INVESTMENT POLICY



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MoDOT & Patrol Employees' Retirement System Statement of Investment Policy, Objectives and Guidelines Effective November 18, 2004 Last Revision September 30, 2010

PURPOSE AND OBJECTIVES

The primary objective of the MoDOT & Patrol Employees' Retirement System ("System", "Plan", and "MPERS") is to provide retirement benefits to active and retired employees and their beneficiaries. As part of this charge, the Plan will invest its assets in a diversified portfolio following prudent standards for preservation of capital, with the goal of achieving the highest possible rate of return consistent with the System's tolerance for risk as determined by the Board of Trustees in its role as fiduciary.

ROLES AND RESPONSIBILITIES

This section addresses the roles and responsibilities of the Board of Trustees, Executive Director, Investment Staff and General Investment Consultant(s) as they pertain to the investment of Plan assets.

Board of Trustees (Board)

The Board of Trustees is responsible for the general oversight of the investment portfolio, including the review and approval of the policies and procedures contained in this document. The Board establishes the broad asset allocation policies and return objectives of the Plan, and retains investment staff, consultants, a master custodian and other advisors to implement and execute these policies. The Board has established an Investment Committee to support this function.

Pursuant to sections 105.687 to 105.690, RSMo., the Board Trustees are fiduciaries to the System and in fulfilling this responsibility shall:

- 1. Act with the same care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with those matters would use in the conduct of a similar enterprise with similar aims;
- 2. Act with due regard for the management, reputation, and stability of the issuer and the character of the particular investments being considered;
- 3. Make investments for the purposes of providing benefits to participants and participants' beneficiaries, and of defraying reasonable expenses of investing the assets of the system;

- 4. Give appropriate consideration to those facts and circumstances that the investment fiduciary knows or should know are relevant to the particular investment or investment course of action involved, including the role of the investment or investment course of action plays in that portion of the system's investments for which the investment fiduciary has responsibility. For purposes of this subdivision, "appropriate consideration" shall include, but is not necessarily limited to a determination by the investment fiduciary that a particular investment or investment course of action is reasonably designed, as part of the investments of the system, to further the purposes of the system, taking into consideration the risk of loss and the opportunity for gain or other return associated with the investment or investment course of action; and consideration of the following factors as they relate to the investment or investment course of action:
 - a. The diversification of the investments of the system;
 - b. The liquidity and current return of the investments of the system relative to the anticipated cash flow requirements of the system; and
 - c. The projected return of the investments of the system relative to the funding objectives of the system;
- 5. Give appropriate consideration to investments which would enhance the general welfare of this state and its citizens if those investments offer the safety and rate of return comparable to other investments available to the investment fiduciary at the time the investment decision is made.

In order to improve the efficiency of its investment operations, the Board of Trustees has elected to delegate the implementation of these policy decisions to the Executive Director, Chief Investment Officer, and the appropriate Investment Consultant (either the General Investment Consultant or Specialized Investment Consultant). This decision is supported by Section 104.1069, RSMo., which states: "Trustees of a board may delegate to employees of the system, or to an agent, functions that a prudent trustee acting in a like capacity and familiar with those matters could properly delegate".

Investment Committee

While the Board of Trustees is responsible for the general oversight of the investment portfolio, the investment committee is charged with the responsibility of providing more in-depth analysis on a wide range of investment related issues. The investment committee reviews and/or provides the Board with recommendations on topics such as the organization's tolerance for risk, asset allocation strategies, total fund performance, and compliance with investment policy.

Executive Director

The Executive Director ("Director") is a fiduciary to the System and is responsible for administering the operations of the System under broad policy guidance and direction from the Board. The Director, with assistance of Staff (his/her designee), monitors the performance of the investment portfolio; ensures that funds are invested in accordance with Board policies; communicates with the Board and its Officers; studies, recommends, and implements policy and operational procedures that will enhance the investment program; and ensures that proper

internal controls are developed to safeguard the assets of the System. The Executive Director must agree in writing to all hiring and termination decisions prior to the execution or cancellation of a contract with external asset managers and service providers. In fulfilling these investment responsibilities, the Director relies heavily on the Chief Investment Officer and General Consultant(s).

Chief Investment Officer

The Chief Investment Officer (CIO) is responsible for administering all facets of the investment portfolio. In fulfilling this role as a System fiduciary, the CIO is responsible for, but not limited to, the following:

- Working with System consultants to provide assistance and recommendations to the Board regarding investment policy and asset allocation, giving proper consideration to both diversification and risk,
- Working with System consultants to develop manager structures and implement manager allocation strategies for the overall program in compliance with the investment policy and asset allocation targets,
- Evaluating potential external service providers with the assistance of the General Consultant,
- Making manager hiring and termination decisions in concert with the Executive Director and Investment Consultant (either the General Consultant or Specialized Consultant),
- Portfolio rebalancing,
- Monitoring and evaluating existing external asset managers, including the Investment Manager's adherence to their Investment Management Agreement (IMA).
- Reconciling performance reporting by external service providers,
- Acting as liaison between the Plan and the investment management community, and
- Continually evaluating and refining the program.

General Investment Consultant(s)

The General Investment Consultant ("Consultant") serves as a fiduciary to the System and works with the CIO to develop and implement the Board's asset allocation strategies and investment policies. The decision to hire, retain, or terminate the Consultant shall be made by the Board of Trustees, with advice from the CIO and Executive Director. The Consultant will attend regular meetings with the Board to both educate and provide an independent perspective on the goals, structure, and performance within the investment portfolio. The Consultant must agree in writing to all hiring and termination decisions regarding external asset managers, and may also assist with the selection of other external service providers. The Consultant will monitor financial, economic, and political developments that may influence the investment portfolio.

The Consultant shall also provide to the Board a quarterly evaluation of the System's investment performance, detailing the performance by individual manager and asset class, and collectively at the Total Fund level. The quarterly evaluation shall include, but not be limited to, a review of

the Investment Manager's performance relative to the appropriate indices and peer groups, and also adherence to its specific style of management (i.e. growth, value, etc.).

Investment Managers

Investment managers may serve as fiduciaries for the System, and will have full discretion in the management of assets, subject to the guidelines in their respective (IMA). Quarterly communications with the Plan are required and these reports will, at a minimum, include:

- 1. Written statements, including actions taken in the portfolio, the current outlook and expected changes in the portfolio.
- 2. Comparison of performance results to the performance objectives outlined in their IMA.

Managers are required to report any pertinent changes in their organization to the Chief Investment Officer and the General Consultant within ten business days by phone and in writing. The changes include, but are not limited to, the following:

- 1. Changes in ownership structure.
- 2. Changes in key personnel.
- 3. Changes in process or philosophy, or strategies.
- 4. Material changes in assets gained or lost, as well as clients gained or lost.
- 5. Pending litigation or regulatory agency investigation or action.

Master Custodian

The role of the Master Custodian is to accept possession of securities for safekeeping; collect and disburse income; collect principal of sold, matured or called items; provide periodic accounting statements; and process and maintain the securities lending program. However, the securities lending program may be outsourced in part or in whole to one or more third-party lenders.

The Master Custodian will meet as required with the Staff to report on its activities.

Specialized Investment Consultants

Investment in certain investment strategies, such as private equity and real estate, may require specialized knowledge and expertise. The System may employ specialized investment consultants to assist in the development of policies for and implementation of these strategies. Specialized investment advisors are expected to assist Staff in developing a greater level of expertise and understanding of their respective asset class. The General Investment Consultant may also be retained as a specialized investment consultant if deemed by the Executive Director and CIO to be in the best interest of the System. In the event the Consultant is also under consideration as the outside service provider, the Consultant will be recused from the selection process and the selection will be made exclusively by the CIO and Executive Director.

<u>DELEGATION OF AUTHORITY – REQUIREMENTS AND LIMITATIONS</u>

Pursuant to its authority to delegate functions to employees of the system under section 104.1069, RSMo, the Board hereby delegates the responsibility of implementing its Investment Policy and managing the MPERS investment program to the Executive Director. In carrying out this authority, the Executive Director:

- 1. Must comply with the fiduciary requirements, conditions, and limitations described in Chapter 104, RSMo, and sections 105.687 to 105.689, RSMo.
- 2. Will ensure that the assets of the system are invested in a manner that is consistent with the asset allocation mix and any strategic (within class) allocation ranges of the portfolio as approved by the Board and set forth in the Investment Policy.
- 3. Has authority to approve and execute documents on behalf of the Board,
- 4. Will ensure that the CIO and Consultant:
 - a. Perform an asset allocation/liability study at least every 5 years and will report the results of that study to the Board.
 - b. Evaluate the asset allocation mix and any strategic (with-in class) allocations of the portfolio annually, and have the CIO report the results of that evaluation to the Board.
 - c. Provide quarterly investment performance reports to the Board that show performance of the total fund and all underlying asset classes based on the benchmarks set forth in the Investment Policy.
- 5. Will ensure that outside service providers are hired only by the unanimous consent, in writing, of the CIO, the Consultant, and the Executive Director, and will ensure that the proposed hiring is in compliance with the Board's Investment Policy. Outside service providers include securities lending managers, specialty consultants, the master custodian, and external money managers including, but not limited to, external money managers who may be structured as a public or private entity in the form of a partnership, limited liability company, trust, separately managed account, commingled account, or some other operational structure in which assets may be held by an external custodian selected and monitored by the external manager.

When selecting external service providers, the CIO and Consultant shall follow a thorough review process with established selection criteria. Within 72 hours of a hiring decision, the CIO or Consultant must provide documentation to the Board regarding the decision-making process, expectations, and rationale behind the decision.

6. Will ensure that the termination of an investment manager or external service provider as described in paragraph 4 occurs only by the unanimous consent, in writing, of the CIO, the Consultant, and the Executive Director, and will ensure that the proposed termination is in compliance with the Board's Investment Policy. In the event of termination, the underlying reason for the proposed termination action must be documented and shared with the Board within 72 hours.

- 7. Will ensure all governing documents with outside service providers are reviewed by legal counsel prior to execution.
- 8. Will not permit the CIO to manage assets internally unless prior approval from the Board has been received.

NOTE: On September 28, 2007 the board authorized the CIO to invest a portion of plan assets in an internally managed fixed income portfolio, not to exceed 5% of the System's assets without prior approval from the Board. The CIO will maintain a separate account at the Custodial Bank to hold the securities, and the allocation held therein and performance thereof will be considered a component of the Core Fixed Income Allocation. Securities purchased in the internally managed fixed income portfolio will be of U.S. Treasury or Agency quality.

NOTE: Effective July 1, 2010, the board authorized the CIO to internally manage portions of the plan's fixed income portfolio. The CIO will maintain a separate account at the Custodial Bank to hold the securities, and the allocation held therein and performance thereof will be considered a component of the respective fixed income allocation. Securities purchased in the internally managed fixed income portfolio will be of U.S. Treasury or Agency quality (reference the approved asset classes and strategies – traditional investments section for additional information).

9. Will require the CIO to develop and implement a rebalancing policy whereby the CIO will monitor and comply with the broad asset allocation using cost efficient methods.

10. Will not:

- a. Allow the CIO to use leverage in the fund except where a specific external service provider has been given written authorization to utilize leverage by the Executive Director, CIO, and the Consultant, subject to written guidelines describing its use within the manager's governing IMA. The use of futures to rebalance the fund and the use of futures for the equitization of cash within portfolios is not considered to be leverage.
- b. Allow the CIO to use derivative securities and synthetic products including futures, options, swaps, and forward contracts (and/or combinations of these instruments), and pooled, mutual or segregated funds that employ derivative and synthetic products except where a specific external service provider has been given written authorization to use derivative securities and synthetic products by the Executive Director, CIO, and the Consultant, subject to written guidelines describing their use within the manager's IMA.
- c. Allow the CIO to engage in short sales in the fund except where a specific external service provider has been given written authorization to engage in short sales by the Executive Director, CIO, and the Consultant, subject to written guidelines describing their use within the manager's governing IMA.

- 11. Will not make investments that are economically or socially targeted (ETIs or STIs). For purposes of definition, ETIs or STIs are investments that are selected for the economic and social benefits they create in addition to the investment return to the employee benefit plan investor. The following criteria, applicable to any investment, will also be applied to investments that might be classified as ETIs or STIs:
 - The fiduciary principles of prudence and exclusive interest of participants will not be abrogated or modified in order to increase the attractiveness of ETIs or STIs.
 - There will be no concession on rate of return. This means there will be no hidden subsidies and that the classic "efficient frontier" test is applicable: a commensurate unit of return will be received for each unit of risk incurred.
 - All participation should be voluntary on the part of the System and should not stem from a legal or policy mandate.
 - Each ETI or STI will be evaluated using an integral, objective process -- that is, each will be meticulously analyzed solely on its own risk/return characteristics. No weight will be given to redeeming social interests.
 - The System will participate only if at least one other comparable investor is participating.
 - When evaluating an investment, appropriate consideration must be given to the role that the investment or investment course of action plays (in terms of diversification, liquidity, risk and return) with respect to the entire investment portfolio of the System. Consideration should also be given to alternative investments with similar risks available to the System. The Board believes this set of investment criteria is in full compliance with Section 105.688. RSMo.
- 12. Will comply with a sunshine law information request except to the extent the Executive Director or CIO, with advice of legal counsel, determines that such request requires the release of information that constitutes a closed record pursuant to section 104.1069, RSMo, or any other provision under state law. The Board recognizes that the Executive Director and the CIO must make decisions with regard to the release of investment records that are timely and consistent so as to not jeopardize the system's ability to implement an investment decision or to achieve an investment objective.
- 13. Will establish policies for securities lending and proxy voting that ensure that the interests of the system are adequately protected.

In the event any of these requirements are violated, it is the responsibility of the Executive Director and/or the CIO and/or the Consultant to report the violation or exception to the Board in a timely fashion along with a detailed explanation of the violation and action being proposed or taken to remedy the situation.

RETURN OBJECTIVES AND ASSET ALLOCATION POLICY

The Board of Trustees, through this investment policy, defines the desired outcome of the investment program. With the assistance of staff and outside service providers, the Board establishes a return objective that will keep contribution rates reasonably level and consistent with historical levels, recognizing that changes to the benefit structure or actuarial assumptions will affect contribution rates. The Board has adopted an assumed rate of return equal to 8.25%. The Board

then establishes an asset allocation policy that is expected to both meet the assumed rate of return while minimizing the impact of the fund's volatility to contribution rates.

Diversification is the primary risk management tool to minimize volatility within the portfolio. The Board has consciously diversified the Total Fund to ensure that adverse or unexpected results from a single asset class will not have an excessively detrimental impact on the entire portfolio. Diversification is interpreted to include diversification by type, by characteristic, and by number of investments as well as by the investment styles of the management organizations.

Asset Allocation Targets

The Board has adopted the following broad asset allocation targets for Plan assets. The Board has granted the CIO the authority for establishing the allocation to each manager within the sub-asset classes. Based on a variety of considerations, the Board has established a range of allocations to sub-asset classes from which the CIO can operate. These ranges are outlined in the table that follows. The CIO shall adhere to the following guidelines when determining the dollar allocations to the managers:

- Changes to the manager allocations shall be based on longer-term expectations and should not be guided by short-term fluctuations in the capital markets,
- A prudent level of style and process diversification shall be maintained at all times, and any changes in the allocations to managers should be completed in a cost efficient manner, utilizing "natural" cash flows to the extent possible.

When the use of passive investment strategies is desired, the CIO is responsible for determining the most cost-effective method of obtaining the exposure.

Asset Class	Sub-Asset Class Ranges	Policy Benchmark Weight	Policy Benchmark Index
GLOBAL EQUITY	25% - 35%	30%	MSCI ACWI
FIXED INCOME	20% - 30%	25%	Barclays Universal
Core	7.5% - 12.5%	10%	Barclays Govt. / Credit Index
Inflation Protected Securities (TIPS)	3% - 7%	5%	Barclays U.S. TIPS Index
Long Duration	3% - 7%	5%	Barclays U.S. Long Govt.
Opportunistic Debt	0 – 10%	5%	Barclays U.S. Corp. High Yield
ALTERNATIVES	35% - 50%	45%	
Real Assets	10% - 20%	15%	NCREIF Property Index
Private Equity	10% - 20%	15%	S&P500 + 3%
Hedge Funds ¹	10% - 20%	15%	HFRI Fund of Funds

 $^{^1}$ To provide additional perspective on the long term success of the program, Hedge Fund performance will also be measured against a T-Bills + 4% hurdle over 5-7yr. rolling return periods.

The following are brief descriptions of the sub-asset classes and the underlying philosophies currently utilized by the System.

APPROVED ASSET CLASSES AND STRATEGIES – TRADITIONAL INVESTMENTS

Global Equity: <u>Publicly traded stocks</u> from both developed and emerging markets around the world. Strategies and/or managers will generally invest in markets and securities contained within the MSCI All-Country World Index (ACWI).

Fixed Income: The fixed income portfolio is constructed with a number of unique, diversified strategies to provide a prudent risk and return profile within the asset class. Permissible fixed income strategies include:

Core Strategies: Fixed income managers and strategies that invest across the various debt instruments contained within the Barclays Capital Universal Index. The system may utilize strategies that either invest across the spectrum of securities in the Index, or that specialize in certain sectors or security types. The CIO is allowed to internally manage securities within the core fixed income allocation, so long as the securities purchased are of U.S. Treasury or Agency quality.

Opportunistic Debt Strategies: Managers and strategies that seek to take advantage of relative value opportunities across the global fixed income markets, often times investing in sectors in need of liquidity. Such strategies may include, among others: high yield bonds; mezzanine debt; commercial and residential mortgage backed securities; and distressed corporate debt. Exposure may be obtained through long-only mandates or through private equity and hedge fund structures (explained further in the non-traditional investments section). Opportunistic debt strategies are limited to a maximum of 10% of total plan assets.

Treasury Inflation Protected Securities (TIPS): Treasury securities that offer a stated real rate of return, plus a par value that rises with inflation (as measured by the Consumer Price Index). The Board has established a target allocation for TIPS equal to 5% of plan assets. The CIO may internally manage the TIPS portfolio if deemed the most cost effective manner to obtain the desired exposure.

Long Duration Securities: Fixed income securities with longer term maturities, designed to generate income and provide a hedge against falling interest-rate environments. The Board has established a target allocation to long duration fixed income equal to 5% of plan assets. The CIO may internally manage long duration securities so long as the securities purchased are of U.S. Treasury or Agency quality.

APPROVED ASSET CLASSES AND STRATEGIES – NON-TRADITIONAL INVESTMENTS

Private Equity: Private Equity investments include buyouts, venture capital, debt-related (primarily mezzanine finance and distressed debt), or other opportunities that do not fit into traditional asset classes.

The portfolio will be diversified across investment stage, manager style, sectors and geographic coverage. MPERS will take a measured approach to obtaining exposure with the asset class, making annual allocations in lieu of large, one-time commitments to provide further

diversification across vintage years. The actual portfolio will be built on a case by case evaluation of best available opportunities, maintaining these overall diversification guidelines.

Exposure to the Private Equity sub-asset classes may be achieved by investing with fund-of-funds managers and/or through direct partnerships. In establishing the Private Equity portfolio, a strategy of over-commitment to the asset class may be utilized in order to reach and maintain the target allocations.

Real Assets: Real Asset strategies are investments that are ultimately backed by a tangible, physical asset (such as land, buildings, inventories or machines). Real Estate is the most common Real Asset strategy, and includes real estate investment trusts (REITs), commingled funds and/or limited partnerships that in turn invest in equity- and debt-related investments in underlying land and rental properties. Real Estate strategies may include, but are not limited to, diversified core, value-added, opportunistic and other special situations. Core real estate properties include high quality office, multi-family housing, industrial and retail facilities where the majority of the total return is derived from the rental income from the properties. Value added and Opportunistic properties shall include properties purchased with the intention of implementing a business plan to improve the attractiveness of the property and enhance return. This could include, among other strategies, certain modification or development to the properties or surrounding areas and various lease-up activities. In the case of value-added and opportunistic mandates, a strategy of over-commitment to the asset classes may be utilized in order to reach and maintain the target allocation.

Timber and Infrastructure investments may be employed to provide additional diversification benefits to the Real Assets portfolio. Examples of Timber investments include, but are not limited to, properties of softwood and hardwood trees whereby the majority of the returns are derived from the biological growth of the tree and the market price of the product. Examples of Infrastructure investments include roads, bridges, water and sewer systems, and other services or utilities that support the economy and society. Exposure to Timber and Infrastructure strategies may be achieved by investing in commingled funds and/or through a separate account with an approved investment manager. Allocations to Timber and Infrastructure investments may be made within the overall Real Assets portfolio (as a sub-asset class), and are limited to a range of 0% - 6% of total plan assets.

Apart from its administrative offices, and absent specific Board action or authorization, the System will not itself invest directly in Real Assets.

Hedge Fund Strategies: The Board has approved the use of Hedge Fund strategies to both enhance investment returns and provide additional diversification benefits to the portfolio. These strategies utilize a broad range of investment management techniques to achieve a consistent positive return regardless of overall market conditions. Examples of Hedge Fund strategies include, but are not limited to, long/short equity, relative value, event-driven and directional strategies. Exposure to Hedge Fund Strategies and their sub-asset classes may be achieved by investing with fund-of-funds managers and/or through direct partnerships.

Hedge Fund strategies may be used as a stand-alone asset class (i.e., as a tactical allocation in lieu of traditional fixed income) or as part of a Portable Alpha strategy with other traditional asset classes. Utilized in a Portable Alpha context, the return streams of the Hedge Fund managers are designed to provide an alpha overlay (excess return) above the returns of an

underlying asset class, or beta. In this structure, exposure to the underlying asset class is obtained synthetically, through the use of futures and/or swaps.

Liquidity Constraints (within the Hedge Fund Allocation): Liquidity within Hedge Fund strategies will vary by investment mandate. It is common for many of these strategies to have initial lock-up periods in which the initial investment is not available for withdrawal (without a redemption penalty). It is the responsibility of the CIO to manage the overall liquidity profile of the Hedge Fund portfolio, subject to the following guidelines:

- a) Liquid offerings are permitted without limitation. Liquid Offerings are defined as funds or strategies that offer a minimum of quarterly liquidity to investors and are not within their initial lock-up period (if applicable);
- b) Liquidity constrained offerings (those that do not meet the definition of Liquid Offerings) are limited to a maximum of 33% of the Hedge Fund allocation (equivalent to five percent (5%) of total plan assets).

Investments that overlap asset class boundaries: Certain alternative investment strategies will have characteristics of more than one asset class. For example, a real estate or private debt offering could be structured in a way that more closely resembles an equity product, while an equity infrastructure fund can be structured with fixed income attributes. In these situations, the CIO will look to the volatility of the underlying strategy to determine the appropriate asset class for the investment. As examples, higher volatility strategies (possessing equity-like volatility) are more appropriate for the real estate or private equity allocations, while lower volatility strategies are more appropriate for the fixed income and absolute return portfolios.

MANAGER HIRING AND TERMINATION POLICY

The Board has delegated to the CIO and General Consultant all investment manager hiring and termination decisions, subject to the approval of the Executive Director. In establishing this policy, it is the Board's intent to assure interested parties that actions taken during the process of implementation and maintenance of the program occur in an environment of full disclosure that is characterized by a competitive process, objective evaluation and thorough documentation. The overriding consideration with respect to all decisions is that they are made solely in the best interests of plan participants and beneficiaries.

To assure that all manager hiring and termination decisions adhere to the Board's intentions, all such actions shall be unanimously agreed to by the Executive Director, Chief Investment Officer and Consultant. Within 72 hours of the decision, the CIO or Consultant must provide documentation to the Board regarding the decision-making process, expectations, and rationale behind the hiring or termination decision.

Hiring and/or Termination of External Asset Managers

The Investment Staff and Consultant will take action to hire or terminate external asset managers under one or more of the following circumstances:

- To implement a prudent and diversified manager structure for the portfolio,
- When the need for an assignment type has been identified that will materially improve the diversification and/or risk-return profile of the portfolio,

- To remove one service provider in favor of another, and/or
- When the need arises to eliminate an assignment within the portfolio.

Documentation of the Decision-Making Process

Documentation materials prepared by the Investment Staff and Consultant regarding action to hire or terminate a manager(s) will include a full description of the reason for the action, the expected benefits resulting from the action and a full review of the decision-making process. The primary focus of the Investment Staff and Consultant when preparing documentation regarding the hiring and/or termination of external asset managers will be on providing the Board with the level of information necessary to satisfy all parties that decisions were well reasoned, carefully considered and prudent.

Minimum Criteria for External Asset Managers

In order to receive consideration, an external asset manager must meet certain minimum criteria. In addition to these basic requirements, a manager must also comply with any additional search criteria defined by the CIO and Consultant that have been established for a particular assignment. The minimum criteria for external asset managers are described in the following paragraphs.

Organizational Qualifications. To be selected as an external asset manager, a manager shall meet the following organizational criteria:

- Qualify to serve as a fiduciary to the System if required by the CIO and Consultant for the particular assignment,
- Register with the SEC (if applicable),
- Remain free of conflicts of interest unless previously disclosed and waived, and
- Have a proven record of professionalism and ethical behavior.

Scale. Managers must have a level of assets in the product such that the addition of funds from MPERS will not cause the System's investment to exceed 25 percent of the manager's total assets in the product.

Investment Style and Process. The investment style and process employed by a manager must be compatible with the System's investment objectives and policies. The manager should also have a proven record of adherence to an established investment philosophy over time.

Personnel. A manager must have an experienced professional staff with adequate resources to meet the System's requirements. A manager should be able to demonstrate policies designed to attract and retain key personnel.

Performance. The manager and/or its personnel shall have a demonstrated ability to achieve and maintain superior performance in the investment approach under consideration.

Manager Search Process

External asset managers qualified to fill assignments within the MPERS alternative portfolio are identified through the manager search process. The Investment Staff and Consultant are charged with the responsibility of conducting the necessary searches for qualified service providers. Each step of the process is thoroughly documented in a Manager Search Book that is provided to the Executive Director and Board of Trustees for their review. The Search Book is intended to provide documentation that all relevant issues have been disclosed, that the search process was conducted fairly, and that the policies and procedures outlined herein were followed to the Board's satisfaction.

Competitive Environment. The search for external asset managers will be conducted in an open environment to ensure that qualified providers are identified, the process is fair and objective, and that pricing is reasonable. In instances where multiple providers exist, a meaningful sample of qualified firms should be considered and evaluated in relationship to each other. If a situation arises in which an investment approach is unique to a specific firm, a full description of the unique characteristics of the firm and the reasons why a competitive alternative does not exist must be fully documented.

Manager Selection Criteria. The Investment Staff and Consultant will jointly develop the manager selection criteria used to identify potential service providers. In order to identify the most qualified service providers, criteria will be tailored to each specific assignment within the portfolios. The Investment Staff and Consultant will independently apply the criteria to the manager universe to ensure fairness and consistency including due consideration of minority and women service providers (pursuant to Section 104.621, RSMo.).

Requests for Proposals. Broadly distributed Requests for Proposals (RFPs) developed by the Investment Staff and Consultant are not required. RFPs may be sent to qualified service providers as determined by the CIO and General Consultant. In these cases, the Investment Staff and Consultant will independently assess and rank the RFP respondents based on a set of established criteria.

Due Diligence. The investment management firms receiving the highest rankings by the Investment Staff and Consultant will be subjected to an intensive due diligence effort. The Investment Staff and Consultant participate jointly in this process. Both parties conduct a number of quantitative and qualitative analyses on firms under consideration. Once "finalist" firms are determined, an on-site meeting will be held with each manager under consideration.

Manager Selection and Search Process Documentation. The manager receiving the highest collective ranking from the search team is selected to fill the designated assignment within the portfolios. The Investment Staff and Consultant are responsible for the preparation of all search process documentation, and for providing the documentation to the Board.

Investment Management Agreements

Where appropriate, an investment management agreement (IMA) will be executed for each external asset manager, establishing guidelines for the particular role of that manager within the overall portfolio. The IMA, at a minimum, will address the following topics:

- a. Permissible investments,
- b. Style adherence,
- c. Diversification,
- d. Portfolio quality,
- e. Performance objectives, and
- f. Other manager-specific issues.

To the extent the manager relationship is governed by a limited partnership agreement, group trust agreement or the guidelines of a commingled investment vehicle, the prospectuses, offering documents, private placement memorandums and other governing documents for those investments will be reviewed carefully by legal counsel and the CIO. Upon execution, the documents will govern those relationships and the terms of which shall be incorporated by reference into the System's Investment Policy.

Management Fees

The Investment Staff and Consultant are responsible for securing the services of qualified service providers at reasonable and competitive fee structures, and will work diligently to assure the most favorable fee arrangements for the System. In accordance with that policy, the Investment Staff and Consultant will consider a number of different fee structures. Both asset-based and performance-based fee alternatives will be considered. All performance-based fee structures, however, will be carefully compared and contrasted to traditional asset-based fee options.

Ongoing Manager Evaluation

The Investment Staff and Consultant are responsible for the monitoring and evaluation of the external asset managers employed by the System as part of the program. In fulfilling this role, Staff meets at least annually with each manager to formally review performance and investment activity, as well as to ensure each firm is adhering to the specific investment guidelines established for each mandate.

ANNUAL REVIEW

In view of the rapid changes within the capital markets and investment management techniques, these guidelines will be reviewed by the Plan annually. Any revision to the policies and procedures set forth herein requires the approval of the Board of Trustees.

Appendix

Section I – Proxy Voting Policy

Proxy voting shall be the responsibility of the investment manager and shall be done with the best interests of the Plan participants in mind. Managers shall maintain records of proxy votes and shall report this record annually to the Plan. Proxy voting and related procedures adopted by a manager or other service provider to the Plan shall be in compliance with applicable Missouri and federal laws and regulations. Additional information regarding proxy voting policies, and/or specific proxy initiatives may be requested by the Plan.

Section II – Securities Lending Policy

The Plan may elect to participate in a securities lending program that shall be implemented through the Plan's custodian or through a designated third party securities lending agent. Participation in such program shall continue until the Executive Director, Chief Investment Officer and Investment Consultant agree that the risk-reward relationship is no longer advantageous for Plan. If and when this determination is made the Plan may discontinue participating in any securities lending programs that are currently in place. This shall be done without Board approval. The Board shall be notified at the next Board meeting that participation in the program(s) has been ceased. Notification will also occur if and when the Plan decides to reinstate participation in such a program.

Participation any securities lending program shall in no way inhibit the investment strategy or process of any investment manager. The program shall only take reasonable risks with respect to securities on loan, levels of collateral collected and investment of collateral proceeds. Any securities on loan shall be marked-to-market on a daily basis to ensure adequacy of collateral. The sponsor of the securities lending program shall provide an annual report to the Plan.

Section III – Securities Class Action Litigation Policy

It is the policy of this Plan not to serve as lead plaintiff in a class action litigation case unless the Plan is one of the largest shareholders of the security in question, and it is determined through consultation with legal counsel that serving in this status would be in the best interests of the Plan. Cases that present such an opportunity will be reviewed as they arise and determination on how to proceed will be outlined at that time.

The custodian will have primary responsibility for monitoring shareholder litigation settled in U.S. District Courts on behalf of the System. The custodian will notify the System when litigation has been settled that effects a security either currently owned, or previously owned while the custodial arrangement was in effect. Information regarding any class action settlements will be sent to both the Executive Director and Assistant Executive Director. If participation is elected by the System, the custodian will be responsible for submitting documentation so that the System may participate in any settlement distributions. Any distributions received by the custodian on behalf of the System shall be deposited into the System's cash account unless otherwise directed by the System.

Section IV – Deposit and Investment Risk Policies

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of the System's investment in a single issuer. Unless authorized under a separate Investment Management Agreement, it is the policy of the System to limit each equity manager to investing a maximum of 5% of the market value of their portfolio in any single company and to limit fixed income managers to investing 3% of their portfolio into obligations of a single corporation. Fixed income obligations of the U.S. Government or U.S. Government agencies may be held in any amounts.

Investment Custodial Credit Risk

Custodial credit risk is an investment risk in that, in the event of the failure of the counterparty to a transaction, the System will not be able to recover the value of its investment or the collateral securities that are in the possession of an outside party. Investment securities are exposed to custodial credit risk if the securities are uninsured, are not registered in the name of the System, and are held by either: a) the counterparty or b) the counterparty's trust department or agent but not in the System's name. It is the policy of the System to require that all investments be clearly marked as to ownership and, to the extent possible, shall be registered in the name of the System.

Cash Deposit Custodial Credit Risk

Cash deposit custodial credit risk is the risk that, in the event of the failure of depository financial institution, the System will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. Missouri state law requires that all public funds must be collateralized with acceptable securities having market values of at least 100% of the amount of funds on deposit (less any amount covered by FDIC insurance).

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The System does not have a formal investment policy that limits investment maturities as a means of managing its exposure to interest rates. Interest rate risk is most prevalent within the fixed income allocation, where the Board of Trustees has set a target allocation equal to 25% of System assets.

Investment Credit Risk

Investment credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. Unless authorized under a separate Investment Management Agreement, it is the policy of the System to limit fixed income managers to purchasing securities that possess a minimum credit rating of "Baa" by Moody's and "BBB" by Standard & Poor's. Issues subsequently downgraded below these ratings must be brought to the attention of the Chief Investment Officer.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment. The System is subjected to foreign currency risk through its exposure to fixed income and equity investments that are denominated in a foreign currency. While a certain amount of this exposure is desired for diversification purposes, the System's investment policy does allow its managers to utilize currency futures for defensive (hedging) purposes if deemed to be in the best interest of the System. The Board of Trustees has set a target allocation to global equities of 30% as reflected in the System's investment policy.

Section V – Anti-Terrorism Investment Policy

On an annual basis, MPERS' Staff will research available information from governmental agencies regarding companies that are believed to be supporting terrorism. Such organizations include the Department of Homeland Security, the State Department, the Commerce Department, the Justice Department, the Treasury Department, the Securities and Exchange Commission, and any other governmental agency deemed to have useful information in accurately identifying companies that are supporting terrorism. MPERS' Staff will also research any specific information available from the Missouri State Treasurer's Office and the Office of the State Attorney General in identifying these companies.

Upon receipt of such information, Staff will compare the list of companies with current holdings. In the event that MPERS is a holder of one of these companies, Staff will immediately contact the manager of the specific investment account to bring the situation to their attention and discuss appropriate actions for divesting from the company. In addition, Staff will forward on all information received from any of these governmental agencies to our investment managers so they can avoid making initial investments or divest of existing investments in companies that are identified as supporting terrorist activities. Finally, if MPERS is determined to be a holder of any company with links to terrorist activities, Staff will provide a report to the Board on an annual basis that identifies any investment actions taken.

This policy is intended to avoid 1) punishing companies whose activities abroad are supported by the US government; 2) punishing companies whose activities abroad do not further terrorism, 3) unnecessarily harming US companies and jobs; and 4) compromising the Board's fiduciary duties to the beneficiaries of the System. Recognizing the dynamic nature of this issue, Staff will annually evaluate this policy to determine if changes need to be made to reflect recent developments in this area. In the event that Staff believes changes to this policy are warranted, they will bring the issue to the attention of the Board for consideration.

Section VI - Conduct and Conflict of Interest

MPERS has adopted a Board Governance Policy and a Personnel Policy strictly addressing conduct and conflicts of interest. Implementation of the Investment Policy is, and must be, in compliance with all other applicable policies adopted by MPERS. Managers and other service providers engaged under the Investment Policy shall comply with applicable laws and regulations regarding conduct and conflict of interest, and particularly related to gifts, contributions, or other payments for purposes of influencing the decisions or actions of public officials and employees affecting MPERS and the board and staff of MPERS. This should take into account prohibitions applicable to "pay-to-play" activities. Any board member, staff member, manager or other service provider becoming

aware of improper conduct or activity that may suggest improper conduct shall report the same to MPERS' Executive Director or General Counsel.

Section VII – Placement Agent Fees

Placement agents are defined as any person or entity hired, engaged or retained by an external manager as a finder, solicitor, marketer, consultant, broker or any other intermediary to raise money from or to obtain access to MPERS' investment portfolio. Typically placement agents are retained by investment firms to perform services such as designing marketing materials and/or making introductions to investment prospects (including pension funds). The agents are typically paid by the external manager or investment manager that hires them.

Placement fees are legal, but the disclosure of placement fees is required to protect against actual or potential conflicts of interest. Problems can arise if the pension officials receive undisclosed and/or inappropriate payments or other benefits from the placement agent that influence the decision making process of the pension system. Such conduct could be illegal and would likely present a breach of fiduciary duty.

Commencing October 1, 2010 each new external service provider and/or investment manager for MPERS' investment portfolio is responsible for providing the following information to staff prior to contract signing. Typically this information will be included in the side letter.

- 1. A statement whether the external manager, or any of their principals, employees, agent or affiliates has compensated or agreed to compensate any person or entity to act as a placement agent in connection with any investment by MPERS.
- 2. A description of any and all compensation of any kind provided or agreed to be provided to a placement agent, including the nature, timing, value, and the entity making the compensation payment.
- 3. A statement whether the placement agent, or any of its affiliates is registered as a lobbyist with any state or national government.

Section VIII – Internal Fixed Income Policy

Statement of Purpose

Effective July 1, 2010, MPERS' Board of Trustees approved new asset allocation targets for MPERS' investment portfolio. The fixed income portfolio has a new targeted allocation to long duration securities and inflation protected securities. Staff was granted approval to manage these allocations internally if deemed to be the most effective means of obtaining the exposure. Should the Chief Investment Officer (CIO) decide to internally manage a portion of MPERS' fixed income portfolio, this internal fixed income policy outlines the goals, objectives, and limitations that govern the program.

Goals and Objectives

MPERS' Board of Trustees has established asset allocation targets to long duration and inflation protected fixed income securities, as defined below:

<u>Inflation Protected Securities</u>: Fixed income securities that offer a stated real rate of return, plus a par value that rises with inflation (as measured by the Consumer Price Index for U.S. Treasury inflation protected securities).

Target allocation: 5% of plan assets

Permissible range of allocation: 3%-7% of plan assets

Benchmark: Barclays Capital U.S. TIPS Index

Duration guideline: target duration that is +/- 25% of the benchmark duration

Minimum number of portfolio issues (individual securities): 5

Maximum exposure to one issue: 25% account value

Acceptable investments:

• U.S. Treasury Inflation Protected Securities (TIPS)

• Exposure to the Barclays Capital World Government Inflation-Linked Bond Index (WGLIB) up to a maximum of 20% market value. Markets included in the index are the UK, Australia, Canada, Sweden, the U.S., France, Italy, Japan and Germany. Minimum rating for inclusion in the index is A3/A- for G7 countries and euro area markets and Aa3/AA- otherwise.

<u>Long Duration Securities</u>: Fixed income securities with longer term maturities, designed to generate income and provide a hedge against falling interest-rate environments.

Target allocation: 5% of plan assets

Permissible range of allocation: 3%-7% of plan assets

Benchmark: Barclays Long Duration U.S. Government Credit Index

Duration guideline: target duration that is +/- 25% of the benchmark duration

During the initial construction of the long duration portfolio, the duration may be lower than the permissible duration range.

Minimum number of portfolio issues (individual securities): 20

Maximum exposure to one issue: No restrictions on U.S. Treasury and Government Agency securities. Non-government agency positions are limited to 5% of total account value

Acceptable investments:

- U.S. Treasury bonds
- U.S. Treasury bond Futures contracts
- U.S. Government Agency bonds
- Corporate bonds with minimum AA credit rating (AA- by Standard & Poors and Aa3 by Moody's Investors).
- Taxable municipal bonds with minimum AA credit rating (AA- by Standard & Poors and Aa3 by Moody's Investors).

Trade Documentation:

MPERS' staff is responsible for broker selection and insuring that transactions are executed at competitive pricing and execution. MPERS's staff must provide documentation for each trade made for the internal fixed income portfolio. The documentation will be attached to the trade authorization form(s) sent or used by the master custodian, and must include (at a minimum) the following:

- Description of security purchased
- Settlement costs of trade
- Investment yield of security
- Yield of competing bids or similar investments
- Brief rationale of trade/investment

Performance Reporting:

Each internally managed fixed income accounts shall have a separate account established at the master custodian for safekeeping and reporting purposes. The performance of each account shall be calculated by the master custodian, included as a component to MPERS' overall fixed income portfolio, and reported in the same manner as an externally managed portfolio.

Compliance / Auditing:

MPERS' general investment consultant will review the internally managed fixed income accounts no less than semi-annually to ensure compliance with this policy. The review will include, at a minimum, a review of holdings and purchases during the period to ensure the securities meet the eligibility requirements and goals of the program.