EMPLOYEES' RETIREMENT SYSTEM
The Maryland-National Capital Park and Planning Commission

STATEMENT OF INVESTMENT POLICY

I. INTRODUCTION

The Board of Trustees (“Board”) of the Maryland-National Capital Park and Planning Commission (the “Commission”) Employees’ Retirement System (“ERS”) has exclusive authority and discretion for managing the ERS’ Trust Fund (“Trust Fund”) under a Trust Agreement between the Board and Commission dated July 26, 1972 and amended June 13, 1979, November 15, 2000, and September 16, 2009.

II. PURPOSE

This Statement of Investment Policy (“Investment Policy”) provides a framework for management of the Trust Fund and outlines the investment guidelines, objectives, and policies; serves as a governing document for the management of the assets; and defines the duties and responsibilities of the individuals and entities involved in the investment process.

As a fiduciary, the Board is responsible for general management of the Trust Fund and its fiduciary duties require the Board to:

- Manage the investment decisions in accordance with laws, regulations, the Trust Agreement, and this Investment Policy.
- Make all decisions solely in the interest of, and for the exclusive purpose of providing benefits to the members, retirees, and beneficiaries.
- Engage experts to make investment decisions and document the due diligence process in selection of prudent experts.
- Prudently diversify the investments of the Trust Fund to minimize the risk of losses.
- Reasonably defray administrative expenses.
- Monitor the activities of selected prudent investment managers, advisors, and service providers.
- Avoid conflicts of interest and prohibited transactions.

III. ROLES & RESPONSIBILITIES

Key parties that participate in the investment decision-making and oversight process follow:

A. Board of Trustees

The Board establishes and maintains broad policies and objectives for the Trust Fund; provides oversight of the investment decision-making; approves the retention and termination of Investment Managers, the Investment Consultant, and service providers; and enters and modifies contracts, side letters and subscriptions for all Investment Managers, advisors and service providers, who serve as fiduciaries.

B. Administrator

The Administrator has authority from the Board as summarized in the Governance Manual. In general, the Administrator's responsibilities include managing the daily operations of the ERS; coordinating and monitoring directions and contractual requirements to Investment Managers, the Investment Consultant, and service providers to ensure optimal operation of the Trust Fund; serving as liaison in negotiating contracts and service fees; working in consultation with the Investment Consultant to ensure portfolio funding, withdrawals, rebalancing, cash management, and capital calls as required.

C. Investment Monitoring Group

The Investment Monitoring Group ("IMG") has delegated authority from the Board as detailed in the IMG's Charter. In general, the IMG's responsibilities include making recommendations to the Board in consultation with the Investment Consultant, related to the Investment Policy, asset allocation, Investment Manager guidelines and objectives; monitoring of Investment manager performance and compliance with policies and guidelines; retention and termination of Investment Managers and investment-related service providers; performing investment-related assignments as directed by the Board; and approving transition strategies as recommended by the Investment Consultant.

D. Investment Consultant

The Investment Consultant performs services as outlined in the Investment Consulting Agreement. In general, the Investment Consultant serves as a fiduciary providing expert knowledge, advice and development of policies, strategies, and procedures related to the investment program. The Investment Consultant is hired by the Board to work cooperatively and collaboratively with the Board, IMG, and Administrator.

E. Custodian Bank

The duties of the Custodian Bank are set forth in the Master Custody Agreement. In general, the Custodian Bank's responsibilities include safekeeping the ERS' assets; settling investment transactions and collecting income; preparing monthly and year-end accounting statements; serving as the official book and records for investment transactions and valuations; properly recording and reporting investment activities, transactions, income and valuations; and processing, recording and reporting proxy votes.

F. Investment Managers

Investment Managers serve as fiduciaries investing assets in accordance with contracts, side letters, governing documents and guidelines and this Investment Policy, where applicable.

IV. INVESTMENT OBJECTIVES

Collectively, Trust Fund assets should be invested to obtain an appropriate long-term total return consistent with prudent risk taking.

The long-term investment objective of the Trust Fund is as follows:

- Achieve a total rate of return, net of fees, which exceeds the actuarial return assumption used for funding purposes.
- Achieve a total rate of return, net of fees, which exceeds the Total Fund Target policy benchmark which is based on the asset class target exposures and corresponding benchmarks.
  - The Total Fund Target Policy benchmark is as follows:

FT Wilshire 5000 Total Market TR Index	15.0%
MSCI AC World ex USA (Net)	10.0%
MSCI ACWI Minimum Volatility Index (Net)	8.5%
MSCI AC World Index (Net)	8.0%
Bloomberg U.S. Aggregate	11.5%
ICE BofAML US High Yield, BB-B Rated	10.0%
S&P LSTA Leverage Loan Index	5.0%
Emerging Market Debt Policy Index	5.0%
Bloomberg. Global Aggregate	10.0%
Public Real Assets Policy Index	2.0%
CPI + 5%	15.0%

In addition to the Total Fund Target policy benchmark described above which is constructed with the long-term target allocations, the Trust Fund also constructs an Actual or Interim Total Fund policy benchmark, as needed, representing how the Trust Fund is currently invested based upon certain asset class exposures including any deviations from Private Market exposures.

Long-term assumptions related to return and risk expectations for each asset class and total portfolio are in Appendix B.

V. ASSET ALLOCATION

Asset allocation is the process by which investors identify and set strategic long-term targets to meet investment goals. The Investment Consultant believes this is one of the most important decisions an investor can make driving approximately ninety percent (90%) of return variability. To that end, an asset liability study is performed by the Investment Consultant approximately every three years and at any other time the IMG or the Board considers appropriate. Typically, the Board adopts an asset allocation based on recommendations from the Investment Consultant. The Board may direct the IMG to consider the asset allocation recommendations from the Investment Consultant and return with a recommendation to the Board for approval.

A. Policy Targets and Ranges

The Trust Fund shall be diversified across investment classes and among Investment Managers to achieve return as compensation for investment risk. In accordance with this Investment Policy, the Board has established the following target allocations for each asset class, as well as ranges of expected exposure:

Asset Class	Target Exposure	Expected Range
U.S. Equity	15.0%	10.0% - 20.0%
International Equity	10.0%	5.0% - 15.0%
Global Low Volatility Equity	8.5%	5.0% - 12.0%
Private Equity	8.0%	5.0% - 12.0%
Total Equity	**41.5%**	**35.0% - 48.0%**
U.S. Core Fixed Income	11.5%	8.0% - 15.0%
High Yield Fixed Income	10.0%	7.0% - 13.0%
Bank Loans	5.0%	2.0% - 8.0%
Emerging Market Debt ("EMD")	5.0%	2.0% - 8.0%
Global Opportunistic Fixed Income	10.0%	5.0% - 15.0%
Total Fixed Income	**41.5%**	**35.0% - 48.0%**
Public Real Assets	2.0%	0.0% - 5.0%
Private Real Assets	15.0%	10.0% - 20.0%
Total Real Assets	**17.0%**	**12.0% - 22.0%**

Unless specifically intended, Investment Managers will specialize in one asset class or investment style. Investment Manager mandates are expected to be fully invested with minimal cash or holdings outside the intended mandate. The assets of an Investment

Manager with a multi-asset class assignment – e.g. public real assets – will be considered committed to asset classes in proportions determined by the Investment Manager's performance benchmark.

B. Rebalancing, Cash Management, and Capital Calls

Asset allocation exposures are reviewed at least quarterly. Actual exposure reviews will consist of a comparison of each allocation to its target and expected range. If any allocation is out of its expected range, action will be taken to move the allocation closer to the target, except for private investments. Cash management requirements such as withdrawals for benefit payments, administrative expenses, and capital calls should be used to rebalance allocations closer to policy allocation targets. The Administrator, in consultation with the Investment Consultant, is authorized to rebalance asset class exposures and transfer assets by purchase or sale between Investment Managers to accomplish rebalancing, cash management needs and to pay capital calls, as necessary and prudent and to report any rebalancing activity to the Board.

VI. INVESTMENT PROGRAM STRUCTURE

Allocating funds to various types of investments is critical to structuring a diversified portfolio to meet investment objectives. Investments shall be diversified among asset classes to minimize the risk of loss from individual investments. Investments are not restricted by asset class or type and may include any investment authorized by the Trust Agreement.

A. Risk Management

Risk management is central to managing the assets of the ERS. The Board recognizes for the Trust Fund to achieve its investment objectives, a reasonable level of risk is required for generating excess returns. Therefore, the Board's policy regarding investment risk is to maintain a level of risk commensurate with achieving the expected actuarial rate of return and consistent with prudent investment protocols.

B. Diversification

In addition to asset class diversification, the Board has adopted the following limits:

- No single Investment Manager shall be allocated more than 20% of the asset value of the Trust Fund.
- No single actively managed products of an Investment Manager will be allocated more than 15% of the asset value of the Trust Fund.

C. Authorized Investments & Restrictions

Authorized investments and restrictions can be found in Section VII Asset Class Guidelines and within the separate Investment Manager guidelines, side letters and/or governing documents.

D. Benchmarks

Performance measurement and monitoring activities provide assessment of success of the investment strategies and implementation of those strategies. Clear, unambiguous market-based benchmarks will be selected for each investment strategy, asset class and total portfolio. Benchmarks should be reviewed periodically to determine the quality level and appropriateness.

E. Liquidity

The Board recognizes and intends to maintain sufficient liquidity in the Trust Fund to meet pension benefit payments and pay administrative expenses.

F. Tax Considerations

The Trust Fund is a qualified trust under Section 401(a) of the Internal Revenue Code (the "Code"), thereby all gains and income associated with the assets of the Trust Fund are exempt from federal income tax under Section 501(a) of the Code. Therefore, tax considerations do not represent a constraint on the portfolio. In addition, although not directly applicable, Investment Managers are expected to manage the portfolio in compliance with the provisions of the Employee Retirement Income Security Act ("ERISA") of 1974. The Board has taken the position that Unrelated Business Income Tax is not applicable to the Trust Fund.

G. Proxy Voting

The following general policies apply to proxy voting:

- Investment managers shall vote all proxies in the best interest of the ERS and Trust Fund and in a manner consistent with the Investment Manager's fiduciary duty to the ERS and the Trust Fund.
- Votes involving the issue of share-voting rights will be voted in a manner, which is most in the direction of one share one vote.
- Where the Board becomes aware of pending proxy issues of particular significance, the Board may direct the Administrator to communicate instructions to the responsible Investment Manager.
- Investment Managers should be prepared to disclose and discuss their proxy voting decisions, upon request by the Board.
- Investment managers are required to have proxy voting policies, where applicable, and shall provide the Board with copies of their policies.

H. Derivatives

Refer to Appendix A for the Derivatives Policy Statement.

I. Divestment

From time to time the Board may determine, consistent with the Board's fiduciary duties to the Trust Fund, that public policy considerations, including financial and reputational risks, warrant divestment from particular companies or regions. Divestment actions may be taken by the Board and memorialized in a resolution that then becomes a part of this Statement of Investment Policy, unless and until rescinded by subsequent action of the Board. Unless impractical, the Board shall seek advice from legal counsel prior to making such Divestment actions.

J. Best Execution

Best execution is expected by Investment Managers by executing transactions on behalf of the portfolio in a manner that maximizes the risk-adjusted, investment value of their mandate, utilizing brokers and dealers that the investment managers deem appropriate to obtain best execution of any transaction.

K. Soft Dollar Guidelines

Soft dollars are expended only for brokerage, research, or other services for the benefit of the investment program and are reasonable in relationship to the value of such services. Investment managers should be prepared to disclose soft dollar usage and its direct benefit to the Trust Fund, upon request of the Board.

L. Private Fund Advisory Board

The Board has determined that the benefits of Trustees participating on advisory boards far outweigh the risks or potential risks of not participating. As a result, the Board will assign a Trustee representative to an advisory board, if the appropriate protections for such members (e.g. with respect to fiduciary duty/standard of care, indemnification, confidentiality, etc.) are provided, and if the Board is awarded a seat on the advisory board.

M. Fees, Commission and Expenses

The Administrator and Investment Consultant will work cooperatively to monitor and attempt to control investment costs by negotiating professional fees and expenses, whenever possible; transferring assets in-kind during investment manager transitions and restructuring of assets; and instructing Investment Managers to minimize brokerage and execution costs.

VII. ASSET CLASS GUIDELINES AND OBJECTIVES

A. Public Equity Guidelines (US and International)

Public equities provide potential for long-term appreciation and growth of principal in exchange for assumption of moderate to high investment risk. The objective is to earn an equity risk premium to enhance long-term investment returns.

The following guidelines apply for investment in public equities:

- The U.S. and International equity composites are expected to be "fully" invested at all times. Under normal conditions no more than 5% of the value of the composites should be held in cash equivalents at any time.
- The U.S. and International equity composites are expected to remain "broadly diversified" by economic sector, industry, and individual securities at all times. The composites should match the asset class benchmark in terms of capitalization and growth/value characteristics. Risk should be similar to that of the asset class benchmark.
- Any single issuer is not expected to exceed 5% of the market value of the public equity investments at any time.

B. Private Equity Guidelines

The objective of this allocation is to provide return enhancement to the overall portfolio. When measured over the long-term, returns are expected to exceed those available by investing in a diversified portfolio of publicly traded equity securities. Any un-invested portion of the private equity allocation should remain invested in publicly traded equity securities.

The composite is expected to remain "broadly diversified" by geographic location, investment type, vintage year, and individual partnership investment at all times. The portfolio is expected to be diversified by geographic location with the following weightings: North America (approximately 50%), Europe (approximately 30%), and the Asia-Pacific region and other emerging markets (approximately 20%). These weightings may be adjusted at the discretion of the Investment Manager in accordance with investment guidelines. The composite is expected to be diversified by the following investment types: buyouts (a private equity investment in a mature business), venture capital (a private equity investment in a new business), growth equity (a private equity investment in a growing business), distressed (a private equity investment in operationally-sound companies in financial distress) and special situations (private equity-like investments, such as mezzanine debt, asset-intensive assets or royalty streams, and other opportunistic funds). The Investment Manager may invest in secondary fund investments and direct co-investments on an opportunistic basis with a combined maximum limit of 20%, subject to investment guideline authority. Investments should be diversified by vintage year. No single partnership investment is expected to be more than 20% of the private equity composite; however, it is recognized that this guideline shall not apply during initial funding.

C. Fixed Income Guidelines

Fixed income provides for modest return by lending funds and collecting current income (i.e. from regular interest payments). Returns may be enhanced by assumption of various risks such as duration, credit quality, or leverage; however, any risks assumed should be considered in the context of the environment for such strategies.

The fixed income portfolio is structured to include exposures to the following fixed income sub-classes:

- U.S. Core Fixed Income
- High Yield Fixed Income
- Bank Loans
- Emerging Market Debt ("EMD")
- Global Opportunistic Fixed Income (including illiquid / private fixed income investments)

The below guidelines apply for investment in fixed income. Additionally, specific guidelines are stated for fixed income sub-classes as applicable:

- The fixed income composite is expected to be "fully" invested at all times. Short-term or cash equivalents investments may play an important role in managing fixed income investments. Therefore, the fixed income composite may have up to 20% of its value in cash equivalents at any time.
- The fixed income composite is expected to be broadly diversified by issuer, sector, quality, maturity, and duration structure. Except for securities issued by the US Government and / or its Agencies, any single issuer is not expected to exceed 5% of the market value of the fixed income composite at any time.
- The duration of the fixed income sub-class is expected to be similar to that of the benchmark however Investment Managers may be employed to adjust duration based on the outlook for interest rates. Unless intended otherwise as part of a particular Investment Manager mandate, duration of each fixed income sub-class should typically remain with +/- 1.5 years of the sub-class benchmark.
- The fixed income composite is structured with a strategic investment to both investment grade and high yield securities. The credit quality, as measured by recognized rating agencies such as Standard & Poor's, Moody's, or Fitch for each fixed income sub-class is expected to be similar to that of the designated sub-class benchmark.
- Build America Bonds (BABs) issued by Montgomery County, Maryland and Prince George's County, Maryland are prohibited investments.

Global Opportunistic Fixed Income

The objective of the Global Opportunistic Fixed Income allocation is to provide either return enhancement and diversification that is consistent with the long-term strategic objectives of the portfolio. This portion of the fixed income composite may contain opportunistic investments and distressed securities that are illiquid in nature. The implementation of this allocation will have flexible guidelines to invest globally, seeking to add value through a number of investment decisions such as duration management, yield curve positioning, sector/issue selection, country market selection and currency. Implementation will apply to all strategies accepted by other large institutional investors and managed by institutional quality Investment Managers.

D. Real Assets Guidelines

The objective of Real Assets is to provide a real rate of return (i.e. after inflation) and also diversification relative to equities and fixed income.

The Real Assets portfolio is structured to the following components:

- Private Real Assets
- Public Real Assets

Any un-invested portion of the Private Real Assets allocation should remain invested in Public Real Assets.

Private Real Assets

Investments will be structured privately in the form of commingled or pooled vehicles such as limited partnerships and diversified among the following investment types: real estate, energy, mining, timber, agriculture, and infrastructure.

The Private Real Assets portfolio is expected to remain "broadly diversified" by geographic location, vintage year, and individual partnership investment at all times. The portfolio is expected to be diversified by geographic location with a general range of 50% - 70% invested in the U.S. and the balance invested outside the U.S. and generally no more than 30% invested in emerging markets. Investments should also be diversified by vintage year. Except for fund-of-funds, no single partnership commitment is expected to be more than 20% of the real assets' portfolio, and no single partnership commitment is expected to be more than 20% of the portfolio of a fund-of-funds manager.

Public Real Assets

The Public Real Assets portfolio is expected to be "fully" invested at all times. Investments will be structured in public real assets investments including Natural Resource Stocks, Real Estate Securities (including REITs), Commodities, Inflation Indexed Bonds, and Infrastructure.

The Public Real Assets portfolio is expected to remain "broadly diversified" such that each sub-asset class may contribute to the portfolio's real return and risk profile.

VIII. INVESTMENT MANAGER GUIDELINES AND OBJECTIVES

Investment Manager Guidelines and Objectives shall be prepared for each Investment Manager, where applicable. These statements shall contain investment objectives and risk control provisions, which are appropriate for each Investment Manager's mandate. Taken in the aggregate, these statements shall be designed to implement the overall policies and objectives of the Trust Fund.

In addition to complying with the appropriate Investment Manager Guidelines and Objectives, the role of each Investment Manager shall include:

- The exercise of a high degree of professional care, skill, prudence, and diligence in the management of assets under its direction.
- Thorough professional analysis and judgment with respect to all investments held in the account.
- Diversification of investments within the asset class or investment style.
- Full compliance with applicable fiduciary standards and any governmental regulations.

Investment Manager assignments may be implemented with pooled vehicles such as institutional commingled funds or '40 Act mutual funds, and in both public and private market asset classes. In such instances, the ERS may not have control with respect to the strategies' investment guidelines and objectives since they are written broadly to accommodate multiple investors. Effective February 16, 2021, the IMG determined developing "Representative Guidelines", which was a past Board practice, could result in a conflict between the Investment Manager Guidelines and the governing documents. To that end, if the governing documents include investment guidelines, the IMG will not recommend separate Investment Manager Guidelines for the Board's approval.

IX. INVESTMENT MANAGER SELECTION

The process utilized in the selection of Investment Managers is intended to be a competitive, objective process designed to ensure that the ERS has access to a broad array of quality service providers.

To procure investment management services, the Investment Consultant will attempt to identify both minority and majority owned firms that meet the specifications of the mandate within the evaluation process. Following the initial screening, the Investment Consultant will review, consolidate, and synthesize the appropriate information into a search document. The IMG will review the information received. The Investment Consultant may interview finalists, undertake site visits, contact references, confirm performance or other data, and conduct such additional due diligence as may be prudent under the circumstances. Upon completion of the initial due diligence, the IMG will recommend to the Board finalists for consideration. The finalist(s) recommended will make a presentation to the Board with final selection made by the Board.

Measures to Prevent Discrimination in the Selection Process

Minority Managers

It is the policy of the Board that it does not discriminate against minority owned firms in its Investment Manager selection process. The Board requires the Investment Consultant identify, research, and evaluate qualified minority owned managers. The Board requires that the Investment Consultant and IMG consider such minority owned firms in their efforts to fulfill the Board's investment objectives, but only in compliance with their respective fiduciary duties to the Trust Fund.

As used in this Investment Policy, a minority manager shall be defined as an Investment Manager that is U.S. domiciled and is majority-owned by one, or any combination, of the following groups: African American, Asians (including Pacific Islanders), Native American, Hispanic American, women and disabled individuals.

In addition to the requirements above, any qualified Investment Manager must be a registered investment advisor under the Investment Advisors Act of 1940 or exempt from registration requirements.

Emerging Managers

It is also the policy of the Board to encourage the participation of emerging managers in its Investment Manager selection process. The Board requires the Investment Consultant identify, research, and evaluate qualified emerging managers. The Board requires that the Investment Consultant and IMG consider such Investment Managers in their efforts to fulfill the Board's investment objectives, but only in compliance with their respective fiduciary duties to the Trust Fund.

As used in this Investment Policy, an emerging manager shall be defined as an Investment Manager that is U.S. domiciled and

- must be registered under the Investment Advisors Act of 1940 or be exempt there from (and will maintain such registration or exemption).
- must provide transparency of positions and transactions.
- must provide at least quarterly liquidity.
- must have a three-year historical, performance record verified by at least one consultant or accounting firm in accordance with Global Investment Performance Standards (GIPS).
- must have no more than $3.0 billion of total assets under management when hired.

It is the Board's intention to give such firms consideration in their efforts to fulfill the Board's investment objective; however, the Board is not obligated to hire any qualified Investment Manager on behalf of the Trust Fund if such hiring is inconsistent with its fiduciary duty to the Trust Fund and its stakeholders.

To ensure the inclusion of qualified emerging and minority Investment Managers in the process, the IMG will consider at least one such qualifying Investment Manager in its final evaluation process (consisting of an in-person presentation of the firm's capabilities). A qualifying Investment Manager will still need to meet the minimum stated criteria established in the search process (e.g. assets under management, track record, etc.).

X. INVESTMENT MANAGER MONITORING

The Board will review investment performance of the Trust Fund and compliance with the Investment Policy on a quarterly basis with the Investment Consultant. The IMG will meet with and monitor the performance of Investment Managers in accordance with the Investment Manager Monitoring Policy.

XI. REPORTING

In addition to the reporting requirements outlined in the contract and/or governing documents, each Investment Manager shall provide, at least quarterly: (1) a written commentary in sufficient detail such that the Board is apprised of account activity and performance and any material changes in personnel, philosophy, investment strategy or process, growth, loss, level of commitment to product type or any organizational issues; and (2) a summary of transactions which lists brokers used, including minority and emerging broker usage, commissions generated, and soft dollar usage and benefit to the Trust Fund; and at least annually, listing of proxy votes, including no votes. Each Investment Manager is also directed to contact the Administrator with any information of an important nature that is causing or could cause material impact on the Trust Fund or the Investment Manager.

XII. AMENDMENTS

This Investment Policy shall be reviewed annually by the IMG in consultation with the Investment Consultant to determine whether any modifications are needed and to make a recommendation to the Board for approval of such modifications, as appropriate.

This Investment Policy does not restrict or limit the Board from taking any action it deems appropriate.

If, at any time, an Investment Manager feels that the objectives cannot be met or that the guidelines unduly restrict performance, the Administrator should be notified in writing.

Each Investment Manager is encouraged to suggest changes in the specific objectives and guidelines for their mandate or the overall Investment Policy.

APPENDIX A

DERIVATIVES POLICY STATEMENT AND GUIDELINES

Objectives

This Derivatives Policy Statement is meant to supplement the Investment Policy and provide guidelines to identify and allow common derivative investments and strategies, which are consistent with the Investment Policy. The guidelines also require Investment Managers to follow certain controls, documentation, and risk management procedures.

Definition and Classification of Derivatives

A derivative is a security or contractual agreement that derives its value from some underlying security, commodity, currency, or index. These guidelines classify derivatives into four separate categories distributed across two classes: derivative contracts and derivative securities:

1. Derivative Contracts
    a. Forward-based derivatives, including forward contracts, futures contracts, swaps, and similar instruments.
    b. Option-based derivatives, including put options, call options, interest rate caps and floors, and similar instruments.
2. Derivative Securities
    a. Collateralized Mortgage Obligations (CMOs).
    b. Structured Notes.

Allowed Use of Derivatives

1. Derivative Contracts
    a. Hedging. To the extent that the non-derivative component of a portfolio is exposed to clearly defined risks and derivative contracts exist which can be used to reduce those risks, the Investment Managers are permitted to use such derivatives for hedging purposes, including cross-hedging of currency exposures, subject to the documentation requirements below.
    b. Creation of Market Exposures. Investment Managers are permitted to use derivatives to replicate the risk/return profile of an asset or asset class provided the guidelines for the Investment Manager allow for such exposures to be created with the underlying assets themselves.

c. Management of Country and Asset Exposure. Investment Manager's charged with tactically changing the exposure of their portfolio to different countries and/or asset classes are permitted to use derivative contracts for this purpose.

2. Derivative Securities

   a. "Plain Vanilla" CMOs. For the purpose of this policy, we will define a "plain vanilla" CMO as one which can be shown the CMO is less exposed to interest rate and prepayment risk than the underlying collateral.

   b. Other CMOs. CMOs, which are not plain vanilla, are restricted to 5% of a manager's portfolio.

   c. Structured Notes. Structured notes may be used so long as the exposure implied by their payment formula would be allowed if created without use of structured notes.

Prohibited Uses of Derivatives

Any use of derivatives not listed above is prohibited without written approval of the Board. Investment Managers are encouraged to solicit such approval if they believe the list above is too restrictive. By way of amplification, it is noted that the following two uses of derivatives are prohibited:

1. Leverage. Derivatives shall not be used to magnify exposure to an asset, asset class, interest rate, or any other financial variable beyond that which would be allowed by a portfolio's investment guidelines if derivatives were not used. Any use of leverage is prohibited unless expressly permitted by the Board and specified in the investment manager guidelines (or governing documents of the manager's fund).

2. Unrelated Speculation. Derivatives shall not be used to create exposures to securities, currencies, indices, or any other financial variable unless such exposures would be allowed by a portfolio's investment guidelines if created with non-derivative securities.

Transaction-Level Risk Control Procedures and Documentation Requirements

For each over-the-counter derivative transaction, except foreign exchange forward contracts, investment managers are required to obtain at least two competitive bids or offers. For small-issue CMOs, it is acceptable to obtain competitive prices on similar securities.

For all derivatives transactions, Investment Managers should maintain appropriate records to support the derivatives used and employed for allowed strategies. In addition, the following requirements apply to derivative securities:

1. “Plain Vanilla” CMOs. Document the CMO is in fact “plain vanilla”, according to the definition in Section 2.a. above.

2. Other CMOs. These CMOs must be stress tested to estimate how their value and duration will change with extreme changes in interest rates. An extreme change is one of at least 300 basis points.

3. Structured Notes. Document that note does not create exposures which would not be allowed if created without derivatives.

Portfolio-Level Risk Control Procedures and Documentation Requirements

1. Counterparty Credit Risk. Investment Managers are required to measure and monitor exposure to counterparty credit risk. All counterparties must have credit ratings of at least BBB- and Baa3 by S&P and Moody’s, respectively (or equivalent rating).

2. Ongoing Monitoring of Risk Exposures. The duration and other risk exposure limits specified in the Investment Managers’ guidelines are expected to be satisfied on an ongoing basis. Thus, Investment Managers must monitor changing risk exposures. Fixed income managers investing in CMOs should pay particular attention to the changing duration of their CMOs and should anticipate potential changes in duration at the time CMOs are purchased so that interest rate and prepayment rate changes do not inadvertently move the portfolio out of compliance.

3. Valuation of Holdings. The Investment Managers and Custodian shall provide the Board with their pricing policies including a list of sources used. The Board should be notified of any exception to these policies. The Custodian is required to obtain prices independent of the Investment Manager, or to notify the Board that independent prices are not available. The Investment Managers are required to reconcile the valuations of all derivatives positions with the custodian not less than monthly.

4. Quarterly Reporting. Each Investment Manager using derivatives shall submit within thirty days of the end of each quarter a report with the following information:

   a. A list of all derivative positions as of quarter-end.

   b. An assessment of how the derivatives positions affect the risk exposures of the total portfolio.

   c. An explanation of any significant pricing discrepancies between the manager and custodian bank.

   d. An explanation of any events of non-compliance.

   e. For Investment Managers of commingled funds, a list of derivative positions and assessment of the effect on the risk exposure of the portfolio.

Guidelines for use of Pooled Funds Which Employ Derivatives

Mutual funds and other types of commingled investment vehicles provide, under some circumstances, lower costs and better diversification than can be obtained with separately managed funds pursuing the same investment objectives. However, commingled investment funds cannot customize investment policies and guidelines to the specific needs of individual clients. The Board is willing to accept the policies of such funds in order to achieve the lower costs and diversification benefits of commingled funds.

Therefore, commingled investment vehicles are exempt from all policies specified above, except 4.e. if:

1. The investment practices of the commingled fund are consistent with the spirit of this derivatives policy.

2. The benefits of using a commingled vehicle rather than a separate account are material.

APPENDIX B

The following chart details long-term assumptions used as a proxy for the return and risk expectations for each asset class and the total portfolio. These are provided by the Investment Consultant as of June 2022[1].

Asset Class	Expected Return (%)	Expected Risk (%)
U.S. Equity	6.00	17.00
International Equity (non-U.S)	7.25	19.10
Global Low Volatility Equity	6.60	13.30
Private Equity	10.05	28.00
U.S. Core Fixed Income	4.05	4.25
High Yield Fixed Income	6.25	10.00
Bank Loans	6.00	6.00
Emerging Market Debt (“EMD”)	5.90	7.00
Global Opp. Fixed Income	9.30	15.10
Public Real Assets	5.60	11.45
Private Real Assets	7.75	11.25
Total Fund	**7.10**	**9.80**

The expected returns in the above table reflect market returns only. They do not include any excess return which may be generated through the use of active management within the ERS.

[1] Asset class return and risk assumptions are ‘long-term’ beta forecasts that cover at least the next ten years.

APPROVED BY:

The Investment Monitoring Group:	The Board of Trustees:
February 20, 2018	Approved May 6, 2014
September 20, 2022	Amended February 3, 2015
December 20, 2022	Amended April 4, 2017
	Amended March 6, 2018
	Amended July 7, 2020
	Amended September 14, 2021
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