

BATTERY PARK CITY AUTHORITY

INVESTMENT REPORT & GUIDELINES

FISCAL YEAR ENDED

OCTOBER 31, 2018

January 2019

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1. OVERVIEW OF INVESTMENT GUIDELINES

1.1. Definitions

"Authority" means the Battery Park City Authority, a corporate municipal instrumentality of the State of New York, established pursuant to the Act ("<u>Act</u>" shall mean the Battery Park City Authority Act, Title 12 of Article 8 of the Public Authorities Law [constituting Chapter 43-a of the Consolidated Laws of the State of New York] as added by Chapter 343 of the Laws of 1968, as amended).

"Board" means the Members of the Battery Park City Authority Board.

"Investment Funds" means monies and financial resources available for investment by the Authority.

"Investment Securities" means any or all of the investment obligations.

"Rating Agencies" means Standard & Poor's Corporation, Moody's Investor Service, and Fitch Ratings.

"State" means the State of New York.

1.2. Purpose and Scope

The purpose of these guidelines ("Guidelines" or "Investment Guidelines") is to establish the parameters, responsibilities, and controls for the investment and the management of Investment Funds. These Guidelines have been adopted by, and can be changed only by, the Board.

These Guidelines shall govern the investment and reinvestment of Investment Funds and the sale and liquidation of Investment Securities, as well as the monitoring, maintenance, accounting, reporting, and internal controls by and of the Authority with respect to such investment and reinvestment of Investment Funds and sale and liquidation of Investment Securities.

The guidance set forth herein is to be strictly followed by all those responsible for any aspect of the management or administration of these funds.

1.3 Compliance

Section 2925 (6) of the State Public Authorities Law requires the Authority to annually prepare and approve an investment report which describes the Authority's Investment Guidelines and any amendments to the Guidelines, investment policies and procedures, the results of the annual independent audit, the Authority's investment income and a list of the fees associated with those investments, as well as commissions or other charges paid to each investment banker, broker, agent, dealer and advisor (SEE - APPENDIX B – INVESTMENT REPORT FYE OCTOBER 31, 2018).

1.4. Roles and Responsibilities

It shall be the responsibility of the Chief Financial Officer to ensure that all investments and investment practices meet or exceed all statutes and guidelines governing the investment of public funds in New York and the guidelines established by the State Comptroller's Office and the Governmental Accounting Standards Board (GASB). The Deputy Treasurer, acting on behalf of the Board as custodian of the Investment Policy, is responsible for ensuring that all aspects of the investment management program are executed in a manner

consistent with the Guidelines. A description of operating controls is attached as Appendix A to these Guidelines.

An investment committee ("Investment Committee") will be appointed by the Board to develop and execute investment strategy for the Authority's Investment Funds. In the event that the Board is not fully constituted, the entire Board may meet in lieu of the Investment Committee. The Investment Committee may consult with a qualified investment advisor/manager in the course of fulfilling its responsibilities.

The Authority's external auditor will conduct an annual audit of the investment management activity to ensure compliance with the Investment Guidelines by Treasury and the external investment manager, if any. The findings of the audit shall be formally documented and submitted annually to the Chief Financial Officer and the Board.

1.5. Standard of Prudence

The standard of prudence to be applied to the investment of the Authority's Investment Funds shall be the "Prudent Person Rule" that states:

"Investments shall be made with judgment and care, under circumstances then prevailing which persons of prudence, discretion and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived."

Authorized Authority officials and employees involved in the investment process acting in accordance with the laws of the State, these Guidelines and any other written procedures pertaining to the administration and management of the Investment Funds and who exercise the proper due diligence shall be relieved of personal responsibility for an individual security's credit risk or market price changes, provided that any negative deviations are reported in a timely fashion to the Chief Financial Officer or another authorized official and that reasonable and prudent action is taken to control and prevent any further adverse developments.

1.6. Conflict of Interest

Authority Officers and employees involved in the investment process ("Investment Officials") shall refrain from personal business activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial decisions. Investment Officials shall not:

- 1. accept any money, loan, gift, favor, service, or business or professional opportunity that could influence them in the performance of their official duties;
- 2. accept any business or professional opportunity when they know there is a reasonable likelihood that the opportunity is being afforded to influence them in the performance of their official duties;
- 3. enter into any personal investment transactions with the same individual with whom business is conducted on behalf of the Authority; or,
- 4. disclose or use confidential information that is not generally available to the public for their own or another person's financial benefit.

1.7. Review, Amendments, Updates and Revisions

The Deputy Treasurer and the Chief Financial Officer will review the Guidelines on an annual basis, or as required, to ensure continued effectiveness of the Investment Guidelines. The Guidelines shall be submitted to the Board annually for review and approval. Modifications to the Investment Guidelines may be required as business needs and requirements change. Any amendments must be reviewed and approved by the Chief

Financial Officer and submitted to the Board for final approval. Subsequent to any modifications to the Investment Guidelines, revised Guidelines must be distributed to Authority personnel on the approved distribution list as well as any external investment advisor/manager and financial institutions.

1.8 Diversity –MBE/WBE Participation

It is the Authority's standard practice to reach out to MBE/WBE brokers/dealers to provide them opportunities to trade for Investment Securities. The Authority required that thirty percentage (30%) of annual costs under the 2015 service agreement for investment advisory services be allocated to a certified MBE/WBE firm.

1.9 Oversight – Investment Committee

An Investment Committee was established to formalize oversight of the Authority's investment portfolio with the charter below. In the event that the Board is not fully constituted, the entire Board may meet in lieu of the Investment Committee.

BATTERY PARK CITY AUTHORITY INVESTMENT COMMITTEE CHARTER

PURPOSE & FORMATION

Pursuant to Article IV, Section 3 of the Authority's bylaws, The purpose of the Investment Committee is to assist the Board in fulfilling its oversight responsibilities by establishing the Authority's investment policies and overseeing its investments.

COMPOSITION

Pursuant to Article IV, Section 3 of the Authority's bylaws, the investment committee ("Investment Committee) shall consist of at least three (3) Members who shall be appointed by the Chair, one of whom the Chair shall appoint as chair of the committee ("Investment Committee Chair"). The Chair shall be an additional non-voting member of the Investment Committee, provided that if there shall be any vacancy or vacancies in the whole number of the Members as prescribed by law, the Chair may serve as a voting member of the Investment Committee shall be an "independent member," as defined in Public Authorities Law § 2825(2). Members of the Investment Committee and shall be familiar with general investment policies and best practices.

DUTIES OF THE INVESTMENT COMMITTEE

The Investment Committee's duties and responsibilities are set forth in the bylaws. Whenever the Investment Committee takes action, it exercises its independent judgment on an informed basis that the action is in the best interests of BPCA. In doing so, the Investment Committee may rely to a significant extent on information and advice provided by management and independent advisors.

The Investment Committee has the authority, including, but not limited, to:

- Approve the investment and risk limits for the investment portfolio.
- Review the investment policies for the Authority, including, where applicable, asset classes, liquidity, the use of debt, and risk management.
- Approve the annual investment program.

- Authorize investments and ratify investments made pursuant to delegated authorities.
- Review the investment performance of BPCA's accounts and funds, including benchmarks and attribution.
- Review the organization and staffing of the investment management advisory function.
- Review the quality of the investment services provided to the Authority, such as: a) oversee the business and investment strategy, b) evaluate investment performance benchmarks and attribution, and c) review costs, pricing and profitability.

MEETINGS

The Investment Committee shall meet four (4) times a year or more frequently, as may be necessary and appropriate to carry out its responsibilities. The Investment Committee may ask members of management or others to attend the meetings and provide pertinent information as appropriate. Meetings may be in person or by video conference, if necessary.

In addition, the Investment Committee:

- Shall act only on the affirmative vote of a majority of the members present at a meeting.
- Is expected to maintain free and open communication with management and the Board.
- Shall have authority to retain independent legal, accounting or other advisors if determined appropriate, in its sole judgment, provided such consultants are approved by the full Board.
- Submit the minutes of all Investment Committee meetings to the Board and regularly report to the Board on Investment Committee matters, actions taken and issues discussed at its meetings.
- Review and reassess the adequacy of this Charter annually and propose to the Board any changes.
- The Investment Committee shall evaluate its performance annually and report its conclusions to the Board.

2. INVESTMENT MANAGEMENT OBJECTIVES

2.1. Investment Objectives

The Authority's Investment Funds shall be managed to accomplish the following hierarchy of objectives:

- 1. **Legality** The Authority shall comply with all investment guidelines required for public authorities in the State with regards to general investment practices and the management of public funds.
- 2. **Safety** Next to legality, safety of principal is the foremost objective of the investment program. Investments of the Authority shall be undertaken in a manner that seeks to ensure the preservation of capital in the overall portfolio.
- 3. **Liquidity** The portfolio shall be managed in such a manner that assures that funds are available as needed to meet those immediate and/or future operating requirements of the Authority, including but not limited to payroll, accounts payable, capital projects, debt service and any other payments.
- 4. **Return** The Authority's portfolio shall be managed in such a fashion as to maximize the return on all investments (up to the "arbitrage allowance" in bond funds) within the context and parameters set forth by the investment objectives stated above.

2.2. Authorized Investment Securities

The investment of Authority funds is limited by the law creating the Authority to "obligations of the State or of the United States of America or obligations the principal of and interest on which are guaranteed by the State or the United States of America" or any other obligations in which the Comptroller of the State of New York (the "Comptroller") is authorized to invest pursuant to Section 98 (Investment of state funds) of the State Finance Law. As effective on November 20, 2015, the Act allows any monies of the Authority, including the proceeds of bonds or notes, not required for immediate use, at the discretion of the Authority to be invested in obligations of the State, U.S. Government and its agencies, or in any other obligations in which the Comptroller is authorized to invest pursuant to Section 98 of the State Finance Law. The 2003 General Bond Resolution and the 2009 and 2013 Revenue Bond Resolutions allow all investments alternatives included in the Act, as follows:

- 1. Bonds and notes of the United States.
- 2. Bonds and notes of this State.
- 2-a. General obligation bonds and notes of any state other than this State, provided that such bonds and notes receive the highest rating of at least one independent rating agency designated by the Comptroller.

3. Obligations for the payment of which the faith and credit of the United States or of this State are pledged. 3-a. Notes, bonds, debentures, mortgages and other evidences of indebtedness of the United States Postal Service; the federal national mortgage association; federal home loan mortgage corporation; student loan marketing association; federal farm credit system or any other United States government sponsored agency, provided that at the time of the investment such agency or its obligations are rated and the agency receives, or its obligations receive, the highest rating of all independent rating agencies that rate such agency or its obligations, provided, however, that no more than five hundred million dollars may be invested in the obligations of any one agency.

- 4. Judgments or awards of the court of claims of this state.
- 5. Stocks, bonds, or notes of any county, town, city, village, fire district or school district of this State issued pursuant to law.
- 6. Mortgage bonds or any obligations for the payment of money, no matter how designated, secured by another instrument representing a lien on specific real property or a leasehold thereof, heretofore or hereafter and at the time of the assignment thereof to the Comptroller insured by the federal housing administrator or any of his successors in office and guaranteed by the United States under the provisions of the national housing act, as amended or supplemented. Any such mortgage bonds or obligations as aforesaid in which the Comptroller has invested or shall have invested pursuant to this subdivision shall be serviced by the Comptroller or in his discretion, by mortgagees, as such are defined by the national housing act, as amended or supplemented by him and subject to the inspection and supervision of some governmental agency. The Comptroller may receive and hold such debentures and certificates or other obligations as are issued in payment of such insurance or guarantee.
- 7. Bonds and notes of the Savings and Loan Bank of the State of New York.
- 8. Bonds or notes of any housing authority of this State duly issued pursuant to law.
- 9. Bonds or notes of any regulating district of this State duly issued pursuant to law.
- 10. Bonds or notes of any drainage improvement district of this State duly issued pursuant to law.

- 11. Bonds or notes of the authorities or commissions set forth below when issued pursuant to law:
 - a. Port of New York Authority.
 - b. Niagara Frontier Authority.
 - c. Triborough bridge and tunnel authority.
 - d. Thousand Islands Bridge Authority.
 - e. New York State Bridge Authority.
 - f. New York City Tunnel Authority.
 - g. Lake Champlain Bridge Commission.
 - h. Lower Hudson Regional Market Authority.
 - i. Albany Regional Market Authority.
 - j. Repealed.
 - k. American Museum of Natural History Planetarium Authority.
 - 1. Industrial Exhibit Authority.
 - m. Buffalo Sewer Authority.
 - n. Whiteface Mountain Authority. (see footnote 2, Repealed)
 - o. Pelham-Portchester Parkway Authority.
 - p. Jones Beach State Parkway Authority.
 - q. Bethpage Park Authority.
 - r. Dormitory Authority.
 - s. Central New York Regional Market Authority.
 - t. Erie County Water Authority.
 - u. Suffolk County Water Authority.
 - v. New York State Thruway Authority.
 - w. Genesee Valley Regional Market Authority.
 - x. Onondaga county water authority.
 - y. Power Authority of the state of New York.
 - z. Ogdensburg Bridge and Port Authority.
 - aa. [See, also, par. aa below] East Hudson Parkway Authority. aa. [See, also, par. aa above] Niagara Frontier Port Authority.
 - bb. Northwestern New York Water Authority.
 - cc. Metropolitan Commuter Transportation Authority. (see footnote 3, now Metro. Transp. Auth.)
 - dd. [See, also, par. dd below] Niagara Frontier Transportation Authority. dd. [See, also, par. dd above] New York State Pure Waters Authority.
 - ee. Rochester-Genesee Regional Transportation Authority.
 - ff. [See, also, par. ff below] Capital District Transportation Authority.ff. [See, also, par. ff above] Central New York Regional Transportation Authority.
- 12. Obligations of the International Bank for Reconstruction and Development duly issued pursuant to law.
- 13. Obligations of the Inter-American Development Bank duly issued pursuant to law.
- 13-a. Obligations of the Asian Development Bank duly issued pursuant to law.
- 13-b. Obligations of the African Development Bank duly issued pursuant to law.
- 13-c. Obligations of the International Finance Corporation duly issued pursuant to law.
- 14. [See, also, subd. 14 below] Collateral trust notes issued by a trust company, all of the capital stock of which is owned by not less than twenty savings banks of the State of New York.
- 14. [See, also, subd. 14 above] Bonds and notes issued for any of the corporate purposes of the New York State housing finance agency.

- 15. Bonds and notes issued for any of the corporate purposes of the New York State medical care facilities finance agency.
- 16. Bonds and notes issued for any of the corporate purposes of the New York State project finance agency.
- 17. Bonds and notes issued for any of the corporate purposes of the municipal assistance corporation for New York City.
- 18. Obligations of any corporation organized under the laws of any state in the United States maturing within two hundred seventy days provided that such obligations receive the highest rating of two independent rating services designated by the Comptroller and that the issuer of such obligations has maintained such ratings on similar obligations during the preceding six months provided, however, that the issuer of such obligations need not have received such rating during the prior six month period if such issuer has received the highest rating of two independent rating services designated by the Comptroller and is the successor or wholly owned subsidiary of an issuer that has maintained such ratings on similar obligations during the product of a merger of two or more issuers, one of which has maintained such ratings on similar obligations during the preceding six month period, provided, however, that no more than five hundred million dollars may be invested in such obligations of any one corporation.
- 19. Bankers' acceptances maturing within ninety days which are eligible for purchase in the open market by federal reserve banks and which have been accepted by a bank or trust company, which is organized under the laws of the United States or of any state thereof and which is a member of the federal reserve system and whose short-term obligations meet the criteria outlined in subdivision eighteen of this section. Provided, however, that no more than five hundred million dollars may be invested in such bankers' acceptance of any one bank or trust company.
- 20. No-load money market mutual funds registered under the Securities Act of 1933, as amended, and operated in accordance with Rule 2a-7 of the Investment Company Act of 1940, as amended, provided that such funds are limited to investments in obligations issued or guaranteed by the United States of America or in obligations of agencies or instrumentalities of the United States of America where the payment of principal and interest are guaranteed by the United States of America (including contracts for the sale and repurchase of any such obligations), and are rated in the highest rating category by at least one nationally recognized statistical rating organization, provided, however, that no more than two hundred fifty million dollars may be invested in such funds.

The State Comptroller, whenever he deems it for the best interest of any of such funds, may dispose of any of the securities therein or investments therefor, in making other investments authorized by law, and he may exchange any such securities for those held in any other of such funds, and the Comptroller may take such action as may be necessary to obtain the benefits of the insurance provided for in the national housing act, and may draw his warrant upon the treasurer for the amount required for such investments and exchanges.

Notwithstanding the provisions of any other general or special law, the State Comptroller shall not invest the moneys of any fund in any security or securities except as above described, provided, however, that: a) the State Comptroller may, in order to maximize the rate of return on investments, invest the moneys belonging to the New York interest on lawyer account fund in notes, securities and deposits of banking institutions which accept IOLA accounts, and b) the provisions of this section shall not limit the types of investments that may be made with moneys belonging to the volunteer ambulance service award fund established by section two hundred nineteen-h of the general municipal law.

2.3. Authorized Investments of Project Operating Funds – Additional Bond Issuers

The Authority has two classification of Funds; Pledged Funds and Project Operating Funds. Pledged Funds, subject to the 2003 General Bond Resolution, may only be invested in securities specifically listed in Section 98 of the State Finance Law, as listed in Section 2.2 above. Project Operating Funds, those that are not pledged to bond holders, are also limited to Section 98 of the State Finance Law, but may include bond issuers of the State whose authorizing statute specifically provides that bodies of the State are authorized to legally invest in the stated bond issuers' securities. The additional bond issuers ("Additional Bond Issuers"), while not specifically listed in Section 98 of the State Finance Law, and therefore are not eligible for investments of the Pledged Fund, but do qualify for investments of the Project Operating Fund, are as follows:

- 1. New York City Transitional Finance Authority.
- 2. New York Municipal Water Finance Authority.
- 3. New York City Housing Development Corporation.
- 4. New York State Urban Development Corporation.
- 5. Nassau County Interim Finance Authority.

2.4. Portfolio Diversification

The Authority's Investment Funds shall be structured to diversify investments to reduce the risk of loss resulting from over-concentration of assets in a specific maturity, a specific issuer or a specific type of security. The maximum percentage of the aggregate portfolio of Investment Funds, based on book value at the time of purchase, permitted in each eligible security is as follows:

US Treasuries	100%
Federal Agencies	100% (\$250 million max per issuer)
Commercial Paper	Lesser of 5% or \$250 million per issuer
Bankers' Acceptances	Lesser of 5% or \$250 million per issuer
Money Market Funds	Lesser of 25% or \$250 million
Municipal Bonds	20%

In addition, the Authority requires:

- a) Minimum "A" credit rating for all municipal securities permitted by the Policy (NY State, other states, and issues of local NY governments).
- b) Maximum allocation of no greater than 10% per issuer, or such lower limit as specified above.

2.5. Investment Maturity

Maintenance of adequate liquidity to meet the cash flow needs of the Authority is essential. Accordingly, the portfolio will be structured in a manner that ensures sufficient cash is available to meet anticipated liquidity needs. Selection of investment maturities must be consistent with the cash requirements of the Authority in order to avoid the forced sale of securities prior to maturity.

Investments shall have a stated maturity or weighted average life of not more than ten (10) years unless specifically approved by the Investment Committee.

2.6. Environmental, Social, and Governance Investment Principles

The Battery Park City Authority's investment philosophy is anchored in the following core principle, which is fundamental and constant. Assets controlled by the Authority must be managed in accordance with this principle, regardless of the ebbs and flows likely to arise due to markets, politics and personalities.

The primary principle guiding the Authority's investments is the consideration of financial impact(s) on current and future requirements of the Authority. This manifests itself through investment practices that generate the greatest possible return, subject to an appropriate amount of risk, to support the Authority's mission of planning and sustaining a balanced community of commercial, residential, retail, and park space on the lower west side of Manhattan.

Within the context of this primary principle, the Authority must consider a holistic view of risk that accounts for various factors which could modify a return/risk objective. These include:

- Maintaining appropriate levels of liquidity for the Authority's operational needs;
- Mitigating downside financial risks;
- Understanding and appropriately managing reputational risk or legal liability; and,
- Protecting Authority assets from external pressures.

The Authority, as well as the Office of the New York State Comptroller, supports the practice of incorporating environmental, social, and governance ("ESG") factors with other conventional financial analytical tools when evaluating investment opportunities as these factors not only support the Authority's mission but they may help identify potential opportunities and risks which conventional tools miss. The Authority encourages its investment managers to include ESG factors in their analytical processes. The Authority prohibits investment in companies that are heavily reliant on fossil fuels. However, ESG considerations are only one factor in analyses and should not be used as exclusionary screens to eliminate specific entities or sectors from consideration. Relevant ESG factors will vary by industry and should be applied appropriately to help assess both risk and return.

3. OPERATING PARAMETERS & CONTROLS

3.1. Authorized Officers and Employees

Investment decisions on behalf of the Authority shall be made by the Chief Financial Officer, or by the Deputy Treasurer or the external investment manager, under the supervision of the Chief Financial Officer. Investment transactions shall be implemented by the Chief Financial Officer, or by the Deputy Treasurer, or the professional investment and advisory management firm on the Investment Committee, under the supervision of the Chief Financial Officer.

3.2. Competitive Selection

For each transaction, a minimum of three quotes shall be obtained and documented from Dealers and/or Banks, except in the purchase of government securities at their initial auction or upon initial offering, and the most favorable quote accepted.

3.3. Compliance Audit

An annual independent audit of all investments will be performed by the external auditors. The Authority's financial statements with respect to investments, which are required to be prepared in conformance with generally accepted accounting principles for governments ("GAAP"), shall contain all of the note disclosures on

deposits with financial institutions and investments required by the Governmental Accounting Standards Board Statements No. 3 "Deposits with Financial Institutions, Investments (including Repurchase Agreements), and Reverse Repurchase Agreements", dated April 1986. The Annual Investment Audit shall:

- Determine whether: the Authority complies with its own investment policies; investment assets are adequately safeguarded; adequate accounts and records are maintained which accurately reflect all transactions and report on the disposition of the Authority's assets; and a system of adequate internal controls is maintained.
- Determine whether the Authority has complied with applicable laws, regulations and these Investment Guidelines.
- Be designed to the extent practical to satisfy both the common interest of the Authority and the public officials accountable to others.

The results of the Annual Investment Audit shall be set forth in a report (the "Annual Investment Audit Report") which shall include, without limitation:

- A description of the scope and objectives of the audit;
- A statement that the audit was made in accordance with generally accepted government auditing standards;
- A statement of negative assurance on items tested;
- A description of any material weakness found in the internal controls;
- A description of any non-compliance with the Authority's own investment policies as well as applicable laws;
- Regulations and the Comptroller's Investment Guidelines;
- A statement on any other material deficiency or reportable condition as defined by *Governmental Auditing Standards* identified during the audit not covered above; and
- Recommendations, if any, with respect to amendment of these Guidelines

Investment practices and controls will be subject to review and testing by internal auditors on a surprise basis at the discretion of the VP of Administration (who is also the Internal Controls Officer), President, CEO and/or the Board.

3.4. Written Contracts and Confirmations

A written confirmation shall be required for each investment transaction. However, the Authority shall not be required to enter into a formal written contract provided that the Authority's oral instructions to its broker, dealer, agent, investment manager/advisor, or custodian with respect to such transactions are confirmed in writing at the earliest practicable moment.

3.5. Safekeeping and Custody

All investment securities purchased by the Authority or held as collateral on deposits or investments shall be held by a third-party custodian who may not otherwise be a counterparty to the investment transaction.

All securities shall be held in the name of the Authority and will be free and clear of any lien.

All investment transactions will be conducted on a delivery-vs.-payment basis. Payment for investments shall be made only upon receipt by the custodian of the physical security, or in the case of securities in book-entry form, when credited for the custodian's account, which shall be segregated for the Authority's sole use. The custodian shall issue a safekeeping receipt to the Authority listing the specific instrument, rate, maturity and other pertinent

information. On a monthly basis, the custodian will also provide reports that list all securities held for the Authority, the book value of holdings and the market value as of month-end.

The custodian may act on oral instructions from the CFO, Deputy Treasurer or investment advisor under the direction of the CFO. Such instructions are to be confirmed in writing immediately by an authorized signatory of the Authority.

Representatives of the custodian responsible for, or in any manner involved with, the safekeeping and custody process of the Authority shall be bonded in such a fashion as to protect the Authority from losses from malfeasance and misfeasance. If required by the Chief Financial Officer, appropriate Authority Officials may also be bonded in such a fashion.

3.6. Internal Controls

An operating procedures manual were developed to control all Authority investment activity. The manual is consistent with these Guidelines, shall be approved by the Chief Financial Officer, and shall include the following:

- the establishment and maintenance of a system of internal controls;
- methods for adding, changing or deleting information contained in the investment record, including a description of the document to be created and verification tests to be conducted;
- a data base or record incorporating descriptions and amounts of investments, transaction dates, interest rates, maturities, bond ratings, market prices and related information necessary to manage the portfolio; and
- requirements for periodic reporting and a satisfactory level of accountability.

3.7. Notification Concerning Violations of Investment Guidelines

In the event that these Investment Guidelines are violated, the Chief Financial Officer shall be informed immediately and advised of any corrective action that should be taken, as well as the implication of such action.

4. QUALIFIED FINANCIAL INSTITUTIONS

4.1. Qualifications for Brokers, Dealers and Agents

The Authority's investment manager's Director of Treasury Operations and/or the Authority's Investment Manager shall maintain a list of broker/dealers that are approved for investment purposes ("Qualified Institutions"). Only firms meeting the following requirements will be eligible to serve as Qualified Institutions:

- "primary" dealers and regional dealers that qualify under Securities and Exchange Commission Rule 15C3-1 (uniform net capital rule);
- registered as a dealer under the Securities Exchange Act of 1934;
- member in good standing of the Financial Industry Regulatory Authority (FINRA);
- registered to sell securities in the State; and
- the firm and assigned broker have been engaged in the business of effecting transactions in U.S. Government and agency obligations for at least five (5) consecutive years.

When selecting trading partners, the Authority will also consider the firm's quality, size, and reliability, the Authority's prior experience with the firm, the firm's level of expertise and prior experience with respect to the contemplated transactions.

4.2. Qualifications for Investment Advisors/Managers

For the purpose of rendering investment management/advisory services to the Authority, the Authority may qualify any bank or trust company organized under the laws of any state of the United States of America, any national banking association, and any partnership, corporation, or person which is:

- Authorized to do business in the State as an investment manager/advisor; and
- Registered with the Securities & Exchange Commission under the Investment Advisor Act of 1940 or exempt from registration.

The Authority shall also consider the firm's capitalization, quality, size and reliability, the Authority's prior experience with the firm, the firm's level of expertise and prior experience with respect to the contemplated engagement.

4.3. Qualifications for Custodial Banks

To be eligible to hold Investment Securities purchased by the Authority or collateral securing its investments, a custodial bank shall be a member of the Federal Reserve Bank or maintain accounts with member banks to accomplish book-entry transfer of Investment Securities to the credit of the Authority. The custodian should not be the same party that is selling the Investment Securities. To be eligible to perform custodial services, the Chief Financial Officer must affirmatively find that the proposed custodial bank is financially sound. This shall be determined by review of the financial statements and credit ratings of the proposed custodial bank.

4.4. Ongoing Disclosure

All brokers, dealers and other financial institutions described in sections 4.1, 4.2, and 4.3 shall be provided with current copies of the Authority's Investment Guidelines. A current audited financial statement is required to be on file for each financial institution and broker/dealer with which the Authority has investment transactions.

4.5. Affirmative Action

Article 15-A of the Executive Law and 9 NYCRR Part 4.21 regarding affirmative action shall apply with respect to the Authority's investment activities. The Authority shall seek to utilize minority and women-owned financial firms in the conduct of the Authority's investment activities. Management reporting is required by the Authority in order to track compliance with policy guidelines, assess the performance of the portfolio and to inform appropriate management personnel.

5. REPORTING

5.1. Management Reporting

In order to manage the Investment Funds effectively and to provide Authority management with useful information, it is necessary for the Treasury Department to report reliable and timely information regarding the investment transactions that take place.

A Quarterly Management Report on the investment management program shall be prepared and presented to the CFO and the Authority's Board. The Quarterly Management Report shall include:

- An indication of all new investments;
- A portfolio inventory;
- Credit quality of each holding;

- Duration (or average maturity) of each fund;
- Mark-to-market valuations on investments and collateral; and
- A breakdown of the portfolio by counterparty.

An Annual Investment Report shall be submitted to the Authority's Board and filed with the State Division of the Budget, State Comptroller, State Senate Finance Committee, and State Assembly Ways and Means Committee. The Annual Investment Report shall include the following:

- The investment guidelines in compliance with Section 2925(3) of the Public Authorities Law and any amendments since last reported;
- An explanation of the investment guidelines and amendments;
- The results of the Annual Independent Audit (described in Section 3.3.);
- Investment income record of the Authority; and
- A list of the total fees, commissions or other charges paid to each investment banker, broker, agent, dealer and manager/advisor rendering investment associated services to the Authority since the date of the last investment report.

The attached report is being presented to you in accordance with this requirement. After approval of the report, it will be submitted or posted to:

- State Division of the Budget,
- State Department of Audit and Control,
- State Comptroller,
- State Public Authorities Information Reporting System (PARIS),
- Authority website, and
- The Chairmen and Ranking Minority Members of the Senate Finance Committee and Assembly Ways and Means Committee.

5.2. Performance Reporting

In order to ensure the effectiveness of the Authority's investment strategy, it is important to measure the performance of the portfolio. The performance measurement process can be broken into four categories:

- Investment benchmark The Authority will continuously measure its performance against a benchmark having an average maturity comparable to the portfolios.
- Performance measurement Each quarter the Authority must measure the performance of its investment portfolio versus its benchmark. By continuously measuring results against this standard benchmark, the Authority can determine a pattern of over/under performance.
- Identify sources of over/under performance The Performance Reports distributed to the CFO must include information on the source of over/under performance.
- Disseminate results Results shall be distributed to the CFO and the Board in a timely manner.

APPENDIX A – OPERATING CONTROLS

Distribution of the Investment Guidelines

The guidelines and all subsequent amendments, revisions and updates shall be distributed to Authority personnel per the approval of the Chief Financial Officer.

During the period in which the Authority retains an investment manager, the investment manager must also receive the investment guidelines and all amendments, updates, or revisions to insure compliance with the most current guidelines.

Exhibit – Investment Guidelines Distribution Matrix

Distribution List	Frequency
Board of Members	As Necessary
Chief Financial Officer	As Necessary
Controller	As Necessary
Deputy Treasurer	As Necessary

Roles and Responsibilities in Executing the Investment Guidelines

The roles and responsibilities for investment management at the Authority rest primarily with the Finance Department although other departments have important roles. The matrix below defines the roles and responsibilities of all parties involved in the execution of the Investment Guidelines.

Exhibit – Policy Roles & Responsibility Matrix

Roles		Responsibility		Frequency
Board	•	Final Approval of the guidelines	•	Annual
	•	Approval of exceptions to the guidelines (e.g. new investment types)	•	As necessary
	•	Approval of revisions to the guidelines	•	As necessary
Chief Financial Officer	•	Approval of the guidelines	•	Annual
("CFO")	•	Approval of investment strategy	•	Annual
	•	Approval of performance measurements	•	Ongoing
	•	Approval of minor exceptions to the guidelines (i.e. amounts, maturities)	•	As necessary
Deputy Treasurer	•	Serve as custodian of the guidelines	•	Ongoing
	•	Develop investment strategy	•	Annual
	•	Review investment strategy	•	Ongoing
	•	Establish performance measurements	•	Ongoing
	•	Distribution of guidelines and amendments	•	As necessary
	•	Annual review of guidelines	•	Annual
	•	Oversight of investment activity	•	Ongoing
	•	Invest funds as provided for in the guidelines	•	Ongoing
	•	Keep abreast of developments in the markets	•	Ongoing
	•	Review performance information	•	Monthly
	•	Management reporting	•	Daily, Weekly
				Monthly

Assistant	 Collect performance information Distribute performance information Prepare Investment Instruction Letter 	WeeklyWeeklyOngoing
Investment Manager	 Develop investment strategy Review investment strategy Invest funds as provided for in the guidelines Reporting investment portfolio 	 Annual Ongoing Ongoing Daily, Weekly, Quarterly

Segregation of Duties

The Authority requires adequate segregation of duties to prevent possible fraud, operational errors, misappropriation of funds, unauthorized trades, concealment of trades, and manipulation of accounting records. Personnel involved in risk monitoring activities should be segregated from risk taking (i.e. executing transactions).

Exhibit – Segregation of Duties Matrix

Activity to be Performed	Segregation Level
Trade Execution	Individuals who are authorized to execute transactions should not confirm and settle the trades or conduct account reconciliation activities.
Trade Confirmation	Individuals who conduct confirmations should not execute transactions.
Settlement – Disbursing and	
Receiving Funds	Individuals who handle cash settlement on the trades should not execute the trades. Cash settlement shall be transacted by any one of the authorized Authority signatories who did not participate in the trade execution. Only one signature is required due to the nature of the transaction, i.e., transfer of assets (including transfers in excess of \$25,000).
Account Reconciliation	Account reconciliation activities must be segregated from trade execution activities.

Management Reporting

Exhibit – Summary of Management Reporting

Report	Contents	Audience	Frequency
Management Report	Investment portfolio, mark- to- market valuations, collateral, counterparty breakdown	Chief Financial Officer, Board	Quarterly

Annual Investment			Annually
Report	Investment Guidelines, explanation of Investment Guidelines & amendments, annual investment audit, annual investment income, total fees and commissions paid	Chief Financial Officer, Board (File with Division of the Budget, State Comptroller, State Finance Committee, Assembly Ways and Means Committee)	

Exhibit – Summary of Treasury Performance Reporting

Report	Contents	Audience	Frequency
	Investment performance vs. benchmark variance analysis	CFO, Board	Quarterly

Operating Procedures

Operating procedures for the administration of the Authority's investment program should include the following:

- Each disbursement of funds (and corresponding receipt of Investment Securities) or delivery of Investment Securities (and corresponding receipt of funds) shall be based upon proper written authorization. If the authorization is initially given orally, there shall be written or telegraphic confirmation from an authorized signatory of the Authority to the custodian;
- The process of initiating, reviewing and approving requests to buy and sell Investment Securities shall be documented and retained for audit purposes. Dealer limits should be established and reviewed regularly;
- Custodians must have prior authorization from the Authority to deliver obligations and collateral. All transactions must be confirmed in writing to the Authority. Delivery of obligations sold shall only be made upon receipt of funds;
- Custodial banks shall be required to report whenever activity has occurred in the Authority's custodial account;
- There shall be at least monthly verification of both the principal amount and the market values of all investments and collateral. Appropriate listings shall be obtained from the custodian and compared against the Authority's records;
- A record of investments shall be maintained. The records shall identify the Investment Security, the fund for which held, the place where kept, date of disposition and amount realized, and the market value and custodian of collateral;
- The establishment and maintenance of a system of internal controls;
- Methods for adding, changing or deleting information contained in the investment record, including a description of the documents to be created and verification tests to be conducted;
- A database of records incorporating descriptions and amounts of investments, transaction dates, interest rates, maturities, bond ratings, market prices, and related information necessary to manage the portfolio; and
- Requirements for periodic reporting and a satisfactory level of accountability.

The procedures below describe in more detail the methods employed by the investment officers (Treasurer and Deputy Treasurer) to formulate and initiate investment transactions and include the records and documentation

used in processing an investment from the time of its initiation to the recording and reconciliation on the Authority's accounting records.

- 1. The Treasurer or Deputy Treasurer maintains a schedule of all current investments and updates schedule on a timely (daily) basis as securities mature and/or new investments are initiated. A Calendar of investment maturities is maintained and updated as chronological reminder (tickler file) or maturities.
- 2. All investments are initiated via:
 - a. specific written investment instruction sent to the Trustee or
 - b. verbal investment instructions followed up by written confirmation
- 3. The Treasurer or Investment Advisor will initiate the investments by reviewing the investment schedule and calendar on a daily basis to determine investments to be made over the following week based on Investment Committee strategies agreed to by the Investment Committee and weekly phone meetings working group. All investments are available online on a real time (next day) basis.

The Treasurer considers many factors in forming investment decisions, such as:

- a. existing bond resolution requirements and conditions;
- b. other existing agreements affecting investments/cash flow (i.e. Settlement Agreement; Agreement and Consent dated September 22, 1988, as amended, Agreement for Certain Payments, Lease Agreements etc.);
- c. BPCA Cash Flow Requirements and Internal Investment Policies;
- d. current and future market conditions (i.e. interest rates);
- e. New York State Comptroller's Guidelines; and
- f. published market surveys, consultant reports, etc., relating to securities available, interest rates and investment strategies.
- 4. Copies of the bank trade confirmation letters sent to the Trustee Bank are filed in the Treasurer's chronological file and in a monthly folder for that particular Bank account.
- 5. All investments are available to the President and others for review and discussed at Investment Committee meetings. A copy of the Investment Instructions Letter is retained in the Treasurer's file and a copy is maintained in the bank reconciliation files.

Documentation for securities purchased including the information as to brokers solicited for quotes shall be retained and filed by the Authority, the Trustee, or Investment Advisor. Corporate funds which are not invested are collateralized or insured by FDIC and balances receive compensating interest at the 90 day T-bill rate to mitigate banking fees. Reconciliation of monthly Trustee statements are performed. This includes reconciliation of investment transactions, investment income, and portfolio holdings. Corresponding journal entries are subsequently posted to the Authority's general ledger. The BPCA Controller or Director of Financial Reporting initials and dates these reconciliations when reviewed to signify timely approval and completion.

6. Quarterly investment schedules are reviewed by the Investment Committee and made available to the Board. Investment schedules are audited by the Authority's public accountants at year end. The auditors request and receive confirmation of our cash and security holdings as of fiscal year end. In addition, the Authority's Internal Audit department periodically audits investments.

The procedures will be subjected to regular audits by internal and external auditors as required. Procedures are to be revised and updated on an annual basis and referenced in the Investment Policy and Procedure Statement, approved by the Members, in accordance with Section 2925(6) of the Public Authorities Law.

APPENDIX B

INVESTMENT REPORT FYE OCTOBER 31, 2018

Investments

The Authority carries all investments at fair value. Inherent risks that could affect the Authority's ability to provide services and meet its obligations as they become due are reported in accordance with U.S. GAAP. The Authority's permitted investments include: (i) 100% U.S. government guaranteed securities (U.S. Treasury notes, bonds, strips, T-bills, Ginnie Mae securities); (ii) notes, bonds, debentures, and mortgages of U.S. government-sponsored agencies provided that its obligations receive the highest credit rating at the time of purchase from all rating agencies that rate the obligation; (iii) obligations of any corporation organized under the laws of any state in the United States maturing within 270 days provided that such obligations receive the highest rating of two independent rating services (commercial paper); (iv) municipal bonds issued by the State of New York, its counties, towns and cities and New York authorities; and (v) the general obligations of any state provided that such obligations receive the highest rating by at least one rating agency. The Organization maintains its cash in bank accounts that are fully collateralized or backed by the Federal Deposit Insurance Corporation ("FDIC") or letters of credit. All investments held in funds and accounts established in accordance with bond resolutions are held as trust assets by the trustee banks in the Authority's name.

Total investments held by the Authority at October 31, 2018 and 2017 included within the balance sheet investments, corporate designated, escrowed and OPEB funds, bond resolution funds (see note 8) and residential lease required fund accounts, are as follows:

		October 31, 2018			October 31, 2017	
	Cost	Fair value	Weighted average maturity (years) (a)	Cost	Fair value	Weighted average maturity (years) (a)
U.S. Treasury securities:						
Treasury Bills	\$ 226,595,757	227,862,341	0.05	\$ 204,969,350	205,483,095	0.04
Treasury Bonds	97,341,850	93,195,332	3.10	127,214,877	125,708,856	2.81
Treasury Strips	343,043	326,245	6.20	343,043	333,915	7.21
Total U.S. Treasury	224.280.650	221 282 018		222 525 250	221 525 977	
securities	324,280,650	321,383,918		332,527,270	331,525,866	
Commercial paper	63,024,475	63,476,945	0.05	39,705,945	39,800,777	0.03
Federal agency securities Federal agency mortgage	2,002,830	1,859,912	0.40	11,797,705	11,714,172	0.22
backed securities	5,075,643	4,974,729	2.49	6,875,021	6,911,215	2.36
Municipal bonds	15,020,253	14,509,198	1.61	24,577,759	24,314,418	1.30
Small Business Administration	2,115,086	2,032,288	4.92	2,480,445	2,480,908	6.04
Supra National Agency	27,390,282	27,006,522	1.64	22,843,203	22,759,706	2.12
Total						
investments	438,909,219	435,243,512	0.91	440,807,348	439,507,062	1.09
Cash and cash equivalents	35,638,035	35,638,035		32,060,205	32,060,205	
Total						
investments \$	\$ 474,547,254	470,881,547		\$ 472,867,553	471,567,267	

(a) Portfolio weighted average effective duration

As of October 31, 2018 and 2017, restricted assets included cash and cash equivalents and investments with less than 91-day maturities amounting to \$135,527,007 and \$166,595,352, respectively.

The Authority's investment objectives for the portfolio are legal compliance, safety of principal, to meet liquidity requirements and to maximize legally allowable return.

Interest rate risk is the probability of loss on investments from future changes in interest rates, which can adversely affect their fair value. Duration is a measure of a debt investment's exposure to fair value changes arising from changes in interest rates. It uses the present value of cash flows, weighted for those cash flows as a percentage of the investment's full price. Effective duration takes into account the change in cash flow expectations of securities with embedded options such as callable bonds and mortgage-backed securities. The interest rate risk of the Authority's portfolio is measured according to effective duration.

Investments of amounts in funds and accounts established under the various 2003 General Bond Resolution, and the 2009 and 2013 Revenue Bond Resolutions are presently restricted to obligations of the State, U.S. government and its agencies, or in any other obligations in which the Comptroller of the State of New York is authorized to invest pursuant to Section 98 of the State Finance Law.

Corporate-designated and escrowed funds represent funds designated by the Authority's board of directors for specific purposes such as budget reserves, the Special Fund (see note 12), project contingency reserves, restoration reserves, insurance reserves, and arbitrage reserves and funds designated for the payment of medical benefits to the Authority's retirees (OPEB funds).

Residential lease required funds represent funds held by the Authority in accordance with its residential leases. These funds are largely comprised of security and escrow deposits held by the Authority for the residential buildings.

Fees

There were no fees, commissions or other charges paid to investment bankers, brokers, agents, or dealers for rendering investment related services to the Authority during the fiscal year and all investments are competitively bid. Consultant fees in the amount of approximately \$350,000 were paid to PFM Asset Management LLC during the current fiscal year for professional money management advice to the Authority's Investment Committee.

APPENDIX C

BPCA FY2018 - A YEAR IN REVIEW (Prepared by PFM Asset Management LLC)

Summary of Bond Market and Authority Portfolio Strategy

Annual Summary

Fiscal year 2018 started off strong, with positive U.S. economic indicators, tax reform, synchronized global growth, and the S&P Index logging multiple new record highs. As the fiscal year progressed, however, political uncertainty and risk grew both internationally and domestically, and markets saw heightened volatility and eventually both equity and fixed income performance suffered. Still, the U.S. economy continued its positive momentum throughout the year, with solid Gross Domestic Product ("GDP") growth, low unemployment, and strong government and consumer spending. As expected, the Federal Open Market Committee ("FOMC") raised the federal funds rate four times during the fiscal year, each by 0.25%.

Summary of Bond Market and Authority Portfolio Strategy

First Quarter: November 1, 2017 – January 31, 2018

<u>Market Summary</u>

The market reacted positively, with increases in both bond yields and equity prices, when Washington cut the corporate tax rate from 35% to 21% and reduced personal tax levels. The S&P 500 Index logged 14 new record highs in January, ultimately tallying a 5.7% return for the month and was the 15th consecutive month of positive total return for the Index. During its December meeting, the FOMC stayed true to its "dot plot" forecasts by raising the federal funds target rate one quarter of a percent to a range of 1.25% to 1.50%. The January FOMC meeting marked the final one for Janet Yellen, as she passed the Federal Reserve ("Fed") chair seat to Jerome Powell. Across the pond, the Bank of England ("BOE") bumped its overnight rate back up to 0.50%, following a temporary cut to 0.25% following the 2016 Brexit vote.

The U.S. economy notched back-to-back quarters of solid growth with GDP increasing at a 3.2% real rate for the 3months ended December 31, 2017, following a second quarter tally of 3.1%. 2017 capped the 8th straight year of recovery from the 2008-09 Great Recession – the third longest expansion of the past century. The U.S. labor market remained strong, with the unemployment rate holding at a 15-year low of 4.1%. The economy added over 2 million net new jobs in 2017. At the same time, the labor force participation rate improved modestly, while wage growth over the past year was modest. Outside of inflation, economic indicators were strong: manufacturing, services and consumer confidence indexes reached multi-year highs and the housing market strengthened further.

Shorter-term Treasury yields (5 years and under) increased during the quarter, largely on the run-up to the December FOMC rate hike. The yield on the 2-year Treasury increased by 56 basis points (bps) (0.56%) over the quarter to 2.18%. As inflation expectations increased, long-term Treasury yields (10 years and longer) also moved higher in January, but to a lesser extent, which resulted in a flattening yield curve. The yield on the 10-year Treasury increased by 34 bps over the quarter to 2.72%.

Portfolio Strategy Recap

• The Authority's long-term portfolios outperformed their respective benchmarks for the quarter. The majority of fixed income indices, including 1-5 year and 1-10 year U.S. Treasury indexes, posted negative returns for the quarter as investment income was not able to fully offset the adverse impact of rising rates on fixed income prices. Although the Authority's longer-term portfolios also posted negative returns, the portfolios' durations were positioned shorter than the respective benchmarks which was a positive for relative performance.

- Both short-term portfolios slightly underperformed the benchmark for the quarter. Portfolio positioning was influenced by expected cash flows, which in turn impacted performance. The 2003 Pledged Revenue portfolio experienced substantial activity as intra-fund transfers related to the beginning of the fiscal year were initiated.
- Commercial paper offered incremental value relative to both short and intermediate-term government securities. The incremental yield advantage offered in this sector was a valuable return attribute in the face of rising rates.

Second Quarter: February 1, 2018 – April 30, 2018

<u>Market Summary</u>

The quarter kicked off with a spike in volatility associated with an equity market correction, talks of tariffs and trade wars, a modest uptick in inflation, and a panoply of geopolitical concerns. Market volatility subsided by the end of the quarter, even as interest rates marched higher. Economic data was generally favorable, but the political situation remained uncertain on trade, immigration, and policies involving North Korea and the Iran nuclear deal. During the quarter, President Trump signed a \$1.3 trillion omnibus spending bill which averted a government shutdown, significantly increased military spending, and increased funding in a variety of discretionary areas. At its March meeting, the FOMC raised the federal funds target rate by 0.25% to a new range of 1.50% to 1.75%.

On the economic front, the U.S. economy posted solid results for 2017, as GDP for the last quarter of 2017 was revised up to a rate of 2.9%, after back-to-back readings in excess of 3.0%. In the midst of eight straight years of domestic economic expansion, global growth was now in synchrony, with nearly every advanced economy around the globe, including the Eurozone, Japan, and China, showing positive growth rates. Although net job gains in the U.S. were below expectations for April, the unemployment rate fell to 3.9%, the lowest level since 2000. In another sign of strength of the U.S. labor market, the weekly tally of initial claims for unemployment insurance reached the lowest level since 1969.

Bond yields continued their ascent over the quarter, with the 2-year Treasury reaching a near-decade high, resulting in a further flattening of the yield curve. The 2-year Treasury increased 34 bps to 2.52%, while the 10-year Treasury increased 23 bps to 2.95%.

<u>Portfolio Strategy Recap</u>

- All longer-term portfolios outperformed their respective benchmark for the quarter, benefitting from a short duration bias.
- Short-term portfolio performance for the quarter was significantly impacted by cash flow needs. The 2003 Pledged Revenue portfolio experienced a decrease in net cash flows of over \$65 million over the quarter for debt service.
- The continued federal fund rate hikes resulted in negative returns for most bond indices for the quarter, with longer maturities performing worst. Although higher yields provide greater income over time, that income was not sufficient to offset the adverse impact of rising interest rates on fixed income prices.
- Short-term commercial paper offered great incremental value in the quarter as short-term yields rose in response to the burgeoning Treasury supply, and credit spreads widened.

Third Quarter: May 1, 2018 - July 31, 2018

<u>Market Summary</u>

The trade war expanded during the quarter as the Trump administration continued to threaten significant increases in tariffs on imports. Positive economic data released during the quarter included job gains, housing starts, new home sales, factory orders, manufacturing survey indices and consumer sentiment. The Fed once again increased the overnight federal funds rate at its June meeting by 25 bps, to a new range of 1.75% to 2.00%.

The first estimate for second-quarter U.S. GDP growth breached 4% for the first time since the third quarter of 2014. A strong rebound in consumer spending, sustained business investment, strong federal government defense spending and a surge in exports boosted economic expansion to a 4.1% annual rate. After a slight move up to 4.0% in June, the unemployment rate ticked lower to 3.9% in July, while average hourly earnings held steady at 2.7% year over year.

U.S. Treasury yields generally rose over the quarter, with maturities less than 3 years increasing 17 to 19 bps, while maturities greater than 5 years increased by a lesser amount and 30-year Treasury yields were slightly lower. The yield curve remained near its flattest level in more than a decade. The difference between 10-year and 2-year Treasury yields narrowed to 28 bps (0.28%) by quarter-end.

<u>Portfolio Strategy Recap</u>

- Longer-term portfolios and the 2003 Pledged Revenue portfolio performed in line with the respective benchmarks for the quarter, while the 2003 Project Operating portfolio outperformed its benchmark.
- With expectations that interest rates would continue to trend higher and a flat yield curve, portfolios were strategically positioned with a modestly-defensive duration bias relative to benchmarks.
- Although the available supply of commercial paper issuers with the appropriate rating had declined, some issues were sourced and added to the 2003 Pledged Revenue portfolio that offered incremental value relative to both short- and intermediate-term government securities.
- Allocation to the federal agency sector benefitted the longer-term portfolios as this sector slightly outperformed similar-duration U.S. Treasury securities for the quarter.
- As expected, the 2003 Pledged Revenue account experienced significant cash inflows during the quarter.
- Large outflows during the quarter were due to transfers from the 2003 Residual Fund to New York City in June.

Fourth Quarter: August 1, 2018 – October 31, 2018

<u>Market Summary</u>

U.S. growth remained healthy during the quarter as the unemployment rate hit historical lows and confidence rose further. This occurred despite ongoing concerns about a trade war with China, a disorderly Brexit, Italian budget concerns, Iran sanctions, a Turkish debt crisis and other geopolitical risks. The U.S. housing market weakened as rising home prices, higher mortgage rates, a scarcity of materials and lack of construction labor slowed activity. Residential investment fell 4% in the third calendar year quarter, the third consecutive quarter as a drag to GDP growth. Even with this drag, the advance release of third-quarter U.S. GDP growth showed surprisingly strong growth of 3.5%, boosted by consumer spending, government spending and inventory replenishment.

The U.S. stock market gave up nearly all of its gains for the calendar year at the end of the quarter as investors became concerned about rising rates, midterm elections, future corporate earnings, a trade war with China, Brexit, Italian budget woes and general geopolitical uncertainty. The FOMC increased the overnight lending rate by 25 bps to a new target range of 2% to 2.25% at its September meeting, marking the fourth hike during the fiscal year. In a surprisingly unanimous decision, the BOE raised its benchmark interest rate in August for only the second time in a decade, as inflation worries trumped concerns about Brexit.

U.S. Treasury yields rose in early October to new highs for this phase of the cycle, with 10-year and 2-year yields reaching their highest levels since 2011 and 2008, respectively. But, the equity market sell-off triggered a brief rally that left bond yields higher at the end of the quarter, though off their highs. Overall, yields rose by 20 to 30 bps during the quarter. The yield on the 2-year Treasury rose 21 bps to 2.90%, while the yield on the 10-year rose 19 bps to end the quarter at 3.16%. The result was a flatter yield curve, but the pace of flattening moderated near quarter-end. The yield difference between 10-year and 2-year U.S. Treasury notes ended the quarter at 0.25%, only 9 bps off of the decade low.

Portfolio Strategy Recap

- All of the Authority's portfolios outperformed their respective benchmarks for the quarter. The portfolios were positioned with a defensive interest rate risk profile durations remained short relative to benchmarks.
- The longer-term portfolios benefitted from allocations to the supranational sector, as the combination of tighter spreads and incremental income led to the sector posting attractive returns relative to both Treasuries and federal agencies.
- Commercial paper was utilized in the short-term portfolios where appropriate and as value presented itself. However, the allocation to this sector was impacted due to shortening the duration of the portfolios and reduced supply as we approached the final quarter of the calendar year.
- Liquidity considerations were the primary determinant of the portfolio structure and duration positioning. The 2003 Pledged Revenue portfolio was positioned to facilitate the movement of funds after the end of the fiscal year to other Authority portfolios.

Portfolio Performance Update

Absolute returns for fiscal year ended October 31, 2018 were strong for the Authority's short-term investment strategies. The 2003 Project Operating Fund outperformed its benchmark, the BAML 3-month U.S. Treasury Bill index return by 5 bps. The 2003 Pledged Revenue portfolio slightly underperformed its benchmark for the fiscal year, and was impacted largely by cash flow needs. Short-term strategies benefitted throughout the fiscal year from attractive high quality commercial paper and short duration positioning in the rising rate environment.

The Authority's longer-term investment strategies all outperformed their respective benchmarks. The 2003 Reserve Fund outperformed its benchmark by 26 bps. All other long-term strategies managed to the BAML 1-10 Year U.S. Treasury Note Index outperformed by an average of nearly 35 bps. The increase in interest rates over the fiscal year hurt longer-term investment strategies over the short run. Outperformance versus the benchmarks for the long-term strategies was driven by a short duration position relative to the benchmark, which proved beneficial throughout the fiscal year as interest rates rose.

	1 Year Ending October 31, 2018	3 Years Ending October 31, 2018	Since Inception
Long-Term Strategy:			
2003 Reserve Fund	-0.10%	0.67%	3.13%
BM: BAML 1-5 Year US Treasury Note Index	-0.36%	0.41%	2.96%
BPCPC Operating Reserve Contingency	-0.62%	0.65%	3.44%
Insurance Fund	-0.66%	0.47%	3.39%
Operating Budget Reserve	-0.57%	0.61%	3.54%
BM: BAML 1-10 Year US Treasury Note Index	-0.98%	0.33%	3.07%
BPCA Other Post-Employment Benefits	-0.65%	0.56%	2.54%
BM: BAML 1-10 Year US Treasury Note Index	-0.98%	0.33%	2.28%
BPCPC Other Post-Employment Benefits	-0.65%	0.55%	1.86%
BM: BAML 1-10 Year US Treasury Note Index	-0.98%	0.33%	1.85%
Short-Term Strategy:			
2003 Pledged Revenue	1.56%	0.90%	1.23%
2003 Project Operating Fund	1.73%	1.03%	1.24%
BM: BAML 3 Month US Treasury Bill Index	1.68%	0.90%	1.16%

Notes:

1. Performance on trade date basis, gross-of-fees in accordance with the CFA Institute's Global Investment Performance Standards.

2. Merrill Lynch Indices provided by Bloomberg Financial Markets.

3. The total returns shown for periods longer than a year are the annualized returns for the stated period.

4. Since inception performance for all portfolios other than 'BPCA Other Post Employment Benefits' and 'BPCPC Other Post Employment Benefits' is calculated from January 31, 2006 to present.

- Since inception performance for the BPCA Other Post Employment Benefits performance is calculated from January 31, 2008 to present.

- Since inception performance for the BPCPC Other Post Employment Benefits performance is calculated from February 12, 2010 to present.

- For the 'Reserve Fund,' the inception of the BAML 1-5 Year Treasury Index as the performance benchmark is July 31, 2013. For prior periods, the BAML 1-10 Year Treasury Index was utilized.

<u>APPENDIX D</u> – SEE ATTACHED "REVIEW OF INVESTMENT PERFORMANCE QUARTER ENDED OCTOBER 31, 2017 REPORT"

(SEPARATE FILE ATTACHED)