# COLORADO PERA STATEMENT OF INVESTMENT POLICY

COLORADO PERA

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# PURPOSE

The Public Employees' Retirement Association of Colorado (Colorado PERA or PERA) is a defined benefit plan, created by Colorado Statute 24-51-201:

> There is hereby created the public employees' retirement association, for the purpose of providing the benefits and programs specified in this article, which shall be a body corporate with the right to sue and be sued and the right to hold property for its use and purposes. Notwithstanding the applicability of sections 2-3-103, 24-4-103, 24-6-202, and 24-6-402, C.R.S., as provided for in this article, the association shall not be subject to administrative direction by any department, commission, board, bureau, or agency of the state. The association is an instrumentality of the state.

The Statement of Investment Policy (SIP) sets forth the investment policies by which the fund's investments will be managed. This SIP is consistent with and complements related Colorado Statutes and is intended to be binding upon all persons with authority over Colorado PERA's investments. Deviation from the Statement of Investment Policy is not permitted without explicit written permission, in advance, from the Board of Trustees. This SIP was adopted on November 19, 2004. It was amended on February 18, 2005, January 20, 2006, January 19, 2007, November 16, 2007, March 21, 2008, March 20, 2009, March 19, 2010, March 18, 2011, March 16, 2012, September 21, 2012, March 15, 2013, January 17, 2014, March 20, 2015, July 1, 2015, and July 1, 2016.

# INVESTMENT PHILOSOPHY

The investment philosophy for Colorado PERA has been determined with careful consideration of its primary fund purpose, fiduciary obligations, statutory requirements, liquidity needs, income sources, benefit obligations and other general business conditions. The investment philosophy embraces the following:

» Strategic asset allocation is the most significant factor influencing long-term investment performance and asset volatility. The asset allocation targets, determined by the Board of Trustees, will be adhered to through a clearly defined rebalancing program.

» The fund's liabilities are long term and the investment strategy will therefore be long term in nature. Strategic decisions will prevail in determining asset allocation rather than tactical or short-term market timing decisions.

» The asset allocation policy and its resulting diversification benefits will be periodically reexamined to ensure its appropriateness to the then prevailing liability considerations.

» Market-related risk and non-market related risk investments will be utilized. (Market related risk refers to risk systematic to a market or risk embedded in the strategic asset allocation policy. Non-market risk refers to risk derived from active management or tactical decisions.) Market-related risks are expected to produce returns proportional to the level of those risks over long periods of time as a natural feature of reasonably efficient capital markets; non-market related risks may produce additional returns when capitalized upon through skilled active management in the presence of some degree of market inefficiency. As a long term investor, Colorado PERA will invest across a wide spectrum of market-related risk investments, categorized in asset classes, in a prudent manner consistent with the strategic asset allocation policy referred to above. Index funds can be a desirable way of obtaining market-related risk exposure to asset classes.

» Non-market-related risks, also known as active management risk, may be expected to add value over index funds with comparable benchmarks, under appropriate conditions, and can be employed by the fund with controls in place which are appropriate to the particular investment.

» Illiquid and long-lived investments are expected to provide a return premium over more liquid alternatives. As a long-term investor, Colorado PERA will take on illiquid investments when it believes those will provide more favorable returns on an absolute and a risk-adjusted basis compared to liquid markets, and only to a degree where the fund's ability to meet benefit payments and other cash outflows is not compromised.

» Costs of an investment program matter. Colorado PERA will seek to manage all investment-related costs closely.

# INVESTMENT GOALS AND OBJECTIVES

The function of Colorado PERA is to provide present and future retirement or survivor benefits for its members. This objective requires the prudent assumption of investment risk in seeking to maximize long-term investment returns while incorporating the fund's liability requirements. The future investment performance of the fund directly affects its future financial strength. However, the greater the expected return of the strategic asset allocation policy, the higher the risk, and thus the greater the volatility of expected returns. With this greater volatility, the volatility of the surplus (deficit) of the plan may also be greater. The optimal balancing of these return and risk considerations will be considered in the context of the fund's short term and long term benefit obligations.

# ROLES AND RESPONSIBILITIES

Although not specifically required by Statute, the *Governance Manual,* adopted November 2001, and last revised September 2014, identifies the roles and responsibilities of the various parties that oversee the investment and management of fund assets.

## BOARD OF TRUSTEES

Trustees shall carry out their functions solely in the interest of the members and benefit recipients and for the exclusive purpose of providing benefits and defraying reasonable expenses incurred in performing such duties, as required by law. The Trustees shall act in accordance with the provisions of State Statute and with the care, skill, prudence and diligence in light of the circumstances then prevailing that a prudent person acting in a like capacity and familiar with such matters would use in the conduct of an enterprise of a like character and with like aims by diversifying the investments of the association so as to minimize the risk of large losses, unless in light of such circumstances it is clearly prudent not to do so.

Specific responsibilities, as defined in the *Governance Manual,* include:

- Approve statements of investment policy and philosophy and review the statements at least biennially
- Ensure strategies are in place to achieve the investment goals and objectives of PERA
- Approve the decision to use internal or external investment management for each investment mandate
- Approve new investment mandates
- Ensure that a study of the relationship between PERA's assets and liabilities is performed at least every three to five years or more frequently, if needed
- Approve corporate governance or shareholder rights actions deemed necessary with respect to any corporation or entity of which PERA is a shareholder, partner or member

## INVESTMENT COMMITTEE

The Investment Committee is responsible for assisting the Board in overseeing the PERA investment program. Specific responsibilities, as defined in the *Governance Manual,* include recommending to/advising the Board:

- A written statement of investment philosophy for the fund
- A written statement of investment policy and any amendments thereto
- Strategies to achieve the investment goals and objectives of PERA
- New investment mandates
- Use of internal or external management for the investment mandates
- On any other investment matters and make recommendations for Board action when necessary
- Keep minutes of Investment Committee meetings and ensure the minutes are made available to Trustees

Additional monitoring and reporting requirements are specified in the *Governance Manual.*

## STAFF

The overriding role of the staff is to assist the Board of Trustees in managing Colorado PERA's investments. In this regard, as defined in the *Governance Manual,* staff is expected to:

» Recommend to the Investment Committee a written statement of investment policy and philosophy and review the statements with the Investment Committee at least biennially

» Recommend to the Investment Committee strategies to achieve the investment goals and objectives of PERA

» Recommend to the Investment Committee new investment mandates

» Recommend to the Investment Committee the use of internal or external investment management for each investment mandate

» Coordinate a study of the relationship between PERA's assets and liabilities at least every five years, or more frequently if so directed by the Board

» Within the policy parameters approved by the Board, develop investment manager structures for each asset category in which PERA invests, including but not limited to the funds to be allocated to active and passive portfolios, and to internally and externally managed portfolios

» Negotiate and approve guidelines and contracts for each investment manager retained by PERA

» Execute portfolio rebalancing in accordance with the policies of the Board

» Advise the Board and the Investment Committee on any other investment matters and make recommendations for Board or committee action when necessary

Additional monitoring and reporting requirements are specified in the *Governance Manual.*

## INVESTMENT MANAGERS

Internal or external investment managers will invest plan assets according to their investment style for which they were hired and judgments concerning relative value of securities. In particular, investment managers are accorded full discretion, within policy and guideline limits, to:

» Select individual securities and other investment exposures as defined in their mandates

» Diversify portfolio assets

Staff will monitor and review all investment portfolios, managers, and fees paid by the fund. The Investment Department's Policies and Procedures, adopted by staff in January 2006, and subsequently updated and revised, describes the process by which managers will be selected, criteria for evaluation, as well as reasons for termination or removal.

## CONSULTANTS

Consultants are fiduciaries and shall discharge their duties with respect to this fund solely in the interest of the members and benefit recipients with the care, skill, prudence, and diligence under the circumstances then prevailing.

Qualified Consultants include those professionals with the background, expertise, and demonstrated success as institutional investment consultants for at least five years, and with research/data base access to assist in providing investment program advice.

## CUSTODIAN

The Custodian(s) holds directly, through its agents, its sub-custodians, or designated clearing systems, assets as designated by the Board. The Custodian is accountable for registration of those designated assets in good delivery form, collection of income generated by those assets, and any corporate action notification. The Custodian(s) is responsible for delivery and receipt of securities of the aforementioned transactions. The Custodian(s) is required to provide online records and reports, performance reporting, accounting reports and other services included by contract. The Board may opt to designate other duties to the Custodian(s).

# ASSET ALLOCATION POLICY

Colorado PERA's current interim and long-term target asset allocations and ranges are specified below.

| Asset Class | Interim Target Allocation[1] | Long-Term Target Allocation[2] | Permissible Range |
|---|---|---|---|
| Global Equity | 53.5% | 53% | 47% to 59% |
| Fixed Income | 23.5% | 23% | 18% to 28% |
| Private Equity | 8.5% | 8.5% | 5% to 12% |
| Real Estate | 8.5% | 8.5% | 5% to 12% |
| Opportunity Fund | 5% | 6% | 0% to 9% |
| Cash | 1% | 1% | 0% to 3% |
| Total | 100% | 100% | — |

[1] *Interim target allocation effective July 1, 2016.*

[2] *Long-term target allocation to be achieved over a 3–5 year time frame (or as market conditions dictate).*

The strategic asset allocation policy will be periodically reviewed, as described under "Investment Philosophy" and "Roles and Responsibilities."

# REBALANCING POLICY

The purpose of the rebalancing policy is to ensure the adherence to the strategic allocation plan. Unexpected changes in market values may, on occasion, cause the actual asset allocation to fall outside of the allowable ranges. This policy applies to all asset classes in which PERA invests and requires Staff to implement rebalancing trades if as of any quarter end, the allocation to any asset class is outside the allowable ranges. The Board recognizes, however, the inherent difficulty in managing the allocations to the illiquid asset classes. While the Board expects there to be a process in place that attempts to estimate capital calls and distributions in the non-marketable asset classes, it recognizes the difficulty in buying and selling partnership interests or real estate to manage the Fund's allocation to these asset classes.

As such, with respect to PERA's non-marketable securities asset classes, the Board expects the allocations to these areas to be managed as close as practical to the policy targets. As of any quarter-end, the Board expects Staff to report non-marketable asset class allocations that fall outside the prescribed ranges. In addition, the Board expects Staff to provide an implementation recommendation, if any, to bring the fund's allocation to these areas back within the allowable ranges.

Managing the allocations to the marketable asset classes involves a risk reduction tradeoff with increased transaction costs. As such, the Board expects Staff to implement this policy in a manner which seeks to minimize the impact of transaction costs. The Board also expects Staff to use cash contributions and cash needs to move the Total Fund's asset allocation as close as practical to the policy targets.

When markets move such that the Fund's normal cash flows are insufficient to maintain the Fund's actual asset allocation within the permissible ranges as of any quarter end, the Board expects Staff to implement the necessary transactions to bring the Fund's allocation back to within the allowable ranges. Before a rebalancing transaction is implemented, the Board expects Staff to identify those portfolios that are likely to have the lowest cost of trading. Absent any asset class structure considerations, the Board expects these low trading cost portfolios to be utilized more frequently to implement required Total Fund rebalancing.

# ELIGIBLE ASSET CATEGORIES

The Board is responsible for identifying asset categories in which the fund will invest. The Colorado PERA *Governance Manual* requires that the investment policy statement identify the eligible asset categories in which the fund might invest, while Statute requires a discussion of market efficiency. Listed below are the asset categories in which Colorado PERA currently invests along with a discussion of market efficiency in each category.

The efficiency of markets is relevant to expected return opportunities. Highly efficient markets provide less opportunity to add value above market returns. Highly inefficient markets provide more opportunity to add return above what is available by the market. This above market return expectation can be referred to as alpha. Market return can be referred to as beta.

## GLOBAL EQUITY

PERA's global equity asset class includes a combination of U.S. and non-U.S. equity markets. Increasing capital and trade flows and decreasing capital constraints and currency controls around the globe are important factors in global financial integration. Equity prices are increasingly determined by global sector factors, suggesting advantages for investors who look for diversification beyond a pure country framework. Increasing similarities among countries and markets suggest that a global approach to investing in the world's equity markets may be optimal. Capital market theory suggests that Colorado PERA should be fully diversified in a global sense, not just in a local sense. Therefore, it behooves investors to consider non-U.S. equity allocations for a portion of their investment portfolios

Investing in the U.S. equity market is a way to participate in one of the largest and most diverse economies in the world through ownership of the companies that make up that economy. Investment theory and history suggest that the U.S. equity markets provide long-term price appreciation in an amount that tends to mirror the overall growth in the economy. In addition, historically stocks have provided a return that served as an effective hedge relative to inflation (i.e., the historical return of stocks has been in excess of the rate of inflation).

The U.S. equity market is considered by many to be one of the most efficient capital markets in the world. The availability of public information regarding the future prospects of individual companies combined with the numerous market participants rendering assessments of this information contribute to this market's efficiency. In structuring portfolios, financial theory and empirical evidence suggests that a broad-market index, that encompasses the entirety of the U.S. equity market, such as the MSCI USA IMI, will provide the most efficient portfolio structure.

While this market is very efficient, neither it nor any other market is perfectly efficient. When appropriate skill is available, it may be possible to successfully use active management techniques to make modest improvements over benchmark returns, with acceptable levels of risk.

Non-U.S. equity markets encompass those of developed and emerging economies. While individual country markets exhibit varying degrees of market efficiency, it is believed that non-U.S. equity markets, as a group, are marginally less efficient than those of the United States. One requirement of market efficiency is the ability of capital to flow freely among markets. Capital flows in non-U.S. equity markets are hampered somewhat by less liquidity than what is available in the United States. Therefore, it is expected that the Colorado PERA non-U.S. equity portfolio will be structured to attempt to capitalize on the perceived inefficiencies of these markets.

## FIXED INCOME

Bonds provide a source of diversification relative to an equity-oriented portfolio. The rate of return volatility (investment risk) of fixed income securities is substantially lower than the volatility of equities. In addition, there are significant differences in the pattern of returns between stock and bond investments. Further, fixed income securities are generally believed to provide a better match to the plan's liabilities than do equities. This suggests that when combined with equity securities, a fixed income allocation can serve to reduce the overall risk of the portfolio without materially sacrificing return potential.

The fixed income asset class is perhaps the most diverse capital market. Common securities include government, mortgage-backed and corporate bonds of U.S. and non-U.S. issuers. It also includes bonds issued by high quality as well as low quality companies and countries. The fixed income market may be more efficient than once believed. However, fixed income can experience less efficiency at times and in certain segments such as lower quality bonds. It is expected that the fixed income portfolio will make use of both active and passive investment mandates and will include allocations to all major segments of the fixed income market.

## PRIVATE EQUITY

The private equity asset class can encompass many different and distinct asset categories. Currently, the Colorado PERA portfolio is comprised of various private equity investments—largely buyout and venture capital partnerships, and special situations. These types of investments exhibit high levels of risk, with an expectation for high rates of investment returns. Many of these investments also exhibit a high level of correlation with the publicly-traded equity markets.

The private equity asset class is considered highly inefficient, as the lack of publicly available company and pricing information suggests active management is critical in this asset class. The primary benefit afforded investors in this asset class is the expectation of generating high levels of investment returns, although manager selection is a critical determinant of success within this asset class.

### REAL ESTATE

Real estate investments can serve as a diversifier of a stock and bond portfolio. While the factors that influence real estate returns may also influence the returns of stock and bond portfolios, these factors impact real estate in a different manner than the other asset classes. This suggests that the return patterns of real estate have a low correlation to other asset classes, providing a diversification benefit when combined with stocks and bonds.

With the growth in the publicly traded real estate market, information has become more readily available with respect to local property markets. The nature of real estate investing, however, suggests that each individual property has unique characteristics, and as such, investing in real estate requires a substantial amount of information regarding local economic factors and demographic profile, among others. It is expected that the real estate portfolio will be invested according to this information intensive investment approach, and will include exposure to private real estate, and be broadly diversified by geography and property type.

### OPPORTUNITY FUND

The purpose of the Opportunity Fund is to provide a framework for investing in asset categories that do not fit within the traditional asset class structure. Currently, the Opportunity Fund is comprised of a variety of liquid and illiquid investments including timber, commodity, risk parity, tactical, and credit opportunity investments. These types of investments exhibit various levels of return and volatility and may or may not be correlated with other assets in the PERA portfolio. Accordingly, these investments will provide varying levels of diversification benefits for the total fund. Also, since the Opportunity Fund investments include both liquid and illiquid investments, the market efficiencies of the Opportunity Fund investments will vary. In general, illiquid investments will provide greater exposure to market inefficiencies, while liquid investments such as equity and fixed income securities and commodity investments represent markets that are usually considered to be efficient markets.

## INVESTMENT RESTRICTIONS

Colorado Statute 24-51-206 establishes what investments are permissible as well as certain limitations:

### 24-51-206 INVESTMENTS.

(1) The board shall have complete control and authority to invest the funds of the association. Preference shall be given to Colorado investments consistent with sound investment policy.

(2) Investments may be made without limitation in the following:

(a) Obligations of the United States government;

(b) Obligations fully guaranteed as to principal and interest by the United States government;

(c) State and municipal bonds;

(d) Corporate notes, bonds, and debentures whether or not convertible;

(e) Railroad equipment trust certificates;

(f) Real property;

(g) Loans secured by first or second mortgages or deeds of trust on real property; except that the origination of mortgages or deeds of trust on residential real property is prohibited. For the purposes of this paragraph (g) “residential real property” means any real property upon which there is or will be placed a structure designed principally for the occupancy of from one to four families, a mobile home, or a condominium unit or cooperative unit designed principally for the occupancy of from one to four families.

(g.5) Investments in stock or beneficial interests in entities formed for the ownership of real property by tax-exempt organizations pursuant to section 501 (c) (25) of the federal "Internal Revenue Code of 1986", as amended; except that the percentage of any entity's outstanding stock or bonds owned by the association shall not be limited by the provisions of paragraph (b) of subsection (3) of this section;

(h) Participation agreements with life insurance companies; and

(i) Any other type of investment agreements.

(3) Investments may also be made in either common or preferred stock with the following limitations:

(a) The aggregate amount of moneys invested in corporate stocks or corporate bonds, notes, or debentures which are convertible into corporate stock or in investment trust shares shall not exceed sixty-five percent of the then book value of the fund.

(b) No investment of the fund in common or preferred stock, or both, of any single corporation shall be of an amount which exceeds five percent of the then book value of the fund, nor shall the fund acquire more than twelve percent of the outstanding stock or bonds of any single corporation.

(c) (I) Each investment firm offering for sale to the board corporate stocks, bonds, notes, debentures, or a mutual fund that contains corporate securities, shall disclose, in any research or other disclosure documents provided in support of the securities being offered, to the board whether the investment firm has an agreement with a for-profit corporation that is not a government-sponsored enterprise, whose securities are being offered for sale to the board and because of such agreement the investment firm:

(A) Had received compensation for investment banking services within the most recent twelve months; or

(B) May receive compensation for investment banking services within the next three consecutive months.

(II) For the purposes of this paragraph (c), "investment firm" means a bank, brokerage firm, or other financial services firm conducting business within this state, or any agent thereof.

## 24-54.8-101 SUDAN DIVESTMENT BY PUBLIC PENSION PLANS.

Colorado Statute 24-54.8-101 *et seq.* titled Sudan Divestment by Public Pension Plans was signed into law on April 19, 2007.

The statute:

» Requires PERA to create a Scrutinized Company list comprised of companies with active and inactive business operations in Sudan.

» Prohibits PERA from acquiring direct holdings and passively managed indirect holdings in securities of companies on the Scrutinized Company list that have active business operations.

» Requires PERA to engage companies on the Scrutinized Company list.

» Requires PERA to divest of certain securities as specified in the statute.

» Requires certain actions related to commingled portfolios and private equity partnerships.

» Requires certain periodic reporting as specified in the statute.

The Board adopted the following methodology for creation of the Scrutinized Company list required by 24-54.8-103:

A. The Board shall use the most current Conflict Risk Network Scrutinized Company List (CRN SCL), subject to modification as described in Section B below, to create the Colorado PERA Scrutinized Company List (PERA SCL).

B. The Board, pursuant to Staff recommendation, may remove or add companies to the CRN SCL to create the PERA SCL if the Board concludes that the CRN SCL list is not in compliance with or does not reflect the legislative intent of 24-54.8-101 *et seq.* The Board and the Staff shall consider the following information in its analysis:

1) Publicly available information regarding companies with business operations in Sudan, including information provided by nonprofit organizations, research firms, international organizations, and government entities;

2) Information obtained by contacting asset managers contracted by PERA that invest in companies that have business operations in Sudan; and

3) Information obtained by contacting other institutional investors that have divested from or engaged with companies that have business operations in Sudan.

C. The Board shall update the PERA SCL at the regularly scheduled PERA Board meeting which allows for updates to be effective at six month intervals. The PERA SCL shall not change or be modified until officially updated by the Board except that if PERA becomes aware that a company with active business operations in Sudan (at the time of the creation of the most current PERA SCL) has ceased such active business operations and has been removed from the active business operations portion of the most current CRN SCL or the Board has made a determination pursuant to Section B above as a result of its research, which may include research resulting from engagement with the company, then that company will be immediately removed as a company with active business operations on the PERA SCL.

## IRAN-RELATED INVESTMENT POLICY

PERA will initiate a phased strategy to address PERA's direct public investments in foreign companies doing business in the Islamic Republic of Iran. The strategy will address and will include a number of actions, up to and including possible divestment. PERA recognizes the federal government has sole responsibility for the conduct of American foreign policy. PERA is acting out of a fiduciary concern for the welfare of its members' assets which requires a broad horizon and sensitivity to the potential risks posed by investment in Iran.

The United States prohibits loans from U.S. financial institutions and direct investment in the Iranian energy and defense sectors. The U.S. government can also impose economic sanctions on foreign companies investing in Iran's petroleum and natural gas sector. It is widely reported that Iran supports terrorism and continues to develop the infrastructure to support advanced nuclear technology.

PERA must be managed for the benefit of the members, retirees and beneficiaries, and this policy is developed to address the potential for risk presented by pension fund investments in companies doing business in Iran.

Accordingly the PERA Board of Trustees adopts a policy consisting of the following phases:

» Phase I: Commencing immediately, staff shall undertake research to identify a list of public companies doing business in Iran which meet the following criteria: (This list will be developed through staff research of publicly available information that may include the retention of external third party researchers and/or other information provided by other public funds, pension systems and investor organizations.)

1) That have made an investment on or after August 5, 1996, or in any combination in any 12 month period, of $20,000,000 or more, in Iran's energy sector; or

2) Are engaged in business with any Iranian organization labeled by the U.S. government as a terrorist organization; or

3) Are engaged in any business that facilitates Iranian acquisition of nuclear, chemical or biological weapons technology or military equipment.

Staff may determine that a company's business in Iran is not material and does not present significant risks for PERA's investments or a company has taken sufficient steps to mitigate risks presented by Iranian investments or that there is sufficient evidence of an elimination of ongoing Iranian investment or business activities to warrant exclusion or removal of a company from the list (removal of moratorium companies requires 90-day advance notice as specified in Phase III).

» Phase II: Upon a company being included on the list that meets the criteria set forth under Phase I in which PERA holds a direct public investment, staff shall within 30 days after identifying such a company, engage such company and ask them to:

1) Provide a detailed description of the nature, extent, duration, and full history of the companies' business activities in Iran;

2) Provide an explanation as to how these activities are consistent with a sound and prudent long-term investment strategy;

3) Report how they are engaging the government of Iran regarding its conduct and how they are mitigating investment risks posed by doing business in Iran;

4) Report whether substantial action has been taken to affect the policies and practices of the government of the Islamic Republic of Iran; and

5) Additionally, staff shall, where practical, confer and work with other pension systems and investor organizations regarding information stemming from their engagement with such companies and potentially cooperate in taking joint action in engaging such companies.

» Phase III: Upon a company being included on the list that meets the criteria set forth under Phase I, the Board enacts a moratorium on direct public investments in companies in which PERA currently holds no interest. The moratorium shall apply upon the date that staff determines such a company meets the criteria. Staff shall give 90-days advance notice before the effective date of any amendment or repeal of this moratorium to the public, the General Assembly and the Governor. Staff will also then notify the Board at the next regularly scheduled Board meeting.

» Phase IV: Within 90 days after engaging such a company, staff shall evaluate the companies' responses and determine if they have taken sufficient steps to minimize risk to PERA and/or whether additional time is required to effectively engage such company. If not, staff shall analyze:

1) The available strategies for addressing the risk presented;

2) The viability of working with other interested parties and investors to affect the policies and practices of companies with business operations in Iran; and

3) The availability of alternative direct public investments providing similar diversity and return expectations.

» Phase V: Staff shall report to the Board its findings, actions and recommendations concerning individual companies on the list as changes to the list warrant, but not less than annually. This report shall be made available to the public and forwarded to the General Assembly and the Governor; provided, however, the first public report shall be made no later than March 21, 2008. Should adequate mitigation of risk not be possible, the PERA Board of Trustees, consistent with its fiduciary obligations and responsibilities, will thereafter direct staff to:

1) Withhold additional or new direct public investments in non-complying companies; and/or

2) Divest current direct public investments in the companies.

# RISK CONTROLS

The Board requires:

» The fund is to be broadly diversified across and within asset classes to limit the volatility of the total fund investment returns and to limit the impact of large losses on individual investments of the total fund.

» Individual portfolios will be managed according to written investment guidelines that are approved by Colorado PERA staff. These guidelines are intended to ensure that the portfolio meets its objective and operates within acceptable risk parameters.

» A process be established by which compliance with all elements of the investment policy and portfolio guidelines are measured and monitored, with compliance exceptions being reported to the Board.

# ACTIVE RISK

This policy applies to all marketable securities asset classes and for the total marketable securities asset class portfolio and requires Staff to measure and monitor the active risk incurred within each relevant portfolio. While the Board recognizes that its risk tolerance is captured, to a significant extent, through the asset allocation policy, it also recognizes that active risk needs to be measured, monitored and controlled. As such, it is the Board's policy to incur no more active risk within the marketable securities asset classes and total marketable securities portfolios according to the following limits (to be measured over a three-year period):

| Portfolio | Active Risk Maximum |
|---|---|
| Global Equity | 225 basis points |
| Fixed Income | 100 basis points |
| Total Marketable Securities | 150 basis points |

The above limits are intended to be maximums, with the specific levels of active risk to be determined by Staff's outlook for investment opportunities.

The Board expects Staff to continually monitor the active risk of the various portfolios to ensure compliance with the above limits. Furthermore, a report from an independent third party regarding the active risk profile of the various portfolios will be provided annually. In this report, the Board expects trailing three-year active risk of each portfolio, along with forward-looking active risk estimates of each to be presented.

# PERFORMANCE MEASUREMENT

The investment objective of the Colorado PERA total fund is to earn the net-of-fees rate of return of the Policy Portfolio (as defined below), plus an excess over that appropriate to the level of active management risk taken by the total fund, over reasonable measurement periods. A Policy Portfolio is a passive representation of the specific asset allocation strategy pursued and is the most objective performance evaluation metric. Currently, the Policy Portfolio is comprised of the following asset classes, weights and benchmarks:

| Asset Class | % Weighting in Policy Portfolio* | Benchmark |
|---|---|---|
| Global Equity | 53.5% | Global Equity Custom Benchmark |
| Fixed Income | 23.5 | Fixed Income Custom Benchmark |
| Private Equity | 8.5 | Burgiss Time Weighted Rate of Return |
| Real Estate | 8.5 | NFI-ODCE Net + 50 basis points |
| Opportunity Fund | 5 | Opportunity Fund Benchmark |
| Cash | 1 | BofA Merrill Lynch U.S. 3-Month Treasury Bill |

** Weights represent Colorado PERA's interim target asset allocation and are effective July 1, 2016.*

» Global Equity Custom Benchmark: MSCI All Country World Index Investable Markets Index (MSCI ACWI IMI).

» Fixed Income Custom Benchmark: Barclays Capital U.S. Universal Bond Index.

» Opportunity Fund Benchmark: A market value weighted average of individual strategy benchmarks.

# PROXY VOTING

Refer to Colorado PERA Proxy Voting Policy as revised in March 2014. (Appendix A)