



Audit of Investment Management

Project #15-17

Prepared by

Office of the Inspector General

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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

October 13, 2016

Governing Board Members:

Re: Audit of Investment
Management- *Project No. 15-17*

This audit was performed pursuant to the Inspector General's authority set forth in Chapter 20.055, F.S. Our objective was to determine whether adequate internal controls related to investment management are in place and functioning properly to ensure that investment purchases are made in accordance with the Investment Policy and properly recorded in District financial records.

Sincerely,

A handwritten signature in blue ink that reads "J. Timothy Beirnes".

J. Timothy Beirnes, CPA
Inspector General

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BACKGROUND

In accordance with our Audit Plan, our Office conducted an *Audit of Investment Management*. In the normal course of business operations, the District receives, disburses, and invests cash. A significant portion of the District's annual revenues come from seasonally collected Ad Valorem taxes, which results in cash inflows generally exceeding outflows from November through February. The positive timing difference between revenue collections and cash disbursements creates an opportunity to invest excess cash and earn interest income until it is needed to cover the negative cash flows that occur during the remainder of the year.

The District has established investment parameters through an Investment Policy that emphasizes safety of principal, consistency with Florida Statutes and prudent management of public funds. The Policy authorizes investments in only high grade instruments, such as, United States Government Agencies and Instrumentalities, United States Government Sponsored Agencies, Corporate Notes and Florida Local Government Investment Pools. The Policy also establishes asset allocation parameters and investment portfolio maturity limits.

The District's Treasury Unit is primarily responsible for buying and selling securities to earn interest income, providing cash management services to ensure liquidity, and issuing and refinancing bonds. The Treasury Unit consists of a Treasurer who reports directly to the Finance Bureau Chief. The Investment Policy also requires that the Treasurer invest public funds in accordance with the "Prudent Person" standard. This standard requires that a fiduciary with responsibility for managing an investment program for others to act with prudence, discretion, intelligence, and regard for the safety of capital as well as income and not for speculation.

The District also has a Treasury Management Procedures Manual to ensure effective management of treasury operations. The Manual contains processes and procedures related to operations such as cash flow forecast¹ preparation, broker/dealer qualifications, investment portfolio review, month end processing and other treasury functions.

¹ The Government Finance Officers Association identifies cash flow forecasting as an estimate of cash receipts and cash disbursements during a period of time. When used as a cash management guide, it can lead to the optimized use of funds and ensure sufficient liquidity. When used for investment purposes it also helps identify maximum maturity limits and weighted average maturity limits that establish potential benchmarks.

OBJECTIVES, SCOPE, AND METHODOLOGY

Our objective was to determine whether adequate internal controls related to investment management are in place and functioning properly to ensure that investment purchases are made in accordance with the Investment Policy and properly recorded in District financial records. Our review period was October 1, 2014 through June 30, 2016. To accomplish our objectives, we performed the following:

- Assessed the Finance Bureau's compliance with the District's Investment Policy and Florida State Statutes.
- Reviewed internal controls over investment management.
- Verified that investment transactions were properly recorded.
- Reviewed the process for projecting cash flow and maintaining liquidity.

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

AUDIT RESULTS

Executive Summary

The District's portfolio primarily consisted of investment with United States Government Sponsored Agencies, United States Government Agencies and Instrumentalities, and Florida Investment Pools, which are all authorized by the Investment Policy. At June 30, 2016, the District's cash and investments balance was \$598 million, of which, 50% was in cash deposits and 50% was in investments. The District's substantial cash position indicates that there may be opportunities to invest in higher yielding investments without significantly increasing risk.

An analysis of District investment yields for fiscal years 2012 through 2016, revealed that District investment yields outperformed both the Merrill Lynch 1-3 Year US Treasury Index and the State of Florida Board of Administration benchmarks. However, improved cash flow forecasting could increase yields and produce more investment earnings. Thus, we recommended that the Treasurer prepare a long and short term cash flow analysis before the beginning of each fiscal year and periodically review it for changes that may occur during the year, which may affect cash needs. Cash flow analysis is essential for determining the amounts available to invest and to select the appropriate securities and maturity dates.

We found that investments were properly recorded in the District's accounting system and internal controls were generally found to be adequate. The process followed by the Treasurer and Accounting staff for fund wire transfers were adequate and provided satisfactory segregation of duties. We also found that the District's Investment Committee has been inactive. To enhance internal controls over the treasury function, best practices recommends that an internal committee review and oversee the treasury function.

The District's Investment Policy contains ambiguous provisions related to mortgage backed securities. We recommend that the Finance Bureau update the Investment Policy to eliminate these ambiguities.

Preparation of Cash Flow Analysis Could Improve Earnings

The Treasurer oversees all investment activities, which includes the buying and selling securities, conducting monthly reconciliation of the SunTrust Custodial account, and preparing a quarterly report of investment activities. At June 30, 2016, the District's Cash and Investments balance of \$598 million was composed of the following:

Cash and Investments	Balance	%
Cash Deposits		
SunTrust Operating	\$266,791,661	45%
Money Market Funds	31,473,970	5%
Total Cash Deposits	\$298,265,631	50%
Investments		
Florida Local Gov't Investment Pools		
Florida Local Gov't Surplus Fund	\$34,072,943	6%
Florida Short Term Bond Fund	53,160,992	9%
Total Florida Investment Pools	\$87,233,935	15%
Other Investments		
US Gov't Sponsored Agencies	\$175,974,629	29%
US Gov't Agencies and Instrumentalities	36,603,668	6%
Total Other Investments	\$212,578,297	35%
Total Cash Deposits and Investments	\$598,077,863	100%

The District's cash and investment portfolio consists of 50% in cash and money market funds and 50% in investments, primarily Mortgage Backed Securities (MBSs) with United States Agencies or United States Government Sponsored Agencies, which are conservative securities that are authorized under the District's Investment Policy. The Treasurer is limited to purchasing securities in accordance with Section 218.40 Florida Statutes and Section 110.86 of the Investment Policy, which prohibits speculative investment with public funds. As such, the District's investment strategy is conservative. The foremost investment priority is safety of principal, the second highest priority is liquidity of funds, and the third priority is return on investment, in that order.

In our view, liquidity appears more than adequate. Accordingly, the cash and investment portfolio composition indicates that the District has a substantial cash balance that could potentially be invested in higher yielding investments that earn higher interest without significantly increasing risk while maintaining liquidity.

We compared the cash and investment balances of the five water management districts for fiscal year ended September 30, 2015, the most recent available information. The comparison indicates that the other water management districts had over 90% of their portfolio invested in low risk Federal securities, State investment pools, certificates of deposit, and corporate bonds, (See Appendix 1) compared to 57% for the District.

The District’s investment activities recorded during October 1, 2014 through June 30, 2016 in the SunTrust Custodial Account were as follows:

Investment Balance at October 1, 2014	\$253,430,690
Add: Investment Purchases	119,780,761
Less: Investment Sales, Maturities and Bonds Called	(109,601,166)
Loss on Sales and Maturities	(249,545)
Mortgage Backed Securities Principle Payments	(50,782,443)
Investment Balance at June 30, 2016	\$212,578,297

Our review of investment activities in the SunTrust Custodial Account revealed that the purchases and sales were in accordance with District Policy and included only securities issued by US Government Sponsored Agencies or US Government Agencies and Instrumentalities. During the period, the Treasurer purchased 12 mortgage backed securities and 11 securities matured or were called. We noted that the Treasurer has recently been more active in the securities market purchasing seven MBSs during the period January 1, 2016 through June 30, 2016.

As a general guideline, the District’s Treasury manual recommends that 10%-20% of the portfolio be in cash and high liquid investments or 60 days of known expenditures. However, to effectively manage funds to meet current liquidity and invest excess funds for higher investment earnings, best practices recommend that a Treasurer prepare a cash flow analysis, which includes forecasting long and short term cash needs to better manage the investment portfolio.

We found that the Treasury Unit appeared to have a working knowledge of the District’s monthly expenditures and cash needs, but had not prepared a cash management and cash flow

forecast. In our judgment, cash management and cash flow analysis is fundamental to the treasury function. Without cash flow forecasting it is difficult to determine the amount available to invest and to select the appropriate securities and maturity dates. Thus, in order to develop a strategy to better manage the District cash and investments, the Treasurer should prepare a cash flow forecast before the beginning of each fiscal year and periodically review for adjustments that may be needed through the year.

The table below displays the investment portfolio’s interest earnings over the last 5-years and compares the District yields from its investments to benchmark yields of the Merrill Lynch 1-3 Year US Treasury Index and the State of Florida Board of Administration.

Comparison of District Investment Yield to Benchmarks				
Fiscal Year	Interest Earnings	District Portfolio Yield	Merrill Lynch 1-3 Year US Treasury Index Yield	State Board of Administration Yield
2012	\$6,111,420	1.49%	0.28%	0.47%
2013	4,491,851	1.37%	0.29%	0.19%
2014	5,719,125	1.27%	0.41%	0.16%
2015	5,309,645	1.13%	0.59%	0.22%
Through June 30, 2016	\$3,428,356	1.00%	0.81%	0.33%

The 5-year table reveals that District investment yields outperformed both the Merrill Lynch 1-3 year US Treasury Index and the State of Florida Board of Administration. The District Portfolio Yield represents income from investments including MBSs, Florida Local Government Local Investment Trust, the Florida Short Term Bond Fund and the District’s operating cash account. We found that a majority of the District’s interest earnings were derived from investments in MBS that on average yielded 2.44%. At June 30, 2016, MBSs represented 34% of the District’s investment portfolio. The District’s investments also included 15% with the Florida Local Government Local Investment Trust and the Florida Short Term Bond Fund but yields from these investments were considerable less at 0.14% and 0.49%, respectively. Yields from the District’s operating cash account were also small at approximately 0.15%.

Better forecasting should improve yields and produce more investment earnings, even though, the interest rate environment for US Government Sponsored Agencies and US Government Agencies and Instrumentalities has been challenging. The following 10-year chart

illustrates the declining interest rates of the 10-year Treasury Note. At August 11, 2016, the interest rate was 1.59%.



Source: Barchart.com

Recommendation

1. Prepare a long and short term cash flow forecast at the start of each fiscal year and update it monthly for changes that may affect near-term cash needs.

Management Response: PFM will work with the Treasurer to create a long and short term cash flow forecast to aid in the investment of surplus funds.

Responsible Division: Treasury

Estimated Completion: July 2017

Investment Policy Updates are Needed

The Investment Policy provides overall guidance for managing and investing the District's portfolio. However, our review of the Investment Policy revealed ambiguities as to the amount that could be invested in mortgage backed securities guaranteed by the United States Government or United States Government Sponsored Agencies.

At June 30, 2016, the Investment Portfolio included \$204.6 million in mortgage backed securities with United States Government or United States Government Sponsored Agencies,

which represents 34% of the Cash and Investment balance. According to Section 110-86(4), of the Investment Policy, a maximum of 80% of available funds may be invested in mortgage pass-through and other mortgage obligations from United States Government Sponsored Agencies, which includes Federal Farm Credit Bank, Federal National Mortgage Association, Federal Home Loan Mortgage Corporation and others. However, Section 110-86(14) allows for a maximum of 30% of the available funds to be invested in mortgage backed securities guaranteed by the United States Government or United States Government Sponsored Agencies. The Investment Policy should be amended to eliminate this ambiguity.

Recommendation

2. Update the Investment Policy to eliminate ambiguous provisions related to mortgage backed securities.

Management Response: PFM will work with the Treasurer to review the current policy and communicate any policy change recommendations to the Audit and Finance Committee.

Responsible Division: Treasury

Estimated Completion: July 2017 in order to provide adequate time for all stakeholders' to give careful consideration to any policy changes.

Internal Controls Could be Enhanced By Re-establishing the Investment Committee

The internal controls related to the Treasury function were found to be adequate. One of the tenants of good internal controls is maintaining adequate segregation of duties between employees so that one employee does not have total control over a particular financial transaction from beginning to end. We found the treasury and accounting functions are independent. To provide for proper segregation of duties, the Treasurer is the custodian of the District's monetary assets and the Accounting, Grants and Treasury Section maintains the official financial records for those assets. The following table illustrates the internal controls over investments relative to the treasury and accounting functions:

Segregation of Duties	
Treasury	Accounting
Investing District funds, developing cash flow budgets and monitoring cash flows.	Accounting for cash and investment transactions.
Opening/closing of bank accounts, and monitoring the quality of bank services.	Reconciling all cash and investment accounts.
Transferring funds between District investments and bank accounts.	Depositing and recording cash receipts.
Signing disbursement checks, with countersignature of Chairman or Vice Chairman of the Governing Board.	Monitoring cash disbursements controls.

A key component of a good internal controls system is adherence to established procedures. We found that the securities purchased by the Treasurer complied with the District’s investment policy. The treasurer limited these purchases to high quality securities that included United States Government Sponsored Agencies, United States Government Agencies and Instrumentalities, and Corporate Notes. The Policy requires that the Treasurer determine investment appropriateness and obtain three bids/offers from District approved brokers/dealers when purchasing securities unless obtaining bids/offers is not feasible and appropriate, which is a rare occurrence. Currently, the District has approved six broker/dealers: Raymond James, Morgan Stanley, Brean Capital, LLC, Royal Bank of Canada, RW Baird and RBS Greenwich Capital.

To enhance internal controls over the treasury function, the District established an Investment Committee to oversee the Treasury function in 2008. However, we found that the Committee has been inactive; the last meeting was in January 2015. In the past, the committee consisting of the Treasurer, Finance Bureau Chief and other District management convened during the year to review treasury activities. Best practices recommends that an internal committee review and monitor the treasury function. Accordingly, the District may want to consider re-establishing an investment committee to meet periodically to review the investment portfolio and performance or engaging a financial advisor for oversight and investment allocation to maximize interest earning.

Recommendations

3. Consider re-establishing an Investment Committee to oversee the Treasury function.

Management Response: The Audit and Finance Committee has been reestablished and the first meeting is on October 13th, 2016.

Responsible Division: Treasury

Estimated Completion: Completed

4. Consider engaging a financial advisor to determine the best asset allocation and maximize interest earning.

Management Response: In process of hiring PFM as our Financial Advisor.

Responsible Division: Treasury

Estimated Completion: October 31, 2016, estimate of executed contract with PFM

**Comparison of the Five Water Management District's Cash and Investment Balances
For Fiscal Year Ended September 30, 2015**

Water Management District	Total Cash & Investments	Cash*	%	Investments**	%
South Florida	\$527,203,014	\$225,263,140	43.0	\$301,939,874	57.0
Southwest	473,462,449	2,823,012	0.5	470,639,437	99.5
St. John's	187,141,762	2,581,467	1.3	184,560,295	98.7
Northwest	53,331,695	555,101	1.0	52,776,594	99.0
Suwannee River	49,047,470	700,082	1.4	48,347,388	98.6

* Cash includes bank balances and money market funds.

** South Florida, Southwest and St. John's Water Management District's investments include United States Government Agencies, United States Government Sponsored Agencies, Corporate Bonds, Florida Investment Pools, certificate of deposits, commercial paper and municipal bonds. Northwest and Suwannee River investments consists entirely of Florida Investment Pools.