/2018		5/3/2018		5/8/2018		5/9/2018		5/9/2018		5/14/2018	
TERM:	20		20		20		20		20		29	
TIC:	2.9974%		2.9317%		3.0746%		2.4388%		2.8799%		3.5102%	
INSURANCE:	No		No		No		No		No		No	
TERM BONDS:	No		No		Yes		No		No		Yes	
TAXABLE:	No		No		No		No		No		No	
BID:	102.6504		106.8802		102.1678		111.5152		106.4711		102.1061	
\$ PREMIUM:	\$ 169,758		\$ 906,810		\$ 49,859		\$ 631,609		\$ 417,645		\$ 1,651,182	
		Reoffering		Reoffering		Reoffering		Reoffering		Reoffering		Reoffering
	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield
2018												
2019	4.000%	1.800%	5.000%	1.800%	5.000%	1.800%	5.000%	1.750%	3.000%	1.750%		
2020	4.000%	1.900%	5.000%	1.900%	5.000%	1.900%	5.000%	1.880%	3.000%	1.850%	5.000%	1.880%
2021	4.000%	2.000%	5.000%	2.020%	3.000%	2.000%	5.000%	1.940%	5.000%	1.940%	5.000%	1.940%
2022	4.000%	2.100%	5.000%	2.100%	3.000%	2.050%	3.000%	2.000%	5.000%	2.010%	5.000%	2.010%
2023	3.000%	2.200%	5.000%	2.180%	3.000%	2.120%	5.000%	2.080%	5.000%	2.080%	5.000%	2.080%
2024	4.000%	2.300%	5.000%	2.300%	3.000%	2.260%	5.000%	2.190%	5.000%	2.190%	5.000%	2.190%
2025	4.000%	2.400%	5.000%	2.350%	5.000%	2.330%	5.000%	2.280%	5.000%	2.280%	5.000%	2.280%
2026	4.000%	2.500%	5.000%	2.400%	5.000%	2.400%	5.000%	2.350%	5.000%	2.350%	5.000%	2.350%
2027	3.000%	2.600%	5.000%	2.500%	3.000%	2.450%	5.000%	2.380%	5.000%	2.410%	4.000%	2.450%
2028	3.000%	2.700%	4.000%	2.600%	3.000%	2.600%	5.000%	2.430%	5.000%	2.470%	4.000%	2.500%
2029	3.000%	2.800%	4.000%	2.700%	3.000%	2.750%	3.000%	2.600%	3.000%	2.700%	3.000%	2.700%
2030	3.000%	2.900%	3.000%	3.080%			3.000%	2.700%	3.000%	2.800%	3.000%	2.800%
2031	3.000%	3.000%	3.000%	3.150%	3.000%	3.000%	3.000%	2.800%	3.000%	2.900%	3.000%	2.900%
2032	3.100%	3.100%	3.000%	3.200%			3.000%	2.900%	3.000%	3.000%	3.000%	3.000%
2033	3.150%	3.150%	3.125%	3.250%	3.125%	3.200%	3.000%	3.000%	3.050%	3.050%	3.000%	3.100%
2034	3.200%	3.200%	3.125%	3.310%			3.000%	3.100%	3.100%	3.100%	3.125%	3.200%
2035	3.250%	3.250%	3.125%	3.350%	3.250%	3.300%	3.000%	3.150%	3.150%	3.150%	4.000%	3.060%
2036	3.300%	3.300%	3.250%	3.400%			3.125%	3.200%	3.200%	3.200%	4.000%	3.090%
2037	3.350%	3.350%	3.250%	3.430%			3.125%	3.250%	3.250%	3.250%	4.000%	3.120%
2038	3.400%	3.400%	3.250%	3.450%	3.375%	3.400%	3.250%	3.300%	3.300%	3.300%	3.250%	3.400%
2039											4.000%	3.160%
2040											4.000%	3.170%
2041											4.000%	3.180%
2043											3.500%	3.500%
2045											4.000%	3.220%
2048											3.500%	3.550%
	Callable May 15, 2026		Callable May 15, 2026		Callable Jun 1, 2026		Callable May 1, 2028		Callable May 15, 2028		Callable May 1, 2026	

COMPARISON REOFFERING YIELDS (Massachusetts) - PAGE 2

May 2018

MUNICIPALITY:	Lawrence		Wellesley		Ipswich		Wilmington		Barnstable Fire District		Haverhill	
BANK QUALIFIED:	No		No		Yes		Yes		Yes		No	
RATING:	Aa2/AA		Aaa		AAA		AA+		AA+		AA	
AMOUNT:	\$9,295,000		\$13,330,000		\$4,715,000		\$5,306,000		\$1,625,000		\$7,045,000	
SALE DATE:	5/16/2018		5/17/2018		5/23/2018		5/23/2018		5/30/2018		5/30/2018	
TERM:	20		20		20		15		15		25	
TIC:	3.0842%		2.6194%		2.8316%		2.5224%		2.8103%		2.9804%	
INSURANCE:	No		No		No		No		No		No	
TERM BONDS:	No		No		Yes		No		No		Yes	
TAXABLE:	No		No		No		No		No		No	
BID:	105.4587		109.7907		107.7573		109.8709		107.1293		107.9432	
\$ PREMIUM:	\$ 507,386		\$ 1,305,100		\$ 365,757		\$ 523,750		\$ 115,851		\$ 559,598	
		Reoffering		Reoffering		Reoffering		Reoffering		Reoffering		Reoffering
	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield
2018							5.000%	1.650%				
2019	4.000%	1.900%	5.000%	1.650%	5.000%	1.700%	5.000%	1.760%	5.000%	1.850%	5.000%	1.670%
2020	4.000%	1.910%	5.000%	1.810%	5.000%	1.800%	5.000%	1.900%	5.000%	1.870%	5.000%	1.800%
2021	4.000%	1.990%	5.000%	1.900%	5.000%	1.910%	5.000%	1.970%	5.000%	1.920%	5.000%	1.890%
2022	4.000%	2.100%	5.000%	1.970%	5.000%	1.980%	5.000%	2.040%	5.000%	1.980%	5.000%	1.970%
2023	4.000%	2.180%	5.000%	2.030%	5.000%	2.050%	5.000%	2.080%	5.000%	2.050%	4.000%	2.050%
2024	4.000%	2.310%	5.000%	2.150%	5.000%	2.170%	5.000%	2.250%	5.000%	2.150%	5.000%	2.170%
2025	4.000%	2.430%	5.000%	2.250%	5.000%	2.290%	5.000%	2.320%	5.000%	2.250%	5.000%	2.260%
2026	4.000%	2.540%	5.000%	2.370%	5.000%	2.420%	5.000%	2.450%	5.000%	2.400%	5.000%	2.370%
2027	4.000%	2.630%	5.000%	2.450%	5.000%	2.490%	5.000%	2.510%	4.000%	2.500%	5.000%	2.490%
2028	4.000%	2.700%	5.000%	2.540%	5.000%	2.550%	3.000%	2.670%	4.000%	2.600%	5.000%	2.520%
2029	4.000%	2.960%	4.000%	2.600%	3.000%	2.750%	3.000%	2.770%	3.000%	2.700%	5.000%	2.600%
2030	4.000%	3.100%	3.000%	2.850%	3.000%	2.900%	3.000%	2.870%	3.000%	2.750%	4.000%	2.730%
2031	4.000%	3.200%	3.000%	2.950%	3.000%	3.000%	3.000%	3.000%	3.000%	2.850%	3.000%	3.030%
2032	4.000%	3.300%	3.000%	3.000%	3.000%	3.100%	3.000%	3.050%	3.000%	3.000%	3.000%	3.100%
2033	4.000%	3.350%	3.000%	3.100%					3.000%	3.050%	3.000%	3.150%
2034	3.500%	3.550%	3.125%	3.180%							3.125%	3.220%
2035	3.500%	3.590%	3.125%	3.200%							3.250%	3.300%
2036	3.500%	3.620%	3.250%	3.300%							3.250%	3.350%
2037	3.500%	3.650%	3.250%	3.350%							3.250%	3.400%
2038	3.500%	3.670%	3.250%	3.370%	3.250%	3.300%						
2039												
2040											3.375%	3.450%
2041												
2042												
2043											3.500%	3.500%
	Callable Jun 1, 2028		Callable Jun 1, 2028		Callable Jun 1, 2028		Callable Nov 15, 2027		Callable Jun 15, 2026		Callable Jun 1, 2028	

COMPARISON REOFFERING YIELDS (Massachusetts) - PAGE 3

May 2018

MUNICIPALITY:	Holden		Williamstown		Agawam		Boxborough		Northborough		Somerville	
BANK QUALIFIED:	Yes		Yes		Yes		Yes		Yes		No	
RATING:	AA+		Aa1		AA+		AAA		Aa1		Aa1/AA+	
AMOUNT:	\$2,440,000		\$4,835,000		\$3,285,000		\$2,005,000		\$2,275,000		\$10,820,000	
SALE DATE:	5/30/2018		5/30/2018		5/31/2018		5/31/2018		5/31/2018		5/31/2018	
TERM:	20		20		10		15		15		28	
TIC:	2.9959%		3.0779%		2.1819%		2.5170%		2.5601%		3.0280%	
INSURANCE:	No		No		No		No		No		No	
TERM BONDS:	Yes		No		No		No		No		Yes	
TAXABLE:	No		No		No		No		No		No	
BID:	105.5205		104.6540		109.5242		110.7390		111.1803		104.4150	
\$ PREMIUM:	\$ 134,700		\$ 225,021		\$ 312,870		\$ 215,317		\$ 254,352		\$ 477,703	
		Reoffering		Reoffering		Reoffering		Reoffering		Reoffering		Reoffering
	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield
2018												
2019	5.000%	1.700%	5.000%	1.700%	5.000%	1.650%	5.000%	1.600%	5.000%	1.640%	4.000%	1.610%
2020	5.000%	1.850%	5.000%	1.800%	5.000%	1.790%	5.000%	1.750%	5.000%	1.800%	4.000%	1.760%
2021	5.000%	1.920%	5.000%	1.890%	5.000%	1.900%	5.000%	1.850%	5.000%	1.910%	4.000%	1.860%
2022	5.000%	1.980%	5.000%	1.950%	5.000%	1.960%	5.000%	1.900%	5.000%	1.970%	4.000%	1.900%
2023	4.000%	2.050%	5.000%	2.030%	5.000%	2.040%	5.000%	1.970%	5.000%	2.050%	3.000%	2.040%
2024	5.000%	2.150%	5.000%	2.130%	5.000%	2.160%	5.000%	2.120%	5.000%	2.170%	4.000%	2.150%
2025	5.000%	2.250%	5.000%	2.230%	5.000%	2.270%	5.000%	2.220%	5.000%	2.250%	4.000%	2.220%
2026	5.000%	2.400%	5.000%	2.390%	5.000%	2.370%	5.000%	2.330%	5.000%	2.330%	4.000%	2.350%
2027	5.000%	2.500%	4.000%	2.460%	4.000%	2.510%	5.000%	2.350%	5.000%	2.420%	4.000%	2.430%
2028	5.000%	2.550%	4.000%	2.510%	4.000%	2.610%	5.000%	2.400%	5.000%	2.440%	4.000%	2.510%
2029			4.000%	2.550%			4.000%	2.450%	5.000%	2.510%	4.000%	2.580%
2030			4.000%	2.590%			3.000%	2.700%	3.000%	2.870%	4.000%	2.670%
2031			3.000%	3.000%			3.000%	2.800%	3.000%	3.000%	3.000%	3.000%
2032	3.000%	3.100%	3.000%	3.060%			3.000%	2.900%	3.000%	3.050%	3.000%	3.040%
2033			3.000%	3.120%			3.000%	3.000%	3.000%	3.120%	3.000%	3.090%
2034			3.000%	3.190%							3.000%	3.150%
2035			3.125%	3.240%							3.125%	3.200%
2036			3.250%	3.300%							3.125%	3.250%
2037			3.250%	3.370%							3.250%	3.280%
2038	3.250%	3.300%	3.375%	3.430%							3.250%	3.350%
2039												
2040											3.250%	3.370%
2043											3.375%	3.420%
2046											3.500%	3.500%
	Callable Jun 1, 2028		Callable Jun 1, 2026		Callable Jun 15, 2026		Callable May 15, 2028		Callable Jun 1, 2028		Callable Jun 1, 2028	

COMPARISON REOFFERING YIELDS (Connecticut and Maine) - PAGE 4

May 2018

MUNICIPALITY:	New Gloucester, ME		Lewiston, ME									
BANK QUALIFIED:	Yes		No									
RATING:	Aa3/AA+		AA-									
AMOUNT:	\$4,600,000		\$14,355,000									
SALE DATE:	5/1/2018		5/9/2018									
TERM:	25		20									
TIC:	3.3808%		2.9737%									
INSURANCE:	No		No									
TERM BONDS:	Yes		No									
TAXABLE:	No		No									
BID:	101.2384		103.6400									
\$ PREMIUM:	\$ 56,966		\$ 522,522		\$ -		\$ -		\$ -		\$ -	
		Reoffering		Reoffering		Reoffering		Reoffering		Reoffering		Reoffering
	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield	Coupon	Yield
2018												
2019	4.000%	1.900%										
2020	4.000%	2.000%	5.000%	1.880%								
2021	3.000%	2.050%	5.000%	1.960%								
2022	4.000%	2.150%	5.000%	2.040%								
2023	3.000%	2.250%	3.000%	2.120%								
2024	4.000%	2.350%	5.000%	2.240%								
2025	4.000%	2.500%	5.000%	2.330%								
2026	4.000%	2.600%	2.500%	2.550%								
2027	4.000%	2.700%	4.000%	2.500%								
2028	4.000%	2.800%	3.000%	2.750%								
2029	3.000%	2.900%	3.000%	2.880%								
2030	3.000%	3.000%	3.000%	3.000%								
2031	3.000%	3.100%	3.000%	3.080%								
2032	3.125%	3.200%	3.000%	3.130%								
2033	3.250%	3.300%	3.125%	3.200%								
2034	3.375%	3.400%	3.125%	3.250%								
2035	3.375%	3.450%	3.125%	3.320%								
2036	3.500%	3.500%	3.250%	3.350%								
2037	3.500%	3.550%	3.250%	3.380%								
2038	3.500%	3.600%	3.375%	3.400%								
2039			3.375%	3.440%								
2040												
2041												
2042												
2043	3.625%	3.700%										
	Callable May 1, 2028		Callable Jan 15, 2025									