December 18, 2015

Marybel Batjer, Secretary  
California Government Operations Agency  
915 Capitol Mall, Suite 200  
Sacramento, CA 95814

Dear Ms. Batjer,

In accordance with the State Leadership Accountability Act (SLAA), the Public Employees' Retirement System submits this report on the review of our systems of internal control and monitoring processes for the biennial period ended December 31, 2015.

Should you have any questions please contact Forrest Grimes, Chief Risk Officer, at (916) 795-3616, Forrest.Grimes@calpers.ca.gov.

BACKGROUND

Establishment of California Public Employees' Retirement System and its statutory duties
Established by legislation in 1931, the California Public Employees’ Retirement System (CalPERS) became operational in 1932 for the purpose of providing secure retirement benefits to State employees. In 1939, new legislation allowed public agency and classified school employees to participate in the System. CalPERS began administering health benefits to State employees in 1962; expansion in 1967 allowed public agencies to join the Health program on a contract basis. CalPERS began offering long-term care insurance on a not-for-profit basis in 1995.

CalPERS is governed primarily by California Public Employees’ Retirement Law (PERL), Government Code Section 20000 et seq. and is administered by a 13-member Board of Administration (Board) consisting of member-elected, appointed, and ex officio. Composition is mandated by law which can only be changed by a majority of the registered voters in the State. Constitutional and statutory laws give the Board exclusive control of the administration and investment of retirement fund assets, the authority to administer membership and benefit issues, and all powers reasonably necessary to carry out the health benefits program. The Board is responsible for the management and control of CalPERS, including the exclusive control of the administration and investment of including and not limited to:

- Public Employees' Retirement Fund
- California Employers' Retiree Benefit Trust Fund
- Judges' Retirement Fund
- Judges' Retirement Fund II
- Legislators' Retirement Fund
- Public Employees' Deferred Compensation Fund
- Public Employees' Health Care Fund
- Public Employees' Long-Term Care Fund
- Supplemental Contributions Fund

In addition to monthly Board meetings, Board members may also serve on permanent committees which review and report on specific programs, projects, or issues and make recommendations to the Board. These committees include:

- Board Governance Committee
- Finance and Administration Committee
- Global Governance Policy Ad Hoc Subcommittee
- Investment Committee
- Pension and Health Benefits Committee
- Performance, Compensation, and Talent Management
- Risk and Audit Committee
Under the direction set by the Board, the CalPERS Executive Staff is responsible for managing and executing all CalPERS on-going programs and services.

**Mission and goals**
As the nation's largest public pension fund, with assets totaling just under $300 billion, CalPERS manages pension and health benefits for more than 1.7 million members and over 3,000 school and public employers. CalPERS’ membership consists of active and inactive members, retirees, beneficiaries, and survivors from State, school, and participating public agencies.

CalPERS vision is to be a trusted leader respected by our members and stakeholders for our integrity, innovation, and services. Our mission is to provide responsible and efficient stewardship of the System to deliver promised retirement and health benefits while promoting wellness and retirement security for members and beneficiaries. Foundational to the mission are the Pension Beliefs and Investment Beliefs, an articulation of CalPERS perspective about public pension administration and portfolio management. The beliefs guide CalPERS Executives and staff in decision-making, planning, and communicating with stakeholders and establish parameters for policy advancement. The Beliefs are an extension of the CalPERS Mission, Vision, and Core Values and align with CalPERS Strategic and Business Plan Goals and Objectives. The CalPERS 2012-17 Strategic Plan defines the long-term direction of the organization, expressed through three strategic goals focused on pension and health benefits sustainability, organizational strength, and policy engagement.

**Strategic Initiatives and Core Values**
In support of the CalPERS Strategic Plan, CalPERS uses a two-year business planning cycle, with strategic objectives and critical projects and initiatives designed to create forward progress on the long-term CalPERS Strategic Plan goals. Refer to the following link for the CalPERS Fiscal Year 2015-17 Business Plan: https://www.calpers.ca.gov/docs/forms-publications/2015-17-business-plan.pdf. The strategic and business plans are guided by the CalPERS mission, vision, and core values of quality, respect, accountability, integrity, openness, and balance.

**Critical business functions, activities, and objectives**
CalPERS provides a variety of retirement and health benefit programs and services, and administers other programs dedicated to protecting the financial security of its members. CalPERS administers a defined benefit retirement plan which provides benefits based on a member’s years of service, age, and highest compensation. In addition, benefits are provided for disability and death. CalPERS Health Benefits Program covers more than 1.3 million active and retired state, local government, and school employees and their family members. CalPERS offers members and contracting employers six health maintenance organization (HMO) plans, three self-funded preferred provider organization (PPO) plans, and three special plans for members who belong to employee associations.

The CalPERS Investment Program ensures the growth of long-term returns by effectively managing investments aimed to achieve the target rate of return at an acceptable level of risk. CalPERS has maintained good levels of funding and delivered promised benefits for more than 80 years.

**RISK ASSESSMENT PROCESS**

**Risk Management Oversight**
Enterprise risk management is a vital function in facilitating risk identification and risk monitoring activities that inform and support decision-making and resource allocation priorities at both the strategic and operational levels across the enterprise. Risk management is integral to cultivating a high-performing, risk intelligent and innovative organization, and in support of this CalPERS has embraced an integrated assurance model to promote a multi-faceted approach to risk intelligence and accountability. Using the Three Lines of Defense, the organization coordinates risk management and compliance responsibilities throughout CalPERS. Program areas represent our first line of defense, by establishing operations to comply with laws, regulations and policies, establish and administer controls to prevent and detect noncompliance, and mitigate risks. Management across the enterprise continues to contribute to a risk management framework that includes consideration of risk in decision making, planning, and prioritization of business activities to achieve strategic and operational objectives.
The Enterprise Risk Management Division (ERMD) and the Enterprise Compliance Division (ECOM), represent the second line of defense. ERMD is responsible for creating and maintaining a risk-intelligent culture at CalPERS. This includes establishing an enterprise risk management framework and risk management training, collecting and analyzing risk information, facilitating program risk assessments, and developing tools to assist CalPERS divisions in identifying, monitoring, and mitigating risks. ECOM is responsible for oversight of program area compliance with laws, regulations, and policies. ECOM staff test and monitor compliance processes within the program areas to evaluate the effectiveness of existing compliance strategies.

The Office of Audit Services (OFAS) represents the third line of defense, by providing objective and independent validation through an independent reporting relationship to the Board. OFAS conducts assessments of the design and operating effectiveness of internal controls over business and technology operations, compliance with laws and policies, and effective management of risks.

**Risk Management Process**

In Spring 2015, ERMD, ECOM, and OFAS jointly conducted the inaugural integrated assurance risk assessment. The integrated assurance approach helps the respective functions obtain more robust information and assists in a coordinated prioritization of carrying out their distinct but related roles within integrated assurance. These enterprise-wide risk assessments are intended to provide management with a view of events that could impact the achievement of goal and objectives, and enhance decision-making. Risk assessments are performed to identify, analyze, evaluate, treat, communicate, and monitor risks on an on-going basis. The process is collaborative effort involving staff, management, and executive leadership.

ERMD utilizes standardized risk rating criteria and facilitated discussions with management to guide consideration of the internal and external environment when assessing strategic and operational risks. Those risks are then evaluated based on impact, likelihood, and velocity. In addition to these attributes, overall risk categories and trend ratings are also used in aggregating and comparing enterprise risks, which in turn are used to provide information for the development of mitigation strategies. This information is reported to the Board’s Risk and Audit Committee on a semi-annual basis through the Enterprise Risk Dashboard.

The level of risk intelligence continues to advance across the organization with an increased level of participation by management in updating the risk registers supporting the Enterprise Risk Dashboard. Management collectively reviews, discusses and evaluates the risks and their respective ratings through committees such as the Enterprise Risk Management Committee, comprised of CalPERS Executives, and the Senior Leadership Council and newly-formed Strategic Operations Committee, comprised of senior leaders. Discussions and assignment of risk ownership, roles and responsibilities provide greater ability to create and monitor mitigation strategies.

**EVALUATION OF RISKS AND CONTROLS**

**Operations- External- Economic Volatility**

**Pension Funding Risk (Asset Liability Management)**

Pension funding risk relates to the ability to provide promised retirement benefits for members, while remaining affordable and attractive to employers, and maintaining low volatility in contributions and funding levels through the management of asset and liabilities. As reflected in our investment beliefs, CalPERS’ responsibility is to sustain its ability to pay benefits for generations. The trend of a higher number of retirements is expected to continue as the baby boomer generation leaves the workforce to enter into its retirement years, causing the risk of a high cash flow requirement. Today’s investment market and associated volatility provide an additional risk with an expected increase in employer contribution rate volatility.
Funding Risk Mitigation Policy
For CalPERS to reduce the risk in the funding of the system involves the tradeoff between short and long-term considerations. During the August 2015 special session with the Board, staff were directed to develop a Funding Risk Mitigation Policy that would lower the discount rate and expected investment volatility in years of good investment return. Periodic reviews allow ongoing monitoring and assessing of progress toward reducing risk and investment volatility in the funding of the pension system.

The Funding Risk Mitigation Policy, which was adopted in November 2015, provides the mechanism for a discount rate reduction when investment performance significantly outperforms the discount rate. The parameters set out in the Policy also provide for the threshold amount required – the actual investment return in excess of the discount rate needed to lower the discount rate. Periodic reviews of the funding risk mitigation actions taken provide the necessary checkpoints for the review and assessment by the Board of the progress that has been made.

Finance and Administration Delegations
The Board delegated to the Finance and Administration Committee the authority to oversee the financial soundness of the overall CalPERS system. In order to assist the Committee with this oversight, the Annual Review of Funding Levels and Risks Report was developed. Earlier reviews showed that the way the System was being funded, including both the funding policies and the actuarial assumptions and methods, when combined with changes in the external environment, required additional attention.

Responding to this increased awareness of risk, staff brought a series of agenda items and workshops to the Board looking at the risks inherent in the funding of the System. This culminated in a direction from the Board to staff to bring back a proposal for a Funding Risk Mitigation Policy. The proposal was brought to the Board as a first reading at its October 2015 Finance and Administration Committee meeting. The Policy was adopted in November 2015.

Actuarial Guidance for Employers
The CalPERS Actuarial Office (ACTO) assigns a staff member to each participating employer to provide guidance to the employer and answer any questions or issues about their pension liability. The assignment of a single staff member to each employer fosters better communications and understanding of the employer which allows the employer to more easily relay information about any issues that may affect their pension liability. Any issues the actuaries come across are logged and ACTO management schedules meetings to discuss and handle all issues that have been escalated.

Operations- External- Business Interruption, Safety Concerns

Business Continuity Management Risk
Business Continuity Management Risk includes the risks related to CalPERS ability to effectively plan for disaster recovery and business resumption in the event of a disaster, hazard, or other business interruption. Business continuity focuses on pre-event and post-event planning and preparation in order to restore and resume business functions efficiently and timely.

Annual Review of Division Business Continuity Plans
CalPERS has an enterprise-wide integration and coordination of plans for business continuity, disaster recovery, and emergency response. Division Business Continuity Plans (BCPs) are developed and updated annually to facilitate clear roles and responsibilities during times of an emergency, as well as identify interdependencies of key business processes and associated risks from disruptions of key business processes by natural, technological, or human-created hazards. Monitoring is done annually by reviewing all of CalPERS Divisional BCPs and filing a Continuity Plan Evaluation Checklist with the California Office of Emergency Services.
Emergency Operations Center
CalPERS has an off-site Emergency Operations Center (EOC) that would be activated if a natural or human-made disaster, hazard, or other business interruption were to disrupt CalPERS ability to conduct normal business operations. The EOC is continuously monitored. Inventory and functionality of the EOC are reviewed routinely by management.

Incident Command System
CalPERS has a defined Incident Command System, composed of our CEO and executive team members, who provide overall management of all emergency response and business recovery activities. As part of the Emergency Response Program, CalPERS has established two teams to assist staff during an emergency.

The Floor Warden Team assists in premises evacuation of staff and visitors during emergencies. Training for the Floor Warden Team is a two hour session, offered twice a year, which covers updated evacuation procedures, special assistance protocol, radio communication, and team organization.

The Emergency Response Team provides onsite response in emergency situations ranging from fire suppression, disaster medical operations, and light search and rescue. Training for the Emergency Response Team is a three day course given twice a year for new volunteers. The training covers search and rescue operations, fire suppression, disaster medical operations, terrorism awareness, disaster psychology, and team organization. A hands-on disaster simulation exercise is administered on the last day of training to test the student's knowledge. Those who have taken the initial course are required to take a refresher course annually.

Executive Staff training at the EOC
In September 2015, CalPERS Executive staff and select Division Chiefs participated in training at the Emergency Operations Center (EOC) to ensure familiarity with EOC functions/facilities, understand how response in managed in the Lincoln Plaza campus, and discuss management and operations issues and crisis management techniques. These training events are offered at least every other year and more frequently if necessary.

Disaster Recovery Exercises
As part of CalPERS Information Technology Services Branch (ITSB) continuous effort to improve Disaster Recovery of CalPERS mission critical systems, staff performs Disaster Recovery Exercises, including blended teams consisting of both program area and ITSB staff. Key objectives of these exercises are:

- Work collaboratively with program areas having critical application dependencies to determine exercise scope and success criteria;
- Demonstrate and execute a restore of both technical and business area applications; and,
- Establish a critical application recovery time objective for restoration of the application.

Management from each program area is represented and actively involved in this initiative as the focus is to validate and ensure restoration of critical business needs in the event of a disaster.

Data Backup and Restore and Disaster Recovery Services
CalPERS is continuously improving its data backup, restore, and Disaster Recovery services, which includes the management of a backup and recovery system at CalPERS, and offsite Disaster Recovery Facility. Routinely, CalPERS utilizes the lessons learned from the Disaster Recovery Exercises to enhance the ongoing data backup, restore, and Disaster Recovery services. As part of the current enhancement effort, CalPERS has requested bids from qualified firms regarding data backup, restore, and Disaster Recovery services.
Operations- External- Economic Volatility

Participating Employer Financial Hardship/Insolvency Risk
A participating employer’s financial hardship or insolvency may impact the employer’s payment of required pension contributions to CalPERS. Delays in the timely payment of amounts due for pension benefits may adversely affect the soundness of the CalPERS system (System) and jeopardize CalPERS’ ability to provide promised benefits. Similarly, failure of an employer to make required health premium payments will impact member health benefits. Recent municipal bankruptcy cases have raised issues related to pension obligations in the bankruptcy context.

Since 2008, four municipalities that participate in the System have filed for bankruptcy (Vallejo, Stockton, San Bernardino and the Town of Mammoth Lakes). Other than the City of San Bernardino, none of these municipalities have failed to timely pay CalPERS the amount determined necessary to properly fund pension benefits; and none of them proposed a plan of adjustment seeking to modify or reduce pension obligations to CalPERS. The City of San Bernardino (City) stopped making pension contributions to CalPERS when it filed for bankruptcy. However, as part of a court-ordered mediation process, the City and CalPERS reached an agreement pursuant to which the City agreed to pay the unpaid pension contributions in full, and the City has since made timely payments to CalPERS under the agreement. It is not clear at this time whether a bankruptcy court in California would confirm a plan of adjustment that impairs pension obligations.

An employer’s participation in the System may be terminated either voluntarily by the employer or on an involuntary basis by Board action. Upon termination, the terminating employer may owe a termination liability to CalPERS for any deficit in funding for earned benefits calculated in accordance with applicable provisions of the Public Employees’ Retirement Law. CalPERS has asserted and will continue to assert that an employer’s termination liability and CalPERS’ lien on the terminating employer’s assets to secure such liability cannot be impaired or avoided through bankruptcy.

As plan administrator, CalPERS has a fiduciary duty to protect the retirement security of all members and the soundness of the System as a whole. In light of these obligations and the risks posed by financially challenged and insolvent employers, CalPERS has implemented processes to mitigate these risks.

Agency Collection Reports and Meetings
CalPERS has Agency Collection Meetings twice a month, consisting of a cross-functional group from our Financial Office (FINO), Employer Account Management Division (EAMD), and OFAS Divisions. This team reviews agency receivables and considers relevant information necessary to establish collection strategies. The team reviews several confidential reports including:
- Agencies Collections Reports
- Unfunded Liability Reports
- Arrears Reports
- Terminating Agencies Report

Enhanced process for voluntary and involuntary termination
CalPERS has a statutorily defined process to administer the voluntary and involuntary termination of a participating employer’s participation in the System. A cross-functional team from our ACTO, FINO, and EAMD Divisions recently helped refine the process by outlining the roles and responsibilities and requiring a periodic re-evaluation to ensure procedures align with applicable statutes.

Employer Contract Workgroup
CalPERS has formed an Employer Contract Workgroup, consisting of a cross-functional team from our ACTO, FINO, OFAS, and EAMD Divisions to review issues at an early stage to mitigate risk from employer contract issues and terminations. Depending on the situation, a report may be generated and recommendations for further review are elevated to upper management if necessary.
Case Management Team
CalPERS has a Case Management Team, consisting of senior executives from our ACTO, FINO, and EAMD Divisions who meet at least once a month to discuss referred complex contracting issues. The Case Management Team’s role is to develop and deploy strategies to mitigate risk posed by contract issues and terminations.

Legal team reviews bankruptcy cases
CalPERS’ Legal Office closely monitors and oversees the representation of the System by external counsel in the municipal bankruptcy cases and updates the CalPERS Board monthly in closed session.

Employer communication and education
CalPERS continues to engage directly with participating employers to educate them on their pension cost exposure including improving actuarial information with five years of contribution rate data and the termination liability of their plans. CalPERS offers a variety of training and informational events to assist employers with CalPERS-related business responsibilities. These classes, workshops, and meetings are offered on multiple dates and locations. Annually, CalPERS holds a three-day Education Forum for employers with a variety of topics discussed that impact how participating employers conduct business with CalPERS.

Operations- External- Technology—Data Security

Information Security Risk
The increasing dependency upon information technology systems and networked operations pervades nearly every public agency. While bringing significant benefits, this dependency can also create vulnerabilities to cyber-based threats. It is important to safeguard critical information and information systems.

All organizations, including CalPERS, have financial and reputational risks as consequences of inadvertent, unauthorized, or malicious disclosure of confidential and sensitive information. While cybersecurity threats continue to escalate, an organization that continuously scans the environment, exercises vigilance, and implements a centralized approach to monitor, manage, and enhance the security framework increases their capabilities to protect and prevent the breach of critical information assets. Security is and will remain a top priority at CalPERS. Since the cybersecurity threat landscape is every changing and CalPERS has critical assets that must be safeguarded, cybersecurity remains a high risk and focus for the organization.

Annual Independent Security Assessments
On behalf of the members and employers we serve, CalPERS annually hires third party experts to perform independent security assessments. The findings are used to strengthen the existing cybersecurity program, reduce risk and address opportunities for improvement.

Information Security Policy
CalPERS has implemented an Information Security Policy that specifies those rules that must be followed to protect CalPERS information, information systems, equipment, software, and people from a wide spectrum of threats and risks. All CalPERS employees and contractors are responsible for protecting CalPERS Information Assets and complying with CalPERS Information Security Policies and Control Standards. All CalPERS employees and contractors are also responsible for reporting any suspected or known security violations or vulnerabilities. Failure to comply with CalPERS Information Security Policies and Control Standards by employees and contractors may result in disciplinary actions.

Information Security Control Standards
CalPERS continues to update the online Information Security Control Standards that define the security baseline that must be adhered to when accessing, utilizing, or handling CalPERS resources and information assets. The Information Security Control Standards Library is an online repository for Information Security Control Standards that relate to all CalPERS Staff,
including consultants and contracted staff involved in conducting business for or on behalf of CalPERS. The Library also includes a glossary including terms related to information security.

**Information Security Training**
CalPERS has implemented a mandatory annual Information Security Training to provide all CalPERS personnel, third party consultants, and contractors with annual information security awareness training. The training equips personnel with the knowledge required to assess information security requirements, propose information security controls and ensure controls function effectively. This training is automatically assigned and monitored for compliance. The following provides a listing of items covered in the training:

- Password and User ID practices
- Social engineering
- Social networking usage guidelines
- Internet access guidelines
- Email usage guidelines
- Who to contact for additional information
- Information classification guidelines
- Sensitive information (such as PII, PHI, Financial) usage guidelines
- CalPERS monitoring policies
- Overview of CalPERS Information Security function
- Legal responsibilities

**Information Security Monitoring and Detection**
CalPERS monitors information technology security activities and investigates security events and incidents. By monitoring information technology security activities, and investigating security events and incidents, CalPERS promotes and takes steps to ensure compliance with its Information Security Policies and Control Standards. This enables the organization to protect the organization’s information assets and information systems resources in a seamless transparent manner.

**Information Security Incident Response and Reporting Procedures**
CalPERS has a comprehensive Information Security Incident Response and Reporting Procedures that were updated in May 2015. These procedures outline the recommended procedures to identify, respond, and report Information Security Events and Incidents that occur within the CalPERS Enterprise. The goal of the Information Security Incident Response and Reporting process is to ensure that CalPERS handles information security events and incidents in a consistent manner to ensure prompt reaction to threats and to ensure that CalPERS complies with the reporting requirements as defined by State and Federal laws and regulations.

**Operations - Internal - Staff—Key Person Dependence, Succession Planning**

**Human Resources Management Risk**
Human Resources Management Risk addresses the availability of an adequate and knowledgeable workforce with sufficient training and skills to meet the organizational goals and objectives into the future. This includes recruitment, hiring, succession planning, and labor relations.

**Examination and Certification Online System (ECOS) Project**
CalPERS is in the process of implementing the Examination and Certification Online System (ECOS), to improve recruitment and hiring processes. The ECOS migration improvements are being phased in through 2017. The following hiring and process improvements made to date are listed below.

- Job Postings - established consistent job template information and added hyperlinks to CalPERS Jobs site to reinforce applying online and reduce the amount of interested candidates filing paper applications
- Training - developed a hiring process overview in both instructor-led and online formats for CalPERS managers and supervisors
- Online resources and tools - established and internal recruitment and hiring website with
online information, process steps, and resources to help hiring managers and personnel liaisons understand the recruitment and hiring process

**Pre-employment Screenings**

CalPERS conducts pre-employment screenings for prospective employees including reference checks and Official Personnel File reviews (for current/former State employees only). In December 2014, CalPERS implemented a Live Scan fingerprinting requirement for all new-to-CalPERS employees to ensure the most qualified candidates are selected. Live Scan is an automated fingerprint tracking system that provides information about incoming candidate’s criminal history, if any. The system will also notify CalPERS of any subsequent arrest during the course of employment.

The pre-employment screening process seeks to minimize employment-related claims, including negligent hiring claims, and other legal proceedings by:

- Supporting increased security of CalPERS employees, information, and assets;
- Supporting consistent hiring and screening practice; and,
- Proactively reducing the risk of employee-related loss.

**Staff Development**

CalPERS offers a variety of developmental and training opportunities to increase employee engagement and retention. The CalPERS Human Resources Division (HRSD) facilitates the offering of 100 web-based classes and 66 unique instructor-led classes. Included in the instructor-led courses is the recent Supervisory Skills Enhancement series to refresh current manager’s knowledge of positive employee relations, performance management and coaching, and the civil service hiring process. In total, CalPERS offered 289 training opportunities in which 4,778 employees participated.

**Employee Performance and Development**

The Employee Performance and Development (EPAD) is an annual review process used by CalPERS to facilitate ongoing communication between manager and employee. This process ensures the employee is receiving timely feedback on performance and opportunities for development are identified. The EPAD consists of two process elements which are Performance review and the establishment of goals and objectives for the upcoming year. Automated annual notifications are sent out informing management when the EPAD is due. In addition, CalPERS has a written policy on EPADs, last revised in June 2014.

**Contracts Knowledge Transfer**

Knowledge Transfer is the transfer of information from a consultant, known as a Subject Matter Expert (SME), to CalPERS staff. Knowledge transfer consideration is required for multi-year consultant contracts, and the CalPERS contract managers must document and track the core process/knowledge to be transferred from SME to CalPERS staff. Knowledge transfer must be completed prior to the contract expiration date. If the contract is exempt from knowledge transfer requirements, justification must be provided.

**Workforce Strategic Plan**

The CalPERS Workforce Strategic Plan is a five year plan to address current and future workforce needs. It focuses on short and long-range initiatives aligned with our annual business planning processes to recruit, develop, and retain a diverse, high-performing workforce.

HRSD worked with program areas across the enterprise to identify talent management needs to support our continued growth and progress. The Workforce Strategic Plan outlines strategies to:

Brand CalPERS as a destination employer to attract the best candidates;

- Make the recruiting processes more effective through competency-based recruiting; Provide ongoing training and development opportunities to support employee growth;
- Maintain a leadership game plan to ensure continuous development of current and future CalPERS leaders;
- Manage in a consistent and measurable way so that employees are clear on accountabilities;
- Prepare high performers and potential successors for key leadership positions.

**Operations- External- Economic Volatility**

**Asset Allocation Risk**
The CalPERS Investment Office (INVO) aims to earn 7.5 percent each fiscal year, also known as the target rate of return. INVO uses this target as they decide how to allocate investments. Some investments are made in assets such as bonds, which yield low, but predictable returns. Others, like stocks, are less predictable, but can produce higher returns. The mix allows for a certain amount of investment risk so that over the long-term CalPERS can meet or exceed the 7.5 percent target rate of return.

CalPERS investment funds are subject to economic volatility. Sharp decreases in the financial markets can adversely affect the target rate or return, reduce the ability to maintain sufficient diversification to avoid large losses and preserve capital, and maintain adequate funds to fulfill liabilities when they arise. The recent adoption of the Funding Risk Mitigation policy provides an opportunity to reduce the expected volatility of the investment returns by changing the target asset allocation after years of good investment returns.

Challenges associated with economic volatility relate to achieving the target rate of return in today’s investment environment. These challenges include an increased focus on liquidity and income due to the cash flow requirements of CalPERS, reduced return expectations across many asset classes driven by extraordinary monetary policies across many economies, and increasing complexity of interrelated global financial markets.

**Capital Market Assumptions**
Financial markets are inherently subject to economic volatility and there is no mechanism in place to fully eliminate economic volatility. Capital Market Assumptions (CMA) are used by the Board to decide on a strategic asset allocation plan once every four years through the Asset Liability Management process. Financial management models are used to determine both the capital market assumptions and optimal asset allocation risk and return parameters.

Staff may recommend a more frequent analysis of asset class allocations and ranges if expected returns, risks or liability values have substantially changed since the prior analysis. Additionally, the strategy is reviewed by staff at the mid-point of the four year cycle or as needed to ensure that all CMAs used in establishing the strategy continue to be reasonable. Staff may also recommend to the Investment Committee changes in the policy targets and ranges. The strategy reflects analyses that consider the current and expected financial condition of CalPERS including projected CalPERS liabilities. Analyses encompass the expected long-term capital markets outlook, expected inflation, and CalPERS risk tolerance.

**Compliance with Regulatory Requirements**
Investment Compliance and Operational Risk is responsible for ensuring that INVO maintains ongoing compliance with regulatory and investment policy requirements, and provides both an annual review of the investment compliance program and monthly status reports to the Investment Committee. The Investment Compliance Program also informs the INVO Management Committee to better understand and manage compliance and operational risks by sponsoring strategic initiatives that specifically address governance, systems and controls, and compliance with policies, laws and regulations.

There is a system currently in place which prevents employees from buying securities they are not authorized to buy or do not align with the current asset allocation strategy. In addition, a report of all policy violations is provided to the Board.
Monitoring Reports
In order to articulate its investment goals and performance measure and ensure clear accountability for their execution, reports are provided to Board on a continuous basis. The Board is provided with the Monthly Update – Performance and Risk which is produced for the Public Employees’ Retirement Fund as well as Affiliate Investment Funds.

Other reports provided to the Board on the results of monitoring are summarized in the following semi-annual reports:
- CalPERS Trust Level Review – which provides summary level economic views, market analysis, portfolio risk, and performance for the Total Fund;
- CalPERS Trust Level Review: State of the Economy – which provides an analysis covering the current market environment, core economic indicators and topical issues that are having, or could have an impact on short or long-term investment decisions;
- CalPERS Trust Level Review: Risk Management Summary – which provides an update on the total risk the organization has chosen to be exposed to through asset allocation and policy benchmarks;
- CalPERS Trust Level Review: Trust Summary – which provides additional performance and risk information for the defined benefit trusts.

ONGOING MONITORING
Through our ongoing monitoring processes, the Public Employees’ Retirement System reviews, evaluates, and improves our systems of internal controls and monitoring processes. As such, we have determined we comply with California Government Code sections 13400-13407.

Roles and Responsibilities
As the head of Public Employees’ Retirement System, Anne Stausboll, Chief Executive Officer, is responsible for the overall establishment and maintenance of the internal control system. We have identified Cheryl Eason, Chief Financial Officer, as our designated agency monitor(s).

Frequency of Monitoring Activities
CalPERS has several leadership groups, including the Senior Leadership Council, Strategic Operations Committee, IT Governance Council, Enterprise Risk Management Committee, and the Compliance and Risk Working Group, all of which are comprised of CalPERS Executives and/or Senior Leaders who meet regularly to share issues, concerns, and foster improved communication across business lines. Specifically, the purpose of the Compliance and Risk Working Group is to develop a common understanding of compliance and operational risks management issues facing CalPERS, report on status of mitigation plans, and to seek input into the prioritization, reporting, and management of resolutions. Reports are discussed bi-monthly at the Compliance and Risk Working Group.

Reporting and Documenting Monitoring Activities
On a semi-annual basis, CalPERS staff presents the Semi-Annual Risk Management Dashboard and Top Risks Reports to the Board. Each Board committee that oversees a Dashboard risk receives an update from staff on the risk domains, mitigation strategies, controls, and monitoring activities to provide assurance that the risks are being considered and addressed through daily activities. The Risk and Audit Committee, as set forth in its Delegation Resolution, provides oversight and approval of the enterprise risk management framework, including assessment, management, and reporting of the entire landscape of risks.

At the enterprise level, ECOM is responsible for providing compliance monitoring and oversight of our operations in order to ensure the organization complies with all applicable laws, regulations, and policies. ERMD monitors, assesses, and reports on the associated strategic and operational risks. ERMD and ECOM have established strategic plans aimed at building and enhancing risk and compliance capabilities, including clarification of leadership roles and responsibilities, development and
implementation of management tools and frameworks, and the establishment of embedded compliance and risk functions.

**Procedure for Addressing Identified Internal Control Deficiencies**

Program management is responsible for establishing internal control processes, conducting ongoing evaluations to identify internal control deficiencies, and implementing corrective actions to mitigate the risk of internal control deficiencies. Reports of activities and status of addressing internal control deficiencies are provided to the Board, Executive Management, Compliance and Risk Working Group, and the ECOM and ERMD oversight business areas.

Management tools include the creation of an Operating event process, which provides management a process to detect, correct, diagnose, and resolve a potential policy violation, or failure related to data, process or technology that could have an impact to CalPERS operations. Consistent with SLAA, program areas with sizeable operations have established an embedded compliance function to provide ongoing monitoring and reporting of these events to senior and executive management.

OFAS performs independent internal audits and provides assurance regarding the efficiency and effectiveness of governance, risk management, and internal control. Internal control deficiencies unresolved after six months are reported to the Enterprise Risk Management Committee and to the Board.

**CONCLUSION**

The Public Employees' Retirement System strives to reduce the risks inherent in our work through ongoing monitoring. The Public Employees' Retirement System accepts the responsibility to continuously improve by addressing newly recognized risks and revising risk mitigation strategies. I certify our systems of internal control and monitoring processes are adequate to identify and address material inadequacies or material weaknesses facing the organization.

Anne Stausboll, Chief Executive Officer

cc: Department of Finance
    Legislature
    State Auditor
    State Library
    State Controller
    Secretary of Government Operations