

Great Lakes Water Authority

Investment Performance Report – March 2018



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Great Lakes Water Authority Executive Summary

PORTFOLIO RECAP

- **Safety** – The aggregate portfolio is diversified amongst cash, bank deposits, U.S. Treasuries, Federal Agencies, commercial paper, SEC-registered money market funds, and a local government investment pool. The overall credit profile of the pool is strong with over 98% of the assets invested in bank deposits or securities that are rated within the two highest short and long-term rating classifications as established by Standard & Poor's.
- **Liquidity** – The portfolio's has slightly reduced its weighting to overnight funds from December, with about 54% of the total assets maturing overnight.
- **Return** – The overall yield increased to 1.72% as of March 31, 2018 versus 1.36% at December 31, 2017. The Authority has earned \$8,907,945 in investment income fiscal year-to-date on a book value basis. Based on the current interest rate environment, the investment income earned for the prior quarter, and assuming that the Authority maintains the same investable balances for the remainder of the fiscal year, we are projecting that the Authority will earn approximately \$11.8 million in investment income for fiscal year 2018.
- **Compliance** – The aggregate portfolio is in compliance with the Authority's investment policy and Michigan Public Act 20.

AVAILABLE FUNDS

Type	Financial Institution	Book Value	Market Value	YTM @ Market (as of 3/31/18)
Deposit Account	Comerica	\$14,942	\$14,942	0.25%
Deposit Account - Retainage	First Independence	\$16,291,558	\$16,291,558	0.05%
Deposit Account – Flint Security Deposit	Chase	\$3,752,384	\$3,752,384	0.05%
Deposit Account	Chase	\$25,405,360	\$25,405,360	0.49%
Trust Money Market Fund	U.S. Bank	\$432,792,148	\$432,792,148	1.50%
Money Market Fund	JP Morgan	\$62,013,156	\$62,013,156	1.43%
Local Government Investment Pool	GovMIC	\$67,584,854	\$67,584,854	1.59%
Managed Funds	PFM	\$520,834,398	\$518,660,920	2.08%
<u>TOTAL</u>		<u>\$1,128,688,800</u>	<u>\$1,126,515,321</u>	<u>1.72%</u>

The accounts at Comerica Bank get an earnings credit to offset bank fees. The funds and earnings in the Retainage account are held on behalf of the contractors and do not belong to GLWA. The funds and earnings in the Flint Security Deposit account are held on behalf of the City of Flint and do not belong to GLWA. Note that market values move inversely to interest rates, and the recent rise in yields has led to the overall market value being less than the book value. In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of 3/31/2018.

**Great Lakes Water Authority
Investment Strategy**

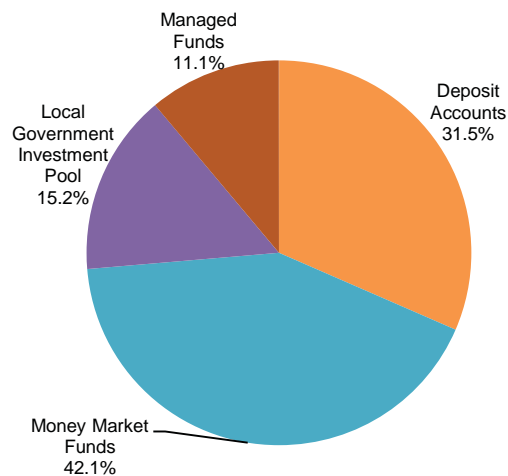
GLWA INVESTMENT STRATEGY

- The portfolio is in compliance with the Authority's investment policy
- To date, the Authority has continued to invest its funds in a mixture of short and intermediate-term investments to ensure sufficient liquidity
- The aggregate portfolio was yielding 1.72% at the end of March*
 - This compares to the 1.61% yield of the Bank of America / Merrill Lynch 3-Month U.S. Treasury Bill Index as of 3/31/2018, which is a comparable market indicator
- The Authority continues to implement a disciplined investment plan to provide improved safety and diversification and putting every dollar to work
- For the fourth quarter of FY 2018, the Authority has already taken initial steps to invest intermediate and longer-term funds based on refined cash flows (specifically for the Water and Sewer Extraordinary Repair & Replacement Funds, the Improvement & Extension Funds, and the Budget Stabilization Funds)
- The Authority will continue to work with its investment manager to refine its cash flows and identify strategies to maximize future investment income while meeting the objectives of safety and liquidity
- Assuming that the Authority maintains the same investable balances for FY 2018 and FY 2019 and the interest rate environment remains in a similar range, we conservatively expect to earn approximately \$11.8 million in interest income in FY 2018 and over \$14.0 million in FY 2019

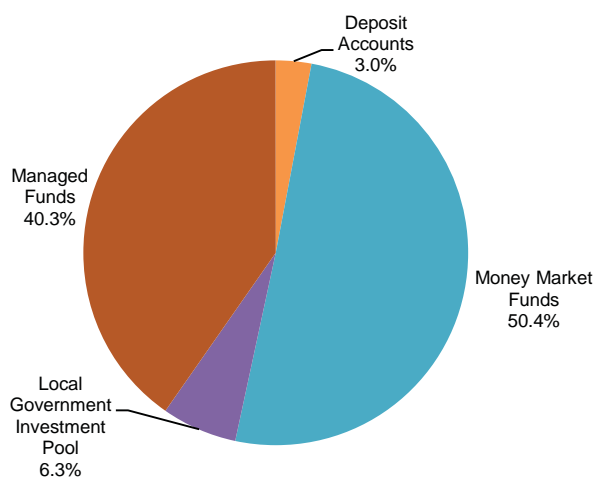
* Current market yield as of March 31, 2018.

**Great Lakes Water Authority
Portfolio Mix**

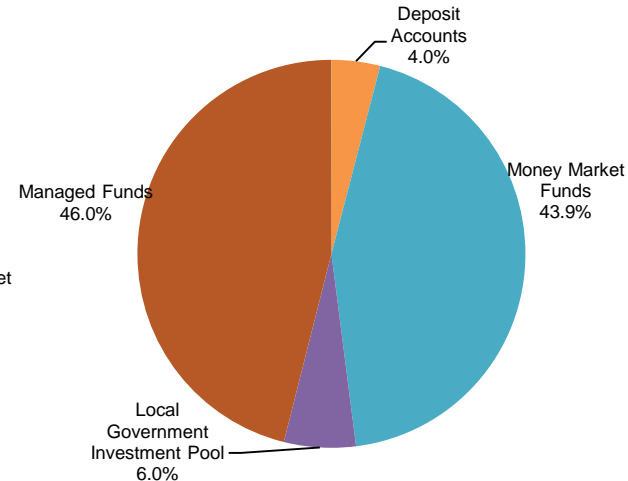
As of 12/31/2016



As of 12/31/2017



As of 3/31/2018



**Great Lakes Water Authority
Market Overview and Outlook**

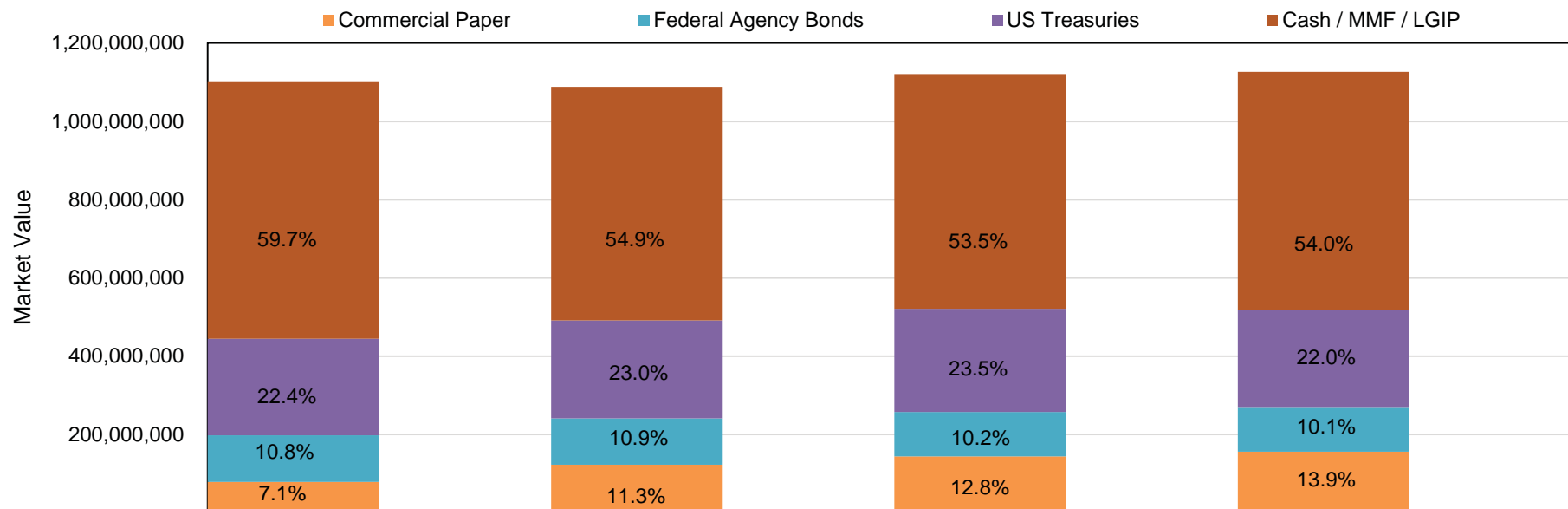
ECONOMIC HIGHLIGHTS UPDATE

- The markets have seen strong readings on the labor market, consumer and business confidence, and record corporate profits
- Geopolitical concerns (e.g., North Korea, tariffs, and Russia) were seemingly pushed to the sidelines as interest rates have risen to new cycle highs and equity prices rebounded from the volatile market conditions of earlier this year
- The Federal Reserve has indicated that it plans to increase interest rates two more times in 2018 to keep the economy from overheating

PORTFOLIO RECAP SUMMARY

- The combination of two more expected Fed rate hikes in 2018, with the potential for additional increases following in 2019, supports the view that interest rates will trend higher over the near term; as a result, the Authority continues to reap the rewards of current monetary policy tightening and higher overnight target rates
- With regards to the fixed-income sectors that the majority of the Authority's debt funds and bond proceeds are invested in, yields on high-quality commercial paper are attractive, especially in three to six-month maturities, while Treasury Notes maturing inside of one year continue to fully compensate the Authority for multiple further hikes this year
- Concerning the Authority's portfolios, with yields beginning to resume their climb, shorter maturity securities will be favored in anticipation of continued interest rate increases by the Fed
- Portfolios will be managed in the near term to both mitigate interest rate risk and to position them for increased future earnings from higher reinvestment rates
- The Fed's actions going forward should lead to higher investment income for the Authority in the next fiscal year

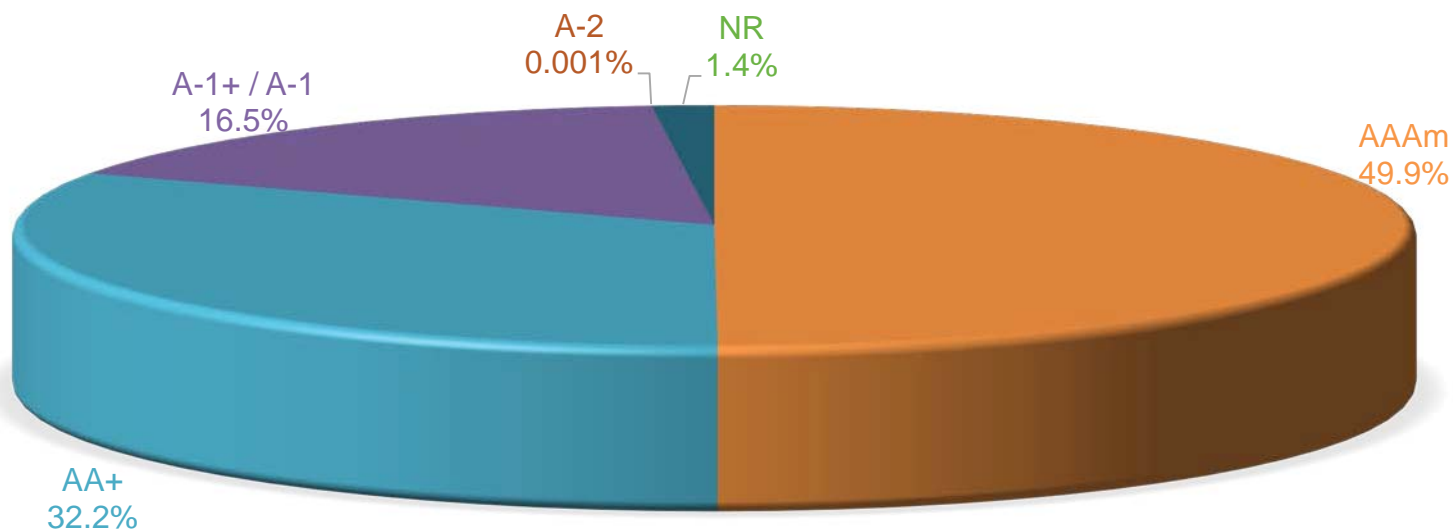
Great Lakes Water Authority Investments – By Security Type



Security Type	December		January		February		March	
	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation	Market Value	Asset Allocation
Commercial Paper	78,757,023	7.1%	122,563,721	11.3%	143,908,915	12.8%	156,395,705	13.9%
Federal Agencies	119,048,302	10.8%	118,886,615	10.9%	113,813,169	10.2%	113,884,953	10.1%
U.S. Treasuries	246,495,268	22.4%	249,853,492	23.0%	263,254,686	23.5%	248,380,261	22.0%
Cash / MMF / LGIP	657,965,993	59.7%	597,142,111	54.9%	599,882,611	53.5%	607,854,402	54.0%
Total	1,102,266,586	100.0%	1,088,445,939	100.0%	1,120,859,382	100.0%	1,126,515,321	100.0%

In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of March 31, 2018.

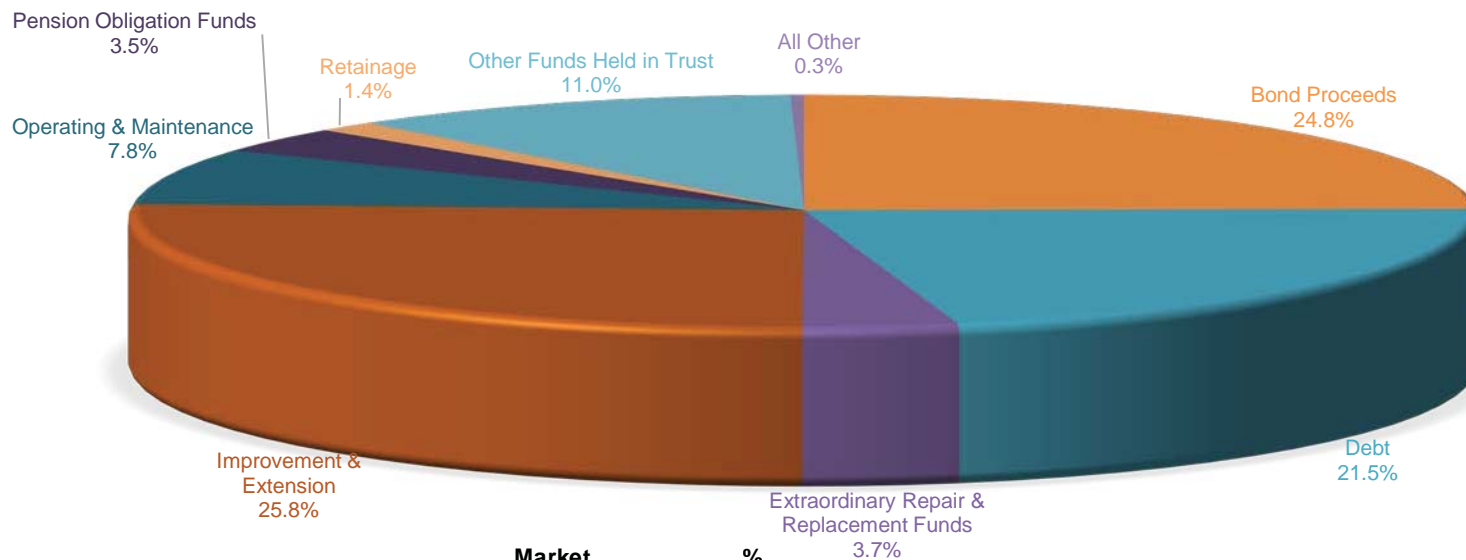
**Great Lakes Water Authority
Investments – By Credit Quality
As of March 31, 2018**



Credit Quality	Market Value	Asset Allocation
Ratings		
AAAm	562,390,158	49.9%
AA+	362,265,214	32.2%
A-1 + / A-1	185,553,449	16.5%
A-2	14,942	0.001%
NR	16,291,558	1.4%
Totals	1,126,515,321	100.0%

In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of March 31, 2018.

**Great Lakes Water Authority
Investment Analysis – By Account Purpose
As of March 31, 2018**



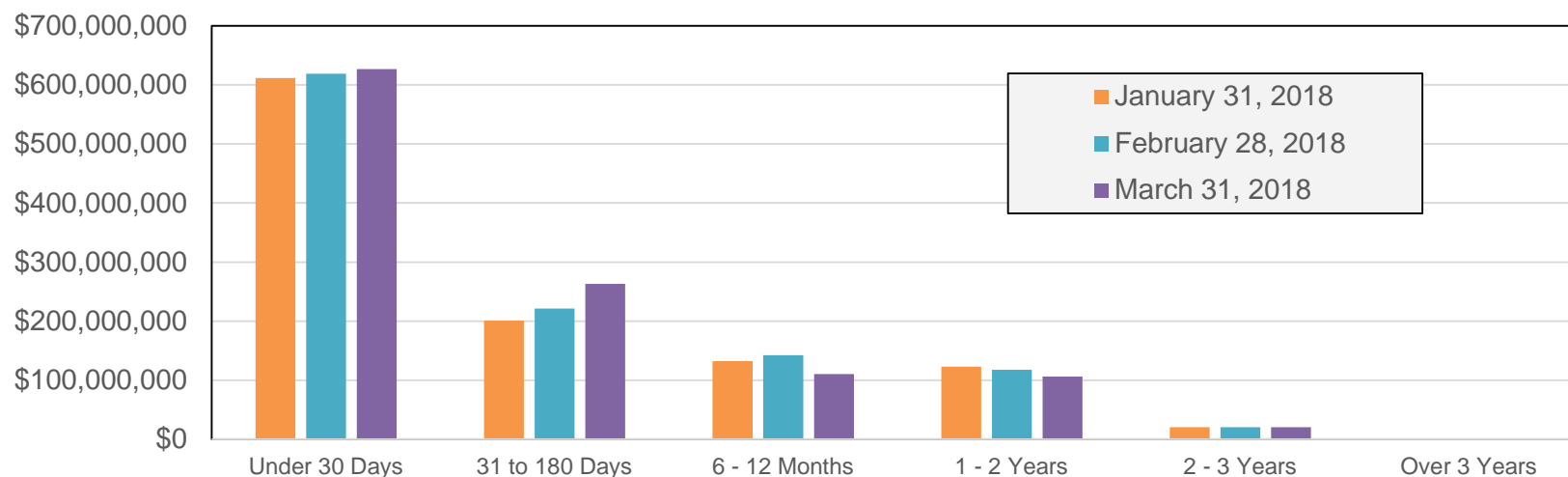
Account Purpose	Market Value	% Allocation
Bond Proceeds	\$ 279,482,855	24.8%
Debt	\$ 242,248,771	21.5%
Extraordinary Repair & Replacement Funds	\$ 42,036,683	3.7%
Improvement & Extension	\$ 290,594,234	25.8%
Operating & Maintenance	\$ 87,887,061	7.8%
Pension Obligation Funds	\$ 39,798,384	3.5%
Retainage	\$ 16,291,558	1.4%
Other Funds Held in Trust	\$ 124,423,392	11.0%
All Other	\$ 3,752,384	0.3%
Total	\$ 1,126,515,321	100.0%

Other Funds Held in Trust		Market Value	% Allocation
Budget Stabilization Funds	\$	11,047,264	8.9%
Receiving Funds	\$	105,973,412	85.2%
WRAP Funds	\$	7,402,717	5.9%
Total	\$	124,423,392	100.0%

In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of March 31, 2018. "All Other" funds includes funds in the Flint Security Deposit account that are held on behalf of the City of Flint and do not belong to GLWA.

Great Lakes Water Authority Investment Analysis – By Maturity

Maturity Distribution	January 31, 2018		February 28, 2018		March 31, 2018	
		%		%		%
Under 30 Days	\$ 611,526,229	56.2%	\$ 619,194,241	55.2%	\$ 626,678,092	55.6%
31 to 180 Days	201,063,704	18.5%	221,167,020	19.7%	262,954,452	23.3%
6 - 12 Months	132,523,733	12.2%	142,354,891	12.7%	110,351,255	9.8%
1 - 2 Years	122,795,185	11.3%	117,653,343	10.5%	106,023,741	9.4%
2 - 3 Years	20,537,089	1.9%	20,489,888	1.8%	20,507,781	1.8%
Over 3 Years	-	0.0%	-	0.0%	-	0.0%
Totals	\$ 1,088,445,939	100.0%	\$ 1,120,859,382	100.0%	\$ 1,126,515,321	100.0%



In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of March 31, 2018.



**Great Lakes Water Authority
Investment Accounts – Yield at Cost & Market
As of March 31, 2018**

	As of March 31, 2018		As of December 31, 2017	
	YTM @ Cost	YTM @ Market	YTM @ Cost	YTM @ Market
Bank Deposits				
Comerica	0.25%	0.25%	0.25%	0.25%
First Independence	0.05%	0.05%	0.05%	0.05%
Flint Deposit Account	0.05%	0.05%	0.00%	0.00%
JP Morgan Chase	0.49%	0.49%	0.37%	0.37%
Sub-Total Bank Deposits	0.30%	0.30%	0.22%	0.22%
Money Market Funds / LGIPs				
GovMIC	1.59%	1.59%	1.25%	1.25%
U.S. Bank - First American MMF	1.50%	1.50%	1.15%	1.15%
JP Morgan Securities - Blackrock MMF	1.43%	1.43%	1.08%	1.08%
Sub-Total MMF / LGIPs	1.50%	1.50%	1.15%	1.15%
Investment Portfolios				
Sewage - Construction Bond 5421	0.00%	0.00%	1.35%	1.58%
Sewage SR Debt Serv 5403	1.71%	1.71%	2.15%	1.70%
Sewage SR Res 5400	1.31%	2.14%	1.31%	1.83%
Sew 2nd Debt Serv 5403	1.83%	2.20%	1.55%	1.76%
Sewage 2nd Res 5481	1.30%	2.15%	1.29%	1.84%
Sew SRF Debt Serv 5410	1.82%	2.23%	1.45%	1.64%
Sewage R & R	1.39%	1.82%	1.32%	1.52%
Sewer Pension Obligation	1.31%	1.75%	1.27%	1.47%
Sewer Bond Fund	1.37%	2.07%	1.37%	1.78%
Sewer O&M Pension Sub Account	1.39%	1.75%	1.31%	1.47%
Water SR Debt Ser 5503	1.73%	2.18%	1.54%	1.73%
Water SR Reserve 5500	1.13%	2.01%	1.13%	1.73%
Water 2nd Debt Serv 5503	1.80%	2.19%	1.55%	1.72%
Water 2nd Res 5581	2.15%	2.19%	1.35%	1.86%
Water SRF Debt Serv 5575	1.83%	2.23%	1.52%	1.67%
Water R & R	1.39%	1.82%	1.32%	1.52%
Water Pension Obligation	1.32%	1.75%	1.28%	1.47%
Water Bond Fund	1.39%	2.09%	1.37%	1.79%
Water O&M Pension Sub Account	1.39%	1.75%	1.31%	1.47%
Sub-Total Investment Portfolios	1.48%	2.08%	1.36%	1.73%
<u>Grand Total</u>	<u>1.45%</u>	<u>1.72%</u>	<u>1.21%</u>	<u>1.36%</u>
Short-Term Index				
BoA / ML 3-Month Treasury Index		1.61%		1.25%

The accounts at Comerica Bank get an earnings credit to offset bank fees. The earnings in the accounts at First Independence Bank is credited to the contractors and not the Authority. The funds in the Flint Security Deposit account are held on behalf of the City of Flint and the earnings do not belong to GLWA. The Bank of America / Merrill Lynch 3-Month Treasury Bill is an unmanaged index tracking the on-the-run Treasury Bill. The index is produced and maintained by Bank of America / Merrill Lynch & Co. YTM @ Cost is the expected return, based on the original cost, the annual interest receipts, maturity value and the time period from purchase date to maturity, stated as a percentage, on an annualized basis. YTM @ Market is the rate of return, based on the current market value, the annual interest receipts, maturity value and time period remaining until maturity, stated as a percentage, on an annualized basis.



**Great Lakes Water Authority
Demonstration of Yield to Maturity vs. Duration
As of March 31, 2018**

- The comparison agencies included in the list below were selected based on type and/or other non-performance based criteria to show a broad range of water entities/utilities. This peer group list does not represent an endorsement of any of the public agencies or their services. The types of funds (e.g., bond proceeds, debt service, etc.) and duration of the overall portfolios listed below as well as the various differences in permitted investments and allowable credit capacity in state statutes (i.e., the ability or non-ability to invest in long-term corporate credit) will have a direct impact on the corresponding yields at market.
- The overall yield of the Authority's aggregate portfolio compares favorably to those of other short-term indices (i.e., the S&P LGIP index and the 3-month U.S. Treasury index).
- The Authority does not have a potential for a longer duration portfolio when compared to other similar water entities/utilities as the Authority's covenants limits and restricts its ability in managing assets to a longer-term strategy.

As of March 31, 2018				
	Market Value	YTM @ Market	Effective Duration	Weighted Average Maturity
GLWA				
Great Lakes Water Authority	\$1,126,515,321	1.72%	0.29 Years	107 Days
Short/Intermediate-Term Indices				
S&P Rated Government Investment Pool Index		1.54%	0.10 Years	37 Days
BoA / ML 3-Month Treasury Index		1.61%	0.14 Years	90 Days
BoA / ML 6-Month Treasury Index		1.89%	0.39 Years	180 Days
BoA / ML 1-Year Treasury Index		2.11%	0.90 Years	365 Days
BoA / ML 1-3 Year Treasury Index		2.27%	1.80 Years	657 Days
BoA / ML 1-5 Year Treasury Index		2.36%	2.59 Years	945 Days
Peer Analysis (Water Entities / Utilities)				
Alameda County Water District, CA	\$105,124,967	2.48%	2.42 Years	922 Days
Coachella Valley Water District, CA	\$455,596,862	2.37%	1.74 Years	712 Days
District of Columbia Water & Sewer Authority, DC	\$282,520,694	2.03%	0.65 Years	243 Days
DuPage Water Commission, IL	\$138,403,562	2.36%	2.11 Years	903 Days
Fairfax County Water Authority, VA	\$221,703,533	2.31%	1.81 Years	686 Days
San Bernardino Valley Municipal Water District, CA	\$299,666,429	2.40%	1.75 Years	660 Days
Truckee Meadows Water Authority, NV	\$124,515,741	2.18%	1.14 Years	433 Days

The BoA / ML indexes are unmanaged indexes tracking on-the-run Treasuries. These indexes are produced and maintained by Bank of America / Merrill Lynch & Co. Yield to maturity is the rate of return, based on the current market value, the annual interest receipts, maturity value and time period remaining until maturity, stated as a percentage, on an annualized basis.

Great Lakes Water Authority
 Investment Income (by Book Value)
 As of March 31, 2018

INVESTMENT INCOME BY MONTH

Month	Interest Earned During Period	Realized Gain / Loss	Investment Income
July 2017	\$637,658.61	\$0.00	\$637,658.61
August 2017	\$940,941.92	\$0.00	\$940,941.92
September 2017	\$884,798.87	\$0.00	\$884,798.87
October 2017	\$917,018.83	\$0.00	\$917,018.83
November 2017	\$979,111.10	\$0.00	\$979,111.10
December 2017	\$1,174,533.01	\$0.00	\$1,174,533.01
January 2018	\$1,058,271.07	\$0.00	\$1,058,271.07
February 2018	\$1,111,055.20	\$0.00	\$1,111,055.20
March 2018	\$1,205,317.00	(\$761.09)*	\$1,204,555.91
<u>FY 2018 Y-T-D</u>	<u>\$8,908,705.61</u>	<u>(\$761.09)</u>	<u>\$8,907,944.52</u>

* The Authority generally does not realize losses on its investments. However, on March 9, 2018, PFM purchased a 6-month commercial paper investment, thinking that the amount could be fully invested to the October 1st payment date. Upon reviewing the Sewage SRF Debt Service account with the Authority in mid-March, it was determined that the amount necessary for the April 1st payment was different from what PFM had previously calculated. Therefore, a portion of the commercial paper investment was sold to ensure that the required liquid funds were available on the April 1st payment date.

These figures are based upon actual interest earned and posted to the Authority's various accounts via book value and does not include any earnings credit rate tied to the Authority's bank deposits.

Appendix I: Portfolio Holdings



**Great Lakes Water Authority
Portfolio Holdings
As of March 31, 2018**

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Short-Term Bank Deposits / MMF / LGIP									
COMERICA BANK		\$ 14,942	4/1/2018	3/31/2018	0.25%	\$ 14,942	1	\$ -	\$ 14,942
FIRST INDEPENDENCE BANK		16,291,558	4/1/2018	3/31/2018	0.05%	16,291,558	1	-	16,291,558
FLINT DEPOSIT ACCOUNT		3,752,384	4/1/2018	3/31/2018	0.05%	3,752,384	1	-	3,752,384
JP MORGAN CHASE		25,405,360	4/1/2018	3/31/2018	0.49%	25,405,360	1	-	25,405,360
GovMIC		67,584,854	4/1/2018	3/31/2018	1.59%	67,584,854	1	-	67,584,854
U.S. BANK - FIRST AMERICAN MMF		432,792,148	4/1/2018	3/31/2018	1.50%	432,792,148	1	-	432,792,148
JP MORGAN SECURITIES - BLACKROCK MMF		62,013,156	4/1/2018	3/31/2018	1.43%	62,013,156	1	-	62,013,156
Federal Agencies									
FHLB 0 6/20/2018	313385YH3	\$ 3,520,000	6/20/2018	7/19/2017	1.24%	\$ 3,480,247	81	\$ -	\$ 3,506,729.60
FHLB 0 6/20/2018	313385YH3	703,000	6/20/2018	7/19/2017	1.24%	695,061	81	-	700,350
FHLB 0 6/20/2018	313385YH3	493,000	6/20/2018	7/19/2017	1.24%	487,432	81	-	491,141
FHLB 0 6/20/2018	313385YH3	2,974,000	6/20/2018	7/19/2017	1.24%	2,940,414	81	-	2,962,788
FHLB 0.875 6/29/2018	3130A8BD4	3,025,000	6/29/2018	10/31/2016	0.88%	3,024,577	90	6,764	3,018,103
FNMA 1.15 10/30/2018-14	3136G1KL2	10,000,000	10/30/2018	4/30/2013	1.36%	9,889,200	213	47,917	9,948,500
FNMA 1.375 1/28/2019	3135G0H63	5,200,000	1/28/2019	7/26/2017	1.39%	5,198,908	303	12,513	5,170,360
FNMA 1.375 1/28/2019	3135G0H63	6,695,000	1/28/2019	8/31/2017	1.31%	6,700,758	303	16,110	6,656,839
FNMA 1 2/26/2019	3135G0J53	5,205,000	2/26/2019	7/26/2017	1.39%	5,173,666	332	5,060	5,150,452
FNMA 1 2/26/2019	3135G0J53	6,690,000	2/26/2019	8/31/2017	1.33%	6,657,821	332	6,504	6,619,889
FHLB 1.5 3/8/2019	3133782M2	6,595,000	3/8/2019	8/31/2017	1.34%	6,611,026	342	6,320	6,555,694
FHLB 1.375 3/18/2019	3130AAXX1	5,175,000	3/18/2019	7/26/2017	1.38%	5,174,431	352	2,570	5,135,360
FHLB 1.375 5/28/2019	3130ABF92	5,260,000	5/28/2019	7/26/2017	1.40%	5,257,423	423	24,711	5,211,608
FHLB 1.375 5/28/2019	3130ABF92	5,245,000	5/28/2019	8/31/2017	1.34%	5,248,409	423	24,641	5,196,746
FHLB 1.625 6/14/2019	313379EE5	7,050,000	6/14/2019	9/1/2017	1.38%	7,080,033	440	34,051	7,003,611
FHLMC 0.875 7/19/2019	3137EAE81	5,230,000	7/19/2019	7/26/2017	1.41%	5,176,079	475	9,153	5,140,201
FHLMC 0.875 7/19/2019	3137EAE81	6,720,000	7/19/2019	8/31/2017	1.36%	6,659,386	475	11,760	6,604,618
FHLMC 1.375 8/15/2019	3137EAEH8	5,215,000	8/15/2019	7/26/2017	1.45%	5,206,917	502	9,162	5,154,297
FNMA 1 8/28/2019	3135G0P49	6,715,000	8/28/2019	8/31/2017	1.39%	6,664,100	515	6,155	6,603,598
FNMA 1.75 9/12/2019	3135G0ZG1	4,705,000	9/12/2019	7/26/2017	1.45%	4,734,171	530	4,346	4,671,500
FHLB 1 9/26/2019	3130A9EP2	7,550,000	9/26/2019	8/31/2017	1.39%	7,490,053	544	1,049	7,413,194
FHLMC 1.25 10/2/2019	3137EADM8	5,045,000	10/2/2019	12/28/2017	1.93%	4,985,469	550	31,356	4,969,375

In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of March 31, 2018.



**Great Lakes Water Authority
Portfolio Holdings
As of March 31, 2018**

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
Bank of Tokyo 0 4/20/2018	06538CDL2	\$ 4,100,000	4/20/2018	7/26/2017	1.55%	\$ 4,053,606	20	\$ -	\$ 4,095,080.00
JPMorgan Securities 0 4/20/2018	46640QDL2	4,100,000	4/20/2018	7/26/2017	1.54%	4,053,911	20	-	4,095,080
Bank of Tokyo 0 4/20/2018	06538CDL2	5,300,000	4/20/2018	7/26/2017	1.55%	5,240,028	20	-	5,293,640
JPMorgan Securities 0 4/20/2018	46640QDL2	5,300,000	4/20/2018	7/26/2017	1.54%	5,240,422	20	-	5,293,640
ING US Funding 0 5/2/2018	4497W1E28	3,468,000	5/2/2018	8/10/2017	1.54%	3,429,452	32	-	3,462,347
ING US Funding 0 5/2/2018	4497W1E28	692,000	5/2/2018	8/10/2017	1.54%	684,308	32	-	690,872
ING US Funding 0 5/2/2018	4497W1E28	2,922,000	5/2/2018	8/10/2017	1.54%	2,889,521	32	-	2,917,237
Credit Agricole 0 5/29/2018	22533UEV1	4,030,000	5/29/2018	12/28/2017	1.78%	4,000,053	59	-	4,016,701
Bank of Montreal 0 6/4/2018	06366HF44	3,295,000	6/4/2018	9/8/2017	1.51%	3,258,719	65	-	3,282,776
Bank of Montreal 0 6/4/2018	06366HF44	639,000	6/4/2018	9/8/2017	1.51%	631,964	65	-	636,629
Bank of Montreal 0 6/4/2018	06366HF44	2,933,000	6/4/2018	9/7/2017	1.51%	2,900,705	65	-	2,922,119
Bank of Montreal 0 6/4/2018	06366HF44	982,000	6/4/2018	9/7/2017	1.51%	971,187	65	-	978,357
Bank of Montreal 0 6/22/2018	06366HFN2	1,158,000	6/22/2018	3/6/2018	2.12%	1,150,682	83	-	1,152,476
Bank of Montreal 0 6/22/2018	06366HFN2	3,145,000	6/22/2018	3/6/2018	2.12%	3,125,124	83	-	3,129,998
Bank of Tokyo 0 6/22/2018	06538CFN6	742,000	6/22/2018	10/4/2017	1.63%	733,447	83	-	738,461
Bank of Tokyo 0 6/22/2018	06538CFN6	2,519,000	6/22/2018	1/9/2018	1.83%	2,498,229	83	-	2,506,984
Bank of Tokyo 0 6/22/2018	06538CFN6	2,029,000	6/22/2018	10/4/2017	1.63%	2,005,611	83	-	2,019,322
BNP Paribas 0 6/22/2018	09659CFN3	3,465,000	6/22/2018	11/7/2017	1.63%	3,430,042	83	-	3,448,472
BNP Paribas 0 6/22/2018	09659CFN3	692,000	6/22/2018	11/7/2017	1.63%	685,018	83	-	688,699
Cooperative Rabobank 0 6/22/2018	21687BFN6	2,190,000	6/22/2018	3/8/2018	2.01%	2,177,103	83	-	2,179,554
Credit Agricole 0 6/22/2018	22533UFN8	4,091,000	6/22/2018	1/9/2018	1.83%	4,057,267	83	-	4,071,486
Credit Agricole 0 6/22/2018	22533UFN8	1,160,000	6/22/2018	1/9/2018	1.83%	1,150,435	83	-	1,154,467
Dexia Credit Local 0 6/22/2018	25214PEA7	3,103,000	6/22/2018	2/5/2018	1.75%	3,082,453	83	-	3,088,199
Dexia Credit Local 0 6/22/2018	25214PEA7	1,147,000	6/22/2018	2/5/2018	1.75%	1,139,405	83	-	1,141,529
JPMorgan Securities 0 6/22/2018	46640QFN6	1,627,000	6/22/2018	10/5/2017	1.62%	1,608,434	83	-	1,619,239
JPMorgan Securities 0 6/22/2018	46640QFN6	1,250,000	6/22/2018	3/6/2018	2.09%	1,242,200	83	-	1,244,038
JPMorgan Securities 0 6/22/2018	46640QFN6	3,473,000	6/22/2018	12/21/2017	1.92%	3,439,810	83	-	3,456,434
JPMorgan Securities 0 6/22/2018	46640QFN6	691,000	6/22/2018	12/21/2017	1.92%	684,396	83	-	687,704
Toyota Motor Credit 0 6/22/2018	89233HFN9	1,600,000	6/22/2018	2/5/2018	1.83%	1,588,918	83	-	1,592,368
Bank of Montreal 0 6/22/2018	06366HFN2	1,656,000	6/22/2018	3/6/2018	2.12%	1,645,534	83	-	1,648,101
Bank of Montreal 0 6/22/2018	06366HFN2	3,141,000	6/22/2018	3/6/2018	2.12%	3,121,149	83	-	3,126,017
Bank of Tokyo 0 6/22/2018	06538CFN6	479,000	6/22/2018	10/4/2017	1.63%	473,478	83	-	476,715
Bank of Tokyo 0 6/22/2018	06538CFN6	1,750,000	6/22/2018	10/4/2017	1.63%	1,729,827	83	-	1,741,653
Bank of Tokyo 0 6/22/2018	06538CFN6	2,010,000	6/22/2018	1/9/2018	1.83%	1,993,426	83	-	2,000,412
BNP Paribas 0 6/22/2018	09659CFN3	492,000	6/22/2018	11/7/2017	1.63%	487,036	83	-	489,653
BNP Paribas 0 6/22/2018	09659CFN3	2,930,000	6/22/2018	11/7/2017	1.63%	2,900,440	83	-	2,916,024

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**Great Lakes Water Authority
Portfolio Holdings
As of March 31, 2018**

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
Commercial Paper									
Credit Agricole 0 6/22/2018	22533UFN8	4,090,000	6/22/2018	1/9/2018	1.83%	4,056,276	83	-	4,070,491
Credit Agricole 0 6/22/2018	22533UFN8	1,659,000	6/22/2018	1/9/2018	1.83%	1,645,321	83	-	1,651,087
Dexia Credit Local 0 6/22/2018	25214PEA7	3,100,000	6/22/2018	2/5/2018	1.75%	3,079,473	83	-	3,085,213
Dexia Credit Local 0 6/22/2018	25214PEA7	1,650,000	6/22/2018	2/5/2018	1.75%	1,639,074	83	-	1,642,130
JPMorgan Securities 0 6/22/2018	46640QFN6	1,250,000	6/22/2018	3/6/2018	2.09%	1,242,200	83	-	1,244,038
JPMorgan Securities 0 6/22/2018	46640QFN6	2,928,000	6/22/2018	12/21/2017	1.92%	2,900,018	83	-	2,914,033
JPMorgan Securities 0 6/22/2018	46640QFN6	489,000	6/22/2018	12/21/2017	1.92%	484,327	83	-	486,667
JPMorgan Securities 0 6/22/2018	46640QFN6	1,178,000	6/22/2018	10/5/2017	1.62%	1,164,558	83	-	1,172,381
Toyota Motor Credit 0 6/22/2018	89233HFN9	1,600,000	6/22/2018	2/5/2018	1.83%	1,588,918	83	-	1,592,368
BNP Paribas 0 6/29/2018	09659CFV5	2,319,000	6/29/2018	1/9/2018	1.78%	2,299,613	90	-	2,306,988
Cooperative Centrale 0 6/29/2018	21687BFV8	2,417,000	6/29/2018	2/5/2018	1.84%	2,399,308	90	-	2,404,480
Cooperative Centrale 0 6/29/2018	21687BFV8	4,049,000	6/29/2018	2/5/2018	1.84%	4,019,361	90	-	4,028,026
General Electric 0 6/29/2018	36960MFV0	1,767,000	6/29/2018	1/9/2018	1.81%	1,751,976	90	-	1,757,847
General Electric 0 6/29/2018	36960MFV0	2,437,000	6/29/2018	1/9/2018	1.81%	2,416,279	90	-	2,424,376
JPMorgan Securities 0 6/29/2018	46640QFV8	196,000	6/29/2018	11/7/2017	1.64%	193,962	90	-	194,985
Lloyds Bank PLC 0 6/29/2018	53943SFV4	2,775,000	6/29/2018	3/7/2018	2.08%	2,756,810	90	-	2,760,626
Lloyds Bank PLC 0 6/29/2018	53943SFV4	2,411,000	6/29/2018	3/7/2018	2.08%	2,395,196	90	-	2,398,511
BNP Paribas 0 6/29/2018	09659CFV5	2,505,000	6/29/2018	1/9/2018	1.78%	2,484,058	90	-	2,492,024
Cooperative Centrale 0 6/29/2018	21687BFV8	4,634,000	6/29/2018	2/2/2018	1.84%	4,600,079	90	-	4,609,996
Cooperative Centrale 0 6/29/2018	21687BFV8	2,010,000	6/29/2018	2/2/2018	1.84%	1,995,287	90	-	1,999,588
General Electric 0 6/29/2018	36960MFV0	2,029,000	6/29/2018	1/9/2018	1.81%	2,011,748	90	-	2,018,490
General Electric 0 6/29/2018	36960MFV0	1,767,000	6/29/2018	1/9/2018	1.81%	1,751,976	90	-	1,757,847
JPMorgan Securities 0 6/29/2018	46640QFV8	849,000	6/29/2018	11/7/2017	1.64%	840,170	90	-	844,602
JPMorgan Securities 0 6/29/2018	46640QFV8	377,000	6/29/2018	11/10/2018	1.86%	373,724	90	-	375,047
Lloyds Bank PLC 0 6/29/2018	53943SFV4	2,807,000	6/29/2018	3/7/2018	2.08%	2,788,600	90	-	2,792,460
Lloyds Bank PLC 0 6/29/2018	53943SFV4	2,007,000	6/29/2018	3/7/2018	2.08%	1,993,844	90	-	1,996,604
Toyota Motor Credit 0 7/31/2018	89233HGV6	5,050,000	7/31/2018	1/2/2018	1.79%	4,997,859	122	-	5,009,600
Bank of Tokyo 0 9/17/2018	06538CJH5	123,000	9/17/2018	12/21/2017	1.97%	121,238	170	-	121,611
Bank of Tokyo 0 9/17/2018	06538CJH5	3,029,000	9/17/2018	12/21/2017	1.97%	2,985,610	170	-	2,994,803
GE Capital 0 9/25/2018	36164KJR3	121,000	9/25/2018	1/9/2018	1.89%	119,381	178	-	119,569
JPMorgan Securities 0 9/25/2018	46640QJR3	123,000	9/25/2018	2/2/2018	2.05%	121,378	178	-	121,545
Toyota Motor Credit 0 9/25/2018	89233HJR6	122,000	9/25/2018	3/9/2018	2.25%	120,495	178	-	120,557
Cooperative Rabobank 0 9/25/2018	21687BJR3	1,583,000	9/25/2018	3/9/2018	2.23%	1,564,039	178	-	1,564,273
GE Capital 0 9/25/2018	36164KJR3	3,026,000	9/25/2018	1/9/2018	1.89%	2,985,507	178	-	2,990,202
JPMorgan Securities 0 9/25/2018	46640QJR3	3,026,000	9/25/2018	2/2/2018	2.05%	2,986,099	178	-	2,990,202
Toyota Motor Credit 0 9/25/2018	89233HJR6	1,356,000	9/25/2018	3/9/2018	2.25%	1,339,276	178	-	1,339,959

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**Great Lakes Water Authority
Portfolio Holdings
As of March 31, 2018**

DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
U.S. Treasuries									
T-Note 1.125 6/15/2018	912828XF2-1	\$ 4,750,000	6/15/2018	8/9/2017	1.23%	\$ 4,745,732	76	\$ 15,561	\$ 4,743,730.00
T-Note 1.125 6/15/2018	912828XF2-1	47,000	6/15/2018	12/21/2017	1.47%	46,923	76	154	46,938
T-Note 1.125 6/15/2018	912828XF2-1	4,159,000	6/15/2018	8/8/2017	1.22%	4,155,588	76	13,625	4,153,510
T-Note 1.125 6/15/2018	912828XF2-1	1,115,000	6/15/2018	12/4/2017	1.45%	1,113,084	76	3,653	1,113,528
T-Note 1.125 6/15/2018	912828XF2-1	889,000	6/15/2018	10/3/2017	1.25%	888,201	76	2,912	887,827
T-Note 1.125 6/15/2018	912828XF2-1	890,000	6/15/2018	9/7/2017	1.20%	889,513	76	2,916	888,825
T-Note 1.125 6/15/2018	912828XF2-1	892,000	6/15/2018	1/4/2018	1.49%	890,571	76	2,922	890,823
T-Note 1.125 6/15/2018	912828XF2-1	891,000	6/15/2018	2/1/2018	1.50%	889,782	76	2,919	889,824
T-Note 1.125 6/15/2018	912828XF2-1	1,286,000	6/15/2018	11/10/2017	1.38%	1,284,091	76	4,213	1,284,302
T-Note 1.125 6/15/2018	912828XF2-1	6,250,000	6/15/2018	8/9/2017	1.23%	6,244,385	76	20,476	6,241,750
T-Note 1.125 6/15/2018	912828XF2-1	1,224,000	6/15/2018	2/1/2018	1.50%	1,222,327	76	4,010	1,222,384
T-Note 1.125 6/15/2018	912828XF2-1	1,223,000	6/15/2018	9/7/2017	1.20%	1,222,331	76	4,007	1,221,386
T-Note 1.125 6/15/2018	912828XF2-1	1,220,000	6/15/2018	10/3/2017	1.25%	1,218,904	76	3,997	1,218,390
T-Note 1.125 6/15/2018	912828XF2-1	1,378,000	6/15/2018	12/4/2017	1.45%	1,375,632	76	4,514	1,376,181
T-Note 1.125 6/15/2018	912828XF2-1	6,623,000	6/15/2018	8/8/2017	1.22%	6,617,567	76	21,698	6,614,258
T-Note 1.125 6/15/2018	912828XF2-2	503,000	6/15/2018	12/4/2017	1.45%	502,135	76	1,648	502,336
T-Note 1.125 6/15/2018	912828XF2-2	518,000	6/15/2018	10/4/2017	1.28%	517,454	76	1,697	517,316
T-Note 1.125 6/15/2018	912828XF2-2	513,000	6/15/2018	11/10/2017	1.39%	512,198	76	1,681	512,323
T-Note 1.125 6/15/2018	912828XF2-2	504,000	6/15/2018	2/2/2018	1.52%	503,272	76	1,651	503,335
T-Note 1.125 6/15/2018	912828XF2-2	504,000	6/15/2018	1/4/2018	1.49%	503,193	76	1,651	503,335
T-Note 1.125 6/15/2018	912828XF2-2	504,000	6/15/2018	3/6/2018	1.67%	503,232	76	1,651	503,335
T-Note 1.125 6/15/2018	912828XF2-2	17,000	6/15/2018	12/21/2017	1.47%	16,972	76	56	16,978
T-Note 1.125 6/15/2018	912828XF2-2	1,496,000	6/15/2018	9/15/2017	1.24%	1,494,714	76	4,901	1,494,025
T-Note 1.125 6/15/2018	912828XF2-2	1,880,000	6/15/2018	11/10/2017	1.38%	1,877,209	76	6,159	1,877,518
T-Note 1.125 6/15/2018	912828XF2-2	1,225,000	6/15/2018	1/4/2018	1.49%	1,223,038	76	4,013	1,223,383
T-Note 1.125 6/15/2018	912828XF2-2	70,000	6/15/2018	12/21/2017	1.47%	69,885	76	229	69,908
T-Note 1.125 6/15/2018	912828XF2-2	885,000	6/15/2018	11/10/2017	1.39%	883,617	76	2,899	883,832
T-Note 1.125 6/15/2018	912828XF2-2	899,000	6/15/2018	12/4/2017	1.45%	897,455	76	2,945	897,813
T-Note 1.125 6/15/2018	912828XF2-2	902,000	6/15/2018	2/2/2018	1.52%	900,696	76	2,955	900,809
T-Note 1.125 6/15/2018	912828XF2-2	903,000	6/15/2018	1/4/2018	1.49%	901,554	76	2,958	901,808
T-Note 1.125 6/15/2018	912828XF2-2	915,000	6/15/2018	10/4/2017	1.28%	914,035	76	2,998	913,792
T-Note 1.125 6/15/2018	912828XF2-2	902,000	6/15/2018	3/6/2018	1.67%	900,626	76	2,955	900,809
T-Note 1.125 6/15/2018	912828XF2-2	2,724,000	6/15/2018	9/15/2017	1.24%	2,721,659	76	8,924	2,720,404
T-Note 1.125 6/15/2018	912828XF2-2	30,000	6/15/2018	12/21/2017	1.47%	29,951	76	98	29,960
T-Bill 0 6/21/2018	912796MF3	1,868,000	6/21/2018	2/5/2018	1.52%	1,857,461	82	-	1,860,976
T-Bill 0 6/21/2018	912796MF3	1,394,000	6/21/2018	2/5/2018	1.52%	1,386,135	82	-	1,388,759
T-Note 2.375 6/30/2018	912828QT0	42,000	6/30/2018	8/10/2017	1.24%	42,420	91	248	42,057
T-Note 2.375 6/30/2018	912828QT0	820,000	6/30/2018	8/10/2017	1.24%	828,200	91	4,842	821,115
T-Note 0.625 6/30/2018	912828R93	745,000	6/30/2018	7/10/2017	1.11%	741,479	91	1,158	742,832
T-Note 0.625 6/30/2018	912828R93	2,705,000	6/30/2018	2/27/2017	0.98%	2,692,215	91	4,203	2,697,128
T-Note 0.625 6/30/2018	912828R93	57,000	6/30/2018	11/17/2017	1.46%	56,708	91	89	56,834
T-Note 1.375 6/30/2018	912828VK3	89,000	6/30/2018	12/21/2017	1.52%	88,930	91	304	88,904
T-Note 1.375 6/30/2018	912828VK3	88,000	6/30/2018	10/4/2017	1.30%	88,048	91	301	87,905

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**Great Lakes Water Authority
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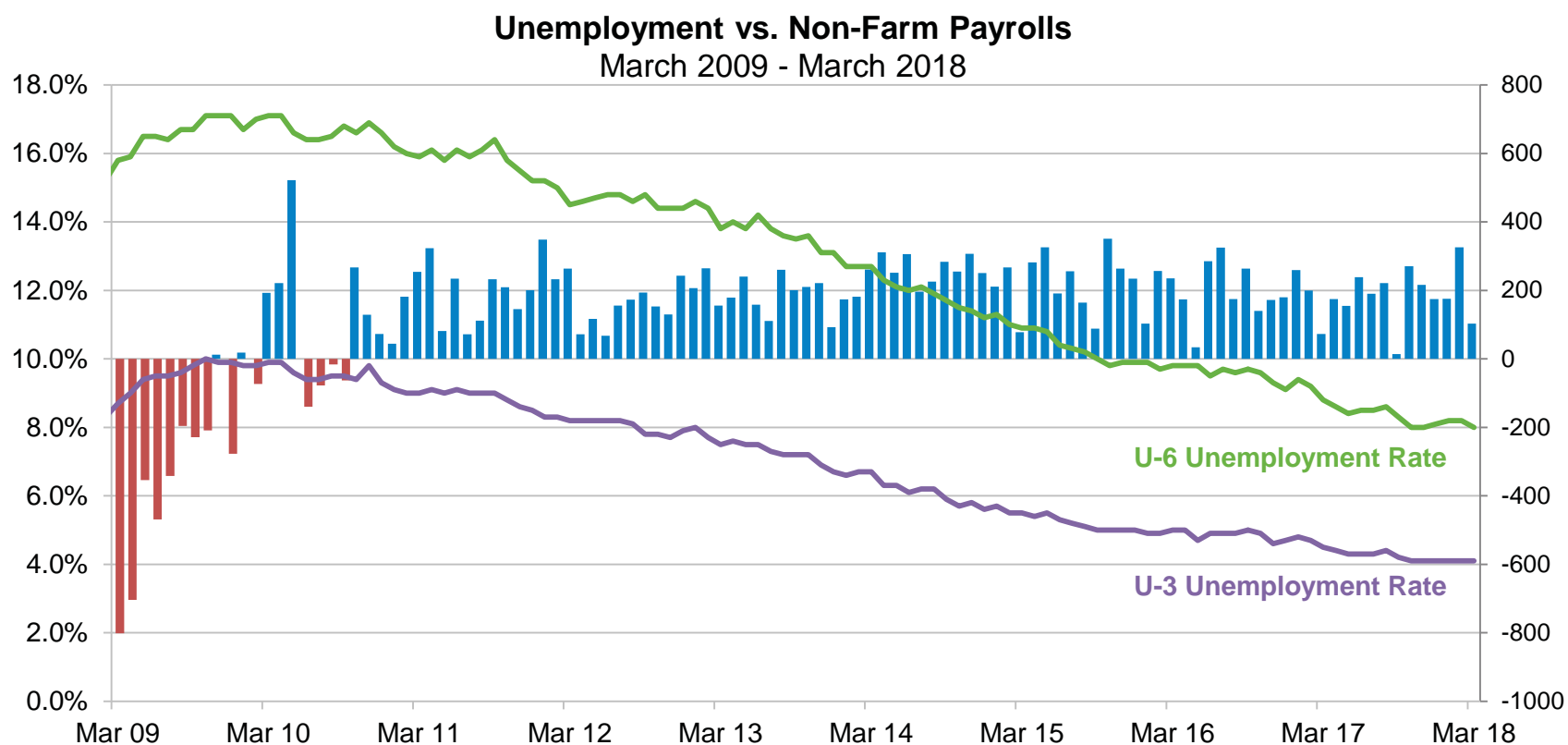
DESCRIPTION	CUSIP	PAR AMOUNT	MATURITY DATE	SETTLEMENT DATE	YTM AT COST	ORIGINAL COST	DAYS TO MATURITY	ACCRUED INTEREST	TOTAL VALUE
U.S. Treasuries									
T-Note 1.375 6/30/2018	912828VK3	10,000	6/30/2018	10/4/2017	1.30%	10,005	91	34	9,989
T-Note 1.375 6/30/2018	912828VK3	188,000	6/30/2018	12/21/2017	1.52%	187,853	91	643	187,797
T-Note 1.375 6/30/2018	912828VK3	780,000	6/30/2018	9/7/2017	1.22%	780,975	91	2,666	779,158
T-Note 1.375 6/30/2018	912828VK3	881,000	6/30/2018	10/4/2017	1.30%	881,482	91	3,012	880,049
T-Note 1.375 6/30/2018	912828VK3	854,000	6/30/2018	12/21/2017	1.52%	853,333	91	2,919	853,078
T-Note 1.375 6/30/2018	912828VK3-1	1,265,000	6/30/2018	3/7/2018	1.75%	1,263,468	91	4,324	1,263,634
T-Note 1.375 6/30/2018	912828VK3-1	36,000	6/30/2018	7/19/2017	1.23%	36,049	91	123	35,961
T-Note 1.375 6/30/2018	912828VK3-1	838,000	6/30/2018	7/19/2017	1.23%	839,146	91	2,865	837,095
T-Note 1.375 6/30/2018	912828VK3-1	3,486,000	6/30/2018	3/7/2018	1.75%	3,481,779	91	11,917	3,482,235
T-Note 1.375 6/30/2018	912828VK3-2	7,510,000	6/30/2018	7/26/2017	1.23%	7,519,974	91	25,673	7,501,889
T-Note 1.375 6/30/2018	912828VK3-2	7,960,000	6/30/2018	7/26/2017	1.23%	7,970,572	91	27,211	7,951,403
T-Note 0.75 8/31/2018	912828C3	5,190,000	8/31/2018	7/26/2017	1.27%	5,160,806	153	3,279	5,165,659
T-Note 0.75 8/31/2018	912828C3	6,650,000	8/31/2018	7/26/2017	1.27%	6,612,594	153	4,201	6,618,812
T-Note 1 9/15/2018	912828L40	7,018,000	9/15/2018	11/8/2017	1.50%	6,988,393	168	3,051	6,990,349
T-Note 1 9/15/2018	912828L40	121,000	9/15/2018	10/4/2017	1.36%	120,594	168	53	120,523
T-Note 1 9/15/2018	912828L40	122,000	9/15/2018	11/7/2017	1.49%	121,490	168	53	121,519
T-Note 1 9/15/2018	912828L40	9,525,000	9/15/2018	11/8/2017	1.50%	9,484,816	168	4,141	9,487,472
T-Note 1 9/15/2018	912828L40	2,993,000	9/15/2018	10/4/2017	1.36%	2,982,945	168	1,301	2,981,208
T-Note 1 9/15/2018	912828L40	2,994,000	9/15/2018	11/7/2017	1.49%	2,981,486	168	1,302	2,982,204
T-Note 1.375 9/30/2018	912828RH5	10,220,000	9/30/2018	10/26/2016	0.87%	10,317,809	183	-	10,192,099
T-Note 1.375 9/30/2018	912828RH5	7,805,000	9/30/2018	10/26/2016	0.87%	7,879,696	183	-	7,783,692
T-Note 0.75 9/30/2018	912828T42	5,160,000	9/30/2018	7/26/2017	1.28%	5,128,355	183	-	5,129,969
T-Note 0.75 9/30/2018	912828T42	6,605,000	9/30/2018	7/26/2017	1.28%	6,564,493	183	-	6,566,559
T-Note 0.75 10/31/2018	912828T83	5,215,000	10/31/2018	7/26/2017	1.31%	5,178,536	214	16,315	5,178,339
T-Note 0.75 10/31/2018	912828T83	2,400,000	10/31/2018	7/26/2017	1.31%	2,383,219	214	7,508	2,383,128
T-Note 0.75 10/31/2018	912828T83	4,275,000	10/31/2018	8/31/2017	1.26%	4,249,784	214	13,374	4,244,947
T-Note 1.375 11/30/2018	912828RT9	10,400,000	11/30/2018	7/26/2017	1.32%	10,407,313	244	47,536	10,355,280
T-Note 1 11/30/2018	912828U40	13,370,000	11/30/2018	8/31/2017	1.26%	13,326,652	244	44,444	13,280,154
T-Note 1.25 4/30/2019	912828S18	5,225,000	4/30/2019	7/26/2017	1.37%	5,214,183	395	27,244	5,174,370
T-Note 1.25 4/30/2019	912828S18	6,680,000	4/30/2019	8/31/2017	1.31%	6,673,216	395	34,830	6,615,271
T-Note 1.25 5/31/2019	912828XS4	5,180,000	5/31/2019	7/26/2017	1.37%	5,168,669	426	21,524	5,125,144
T-Note 1.625 6/30/2019	912828WS5	146,000	6/30/2019	7/21/2017	1.35%	146,776	456	590	145,001
T-Note 1.625 6/30/2019	912828WS5	1,625,000	6/30/2019	2/27/2017	1.27%	1,638,267	456	6,565	1,613,885
T-Note 1.625 6/30/2019	912828WS5	4,475,000	6/30/2019	2/10/2017	1.32%	4,506,989	456	18,079	4,444,391
T-Note 1.625 6/30/2019	912828WS5	2,450,000	6/30/2019	2/27/2017	1.27%	2,470,002	456	9,898	2,433,242
T-Note 1.25 6/30/2019	912828XV7	6,463,000	6/30/2019	2/28/2018	2.17%	6,385,242	456	20,085	6,388,288
T-Note 1.25 6/30/2019	912828XV7	159,000	6/30/2019	2/28/2018	2.17%	157,087	456	494	157,162
T-Note 1.25 6/30/2019	912828XV7	5,800,000	6/30/2019	10/11/2017	1.49%	5,776,664	456	18,025	5,732,952
T-Note 1.25 6/30/2019	912828XV7	10,150,000	6/30/2019	10/11/2017	1.49%	10,109,162	456	31,544	10,032,666
T-Note 1.25 6/30/2019	912828XV7	195,000	6/30/2019	2/28/2018	2.17%	192,654	456	606	192,746
T-Note 1.625 6/30/2020	912828XH8	9,705,000	6/30/2020	10/11/2017	1.61%	9,709,928	822	39,209	9,554,864
T-Note 1.625 6/30/2020	912828XH8	4,565,000	6/30/2020	2/27/2017	1.54%	4,578,374	822	18,443	4,494,379
T-Note 1.625 6/30/2020	912828XH8	6,560,000	6/30/2020	10/11/2017	1.61%	6,563,331	822	26,503	6,458,517

In addition to the totals listed above, there also exists surety bonds in the amount of \$331,914,579 as of March 31, 2018.

Appendix II: Economic Update

U.S. Labor Market

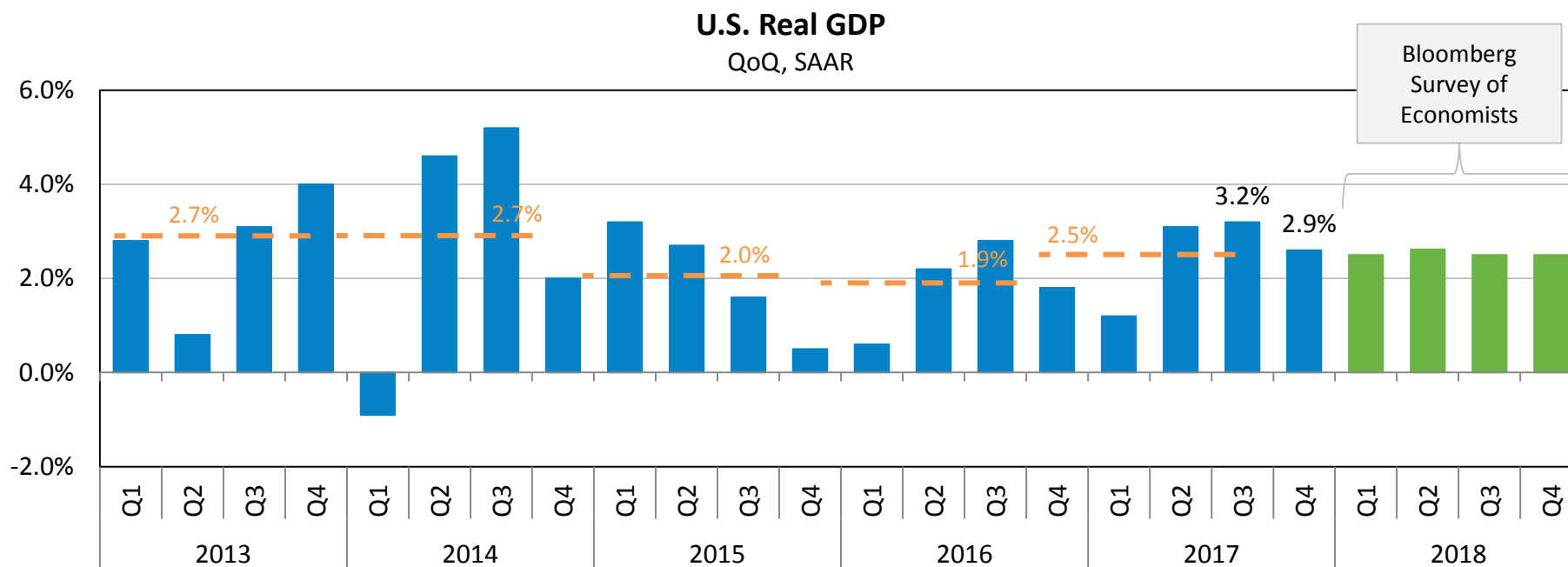
- In March, the United States labor market added 103,000 jobs, well below the 185,000 expectation
- The unemployment rate was unchanged at 4.1%, continuing the recent trend of lows for U.S. unemployment



Source: Bloomberg

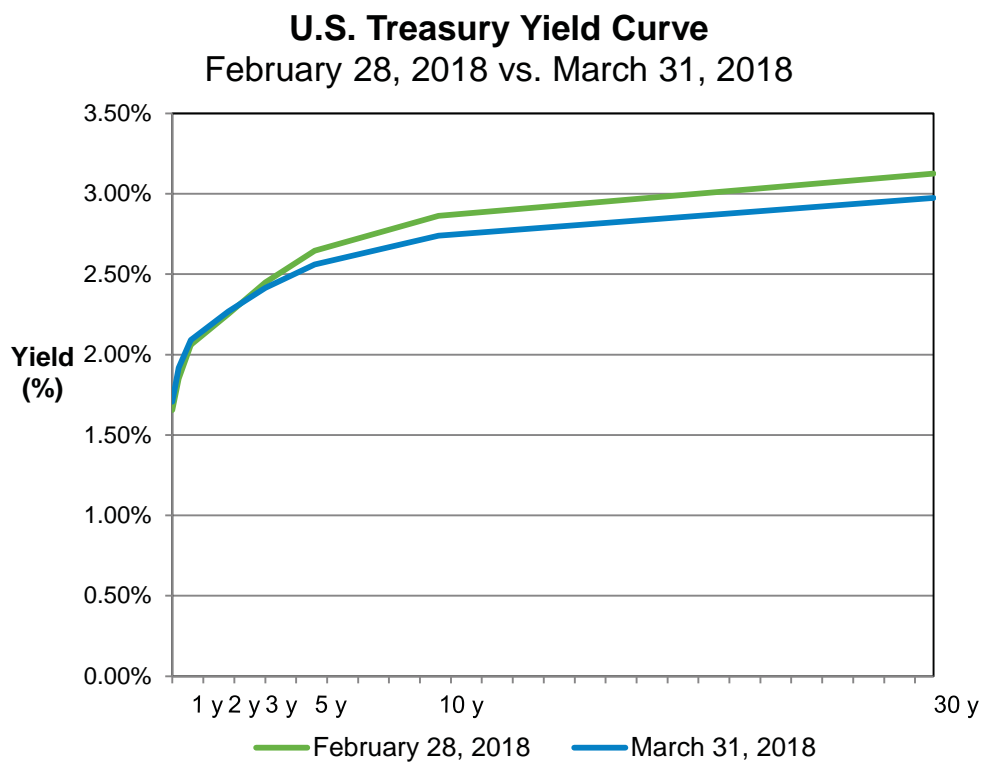
Economic Growth Slowed in Fourth Quarter 2017

- U.S. Gross domestic product (“GDP”) grew at an annualized rate of 2.9% in the fourth quarter of 2017, as the pace of expansion slowed from faster than 3.2% growth in the third quarter; for the year, growth has averaged 2.5%, fastest pace since 2014
- Strong growth in consumer spending and business investment continued to fuel economic activity over the quarter, while significant declines in inventories and net exports were a drag on reported GDP in the fourth quarter



Source: Bloomberg, as of the fourth quarter of 2017. SAAR is seasonally adjusted annualized rate. Orange denotes rolling four-quarter averages.

U.S. Treasury Yields

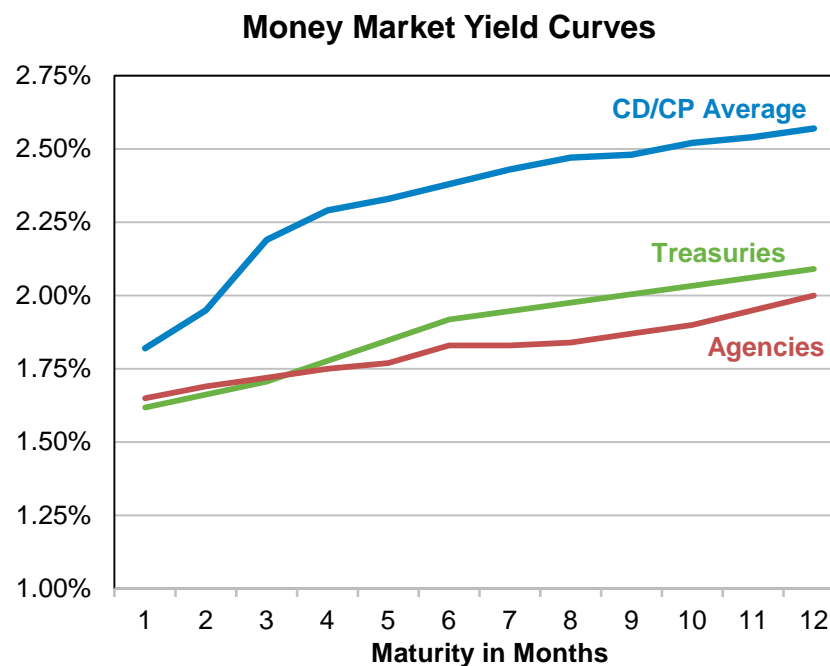
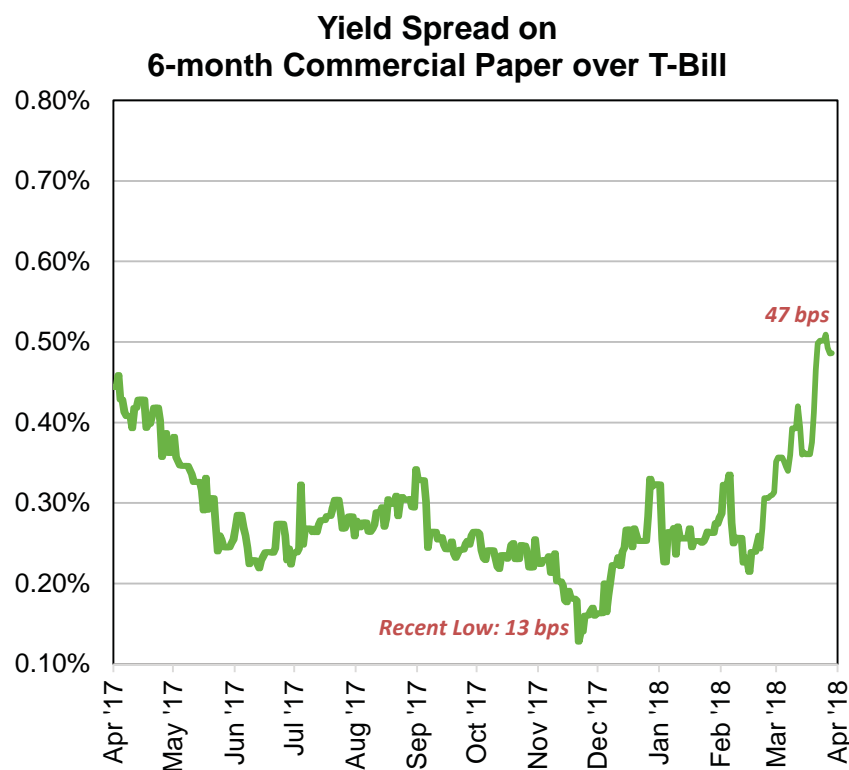


	2/28/2018	3/31/2018	Change
3 month	1.66%	1.71%	0.05%
6 month	1.85%	1.92%	0.07%
1 year	2.06%	2.09%	0.03%
2 year	2.25%	2.27%	0.02%
3 year	2.45%	2.41%	-0.04%
5 year	2.65%	2.56%	-0.09%
10 year	2.86%	2.74%	-0.12%
30 year	3.13%	2.97%	-0.16%

Source: Bloomberg

Current Short-Term Credit Environment

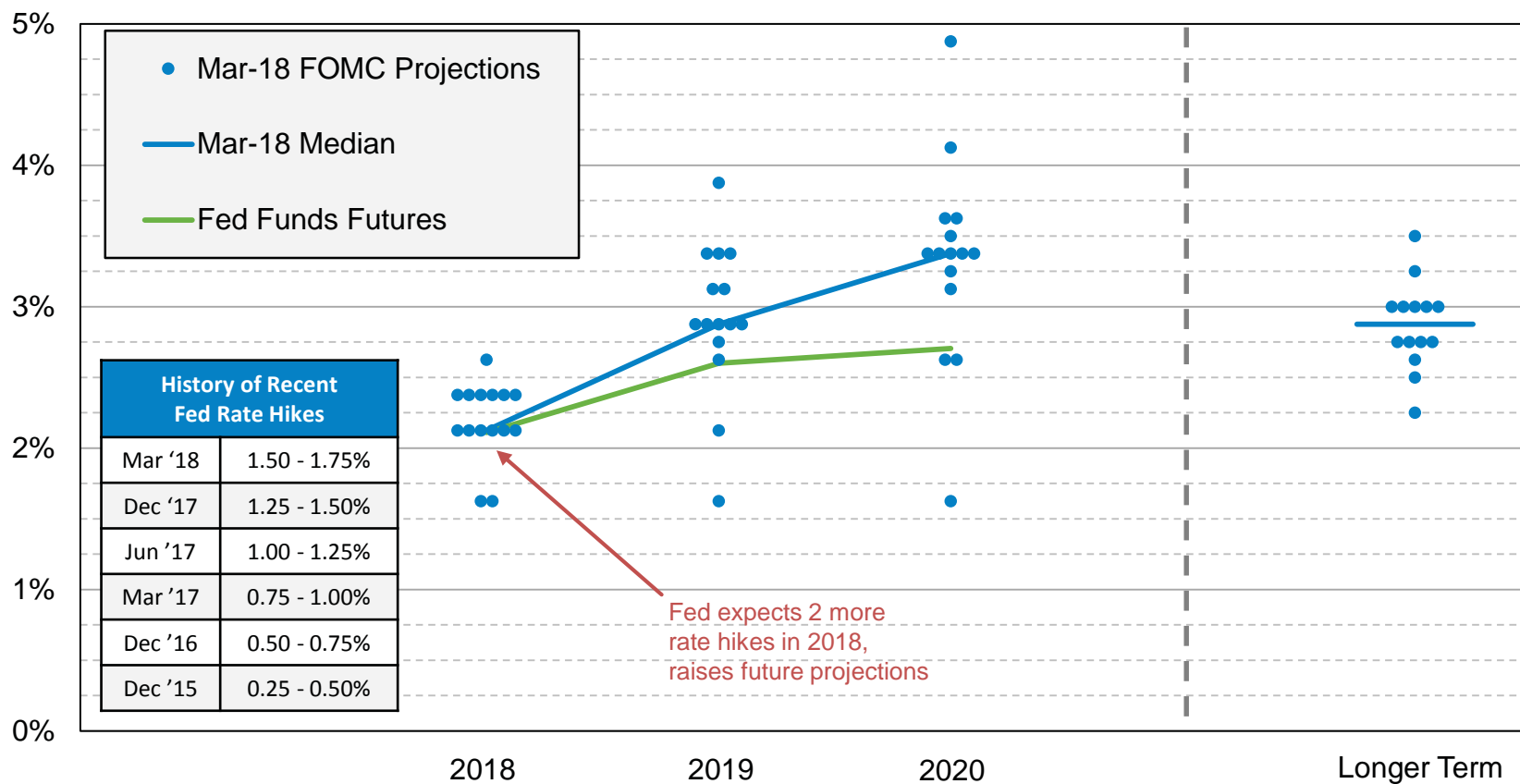
- Commercial paper and CDs remain attractive alternatives to short-term Treasuries, Agencies, bank deposits, and government money market funds



Source: Bloomberg, PFMAM Trading Desk, as of 4/02/2018. Not a specific recommendation. Six-month CP yield spread based on A1/P1 rated CP index.

FOMC “Dot Plot” March 2018

Fed Participants’ Assessments of ‘Appropriate’ Monetary Policy



Source: Federal Reserve and Bloomberg. Individual dots represent each Fed members' judgement of the midpoint of the appropriate target range for the Federal Funds rate at each year-end. Fed funds futures as of 3/21/2018.

**Great Lakes Water Authority
Market Overview and Outlook**

FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS

- The laundry list of positive economic data is long and remains a key driver of economic growth, consumer confidence, and business optimism
 - GDP posted an upward revision to fourth quarter 2017 GDP to 2.9%
 - Estimates for 2018 GDP call for growth in the range of 2.7% to 2.8%
 - Job growth continued to be strong, averaging over 200,000 new jobs per month in the first quarter of 2018
 - The unemployment rate remained at 4.1%, a 17-year low
 - Productivity hit a 2-year high
 - Manufacturing reached a 3-year high
 - Consumer confidence rebounded after a dampened fourth quarter of 2017 and now sits at a 14-year high
 - Inflation, while below the Fed's target of 2.0%, inched higher by most measures
- New Fed Chair Jerome Powell made his first public address at February's semi-annual monetary policy report to Congress. His maiden testimony hinted at a continuance of gradual rate hikes, while acknowledging that "the economic outlook remains strong" and the expectation for inflation to increase and closely approach the FOMC's 2.0% objective remains intact
- The Fed remained true to its stated course, raising short-term rates by 0.25% in March, and interest rates continued their ascent over the quarter. As a result, we strategically positioned portfolios with a defensive duration bias relative to benchmarks to help insulate market values in the well-choreographed interest rate environment. However, with rates at or near multi-year highs, there were also opportunities to capture higher yields selectively in some parts of the yield curve when rebalancing portfolios.

**Great Lakes Water Authority
Market Overview and Outlook****FIXED INCOME MARKET – ECONOMIC HIGHLIGHTS**

- The combined effects of less predictable U.S. politics and policy (e.g., tariffs, trade wars, Facebook, global relations, budget deficits, etc.) created a market environment of heightened volatility. The “risk off” sentiment triggered wider credit spreads.
 - Federal Agency yield spreads remained very narrow throughout the quarter. New issue Agencies continued to be our preferred – in some cases only – outlet to add exposure at relatively attractive yields. Generally, the Agency sector added modest positive excess returns in the first quarter of 2018 (returns in excess of similar duration Treasuries) across much of the yield curve, benefitting portfolio performance.
 - After yield spreads in the commercial paper sector reached another new post-recession low in January, we shifted our generally constructive view of the CP sector to a slightly more defensive posture by holding current positions (and letting them drift shorter over time) rather than adding to allocations. In the latter half of the quarter, the story shifted abruptly as market volatility pushed credit spreads markedly wider through quarter-end. As a result, we began to add credit exposure more aggressively
- The economic themes that carried over into 2018 remain: healthy job production, consistent GDP growth, positive corporate guidance, and heightened consumer confidence. However, where complacency had characterized the global markets quarter after quarter, volatility roared back in the first quarter of 2018. While rising volatility increases some market risks, it can also create investment opportunities.
- The outlook for some of the major investment-grade fixed-income sectors are as follows:
 - Federal Agency securities remain expensive, as spreads are in the low single digits across much of the yield curve; however, by quarter-end, specific Agency maturities (2 and 5-year) cheapened modestly, representing an opportunity to potentially increase allocations.
 - The short-term credit curve (under one year) steepened noticeably heading into the March Fed meeting and remained elevated through quarter-end. With 6-month prime commercial paper spreads at 50 to 60 basis points over comparable Treasury securities, the sector appears very attractive and compensates investors for at least two more Fed rate hikes in 2018.

Disclosure

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