



# Risk Management Committee



June 2015

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**TEACHER RETIREMENT SYSTEM OF TEXAS MEETING  
BOARD OF TRUSTEES  
AND  
RISK MANAGEMENT COMMITTEE**

*(Ms. Charleston, Committee Chair; Mr. Barth; Mr. Corpus; Mr. Kelly; & Mr. Moss, Committee Members)*

**AGENDA**

**June 11, 2015 – 1:00 p.m.  
TRS East Building, 5<sup>th</sup> Floor, Boardroom**

1. Consider the approval of the proposed minutes of the March 26, 2015 committee meeting – Karen Charleston
2. Receive report on Enterprise Risk Management – Jay LeBlanc & Michelle Pagán

NOTE: The Board of Trustees (Board) of the Teacher Retirement System of Texas will not consider or act upon any item before the Risk Management Committee (Committee) at this meeting of the Committee. This meeting is not a regular meeting of the Board. However, because a quorum of the Board may attend the Committee meeting, the meeting of the Committee is also being posted as a meeting of the Board out of an abundance of caution.

Tab 1

## Minutes of the Risk Management Committee

March 26, 2015

The Risk Management Committee of the Board of Trustees of the Teacher Retirement System of Texas met on March 26, 2015 in the boardroom located on the fifth floor of the TRS East Building offices located at 1000 Red River Street, Austin, Texas.

The following committee members were present:

Karen Charleston, Chair  
Todd Barth  
David Corpus  
David Kelly  
Christopher Moss

Others present:

Joe Colonna, TRS Trustee	Eric Lang, TRS
Anita Palmer, TRS Trustee	Jay LeBlanc, TRS
Dolores Ramirez, TRS Trustee, via telephone conference	Scot Leith, TRS
Nanette Sissney, TRS Trustee	Hugh Ohn, TRS
Brian Guthrie, TRS	Michelle Pagán, TRS
Ken Welch, TRS	Mike Pia, TRS
Carolina de Onís, TRS	Sharon Toalson, TRS
Howard Goldman, TRS	Heather Traeger, TRS
Britt Harris, TRS	Dr. Keith Brown, Investment Advisor
Jase Auby, TRS	Brady O'Connell, Hewitt EnnisKnupp
Chi Chai, TRS	Steve Huff, Reinhart Boerner Van Deuren s.c.
Lynn Lau, TRS	

Ms. Charleston called the meeting to order at 1:06 p.m. A quorum of the committee was present.

### **1. Consider the approval of the proposed minutes of the November 20, 2014 committee meeting – Karen Charleston.**

On a motion by Mr. Moss, seconded by Mr. Barth, the committee approved the minutes of the November 20, 2014 meeting, as presented.

### **2. Review the Investment Risk Report – Jase Auby.**

Mr. Auby stated that the TRS Trust Fund was in full compliance with risk measures related to asset allocation, value at risk (VaR), tracking error, leverage, liquidity, counterparty risk, and derivative exposures. He discussed in detail compliance with each of these risk measures. He noted that the new dynamic benchmark adopted in September would eventually help eliminate the mismatch of asset allocation between the illiquid portfolios, including private equity, real assets, and energy and natural resources.

In response to questions from Dr. Brown and Mr. Kelly concerning the divergence between the benchmark and the current VaR, Mr. Auby stated that the divergence had been quite constant since the first quarter of 2013. He stated that the current divergence was most commonly generated by the tactical asset allocation process and the overweight of opportunistic and value-added real estate in the Real Assets Portfolio. He confirmed for Dr. Brown that directional hedge funds were more

directional than stable value hedge funds, but less directional and risky than equities. He also confirmed for Dr. Brown that directional hedge funds were properly classified in equities, especially with the stable value hedge funds being separately grouped into the Stable Value Portfolio. Mr. Auby noted the addition of the Risk Parity strategies, which comprised 0.9% of the fund's total risk and 1.1% of its total assets. Dr. Brown suggested monitoring the total liquidity ratio as the portfolio had gradually increased its allocation to private market assets. Mr. Auby stated that it could be monitored and shown through the data generated in the past one and half years.

With no further questions and discussion, the meeting adjourned at 1:25 p.m.

APPROVED BY THE **RISK MANAGEMENT COMMITTEE** OF THE BOARD OF TRUSTEES OF THE TEACHER RETIREMENT SYSTEM OF TEXAS ON THE 11TH DAY OF JUNE, 2015.

ATTESTED BY:

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Dan Junell  
Secretary to the TRS Board of Trustees

\_\_\_\_\_  
Date



Tab 2

# **Enterprise Risk Management Report**

Jay LeBlanc & Michelle Pagán

## Teacher Retirement System of Texas 2015 Public Pension Fund ERM Peer Group Forum

**Forum Purpose:** Annual gathering of ERM professionals to learn and share best practices to enhance the discipline of ERM, discuss pension fund ERM processes and lessons learned, gain knowledge and expand participants' ERM expertise.

**Group Objective:** The ERM public pension peer group is a community of practice operating as an information sharing working group.

### ■ Forums held

Date	Location	# of Pension Funds Participating
April 2012	Austin, TX	6
March 2013	Tallahassee, FL	12
April 2014	Austin, TX	13
April 2015	Tallahassee, FL	13

### ■ Planning is underway for the next forum in 2016

2015 ORGANIZATION PROFILE - ERM Peer Group Forum

Organization Name	Location/ Headquarters	No. of Active Members	No. of Retirees	Approximate Trust Value \$	Investment Responsibility	Benefit Administration/ Delivery	Health Care Responsibility	Year your system was started	ERM reports to within organization	Internal Risk Committee (Y/N)	ERM reports to: Full Board or Committee?
Alberta Teachers' Retirement Fund	Edmonton AB	38,000	26,000	\$11B	yes	yes	no	1939	CFO/CEO/ Board	no	Full Board
Canada Pension Plan Investment Board	Toronto, ON	13,000,000	5,000,000	\$240B	yes	no	no	1997	COO	no	Full Board
California State Teachers Retirement System	West Sacramento,	603,000	275,000	\$189B	yes	yes	no	1913	CFO	yes	Full Board, Audit & Risk
Employees Retirement System of Texas	Austin, TX	134,162	96,513	\$26.2B	yes	yes	yes	1947	Executive Director	yes	Full Board
Florida State Board of Administration	Tallahsee, FL	647,000	453,000	\$177.4B	yes	no	no	1970	Chief Risk & Compliance	Yes	Full Board
Los Angeles County Employees Retirement Association	Pasadena, CA	93,000	53,000	\$47B	yes	yes	yes	1938	NA	NA	NA
New York State Teachers' Retirement System	Albany, NY	270,039	155,931	\$108B	yes	yes	no	1921	Executive Director & CIO	yes	Full Board
New Zealand Super Fund	Auckland, New Zealand	NA	NA	\$22B	Yes	no	no	2003	General Manager Finance and Risk	yes	Full Board
State of Wisconsin Investment Board	Madison, WI	257,000	180,000	\$103B	yes	no	no	1951	CFO	yes	ERM
Teacher Retirement System of Texas	Austin, TX	1,051,425	363,182	\$130B	yes	yes	yes	1937	Division of Strategic	Yes	Risk Management Committee
Teacher Retirement System of the City of New York	New York City, NY	112,460	69,515	\$53B	yes	yes	yes	1917	Executive Director	no	Audit Committee
Utah Retirement System	Salt Lake City, UT	102,256	53,433	\$30B	yes	yes	yes	1961	In development	In development	In development
Washington State Investment Board	Olympia, WA	525,674	156,501	\$104.5B	yes	no	no	1981	COO	yes	Audit committee and full Board

# Teacher Retirement System of Texas ERM Update – June 2015

## Stoplight Report Changes

Risk Level Color/Trending Changes	November 2014	June 2015
▪ Active Health Care Affordability	● ↑	● ↔
▪ Investment Operations	● ↓	● ↔
▪ Pension Funding	● ↓	● ↔
▪ TEAM Program	● ↑	● ↓

# Teacher Retirement System of Texas

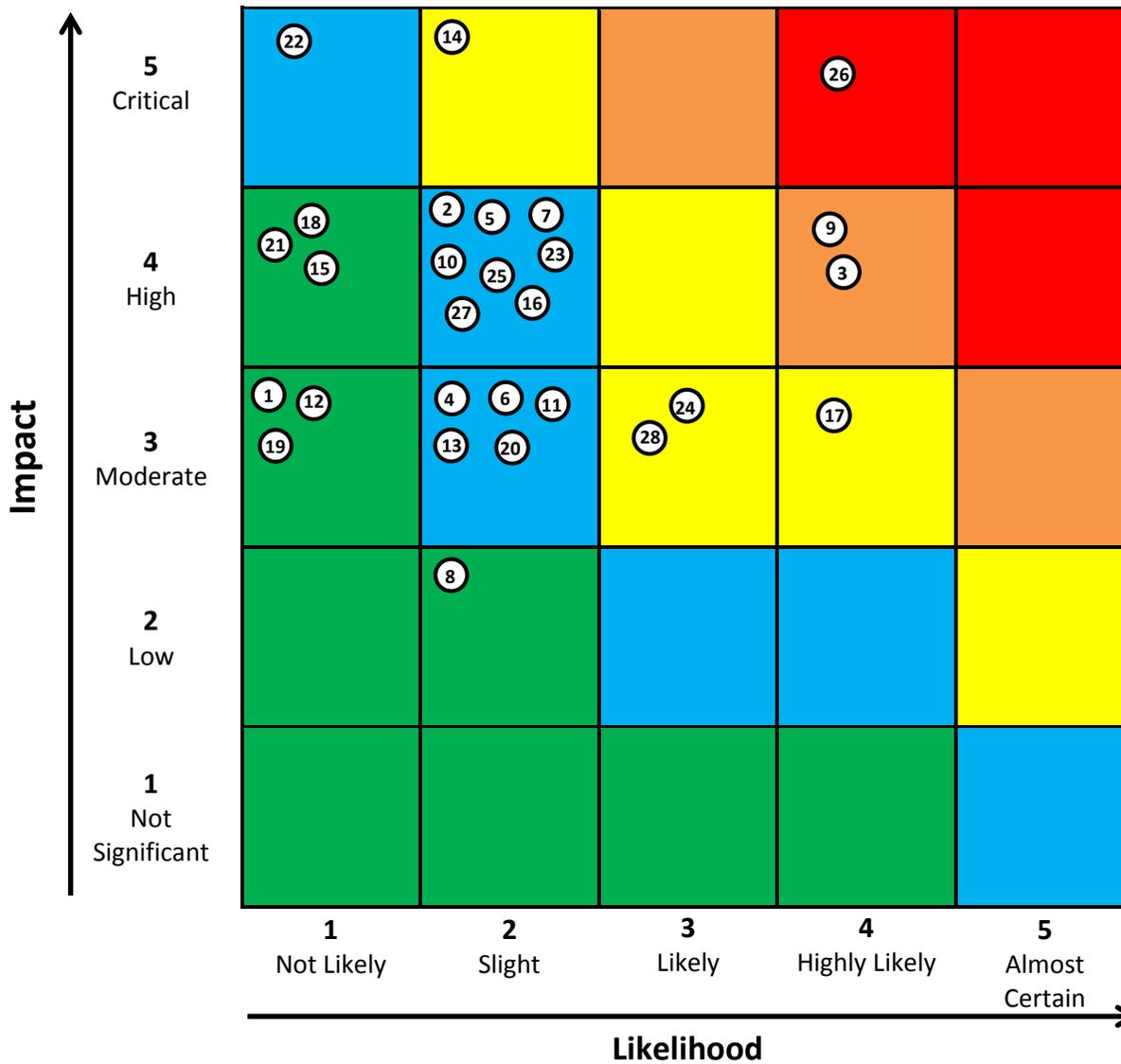
## Stoplight Report – June 2015

 403(b)	 Accounting & Reporting	 Active Health Care Affordability	 Budget	 Business Continuity
 Communications & External Relations	 Credit	 Customer Service	 Employer Reporting	 Ethics & Fraud Prevention
 Facilities Management & Planning	 Governmental/ Association Relations & Legislation	 Health Care Administration	 Information Security & Confidentiality	 Investment Accounting
 Investment Operations	 Legacy Information Systems	 Liquidity/Leverage	 Market	 Open Government
 Pension Benefit Administration	 Pension Funding	 Purchasing & Contracts	 Records Management	 Regulatory, Compliance & Litigation
 Retiree Health Care Funding	 Talent Continuity	 TEAM Program		

STOPLIGHT RISK LEVEL (Threat to Achieving TRS Goals & Objectives)				
HIGH	ELEVATED	CAUTION	GUARDED	LOW
				

EXPECTED RISK LEVEL TREND (NEXT 12-24 MONTHS)		
INCREASE	DECREASE	NO CHANGE
		

# Teacher Retirement System of Texas Risk Heat Map – June 2015



### Risk Category (Risk Score)

1. 403(b) (3,1)
2. Accounting & Reporting (4,2)
3. Active Health Care Affordability (4,4)
4. Budget (3,2)
5. Business Continuity (4,2)
6. Communications & External Relations (3,2)
7. Credit (4,2)
8. Customer Service (2,2)
9. Employer Reporting (4,4)
10. Ethics & Fraud Prevention (4,2)
11. Facilities Management & Planning (3,2)
12. Governmental/Association Relations & Legislation (3,1)
13. Health Care Administration (3,2)
14. Information Security & Confidentiality (5,2)
15. Investment Accounting (4,1)
16. Investment Operations (4,2)
17. Legacy Information Systems (3,4)
18. Liquidity/Leverage (4,1)
19. Market (3,1)
20. Open Government (3,2)
21. Pension Benefit Administration (4,1)
22. Pension Funding (5,1)
23. Purchasing & Contracts (4,2)
24. Records Management (3,3)
25. Regulatory, Compliance & Litigation (4,2)
26. Retiree Health Care Funding (5,4)
27. Talent Continuity (4,2)
28. TEAM Program (3,3)

## Teacher Retirement System of Texas Risk Level & Trend Summary – June 2015

Risk Category	12/2013	6/2014	11/2014	6/2015
403(b)				
Accounting & Reporting				
Active Health Care Affordability				
Budget				
Business Continuity				
Communications & External Relations				
Credit				
Customer Service				
Employer Reporting				
Ethics & Fraud Prevention				
Facilities Management & Planning				
Governmental/Association Relations & Legislation				
Health Care Administration				
Information Security & Confidentiality				
Investment Accounting				

Risk Category	12/2013	6/2014	11/2014	6/2015
Investment Operations				
Legacy Information Systems				
Liquidity/Leverage				
Market				
Open Government				
Pension Benefit Administration				
Pension Funding				
Purchasing & Contracts				
Records Management				
Regulatory, Compliance & Litigation				
Retiree Health Care Funding				
Talent Continuity				
TEAM Program				

# Teacher Retirement System of Texas

## ERM Update – June 2015

### Risk Profile Updates

Changes made to:	Goal/Risk Description	Risk Score	Risk Level/ Trend	Comments	
				Risk Level	Trend
▪ Active Health Care Affordability			✓	✓	
▪ Business Continuity				✓	✓
▪ Credit					✓
▪ Customer Service				✓	
▪ Employer Reporting					✓
▪ Facilities Management & Planning	✓				
▪ Investment Operations		✓	✓	✓	
▪ Legacy Information Systems					✓
▪ Market				✓	✓
▪ Pension Funding			✓	✓	✓
▪ Records Management	✓				✓
▪ Regulatory, Compliance & Litigation				✓	✓
▪ Retiree Health Care Funding					✓
▪ Talent Continuity	✓				
▪ TEAM Program		✓	✓	✓	✓

## Teacher Retirement System of Texas Risk Profiles – June 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
403(b)	Rebecca Merrill	Set fee caps for 403(b) products offered to school district employees. Maintain list of both qualified companies and products which meet requirements of law and TRS rule.	Public education employees purchase non-qualified products and/or products from non-qualified companies.	3,1		While the 403(b) program is important to help ensure that members invest with reputable companies, it is not a core part of TRS' mission. So, if the program were to experience problems, TRS' core functions would continue on without interruption. Additionally, TRS has mitigations in place – such as review of 403(b) rules and a 403(b) program specialist – to help ensure the consistency of the 403(b) program. Therefore, the impact and likelihood of a 403(b) program failure seem low.	Current mitigations are not changing and there is no new anticipated legislation impacting the 403(b) program. So, the trend remains constant.
Accounting & Reporting	Don Green	Maintain and monitor the integrity, accuracy, and completeness of financial information and timeliness of reporting.	Materially inaccurate financial information and reports would result in Board of Trustees and Texas Legislature decisions being made on flawed data and adverse or qualified audit opinions.	4,2		Although there are challenges ahead in the implementation of a new accounting system and new accounting pronouncements, there should be adequate and knowledgeable staff to accomplish the tasks.	It is anticipated that staffing levels and experience will remain relatively constant. Any challenges initiated by the implementation of the TEAM Program (TEAM) will be mitigated by sound accounting and reporting processes and procedures.
Active Health Care Affordability	Bob Jordan	Facilitate financial soundness of TRS-ActiveCare in order to pay eligible participant health care claims.	Inadequate funding by the state and participating entities could affect affordability.	4,4		Given the static state and district contributions and rising healthcare costs, the risk level remains elevated. Inadequate funding would jeopardize the fund's ability to provide public school employees with affordable health care.	District and State minimum contribution requirements to the fund have been static since the inception of the plan.

\*Light purple shading indicates risk category had a risk assessment this reporting period.

RISK SCORE	
IMPACT	5-Critical, 4-High, 3-Moderate, 2-Low, 1-Not Significant
LIKELIHOOD	5-Almost Certain, 4-Highly Likely, 3-Likely, 2-Slight, 1-Not Likely

Example: 3,1 (Impact, Likelihood) = 3-Moderate, 1-Not Likely

RISK LEVEL				
HIGH	ELEVATED	CAUTION	GUARDED	LOW
High Risk	Elevated Risk	Moderate Risk	Guarded Risk	Low Risk

EXPECTED RISK LEVEL TREND (NEXT 12-24 MONTHS)		
INCREASE	DECREASE	REMAIN CONSTANT
↑	↓	↔

## Teacher Retirement System of Texas Risk Profiles – June 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
Budget	Don Green	Ensure TRS has appropriate budget to provide and sustain resources necessary to successfully carry out TRS' mission, goals, and objectives to serve our members.	Lack of a sufficient operating budget could jeopardize our ability to effectively serve our members.	3,2		The agency's operating budget is driven by staffing, membership growth, trust fund balance, and other workload drivers. The agency's strong organizational governance plays a crucial role in meeting these challenges.	Any risk drivers in the ability to sustain an appropriate budget and available resources are mitigated by a strong strategic planning process and working closely with all divisions to identify funding to achieve goals and objectives in accordance with state statute.
Business Continuity	Rebecca Merrill	Recover and resume operations in the event of a major business interruption.	Members do not receive statutorily required services timely.	4,2		Recent transition to co-location services has significantly improved resumption capabilities and mitigation strategies for continuity. The 2015 annual BIA/BCP updates were completed in March. Critical systems were identified and recovery timeframes have been communicated to the disaster recovery teams. Disaster recovery exercise planning is currently underway and preliminary systems tests have been successful. Based on these developments, business continuity represents a minimal threat to meeting TRS' goals and objectives.	Over the next 12-24 months the risk level is not expected to change. The 2016 annual BIA/BCP update will begin in November 2015 and is expected to be completed in February 2016 for all TRS business units.
Communications & External Relations	Howard Goldman	Maintain effective communication and positive relations with members, retirees, employers, TRS employees, news media, and the public.	Poor communication could lead to confusion resulting in increased calls to TRS, poor or inappropriate decision-making regarding TRS benefits, and incorrect information provided to external parties.	3,2		Due to existing procedures and routine interaction with other departments when responding to media requests, preparing articles for publications and developing information for social media channels and our website, the overall risk level is controlled.	No substantive changes have occurred in the processes and policies followed to warrant an increase or decrease in risk levels.
Credit	Jase Auby	Maintain effective management of counterparty and securities lending risks.	Unmanaged counterparty and securities lending exposures could result in losses to the investment portfolio.	4,2		All counterparties currently meet required credit ratings; securities lending exposures well managed and are within guidelines.	All counterparty credit ratings are A3/A- or higher by at least one credit agency; provided, one counterparty is not rated by Moody's and so is rated A3/A- or higher by two rather than three agencies. Credit ratings expected to remain stable.

## Teacher Retirement System of Texas Risk Profiles – June 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
Customer Service	Barbie Pearson	Deliver superior service to members and internal/external customers.	Inadequate customer service could result in dissatisfied members or customers and could lead to increased scrutiny and oversight.	2,2		High quality customer service is provided by all Benefit Services departments based on internal and external feedback. Overall, telephone customer service measures are meeting and routinely exceeding expectations.	Expect trend to be constant unless major legislative changes are passed, a larger than usual number of members retire, and/or TEAM requires more subject matter expert involvement than anticipated.
Employer Reporting	Don Green	Accurately capture and utilize employer reported data to project and calculate future benefits of TRS members and to properly allocate the total pension liability across districts.	<ul style="list-style-type: none"> <li>• Incorrect reporting could lead to calculated benefits being inaccurate.</li> <li>• Improperly allocating actuarial liability across districts.</li> </ul>	4,4		Current system limitations present challenges to data analysis and verification controls. Risk level has increased due to recent GASB pronouncements requiring greater controls around district data and reports.	The new TEAM LOB system is expected to address most of the risks and challenges surrounding collecting, analyzing and verifying district data. However, the system will not be implemented until at least fiscal year 2016.
Ethics & Fraud Prevention	Brian Guthrie	Maintain a culture that upholds ethical behavior and values that contribute and promote the fiduciary duties of prudence and loyalty, and reduces fraud risks.	A lack of ethics could undermine the duties of prudence and loyalty and create fraud risks resulting in loss of assets and credibility, adverse publicity, and increased scrutiny and oversight.	4,2		While the impact of an ethical breach or instance of fraud would be high, the likelihood of such an event is relatively low. Currently, TRS has a number of mitigations in place such as educating individuals on the fraud, waste, and abuse policy and the fraud web reporting form. These types of mitigations, along with TRS' background check policy, operate together to create a guarded risk for a fraud or ethics breach.	The risk of a fraud or ethical breach is trending neither up nor down. TRS continues to maintain mitigations that help prevent incidences of fraud or an ethical breach. This holds the trend line constant.
Facilities Management & Planning	Don Green	Provide a physical work environment that is safe and enhances productivity.	Inadequate facilities management or ineffective space utilization could result in less than desirable conditions for TRS members, visitors, and staff and could jeopardize our ability to continue providing an exemplary level of service to our members.	3,2		An evolving organization with rapidly changing needs for the amount and type of space required can experience negative impacts on service levels and/or moderate business disruptions.	CBRE completed an assessment of our available space and long-term needs and presented recommendations and options to the Board. Long-term space options are being addressed by management through discussions with legislative and regulatory agency representatives.

## Teacher Retirement System of Texas Risk Profiles – June 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
Governmental/ Association Relations & Legislation	Ray Spivey	Maintain effective communications and positive relations with the Legislature, associations, and other public parties.	Poor communications could lead to adverse relations, unfavorable legislation, and restricted funding.	3,1		Our relationship with the legislature is constantly improving and communication has been effective. Our relationship with the public also appears to be positive.	No major issues are expected over the next 12-24 months.
Health Care Administration	Bob Jordan	Administer a retiree and active member health care program that is responsive to and valued by enrollees.	Inadequate administration of the health care programs could possibly affect the health of those who depend on the delivery of TRS health care services.	3,2		Much of the administration of the programs is outsourced. Contract monitoring and controls mitigate this risk.	Administration of the programs is stable with no anticipated significant changes.
Information Security & Confidentiality	Chris Cutler Ken Welch	Maintain the integrity, availability, and protection in the storage, use, and transfer of TRS information resources (in any form or medium).	Unauthorized or unintentional release/access of TRS confidential information could result in state or federal law violations, sanctions against TRS or its employees, and harm the best interests of TRS.	5,2		Depending on the scope of an unauthorized or unintentional release of confidential data, this could have a critical impact on TRS. With the existing mitigation strategies and the new strategies in place that were recommended through the HIPAA/HITECH audit the likelihood is low.	While we have put additional controls in place based on findings in the HIPAA/HITECH audit, new security risks are introduced into technical environments daily. Our security posture has improved but information security is an area that needs constant attention. We should never get comfortable that enough security or mitigating strategies are in place.
Investment Accounting	Don Green	<ul style="list-style-type: none"> <li>Maintain the integrity of investment information - reporting and disclosure, accuracy, completeness and valuation.</li> <li>Ensure TRS investment fundings and distributions are appropriately and accurately delivered and received.</li> </ul>	Materially inaccurate investment information and reports would result in Board of Trustees and Texas Legislature decisions being made on flawed data and adverse or qualified audit opinions.	4,1		The system's custodian maintains the official investment book of record. Funds are sent and received by custodian bank. Department monitoring and oversight control mitigate the risks for this category.	State Street bank has been re-selected as custodian bank providing stability for the next few years. Additionally, the SSB accounting team has been upgraded emphasizing a daily ownership greater understanding of accounting records rather than a traditional month-end only traditional pension fund accounting cycle.

## Teacher Retirement System of Texas Risk Profiles – June 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments		
						Risk Level	Trending	
Investment Operations	Public Market Operations	Sylvia Bell	Maintain the integrity of the transaction settlement and position information for optimal investment management decisions.	Inefficient or ineffective transaction settlement or position management process could result in losses to the fund.	4,2		Given the operational complexity of these processes, there exists a guarded threat to TRS achieving its investment goals and objectives.	IMD performs daily and monthly reconciliations of trade and positions and NAVs via TRS custodian systems. Results are provided to IMD profit centers on a daily and monthly basis. TRS-custody bank relationship is managed through customized Service Level Agreement with key performance indicators.
	Private Market Operations	Sylvia Bell	Maintain the integrity of the transaction settlement and position information for optimal investment management decisions.	Inefficient or ineffective transaction settlement or position management process could result in losses to the fund.	4,2		Given the operational complexity of these processes, there exists a guarded threat to TRS achieving its investment goals and objectives.	IMD performs monthly and quarterly reconciliations of trade and positions and NAVs via TRS custodian systems. Results are provided to IMD profit centers on a monthly and quarterly basis. TRS-custody bank relationship is managed through customized Service Level Agreement with key performance indicators.
	Performance Reporting	Sylvia Bell	<ul style="list-style-type: none"> <li>Maintain the integrity of investment information - reporting and disclosure, accuracy, completeness and valuation.</li> <li>Develop and disseminate customized investment reporting for both management and governance to enhance making better strategic and tactical investment decisions.</li> </ul>	Performance reports contain material inaccuracies.	4,2		Communication of inaccurate information, to both internal and external parties, could result in a guarded threat to TRS investment decisions.	IMD performs daily, weekly and quarterly reconciliations of investment returns. Investment results are presented to the IMD management committee for review and validation. Third-party calculation and pricing is performed by TRS custodian bank. TRS-custody bank relationship is managed through customized Service Level Agreement with key performance indicators.
	Legacy Information Systems	Chris Cutler	Provide information systems to meet TRS' business and customer service needs.	Inability to provide adequate and consistent information in a timely fashion via the	3,4		It is complicated for our legacy systems to provide robust, online self-service applications for our members. So there is a moderate impact that the preferred	The legacy systems are still working well and are stable. The functionality that they provide has not and will not diminish in the near future. There are

## Teacher Retirement System of Texas Risk Profiles – June 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
			preferred delivery mechanism.			delivery mechanism may not be available when desired. The likelihood is highly likely because we know that some of our membership would like to do all their business with us online and that desire will only grow over time.	some web self-service applications for members and retirees to use. The TEAM Program will help provide improved delivery mechanisms such as online self-service applications and web-based functionality preferred by our members and business users.
Liquidity/Leverage	Jase Auby	Maintain levels of liquidity appropriate for the support of fund disbursements, anticipated investment funding needs and trust level leverage.	Inadequate liquidity could lead to cash shortfalls.	4,1		Trust is highly liquid and minimally levered.	Trust use of liquidity and leverage is monitored daily and is projected to remain stable.
Market	Jase Auby	Maintain market risk exposures consistent with investment objectives.	Too little or too much exposure to market risk could each lead to undesirable investment outcomes.	3,1		Investment policy asset allocation ranges limit absolute market risk (VaR) appropriately; relative risk (tracking error) is budgeted by IMD.	Limits remain appropriate and risk is well within min/max range.
Open Government	Carolina de Onís	Ensure compliance with laws and rules related to open records and meetings.	Non-compliance could lead to penalties and fines or voiding of board actions.	3,2		Volume and complexity of investment-related open records requests and requests seeking personal financial information about TRS' key employees.	Hired new staff attorney devoted to investment-related open records requests; hired new open records specialist; installed and configured new software to process, track, and respond to requests; new legislation enhances protection of key employees' personal financial information.
Pension Benefit Administration	Barbie Pearson	Accurate delivery of benefits to TRS members, retirees and beneficiaries, including systems monitoring and controls related to accurate calculations and benefit payments to others.	Ineffective delivery of benefits could lead to inaccurate information, inaccurate benefits/ payments, dissatisfied members, retirees, or beneficiaries, and loss of credibility, adverse public perception, increased scrutiny, and oversight.	4,1		Current controls and monitoring assure accurate delivery of benefits. Accuracy and timeliness of benefit delivery meets or exceeds expectations as evidenced through audits and performance metrics.	Expect trend to be constant unless major legislative changes are passed, a larger than usual number of members retire, and/or TEAM requires more subject matter expert involvement than anticipated.
Pension Funding	Brian Guthrie	Sustain a financially sound pension trust fund.	A lack of sound funding for the plan could lead to insufficient assets to	5,1		While the impact of a loss of pension funding would be significant, the likelihood of such an event is relatively	Currently, the risk of a fiscally unsound pension fund is remaining constant. The increased contribution rates

## Teacher Retirement System of Texas Risk Profiles – June 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
			pay for long-term benefits and financial obligations.			low. The mid-year valuation for February 2015 determined the pension fund is actuarially sound with a funding period of 29.3 years. Moreover, the fund is deferring just over one billion in investment gains. The plan's fiscal health depends on the current contribution levels continuing indefinitely and any benefit enhancements receiving appropriate and timely funding. Finally, there continues to be parties interested in changing the plan's funding and defined benefit status. Therefore, the risk is guarded.	adopted by the 83 <sup>rd</sup> Legislature continue to help keep the fund actuarially sound and investment returns have been strong enough that the fund is now deferring a gain. However, the fund's five-year experience study is beginning with anticipated adjustments necessary to at least the mortality assumption. Any new assumption package will likely increase the funding period and the UAAL. So, the trend is holding constant until the results of the experience study are determined.
Purchasing & Contracts	Don Green	Maintain effective procurement and contract management systems.	Inappropriate procurement practices could result in purchases of sub-standard products and services, unfavorable pricing or contract terms, and violation of laws. Ineffective contract monitoring could result in contractors not fulfilling their contractual obligations.	4,2		Impact is listed at 4 (high) because in the event the overall risk were to occur, it would have a fairly significant impact to TRS ranging from appearance issues, violation of statute, or by not spending TRS funds in a responsible manner (pay too much, contractors not fulfilling obligations, project failures, etc.). Likelihood is listed at 2 (slight) because TRS has good processes and procedures in place, our Contract Administration Coordinator performs an internal quality assurance function, we must report procurement activities regularly, and we are subject to audit by multiple audit entities, both internal and external.	The procurement function has a fairly stable risk trend and risks should remain somewhat similar and constant over time. Significant impacting factors would be loss of staff with institutional knowledge and divergence from current oversight levels and controls. As these are not the case at TRS, our procurement risk level should remain the same.
Records Management	Barbie Pearson	Manage the retention and disposition of TRS records through adherence to laws and rules, and by applying TRS records management policies and practices.	An ineffective records management program could result in loss or accidental release of records, loss of credibility, delays in accessing/destroying records, and increased scrutiny and oversight.	3,3		There is a high growth rate in the volume of e-records. We have silos of files where the retention and disposition is managed manually by individual staff.	The growth of e-records is dynamic with fluctuation over time. For example: <ul style="list-style-type: none"> <li>The IT storage of Outlook has grown by 100+%, but the item count in Outlook has decreased by nearly 25%. Closing the Enterprise Vault placed all vaulted emails back into Outlook and</li> </ul>

## Teacher Retirement System of Texas Risk Profiles – June 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
							<p>more than doubled its storage volume.</p> <ul style="list-style-type: none"> <li>The volume and item count on the G: drive has had insignificant change over the last six to 12 months.</li> <li>The volume and item count on the S: drive has experienced growth of about 25% over the last 12 months.</li> </ul> <p>Recent trends are:</p> <ol style="list-style-type: none"> <li>Realignment will be done to give a higher profile to Records Management in the organization.</li> <li>Terminated employees' e-records are being reviewed for deletion (568 accounts comprising 976 GB deleted); and workflows were implemented to standardize the process.</li> <li>Life-cycle management was accepted as part of the system requirements for TRUST and the Financial System Replacement.</li> </ol>
Regulatory, Compliance & Litigation	Carolina de Onís	<ul style="list-style-type: none"> <li>Adhere to and analyze current laws, rules, and policies (e.g., maintain tax qualification status).</li> <li>Render competent advice on legal risk management and awareness, manage litigation risks, and negotiate contracts to address risks.</li> </ul>	Non-compliance with laws and rules could lead to penalties, fines, liability and litigation; impaired ability to conduct business; burdensome oversight; third-party investigations/audits; adverse legislation; increased scrutiny; or loss of tax qualification status.	4,2		Changes in regulatory environment (Dodd-Frank, BASEL III) and changes in TRS laws (open government, retirement age, health plans, etc.).	Consulting frequently with outside counsel; board policy on procurement proposed; updating contract administration manual; enhancing compliance software systems; received IRS tax-qualification determination; monitoring proposed IRS regulations; completed statutory four-year rule review; onboarding new attorneys; and retaining existing expertise.
Retiree Health Care Funding	Bob Jordan	Facilitate long-term soundness of TRS-Care	Inadequate funding would affect solvency of the program over the	5,4		The fund is projected to become insolvent in the 2016-2017 biennium. The risk level has been elevated to high.	The fund is projected to deplete each year and become insolvent in the 2016-2017 biennium. The current

## Teacher Retirement System of Texas Risk Profiles – June 2015

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
		in order to pay retiree health care costs.	next biennium, requiring significant premium increases or benefit reductions.			Inadequate funding would jeopardize retirees having access to affordable health care.	House and Senate budget bills provide for adequate supplemental funding to the 2016-2017 biennium and if passed, will address this immediate shortfall.
Talent Continuity	Janet Bray	Attract, retain and develop a highly competent staff.	The delivery of member services and pension fund management could be negatively impacted by turnover, the inability to retain qualified staff, lack of a sufficient knowledge transfer program, and an inconsistent performance management process.	4,2		Maintaining a qualified, competent workforce is important for TRS to achieve its goals and objectives. Turnover in the workforce is inevitable, and the loss of staff may create some delays or reductions in meeting strategic or operational objectives. However, these potential risks are not critical enough to stop TRS from meeting goals or terminate business services. As a result, the overall workforce continuity risk level color is set at Guarded (Blue) because of minimal threats to achieving TRS goals and objectives.	We anticipate overall workforce continuity risks decreasing over the next 12-24 months due to various Human Resources (HR) initiatives. These include implementing new HR technologies; updating all agency job descriptions; identifying core competencies, knowledge, skills and abilities for positions; addressing gaps in those attributes through increased learning and development opportunities; and resolving staffing needs through workforce planning, succession planning and the realignment of job functions as necessary.
TEAM Program	Ken Welch	Implement cost effective, efficient, and sustainable processes and systems that enable TRS to serve its members, employers, and annuitants.	System design, implementation and functionality of the new processes and systems do not meet the growing demands of TRS in service of its members. Program/ project implementation schedule and cost exceeds original estimates.	3,3		<p>The Impact rating was reduced from a 4 on the last report to a 3 for this report. The Likelihood rating remained the same.</p> <p>This puts the average risk score at a 9.0 versus a 12.0 on the last report. This is still a Risk Threat Level of "Caution" as was reported on the last Stoplight Report.</p> <p>The Risk Level decrease is directly attributed to the fact that one of the risks impact was reassessed at this stage of the TEAM Program and reduced.</p>	<p>The number of key TEAM risks increased to 21 from the previous report, which was 17. The net increase of 4 risks included the addition of 4 new risks, while no risks were closed. This validates what was stated in the last Stoplight Report that several new risks would be identified as the majority of the TEAM projects are either in the planning or execution phase and also that the Risk Threat Level would remain at "Caution".</p> <p>The Risk Level Trend is being reduced to a "Decrease" status. This is due to the implementation of a new risk mitigation process that is being implemented the first of May. The new process should result in the Likelihood of the risks being reduced</p>

**Teacher Retirement System of Texas  
Risk Profiles – June 2015**

Risk Category	Risk Owner	Goal	Overall Risk	Risk Score	Risk Level & Trend	Comments	
						Risk Level	Trending
							<p>as risk mitigation plans are put in place and tracked.</p> <p>It is expected that the Risk Threat Level will remain at "Caution" with the possibility of moving down to a "Guarded" level.</p>

# Teacher Retirement System of Texas

## ERM Update – June 2015

### Risk Assessments

- Updated risk assessments
  - Business Continuity
  - Communications & External Relations
  - Employer Reporting
  - Facilities Management & Planning
  - Investment Accounting
  - Investment Operations
  - Open Government
  - Records Management
  - Regulatory, Compliance & Litigation
  - Talent Continuity
  - TEAM Program

# Teacher Retirement System of Texas

## ERM Update – Conclusion

### Summary for this Reporting Period

- 11 Stoplight Report risk assessments completed
  - High Risk Area – Retiree Health Care Funding
  - Elevated Risk Areas – Active Health Care Affordability and Employer Reporting
- Risk reports indicate planned or in progress action items to further mitigate higher risks (see Appendix)

### ERM Activities for November 2015

- Risk Assessments
  - Stoplight Report
  - TEAM Program Projects
  - Ad-hoc Requests
- Strategic Planning

# APPENDIX

## A. Risk Report Details

# BUSINESS CONTINUITY RISK REPORT

**RISK OWNER**

**RISK LEVEL/TREND**

**REPORTING DATE**

Rebecca Merrill



June 2015

## GOAL

## OVERALL RISK

## OBJECTIVE

Recover and resume operations in the event of a major business interruption.

Members do not receive statutorily required services timely.

Restore and provide continuation of time-sensitive and critical services within the times specified in the business impact analysis and business continuity plans.

## SUMMARY

Existing mitigations are working as implemented; however, additional mitigations are in progress or planned to further reduce the risks related to business continuity plans, disaster recovery testing/location, and staffing. Key mitigations include: annual reviews and updates to the business impact analysis and business continuity documents; disaster recovery testing/plans; Incident Management Team (IMT) plan review and update; training staff; contract monitoring; and, multiple sites for backup tape storage.

## RISK DETAILS

Risk Description	Mitigations	
1. business continuity plans (BCP) and disaster recovery plans (DRP) do not exist	<ul style="list-style-type: none"> <li>▪ annual review and updates to business impact analysis (BIA) and BCPs based on meetings with business units</li> </ul>	<ul style="list-style-type: none"> <li>▪ disaster recovery testing and update of plans based on testing</li> <li>▪ review and update IMT Plan</li> </ul>
2. BCPs and DRPs are not current or incomplete	<ul style="list-style-type: none"> <li>▪ annual review and updates to BIAs and BCPs based on meetings with business units</li> </ul>	<ul style="list-style-type: none"> <li>▪ disaster recovery testing and update of plans based on testing</li> </ul>
3. BCPs and DRPs are not communicated to affected department staff	<ul style="list-style-type: none"> <li>▪ communicate with team leader and alternate team leader as needed</li> <li>▪ BCP Awareness Presentation</li> <li>▪ Business Continuity Policy</li> </ul>	<ul style="list-style-type: none"> <li>▪ Risk Management handbook</li> <li>▪ share critical systems list with Information Technology (IT)</li> </ul>
4. not capturing critical functions in the Business Impact Analysis (BIA) and BCPs	<ul style="list-style-type: none"> <li>▪ annual review and updates to BIAs and BCPs based on meetings with business units to identify critical functions</li> </ul>	<ul style="list-style-type: none"> <li>▪ disaster recovery testing and update of plans based on testing</li> <li>▪ co-location provides additional recovery options</li> </ul>

## BUSINESS CONTINUITY RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> <li>▪ review and update IMT Plan</li> <li>▪ share critical systems list with IT</li> </ul>	
5. lack of testing critical functions identified in the BIA (Action Item 4, 9)	<ul style="list-style-type: none"> <li>▪ annual review and updates to BIAs and BCPs based on meetings with business units to identify critical functions</li> <li>▪ review and update IMT Plan</li> </ul>	<ul style="list-style-type: none"> <li>▪ disaster recovery testing and update of plans based on testing</li> <li>▪ cross-training for disaster recovery testing</li> </ul>
6. business continuity provider and vendors cannot provide nor guarantee services for business resumption of critical systems	<ul style="list-style-type: none"> <li>▪ annual contract review</li> <li>▪ disaster recovery testing</li> <li>▪ emergency purchasing flexibility</li> <li>▪ co-location/ replication technology options</li> <li>▪ backup natural gas generator</li> </ul>	<ul style="list-style-type: none"> <li>▪ contract with large multi-site business continuity/ recovery services vendor</li> <li>▪ contracts or Memorandum of Understanding (MOU) with external partners</li> <li>▪ redundant power in data center</li> </ul>
7. vendors or entities do not protect TRS confidential information during a business interruption or disaster recovery test	<ul style="list-style-type: none"> <li>▪ data is deleted/scrubbed from vendor's resources after recovery testing and documented in DRPs</li> <li>▪ TRS security implemented during recovery of data</li> </ul>	<ul style="list-style-type: none"> <li>▪ firewall encryption</li> <li>▪ encryption of TRS data</li> <li>▪ Business Associate Agreements (BAA)</li> <li>▪ storage with encryption at rest</li> <li>▪ contract provisions</li> </ul>
8. data loss between mainframe backups (24-hour period)	<ul style="list-style-type: none"> <li>▪ more frequent synchronization</li> <li>▪ tape-based recovery</li> </ul>	<ul style="list-style-type: none"> <li>▪ future TEAM technical architecture configuration</li> </ul>
9. data loss between network/ imaging backups (6-hour period)	<ul style="list-style-type: none"> <li>▪ near real time synchronization</li> <li>▪ co-location/replication technology options</li> </ul>	<ul style="list-style-type: none"> <li>▪ future TEAM technical architecture configuration</li> </ul>
10. failed telecommunications with business partners or external entities	<ul style="list-style-type: none"> <li>▪ BCPs provide external contact information</li> <li>▪ virtual private networks over direct paths</li> <li>▪ review and update IMT Plan</li> </ul>	<ul style="list-style-type: none"> <li>▪ multiple paths to Internet</li> <li>▪ contract with large multi-site business continuity/ recovery services vendor</li> </ul>
11. lack of hardware/software to recover critical systems after an incident	<ul style="list-style-type: none"> <li>▪ contract with large multi-site business continuity/recovery services vendor</li> <li>▪ future TEAM technical architecture configuration</li> <li>▪ disaster recovery testing and update of plans based on testing</li> </ul>	<ul style="list-style-type: none"> <li>▪ emergency purchasing flexibility</li> <li>▪ TRS owns recovery infrastructure</li> <li>▪ co-location/ replication technology options</li> <li>▪ lessons learned from disaster recovery tests</li> </ul>
12. fail-back process to return to TRS is difficult to test (Action Item 4)	<ul style="list-style-type: none"> <li>▪ co-location/replication technology options</li> <li>▪ emergency purchasing flexibility</li> </ul>	<ul style="list-style-type: none"> <li>▪ future TEAM technical architecture configuration</li> </ul>

## BUSINESS CONTINUITY RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> <li>▪ contract provisions</li> </ul>	
13. unable to recover missing data between outage through recovery period (Action Item 3)	<ul style="list-style-type: none"> <li>▪ IT BCP plan allows for recovery of some business data</li> <li>▪ co-location/replication technology options</li> </ul>	<ul style="list-style-type: none"> <li>▪ remote access to available systems during recovery</li> </ul>
14. lack of staff to recover critical systems after an incident	<ul style="list-style-type: none"> <li>▪ mainstream software</li> <li>▪ disaster recovery procedures</li> <li>▪ cross-training for disaster recovery testing</li> <li>▪ co-location/replication technology options</li> </ul>	<ul style="list-style-type: none"> <li>▪ improved offsite access to systems</li> <li>▪ use vendor's remote resources</li> <li>▪ review and update IMT Plan</li> <li>▪ emergency call list</li> </ul>
15. long-term (>6 weeks) continuity of operations strategy does not exist	<ul style="list-style-type: none"> <li>▪ co-location/replication technology options</li> <li>▪ contract provisions</li> <li>▪ extend use of the contracted disaster recovery site</li> <li>▪ research/partner with other agencies/business</li> <li>▪ secondary agency location</li> <li>▪ send designated travel team to purchase out-of-state or internationally</li> </ul>	<ul style="list-style-type: none"> <li>▪ future TEAM technical architecture configuration</li> <li>▪ emergency purchasing flexibility</li> <li>▪ use of portable temporary structures</li> <li>▪ VPN and teleworking capabilities</li> <li>▪ identify workarounds/ alternate tools and resources</li> <li>▪ reach out to peer public pension funds</li> </ul>
16. data backup media is not available	<ul style="list-style-type: none"> <li>▪ multiple sites for storing tapes</li> <li>▪ multiple copies available</li> </ul>	<ul style="list-style-type: none"> <li>▪ co-location/ replication technology options</li> <li>▪ storage snapshots</li> </ul>
17. members are not able to communicate with TRS to complete business processes	<ul style="list-style-type: none"> <li>▪ communication system testing</li> <li>▪ disaster recovery contract includes phone capacity</li> </ul>	<ul style="list-style-type: none"> <li>▪ alternate website for communicating TRS contact information</li> </ul>
18. critical vendors do not have BCPs or DRPs in place (Action Item 7)	<ul style="list-style-type: none"> <li>▪ contract with large multi-site business continuity/recovery services vendor</li> </ul>	<ul style="list-style-type: none"> <li>▪ contract provisions</li> <li>▪ annual contract provision review</li> </ul>
19. recovery data cannot be unencrypted	<ul style="list-style-type: none"> <li>▪ maintain necessary information in multiple secure locations</li> </ul>	<ul style="list-style-type: none"> <li>▪ co-location/replication technology options</li> <li>▪ disaster recovery testing</li> </ul>
20. risk management staff is not available	<ul style="list-style-type: none"> <li>▪ IMT plan outlines roles and responsibilities</li> <li>▪ cross-training</li> </ul>	<ul style="list-style-type: none"> <li>▪ review and update IMT Plan</li> </ul>
21. business unit staff are not available for recovery and continuation of business (Action Item 2)	<ul style="list-style-type: none"> <li>▪ team lead alternates assigned</li> <li>▪ provide guidance and/or identify resources for personal preparation</li> <li>▪ documented BCP</li> </ul>	<ul style="list-style-type: none"> <li>▪ review and update IMT Plan</li> <li>▪ communicate personal issues between recovery team members</li> </ul>

## BUSINESS CONTINUITY RISK REPORT

Risk Description	Mitigations	
22. insufficient staffing for recovery and continuity shifts	<ul style="list-style-type: none"> <li>▪ cross-training</li> <li>▪ detailed DRPs</li> </ul>	<ul style="list-style-type: none"> <li>▪ policies and procedures</li> </ul>
23. transportation to recovery site not available	<ul style="list-style-type: none"> <li>▪ use of personal vehicles</li> <li>▪ remote access</li> </ul>	<ul style="list-style-type: none"> <li>▪ alternate modes of transportation</li> </ul>
24. ineffective communication methods between TRS staff in the event of an incident	<ul style="list-style-type: none"> <li>▪ TRS Alert for text, phone, and email communication</li> <li>▪ TRS weatherline</li> </ul>	<ul style="list-style-type: none"> <li>▪ TRS website</li> <li>▪ manual call trees</li> <li>▪ multiple cell phone service providers</li> </ul>
25. insufficient lodging near disaster recovery site	<ul style="list-style-type: none"> <li>▪ search for closest available hotels</li> <li>▪ alternate forms of lodging</li> </ul>	<ul style="list-style-type: none"> <li>▪ seek increased per diem if state rate is not available</li> </ul>
26. accident on the way to recovery site	<ul style="list-style-type: none"> <li>▪ segregate the team by function into separate vehicles</li> </ul>	<ul style="list-style-type: none"> <li>▪ alternate modes of transportation</li> <li>▪ use of multiple vehicles</li> </ul>
27. business unit staff have not identified or do not have sufficient tools, procedures, resources to begin recovery at disaster recovery site	<ul style="list-style-type: none"> <li>▪ identify tools, procedures, resources needed within BCP during annual review with business units</li> <li>▪ purchase needed supplies</li> </ul>	<ul style="list-style-type: none"> <li>▪ duplicate resources stored at Incident Command Center</li> <li>▪ define business unit needs within contract</li> </ul>
28. citywide electrical grid failure	<ul style="list-style-type: none"> <li>▪ backup generators</li> </ul>	<ul style="list-style-type: none"> <li>▪ coordinate with city leaders</li> </ul>
29. unable to collaborate from multiple sites	<ul style="list-style-type: none"> <li>▪ dedicated conference lines</li> <li>▪ alternate ways to collaborate online</li> <li>▪ web portals</li> </ul>	<ul style="list-style-type: none"> <li>▪ multiple physical sites</li> <li>▪ WebEx</li> </ul>
30. unable to settle and execute approved trades	<ul style="list-style-type: none"> <li>▪ automated process within Bloomberg</li> <li>▪ workflow includes approvals</li> <li>▪ secured email tunnel to custodian for settlement instructions</li> </ul>	<ul style="list-style-type: none"> <li>▪ manual process for trade approval</li> <li>▪ manual process for faxing</li> <li>▪ communication via phone calls</li> </ul>
31. unable to access investment-related systems	<ul style="list-style-type: none"> <li>▪ remote/virtual access</li> <li>▪ phone calls</li> <li>▪ faxing</li> </ul>	<ul style="list-style-type: none"> <li>▪ online resources</li> <li>▪ web portals</li> <li>▪ mobile devices with apps</li> </ul>
32. unable to update models (analytical tools)	<ul style="list-style-type: none"> <li>▪ redundancies</li> <li>▪ co-location in progress</li> </ul>	<ul style="list-style-type: none"> <li>▪ documentation</li> <li>▪ system backups</li> </ul>
33. lose connectivity (VPN, remote desktop)	<ul style="list-style-type: none"> <li>▪ co-location in progress</li> <li>▪ phone calls</li> <li>▪ faxing</li> </ul>	<ul style="list-style-type: none"> <li>▪ recovery site</li> <li>▪ remote/virtual access</li> <li>▪ alternate web sites</li> </ul>

## BUSINESS CONTINUITY RISK REPORT

Risk Description	Mitigations
34. loss of leadership	<ul style="list-style-type: none"> <li>▪ documentation</li> <li>▪ delegation chart</li> </ul>
35. staff not available	<ul style="list-style-type: none"> <li>▪ documentation</li> <li>▪ custodial authorizations</li> <li>▪ delegation chart</li> </ul>
36. lose connectivity with key service providers	<ul style="list-style-type: none"> <li>▪ manual procedures (phone calls, faxes)</li> </ul>
37. loss of liquidity (exchange goes down)	<ul style="list-style-type: none"> <li>▪ market mechanisms in place</li> <li>▪ find other investment opportunities (long-term)</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
1. During the 2014 BIA/BCP process, the Business Continuity Coordinator will: <ul style="list-style-type: none"> <li>▪ Work with departments to develop BCPs if they do not exist, if they are incomplete, or not current</li> <li>▪ Verify BCP communication method with individual business units</li> <li>▪ Discuss data loss between backups with BCP team leaders</li> <li>▪ Determine if adequate business continuity backups exist</li> </ul>	Risk Management	1/2015		Complete	BCC followed-up with Investment Accounting, Human Resources, and Investment Operations and confirmed completion of their BIAs and BCPs. Individual business unit BCPs compiled into one comprehensive BCP to meet the new requirements and missing BCPs were identified during the process. BIA summary of mission critical systems was compiled and presented to the DR team for consideration in continuity exercise planning.
2. During the 2015 BIA/BCP process, the Business Continuity Coordinator will: <ul style="list-style-type: none"> <li>▪ Provide a self-assessment for personal issues that can prevent participation in disaster recovery/business continuity activities (Risk 21)</li> </ul>	Risk Management	1/2015	3/2016	In Progress	
3. Schedule disaster recovery test	Risk Management, IT	12/2014		Complete	
4. Perform a series of disaster recovery tests (Risk 5, 12)	IT, Business Units, Risk Management	12/2015		Planned	Progressive system testing has been ongoing since co-location implementation. Following successful component testing in

## BUSINESS CONTINUITY RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
					May-July, the DR exercise is tentatively scheduled for October.
5. Finalize design and vendor requirements and enter into co-location implementation	IT	2/2015		Complete	
6. Identify critical vendors as part of the BIA/BCP process	Risk Management	12/2014		Complete	
7. Confirm critical vendors' business continuity/disaster recovery plans exist (Risk 18)	Risk Management	12/2014	12/2015	Planned	Initial surveys have been distributed to identify how each of the business units are currently managing this risk within their contract management activities.
8. Store encryption password and key in separate locations	Risk Management, IT	6/2014		Complete	One stored at the Incident Command Center and the other at the disaster recovery site.
9. Conduct a business continuity exercise (Risk 5)	Risk Management, IT	12/2015		Planned	

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
BIA/BCP annual reviews and updates (Risk 1, 2, 4, 5, 27)	BC/DR Coordinator	<ul style="list-style-type: none"> <li>Ongoing communication with team leaders and alternates during the review process.</li> <li>Review plans to ensure critical processes and systems have not changed from previous year.</li> <li>Communicate any changes to critical processes and systems to IT for testing and recovery purposes.</li> </ul>
Disaster recovery testing (Risk 1, 2, 4, 5, 6, 19)	BC/DR Coordinator, IT	Planning and participation in exercise. Post-exercise report to executive director.

# BUSINESS CONTINUITY RISK REPORT

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Disaster Recovery Plans (Risk 1, 2, 4, 5, 19, 22)	IT	Review plans and update as needed after each disaster recovery exercise.
Review and update IMT plan (Risk 1, 4, 5, 10, 20)	Risk Management	Periodic reviews quarterly and detailed review on an annual basis as part of the BCP process.
Cross-training/rotating staff (Risk 5, 14, 20, 22)	IT	Participate in exercise and cross-train and rotate staff to share knowledge of disaster recovery processes and procedures.
Contract monitoring (Risk 6, 7, 10, 11, 12, 15, 18, 27)	Risk Management, IT, Purchasing	Annual review and coordination with Purchasing and IT to update or revise.
Multiple sites for storing backup tapes (Risk 16)	Information Technology	Backup tapes are stored offsite in two locations. Daily pick up and sign off for Safesite Austin tapes. Dallas tapes are sent monthly. Inventories are performed daily and documented.

# COMMUNICATIONS & EXTERNAL RELATIONS RISK REPORT

**RISK OWNER**

**RISK LEVEL/TREND**

**REPORTING DATE**

Howard Goldman



June 2015

## GOAL

## OVERALL RISK

## OBJECTIVES

Maintain effective communication and positive relations with members, retirees, employers, TRS employees, news media, and the public.

Poor communication could lead to confusion resulting in increased calls to TRS, poor or inappropriate decision-making regarding TRS benefits, and incorrect information provided to external parties.

- Publicize the agency’s updated Staff External Communications Policy.
- Review and improve existing procedures relating to internal and external communications.
- Develop new procedures to address potential spikes in Social Media activity and how to most effectively address them.

## SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts a majority of the risks with existing mitigations. Additional mitigation strategies are planned to further reduce risks related to communication with news media and the public. Key mitigations include training and discussions, tracking TRS-related media interviews through web-based software, and policies and procedures. Recent activities include:

- Updating TRS publications to reflect legislative changes.
- Managed the 2015 board election process.
- Website Redesign Committee developing Statement of Work to select a vendor to redesign TRS’ website.
- Launched project to develop new agency communications plan.
- Began internal education process relating to website accessibility.
- Updating agency writing style guide and graphic style guide.
- Developed social media strategy.

## COMMUNICATIONS & EXTERNAL RELATIONS RISK REPORT

### RISK DETAILS

Risk Description	Mitigations	
1. inaccurate, insufficient, or misleading information is released to the news media (Action Item 1)	<ul style="list-style-type: none"> <li>▪ coordinate with subject matter experts</li> <li>▪ approval process for releasing information</li> <li>▪ policies and procedures</li> <li>▪ communicate with editorial boards or other media personnel</li> <li>▪ post information to TRS website and social media outlets</li> <li>▪ collaborate with associations, legislators, and other stakeholders to communicate accurate information</li> <li>▪ write op-eds</li> </ul>	<ul style="list-style-type: none"> <li>▪ review reporters' reputations and past reports</li> <li>▪ use software tool to monitor articles and make corrections as needed or respond to inaccuracies in a timely manner</li> <li>▪ respond to letters, phone calls, and email messages</li> <li>▪ provide statements to telephone counseling center</li> <li>▪ refer to previous responses to ensure consistency</li> <li>▪ request clarifications/retractions from reporters</li> <li>▪ share policy updates with all employees</li> </ul>
2. inaccurate, insufficient, or misleading information is released to the public (Action Item 2)	<ul style="list-style-type: none"> <li>▪ coordinate with subject matter experts</li> <li>▪ approval process for releasing information</li> <li>▪ refer to previously approved information to ensure consistency</li> <li>▪ post information to TRS website, social media outlets, and send email notices</li> <li>▪ policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ make corrections as needed or respond to inaccuracies in a timely manner</li> <li>▪ provide statements to telephone counseling center</li> <li>▪ collaborate with associations, legislators, and other stakeholders to communicate accurate information</li> <li>▪ respond to letters, phone calls, and email messages</li> </ul>
3. TRS-related information is not disseminated to TRS members and retirees in a timely and effective manner	<ul style="list-style-type: none"> <li>▪ post information to TRS website, social media outlets, and send email notices</li> <li>▪ adhere to time management tools for publications</li> <li>▪ coordination with subject matter experts</li> <li>▪ policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ collaborate with associations, legislators, and other stakeholders to communicate accurate information</li> <li>▪ respond to letters, phone calls, and email messages</li> <li>▪ provide statements to telephone counseling center</li> </ul>
4. inaccurate, insufficient, or misleading TRS-related information is disseminated to TRS employers	<ul style="list-style-type: none"> <li>▪ communicate via employer email distribution list including superintendents, TRS <i>Update</i> newsletter, TRS website, and social media outlets</li> <li>▪ coordinate with subject matter experts</li> <li>▪ policies and procedures</li> <li>▪ make corrections as needed or respond to inaccuracies in a timely manner</li> </ul>	<ul style="list-style-type: none"> <li>▪ provide statements to telephone counseling center</li> <li>▪ collaborate with associations, legislators, education service centers, and other stakeholders to communicate accurate information</li> <li>▪ respond to letters, phone calls, and email messages</li> <li>▪ approval process for releasing information</li> </ul>

## COMMUNICATIONS & EXTERNAL RELATIONS RISK REPORT

Risk Description	Mitigations	
5. unauthorized release of confidential information	<ul style="list-style-type: none"> <li>▪ policies and procedures</li> <li>▪ restrict access</li> <li>▪ coordinate with subject matter experts</li> </ul>	<ul style="list-style-type: none"> <li>▪ include language in contracts regarding usage of information</li> <li>▪ annual TRS-wide training</li> </ul>
6. inaccurate, insufficient, or misleading TRS-related information is disseminated to TRS employees	<ul style="list-style-type: none"> <li>▪ coordinate with subject matter experts</li> <li>▪ approval process for releasing information</li> <li>▪ policies and procedures</li> <li>▪ post information to TRS website, intranet, social media outlets, and send email notices</li> <li>▪ internal meetings</li> </ul>	<ul style="list-style-type: none"> <li>▪ make corrections as needed or respond to inaccuracies in a timely manner</li> <li>▪ respond to phone calls and email messages</li> <li>▪ internal newsletter</li> <li>▪ refer to previously approved information to ensure consistency</li> </ul>
7. hacker or software/hardware failure disrupts live webcasts or TRS social media sites	<ul style="list-style-type: none"> <li>▪ vendor support</li> <li>▪ contract provisions</li> <li>▪ website and/or social media postings</li> <li>▪ IT coordination</li> </ul>	<ul style="list-style-type: none"> <li>▪ statement for telephone counseling center</li> <li>▪ procedures</li> <li>▪ send email messages</li> </ul>
8. inappropriate, inaccurate, or negative social media comments posted and/or left unattended	<ul style="list-style-type: none"> <li>▪ monitor social media comments</li> <li>▪ social media filter tool</li> <li>▪ policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ respond in a timely manner</li> <li>▪ backup team</li> </ul>
9. vendor error during live webcasts	<ul style="list-style-type: none"> <li>▪ vendor support</li> <li>▪ contract provisions</li> <li>▪ website and/or social media postings</li> </ul>	<ul style="list-style-type: none"> <li>▪ statement for telephone counseling center</li> <li>▪ procedures</li> <li>▪ monitor webcasts</li> </ul>
10. excessive volume of comments from Facebook/Twitter (e.g. comments go viral)	<ul style="list-style-type: none"> <li>▪ adjust staffing</li> <li>▪ prepared messages/ statements/fact sheets to respond to comments</li> <li>▪ notify telephone counselors</li> </ul>	<ul style="list-style-type: none"> <li>▪ monitor comments</li> <li>▪ post information to TRS website, intranet, social media outlets, and send email notices</li> <li>▪ procedures</li> </ul>
11. unauthorized contact/ interviews with the news media (Action Item 1)	<ul style="list-style-type: none"> <li>▪ policies and procedures</li> <li>▪ track TRS-related media interviews through web-based software</li> <li>▪ training and discussions</li> </ul>	<ul style="list-style-type: none"> <li>▪ share policy updates with all employees</li> <li>▪ contact media to discuss TRS policies and procedures</li> <li>▪ disciplinary action</li> </ul>
12. unauthorized TRS information disseminated by TRS staff (e.g., blogs, public events, panels, associations)	<ul style="list-style-type: none"> <li>▪ Staff External Communications Policy</li> <li>▪ Social Media Policy &amp; Guidelines</li> <li>▪ policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ disciplinary action</li> <li>▪ training and discussions</li> </ul>

## COMMUNICATIONS & EXTERNAL RELATIONS RISK REPORT

Risk Description	Mitigations	
13. negative perceptions are not responded to in a timely manner	<ul style="list-style-type: none"> <li>▪ post information to TRS website, social media outlets, and send email notices</li> <li>▪ member surveys to identify negative perceptions</li> <li>▪ coordination with subject matter experts</li> </ul>	<ul style="list-style-type: none"> <li>▪ collaborate with associations, legislators, and other stakeholders to communicate accurate information</li> <li>▪ respond to letters, phone calls, email messages, and media inquiries</li> </ul>
14. materials cannot be printed due to equipment failure or insufficient expertise to fully utilize equipment	<ul style="list-style-type: none"> <li>▪ hiring staff with appropriate skills</li> <li>▪ request participation in equipment vendor procurement</li> <li>▪ software updates are coordinated with Communications, Print Shop, and IT</li> </ul>	<ul style="list-style-type: none"> <li>▪ increased use of outside printers</li> <li>▪ post digital version to website</li> <li>▪ increase use of e-publications</li> <li>▪ training</li> <li>▪ equipment repairs</li> </ul>
15. vendors fail to fulfill contract obligations	<ul style="list-style-type: none"> <li>▪ subcontracting services</li> <li>▪ seek compensation/withhold payment</li> <li>▪ staff assists with contract responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>▪ work with vendor to remediate issues</li> <li>▪ contract performance assessment</li> <li>▪ terminate contract</li> </ul>
16. not able to maintain technical expertise/ experience due to rapidly changing technology	<ul style="list-style-type: none"> <li>▪ networking with professional colleagues</li> <li>▪ update internal procedures</li> <li>▪ hire consultants/ contractors</li> </ul>	<ul style="list-style-type: none"> <li>▪ attend association meetings</li> <li>▪ training</li> </ul>
17. information is inaccessible to persons with disabilities	<ul style="list-style-type: none"> <li>▪ policies and procedures</li> <li>▪ web accessibility committee</li> <li>▪ produce accessible materials</li> <li>▪ participate in DIR program to scan and monitor website for accessibility</li> <li>▪ internal program monitors web accessibility standards for internal and external websites</li> </ul>	<ul style="list-style-type: none"> <li>▪ use web coding for accessible web page</li> <li>▪ accessibility coordinator</li> <li>▪ TEAM projects require accessibility compliance to federal and state standards</li> <li>▪ monitor changes in the law</li> <li>▪ Access TTY/TDD Program replaced with DIAL Relay 711</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
1. Increase employee awareness of and adherence to Staff External Communications Policy and related procedures (Risk 1, 11)	Communications Staff	6/2014		Complete	Sent updated policy to all employees. Increase coverage in Chalkboard newsletters.
2. Develop new messages and statements in anticipation of potential problems (Risk 2)	Communications Staff	6/2014	7/2015	Planned	

## COMMUNICATIONS & EXTERNAL RELATIONS RISK REPORT

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Policies and/or procedures (Risk 1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 17)	Communications Staff	Review/update policy and procedures.
Training and discussions (Risk 11)	Communications Staff	Address policy in new employee orientation. Email updated policy to all employees. Publish <i>Chalkboard</i> article relating to the policy.
Track TRS-related media interviews through web-based software (Risk 11)	Communications Staff	Scan all TRS-related articles and blogs on a daily basis.

# EMPLOYER REPORTING RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Don Green		June 2015

GOAL	OVERALL RISKS	OBJECTIVES
Accurately capture and utilize employer reported data to project and calculate future benefits of TRS members and to properly allocate the total pension liability across districts.	<ul style="list-style-type: none"> <li>Incorrect reporting could lead to calculated benefits being inaccurate.</li> <li>Improperly allocating actuarial liability across districts.</li> </ul>	<ul style="list-style-type: none"> <li>Improved electronic reporting and auditing through TEAM.</li> <li>Supplement with additional staff to prepare for TRS staff retirements.</li> </ul>

## SUMMARY

Key mitigations include internal and external training and ongoing communication with reporting entities. Existing mitigations are working as implemented; however, due to recent GASB pronouncements requiring greater controls around district data and reports, additional mitigations are in progress or planned to further reduce the risks related to reporting and staffing.

## RISK DETAILS

Risk Description	Mitigations		
1. ineligible members reported (Action Item 1, 2, 3)	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> <li>internal and external training</li> <li>ongoing communication</li> <li><i>TRS Update</i> newsletter</li> <li>SAO audits</li> </ul> </td> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> <li>maintain current TRS webpage for employers</li> <li>mass emails</li> <li>internal audits</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>internal and external training</li> <li>ongoing communication</li> <li><i>TRS Update</i> newsletter</li> <li>SAO audits</li> </ul>	<ul style="list-style-type: none"> <li>maintain current TRS webpage for employers</li> <li>mass emails</li> <li>internal audits</li> </ul>
<ul style="list-style-type: none"> <li>internal and external training</li> <li>ongoing communication</li> <li><i>TRS Update</i> newsletter</li> <li>SAO audits</li> </ul>	<ul style="list-style-type: none"> <li>maintain current TRS webpage for employers</li> <li>mass emails</li> <li>internal audits</li> </ul>		
2. not all eligible members reported (Action Item 1, 2, 3)	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> <li>internal and external training</li> <li>ongoing communication</li> <li><i>TRS Update</i> newsletter</li> <li>SAO audits</li> </ul> </td> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> <li>maintain current TRS webpage for employers</li> <li>mass emails</li> <li>internal audits</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>internal and external training</li> <li>ongoing communication</li> <li><i>TRS Update</i> newsletter</li> <li>SAO audits</li> </ul>	<ul style="list-style-type: none"> <li>maintain current TRS webpage for employers</li> <li>mass emails</li> <li>internal audits</li> </ul>
<ul style="list-style-type: none"> <li>internal and external training</li> <li>ongoing communication</li> <li><i>TRS Update</i> newsletter</li> <li>SAO audits</li> </ul>	<ul style="list-style-type: none"> <li>maintain current TRS webpage for employers</li> <li>mass emails</li> <li>internal audits</li> </ul>		
3. member salaries paid from miscellaneous funds unreported (federal, private, statutory minimum, non-educational/general local, educational/general local, new member) (Action Item 1, 2, 3)	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> <li>internal and external training</li> <li>ongoing communication</li> <li><i>TRS Update</i> newsletter</li> <li>SAO audits</li> </ul> </td> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> <li>maintain current TRS webpage for employers</li> <li>mass emails</li> <li>internal audits</li> </ul> </td> </tr> </table>	<ul style="list-style-type: none"> <li>internal and external training</li> <li>ongoing communication</li> <li><i>TRS Update</i> newsletter</li> <li>SAO audits</li> </ul>	<ul style="list-style-type: none"> <li>maintain current TRS webpage for employers</li> <li>mass emails</li> <li>internal audits</li> </ul>
<ul style="list-style-type: none"> <li>internal and external training</li> <li>ongoing communication</li> <li><i>TRS Update</i> newsletter</li> <li>SAO audits</li> </ul>	<ul style="list-style-type: none"> <li>maintain current TRS webpage for employers</li> <li>mass emails</li> <li>internal audits</li> </ul>		

## EMPLOYER REPORTING RISK REPORT

Risk Description	Mitigations	
4. underreported salaries (used in final average salary calculation) (Action Item 1, 2, 3)	<ul style="list-style-type: none"> <li>▪ internal and external training</li> <li>▪ ongoing communication</li> <li>▪ maintain current TRS webpage for employers</li> <li>▪ SAO audits</li> </ul>	<ul style="list-style-type: none"> <li>▪ mass emails</li> <li>▪ <i>TRS Update</i> newsletter</li> <li>▪ annual statements sent to members</li> <li>▪ internal audits</li> </ul>
5. ineligible/overreported salaries (used in final average salary calculation) (Action Item 1, 2, 3)	<ul style="list-style-type: none"> <li>▪ internal and external training</li> <li>▪ ongoing communication</li> <li>▪ maintain current TRS webpage for employers</li> <li>▪ SAO audits</li> </ul>	<ul style="list-style-type: none"> <li>▪ mass emails</li> <li>▪ <i>TRS Update</i> newsletter</li> <li>▪ annual statements sent to members</li> <li>▪ internal audits</li> </ul>
6. pension and TRS-Care surcharges for retirees unreported (Action Item 1, 2, 3)	<ul style="list-style-type: none"> <li>▪ internal and external training</li> <li>▪ ongoing communication</li> <li>▪ <i>TRS Update</i> newsletter</li> <li>▪ SAO audits</li> </ul>	<ul style="list-style-type: none"> <li>▪ mass emails</li> <li>▪ maintain current TRS webpage for employers</li> <li>▪ internal audits</li> <li>▪ self-audit tool for reporting entities</li> </ul>
7. retirement not revoked when retirees return to work without break in service (Action Item 1, 2, 3)	<ul style="list-style-type: none"> <li>▪ internal and external training</li> <li>▪ ongoing communication</li> <li>▪ automated system edits/reports</li> <li>▪ mass emails</li> </ul>	<ul style="list-style-type: none"> <li>▪ maintain current TRS webpage for employers</li> <li>▪ <i>TRS Update</i> newsletter</li> <li>▪ internal audits</li> </ul>
8. years of service credit manipulated (overreported/ underreported service credit) (Action Item 1, 2, 3)	<ul style="list-style-type: none"> <li>▪ internal and external training</li> <li>▪ ongoing communication</li> <li>▪ automated system edits/reports</li> <li>▪ mass emails</li> <li>▪ SAO audits</li> </ul>	<ul style="list-style-type: none"> <li>▪ maintain current TRS webpage for employers</li> <li>▪ <i>TRS Update</i> newsletter</li> <li>▪ annual statements sent to members</li> <li>▪ internal audits</li> </ul>
9. annuities not forfeited when retirees work in excess of limits provided by law (Action Item 1, 2, 3)	<ul style="list-style-type: none"> <li>▪ internal and external training</li> <li>▪ ongoing communication</li> <li>▪ automated system edits/reports</li> <li>▪ mass emails</li> </ul>	<ul style="list-style-type: none"> <li>▪ maintain current TRS webpage for employers</li> <li>▪ <i>TRS Update</i> newsletter</li> <li>▪ internal audits</li> </ul>
10. Benefit Accounting staffing issues due to staff retirements (Action Item 5, 6)	<ul style="list-style-type: none"> <li>▪ internal training</li> <li>▪ cross-training</li> </ul>	<ul style="list-style-type: none"> <li>▪ additional FTEs</li> <li>▪ maintain current staffing levels</li> </ul>
11. external fraud (i.e., eligibility, compensation, service credit) (Action Item 1, 2, 3)	<ul style="list-style-type: none"> <li>▪ internal and external training</li> <li>▪ automated system edits/ reports</li> <li>▪ maintain current TRS webpage for employers</li> <li>▪ internal audits</li> <li>▪ mass emails</li> </ul>	<ul style="list-style-type: none"> <li>▪ <i>TRS Update</i> newsletter</li> <li>▪ sample testing</li> <li>▪ criminal investigations and prosecution</li> <li>▪ ongoing communication</li> <li>▪ SAO audits</li> </ul>

## EMPLOYER REPORTING RISK REPORT

Risk Description	Mitigations
12. inability to provide appropriate customer service due to increased number of reporting entities (Action Item 5, 6)	<ul style="list-style-type: none"> <li>▪ internal training</li> <li>▪ cross-training</li> <li>▪ additional FTEs</li> </ul>
13. unable to appropriately analyze increased volume of data (Action Item 3, 6)	<ul style="list-style-type: none"> <li>▪ training</li> <li>▪ additional FTEs</li> <li>▪ planning</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
1. District reviews (Risk 1, 2, 3, 4, 5, 6, 7, 8, 9, 11)	Internal Audit	Ongoing		In Progress	Three district reviews completed. IA is continuing to review other reporting entities.
2. External audits (SAO) (Risk 1, 2, 3, 4, 5, 6, 7, 8, 9, 11)	Benefit Accounting, Internal Audit	Ongoing		Complete	This is now an ongoing mitigation.
3. Implement TEAM Program (Risk 1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 12, 13)	CMT, Executive Management	9/2015	9/2016	In Progress	
4. Self-audit tool for reporting entities (Risk 6)	Internal Audit, Benefit Accounting	9/2014		Complete	Tool announced in October 2014.
5. Supplement with additional staff to mitigate department retirements (Risk 10, 12, 13)	Benefit Accounting	8/2014	12/2014	Complete	
6. Hiring additional FTEs to support the collection of full payroll from reporting entities (Risk 10, 12, 13)	Benefit Accounting	1/2016		Planned	FTEs are included in the 2015 Omnibus Bill.

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Internal and external training (All risks)	Benefit Accounting	Scheduled and ad-hoc training as needed.
Ongoing communication with reporting entities (Risk 1, 2, 3, 4, 5, 6, 7, 8, 9, 11)	Benefit Accounting	Communicate with reporting entities via phone calls and email.

# FACILITIES MANAGEMENT & PLANNING RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Don Green		June 2015

GOAL	OVERALL RISK
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Provide a physical work environment that is safe and enhances productivity.	Inadequate facilities management or ineffective space utilization could result in less than desirable conditions for TRS members, visitors, and staff and could jeopardize our ability to continue providing an exemplary level of service to our members.
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## OBJECTIVES

- Refresh and update TRS facilities as needed and explore options for providing personal space for employees (e.g. creating lactation rooms or wellness areas, exploring phone booths for personal calls, etc.) by the end of FY 2016
- Explore and decide on options for alternate work arrangement program (e.g. working from home or teleworking, job)
- Research and decide on options regarding effective space utilization.
- Review and evaluate safety measures and implement additional measure as needed. (ongoing)

## SUMMARY

Mitigations are appropriate for the risks identified during the recent risk assessment. However, other opportunities for improvement were identified to further mitigate the risks. These additional mitigations are listed in the action items section of this report.

Recent activities include:

- Remodeled 4<sup>th</sup> floor to improve space utilization and work environment.
- Completed planning and started construction on 5E to improve space utilization and work environment.
- Initiated planning to improve work environment in Telephone Counseling Center.

## RISK DETAILS

Risk Description	Mitigations	
1. physical violence against employees/visitors (Action Item 1, 2, 3)	<ul style="list-style-type: none"> <li>▪ education and awareness</li> <li>▪ restricted badge access</li> <li>▪ cameras</li> </ul>	<ul style="list-style-type: none"> <li>▪ physical security</li> <li>▪ policies and procedures</li> </ul>

## FACILITIES MANAGEMENT & PLANNING RISK REPORT

Risk Description	Mitigations	
2. unauthorized access to building (Action Item 2, 3)	<ul style="list-style-type: none"> <li>▪ restricted badge access</li> <li>▪ criminal background checks</li> <li>▪ cameras</li> </ul>	<ul style="list-style-type: none"> <li>▪ education and awareness</li> <li>▪ physical security</li> <li>▪ communication</li> </ul>
3. negative perception of expenditures (i.e., from the legislature or public)	<ul style="list-style-type: none"> <li>▪ communication</li> <li>▪ justify expenditures</li> <li>▪ transparency</li> </ul>	<ul style="list-style-type: none"> <li>▪ education and awareness (internal/external)</li> </ul>
4. ineffective use of/inadequate resources (e.g., equipment, furniture, appliances, staff, budget)	<ul style="list-style-type: none"> <li>▪ workforce plan</li> <li>▪ recycle program</li> </ul>	<ul style="list-style-type: none"> <li>▪ budget quarterly meetings</li> <li>▪ list of future expenses</li> </ul>
5. not complying with state/federal laws (e.g., ADA, fire codes, workers' comp., etc.)	<ul style="list-style-type: none"> <li>▪ education and awareness</li> </ul>	<ul style="list-style-type: none"> <li>▪ policies and procedures</li> </ul>
6. geographic location exposes TRS to additional risk (Action Item 3)	<ul style="list-style-type: none"> <li>▪ education and awareness</li> <li>▪ physical Security</li> </ul>	<ul style="list-style-type: none"> <li>▪ restricted badge access</li> <li>▪ cameras</li> </ul>
7. theft (parking lot and within secured office areas)	<ul style="list-style-type: none"> <li>▪ education and awareness</li> <li>▪ physical security</li> <li>▪ policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ restricted badge access</li> <li>▪ cameras</li> </ul>
8. 816 congress security is outside of TRS control	<ul style="list-style-type: none"> <li>▪ education and awareness</li> <li>▪ restricted badge access</li> <li>▪ communicate with building management</li> </ul>	<ul style="list-style-type: none"> <li>▪ physical security</li> <li>▪ contract provisions related to security</li> <li>▪ cameras</li> </ul>
9. failure to alert staff of safety-related issues (Action Item 4)	<ul style="list-style-type: none"> <li>▪ TRS Alert</li> <li>▪ Risk Management handbook</li> </ul>	<ul style="list-style-type: none"> <li>▪ Safety Committee quarterly meetings</li> <li>▪ Safety intranet site</li> </ul>
10. system failure (e.g., security, fire suppression, backup generator, intercom)	<ul style="list-style-type: none"> <li>▪ maintenance of systems</li> <li>▪ testing</li> <li>▪ redundancy</li> </ul>	<ul style="list-style-type: none"> <li>▪ contract management</li> <li>▪ insurance</li> </ul>
11. competing priorities for space (Action Item 5, 6, 7, 8, 9)	<ul style="list-style-type: none"> <li>▪ define priorities</li> <li>▪ organizational change management</li> </ul>	<ul style="list-style-type: none"> <li>▪ telework program</li> <li>▪ shared jobs/work space</li> </ul>
12. ineffective use of space (Action Item 6, 7, 8, 9)	<ul style="list-style-type: none"> <li>▪ planning</li> <li>▪ organizational change management</li> </ul>	<ul style="list-style-type: none"> <li>▪ telework program</li> <li>▪ shared jobs/workspace</li> </ul>
13. not striking appropriate balance between employee needs and business needs (e.g., poor morale, culture shock)	<ul style="list-style-type: none"> <li>▪ assess employee needs</li> <li>▪ organizational change management</li> </ul>	<ul style="list-style-type: none"> <li>▪ technology changes; seek buy-in</li> <li>▪ find innovative ways to meet employee needs</li> </ul>

## FACILITIES MANAGEMENT & PLANNING RISK REPORT

Risk Description	Mitigations	
14. critical decisions not being made timely	<ul style="list-style-type: none"> <li>▪ communicate effect of not making decision</li> <li>▪ make compelling argument in support of decision</li> </ul>	<ul style="list-style-type: none"> <li>▪ establish timelines and measure progress</li> <li>▪ research and planning</li> <li>▪ contract provisions</li> </ul>
15. ineffective contract management process (e.g., bottlenecks, incorrect vendors, contracts not available) (Action Item 10)	<ul style="list-style-type: none"> <li>▪ standardized wording</li> </ul>	<ul style="list-style-type: none"> <li>▪ contract oversight</li> </ul>
16. Facilities staff not being made aware of building maintenance issues	<ul style="list-style-type: none"> <li>▪ communication</li> <li>▪ service request process</li> <li>▪ written procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ SharePoint web page</li> <li>▪ Security reports</li> </ul>
17. failure to assess alternate work arrangement program and implement	<ul style="list-style-type: none"> <li>▪ meetings with HR staff</li> <li>▪ establish plan to assess</li> </ul>	<ul style="list-style-type: none"> <li>▪ periodic reviews</li> </ul>
18. lack of established TRS standards for office space utilization (e.g., offices vs. cubicles)	<ul style="list-style-type: none"> <li>▪ informal standards based on functions</li> </ul>	<ul style="list-style-type: none"> <li>▪ suggested standards in CBRE report</li> </ul>
19. failing to project and/or update future spacing needs	<ul style="list-style-type: none"> <li>▪ workforce plan</li> <li>▪ budget meetings</li> <li>▪ LAR process</li> </ul>	<ul style="list-style-type: none"> <li>▪ TEAM Program</li> <li>▪ emerging technology</li> </ul>
20. Risk Management is not aware of safety/security issues that impact other TRS site	<ul style="list-style-type: none"> <li>▪ Safety Committee meetings</li> <li>▪ education and awareness</li> </ul>	<ul style="list-style-type: none"> <li>▪ communication</li> </ul>
21. work disruptions due to re-model projects	<ul style="list-style-type: none"> <li>▪ communication</li> <li>▪ planning</li> <li>▪ project management</li> </ul>	<ul style="list-style-type: none"> <li>▪ telework</li> <li>▪ scheduling during off-peak hours</li> <li>▪ alternative work sites</li> </ul>
22. insufficient parking (Red River & 816 Congress) (Action Item 11)	<ul style="list-style-type: none"> <li>▪ carpools</li> <li>▪ information gathering during vehicle registration</li> </ul>	<ul style="list-style-type: none"> <li>▪ public transportation</li> <li>▪ telework</li> <li>▪ alternative work schedules</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
1. Provide safety education and awareness training opportunities to staff (Risk 1)	Risk Management	9/2015		Planned	

## FACILITIES MANAGEMENT & PLANNING RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
2. Research Panic button and Incident notification System options (Risk 1, 2)	Risk Management	6/2015		In Progress	
3. Research specialized training for TRS security officers (Risk 1, 2, 6)	Security	8/2015		Planned	
4. Obtain Quotes to Repair Building Intercom System (Risk 9)	Facilities	8/2015		Planned	Investigate modifications to the fire alarm system to allow it to be used as an emergency communication system.
5. Incorporate space planning discussions during the quarterly budget meetings (Risk 11)	Chief Financial Officer (CFO)	Ongoing		In Progress	
6. 4 <sup>th</sup> Floor West Remodel Project (Risk 11, 12)	CFO	5/2015		Complete	
7. 5 <sup>th</sup> Floor East Remodel Project (Risk 11, 12)	CFO	7/2015		In-progress	
8. 2 <sup>nd</sup> Floor East Remodel Project (Risk 11, 12)	CFO	5/2016		In-Progress	
9. 2 <sup>nd</sup> Floor West Remodel Project (Risk 11, 12)	CFO	9/2015		Planned	
10. Contract Administration Manual Revision (Risk 15)	Director of Strategic Initiatives	7/2015		In-Progress	
11. Parking Lot/Garage Assessment (Risk 22)	Facilities	6/2015		In-Progress	

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Periodic tests of security system components. (Security-related risks)	Security	Quarterly inspection, cleaning, and testing of all components of the security system, including badge readers and cameras, by a licensed third party contractor.
Communicate issues to board of trustees and state legislative leadership (Risk 3)	Executive Management	Quarterly board meetings

# FACILITIES MANAGEMENT & PLANNING RISK REPORT

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Monitor issues that arise during the quarterly budget meetings (Risk 4, 11, 12, 14, 19)	General Accounting/Budget	
Assess the telework program (Space-related risks)	Human Resources	

# INVESTMENT ACCOUNTING RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Don Green		June 2015

## GOALS

- Maintain the integrity of investment information – reporting and disclosure, accuracy, completeness and valuation.
- Ensure TRS investment fundings and distributions are appropriately and accurately delivered and received.

## OVERALL RISK

Materially inaccurate investment information and reports would result in board and Legislature decisions being made on flawed data and adverse or qualified audit opinions.

## OBJECTIVES

- Ensure accurate and sufficient investment reporting for Comprehensive Annual Financial Report (CAFR) and management
- Verify that investments are valued in accordance with TRS valuation guidelines
- Ensure that wire transfers of funds are complete and made as requested
- Accurately calculate incentive compensation awards

## SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts a majority of the risks. One risk needs further mitigation and an action item related to reevaluating the general ledger is in progress for that risk. Key mitigations include General Ledger Sub-Ledger reconciliation, reconciliation of partnership market values, State Street SOC 1 Report, funding approval policies and procedures, and daily wire reconciliation.

## RISK DETAILS

Risk Description	Mitigations
1. State Street’s investment ledgers are incompletely or incorrectly mapped to TRS general ledger (GL) accounts (Action Item 1)	<ul style="list-style-type: none"> <li>▪ annual detailed review of TRS and State Street GL structure</li> <li>▪ monthly summary review and reconciliation</li> <li>▪ written policies and procedures</li> </ul>
2. TRS GL account balances do not match State Street GL account balances	<ul style="list-style-type: none"> <li>▪ tie-out between State Street’s sub-ledger and TRS GL</li> <li>▪ written policies and procedures</li> </ul>
3. TRS investment accounts are misstated or misclassified in financial statements	<ul style="list-style-type: none"> <li>▪ tie-out between State Street’s sub-ledger and TRS GL</li> <li>▪ written policies and procedures</li> </ul>

## INVESTMENT ACCOUNTING RISK REPORT

Risk Description	Mitigations	
4. TRS financial statements not in compliance with GASB <sup>1</sup> or notes are omitted for significant disclosure items	<ul style="list-style-type: none"> <li>▪ familiarity and continuous monitoring of accounting standard changes (e.g., GASB requirements)</li> <li>▪ communication between General Accounting</li> </ul>	<ul style="list-style-type: none"> <li>▪ continuous monitoring of investing activities (e.g., by attending Internal Investment Committee (IIC))</li> <li>▪ written policies and procedures</li> </ul>
5. under or over reporting of values of investments	<ul style="list-style-type: none"> <li>▪ reconciliation of partnership statements to State Street's reports (RALI report and Private Edge report)</li> <li>▪ director's review of various reconciliations</li> <li>▪ on-site visits to State Street</li> </ul>	<ul style="list-style-type: none"> <li>▪ TRS Security Valuation Guide</li> <li>▪ written policies and procedures</li> <li>▪ State Street SOC 1 Report<sup>2</sup> (formerly SAS 70) review</li> </ul>
6. incomplete reporting of values of TRS partnerships	<ul style="list-style-type: none"> <li>▪ reconciliation of partnership statements to State Street's reports (RALI report and Private Edge report)</li> </ul>	<ul style="list-style-type: none"> <li>▪ director's review of various reconciliations</li> <li>▪ written policies and procedures</li> </ul>
7. funding of private market investments exceeds commitments	<ul style="list-style-type: none"> <li>▪ tracking and comparing cumulative funded amount to the commitment amount</li> <li>▪ written policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ more rigorous implementation process including comparison to State Street and general partner reports</li> </ul>
8. partnership financial statements do not follow accounting standards	<ul style="list-style-type: none"> <li>▪ annual review of partnerships' audited financial statements</li> </ul>	<ul style="list-style-type: none"> <li>▪ written policies and procedures</li> </ul>
9. partnership financial statements are materially misstated and misstatements are not detected by TRS	<ul style="list-style-type: none"> <li>▪ annual review of partnerships' audited financial statements</li> <li>▪ written policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ review quarterly financial statements for reasonableness</li> </ul>
10. data entry errors in spreadsheets	<ul style="list-style-type: none"> <li>▪ monthly reconciliation with State Street</li> <li>▪ written policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ spreadsheets reside on network drives with limited access</li> </ul>
11. State Street wires funds without TRS authorization	<ul style="list-style-type: none"> <li>▪ wire process is fully automated requiring initiation by an authorized person in Investment Management Division (IMD)</li> <li>▪ systematic routing throughout the approval process ending with authorized approval in the financial division</li> <li>▪ quarterly internal audits</li> </ul>	<ul style="list-style-type: none"> <li>▪ authorized approvals set by board and governed by TRS 477 (Incumbency Certificate) and Fund Transfer and Trading Operational Protocol (FTTOP) approved by Chief Financial Officer</li> <li>▪ funding process is reviewed quarterly by Internal Audit and tested for compliance</li> </ul>

<sup>1</sup> GASB – Governmental Accounting Standards Board

<sup>2</sup> SOC 1 Report – Service Organization Controls Report

## INVESTMENT ACCOUNTING RISK REPORT

Risk Description	Mitigations	
12. State Street does not wire funds requested by TRS	<ul style="list-style-type: none"> <li>▪ written agreement between TRS and State Street regarding wiring of funds</li> <li>▪ State Street’s confirmation of funds wired</li> <li>▪ quarterly internal audits</li> </ul>	<ul style="list-style-type: none"> <li>▪ daily reconciliation of funds wired between Investment Accounting’s wire log and State Street’s wire report</li> <li>▪ written policies and procedures</li> </ul>
13. State Street wires amount/person/account different from the amount/person/account on the approved funding request	<ul style="list-style-type: none"> <li>▪ written agreement between TRS and State Street regarding wiring of funds</li> <li>▪ daily reconciliation of funds wired between Investment Accounting’s wire log and State Street’s wire report</li> <li>▪ State Street has fiduciary responsibility and bears the risk</li> </ul>	<ul style="list-style-type: none"> <li>▪ Investment Accounting’s review of information accuracy in funding request</li> <li>▪ callback requirements</li> <li>▪ written policies and procedures</li> <li>▪ State Street’s confirmation of funds wired</li> <li>▪ quarterly internal audits</li> </ul>
14. State Street does not credit incoming wires to TRS	<ul style="list-style-type: none"> <li>▪ written agreement between TRS and State Street regarding wiring of funds</li> <li>▪ State Street’s confirmation of funds wired</li> <li>▪ quarterly internal audits</li> </ul>	<ul style="list-style-type: none"> <li>▪ daily reconciliation of funds wired between Investment Accounting’s wire log and State Street’s wire report</li> </ul>
15. TRS fails to timely detect wiring errors or mistakes made by State Street	<ul style="list-style-type: none"> <li>▪ State Street’s confirmation of funds wired</li> <li>▪ written policies and procedures</li> <li>▪ State Street has fiduciary responsibility and bears the risk</li> </ul>	<ul style="list-style-type: none"> <li>▪ daily reconciliation of funds wired between Investment Accounting’s wire log and State Street’s wire report</li> <li>▪ quarterly internal audits</li> </ul>
16. fraud (e.g., portfolio manager’s collusion with general partner (GP) or alteration of funding request information)	<ul style="list-style-type: none"> <li>▪ segregation of duties – IMD can only request funding and Investment Accounting can only authorize State Street to wire funds</li> <li>▪ list of authorized signatures in the Board-approved Incumbency Certificate</li> <li>▪ wire process is fully automated requiring initiation by an authorized person in IMD</li> <li>▪ callback requirements</li> </ul>	<ul style="list-style-type: none"> <li>▪ daily reconciliation of funds wired between Investment Accounting’s wire log and State Street’s wire report</li> <li>▪ Investment Accounting’s review of information accuracy in funding request</li> <li>▪ written policies and procedures</li> <li>▪ State Street’s confirmation of funds wired</li> </ul>
17. State Street does not maintain accurate historical investment information	<ul style="list-style-type: none"> <li>▪ custodial contract</li> </ul>	<ul style="list-style-type: none"> <li>▪ review State Street SOC 1 Report (formerly SAS 70)</li> </ul>
18. fund new investment not approved by IIC or completed by TRS Legal	<ul style="list-style-type: none"> <li>▪ include signature approval page from contract with initial funding</li> </ul>	<ul style="list-style-type: none"> <li>▪ fundings require IMD manager approval</li> </ul>

## INVESTMENT ACCOUNTING RISK REPORT

Risk Description	Mitigations
19. external manager fee paid for the incorrect amount	<ul style="list-style-type: none"> <li>▪ reconcile external manager fees on the invoice with income summary received from State Street</li> </ul>
20. incentive compensation awards are not calculated correctly	<ul style="list-style-type: none"> <li>▪ calculations are reviewed and approved by Human Resources (HR) and Internal Audit (IA)</li> <li>▪ detailed written procedures including IMD, HR, Finance, and IA that define roles and responsibilities for each area</li> </ul>
21. incorrect data is used to calculate incentive compensation awards	<ul style="list-style-type: none"> <li>▪ performance results are calculated and provided independently by State Street</li> <li>▪ underlying data is reviewed and approved by HR and IA</li> <li>▪ detailed written procedures including IMD, HR, Finance, and IA that define roles and responsibilities for each area</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
1. Reevaluating the general ledger with State Street to streamline process, ensure accuracy and improve reconciliation. (Risk 1)	Investment Accounting	5/2015		In Progress	One time project resulting from State Auditor's Office comment.

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
General Ledger Sub-Ledger Reconciliation (Risk 2, 3)	Investment Accounting	Process to tie general ledger fee to all subsidiary documents sent by State Street.	
Reconciliation of partnership market values (Risk 5, 6)	Investment Accounting	Maintain independent partnership market values that are tied to State Street market values each month.	
State Street SOC 1 Report (Risk 5, 17)	Investment Accounting	Annually review report and submit questions to State Street.	Report is typically available in April and State Street submits a bridge letter noting that controls have not materially changed since the last SOC 1 Report.

## INVESTMENT ACCOUNTING RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Funding approval policies and procedures (Risk 12, 13, 14, 15, 16, 17)	Investment Accounting	Funding process is controlled by the State Street FTOP which is based on the Board's approved controls detailed in the TRS 477 (Incumbency Certificate).	The controls cover the Financial division, IMD, and State Street activities.
Daily wire reconciliation (Risk 12, 13, 14, 15, 16)	Investment Accounting	Verify each wire is properly and appropriately recorded in State Street's systems.	
Quarterly Internal audits (Risk 11, 12, 13, 14, 15)	Internal Audit	Continuous testing of funding process. Results of testing provided by Internal Audit.	
Defined formal review of incentive compensation calculations (Risk 20, 21)	Investment Accounting; CFO	Formal review and approval as defined by the Performance Incentive Pay policies and procedures.	The controls cover the Financial division, IMD, HR and State Street activities.

# INVESTMENT OPERATIONS RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Sylvia Bell		June 2015

GOAL	OVERALL RISKS	OBJECTIVES
Maintain the integrity of transaction, position, and investment reporting information in a risk-controlled environment for optimal investment management decisions.	<ul style="list-style-type: none"> <li>Inefficient or ineffective transaction or position management processes which could result in losses to the fund.</li> <li>Investment reports contain material inaccuracies.</li> </ul>	<ul style="list-style-type: none"> <li>No loss of Trust Assets (Securities, Derivatives, Cash)</li> <li>Optimize cost and efficiency</li> <li>Materially accurate investment reporting</li> </ul>

## SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts all risks. No additional mitigation strategies are planned at this time. Key mitigations include: daily reconciliations of trade activity, positions and performance returns; formalized and documented processes such as external manager transitions, system development and administration, and monthly metrics review; and, monitoring against Service Level Agreement (SLA) with the custodian.

## RISK DETAILS

Risk Description	Mitigations	
Loss of Assets (Assets include Fixed Income, Equities, Cash, Limited Partnership/Direct Investments, Derivatives)		
Public/Private Securities & Partnerships		
1. failures in trade/transaction processing	<ul style="list-style-type: none"> <li>reconciliations/review</li> <li>governance process/SLA</li> </ul>	<ul style="list-style-type: none"> <li>metrics reporting/issue tracking software</li> </ul>
2. unauthorized trading or transaction processing	<ul style="list-style-type: none"> <li>annual permission review</li> <li>separation of duties</li> </ul>	<ul style="list-style-type: none"> <li>reconciliations/review</li> </ul>
3. violation of internal/external regulations	<ul style="list-style-type: none"> <li>third-party pre- and post-trade compliance</li> <li>Investment Policy Statement</li> <li>daily compliance reporting</li> </ul>	<ul style="list-style-type: none"> <li>independent Chief Compliance Officer responsible for oversight</li> <li>Investment Manager Agreements</li> </ul>
Cash		
4. failures in trade/transaction processing	<ul style="list-style-type: none"> <li>reconciliations/review</li> <li>governance process/SLA</li> </ul>	<ul style="list-style-type: none"> <li>metrics reporting/issue tracking software</li> </ul>

## INVESTMENT OPERATIONS RISK REPORT

Risk Description	Mitigations	
5. failure in cash disbursement and receipt controls	<ul style="list-style-type: none"> <li>▪ automated workflow system</li> <li>▪ reconciliations/review</li> </ul>	<ul style="list-style-type: none"> <li>▪ metrics reporting/issue tracking software</li> <li>▪ governance process</li> </ul>
Derivatives		
6. failures in trade/transaction processing	<ul style="list-style-type: none"> <li>▪ reconciliations/review</li> <li>▪ governance process/SLA</li> </ul>	<ul style="list-style-type: none"> <li>▪ metrics reporting/issue tracking software</li> </ul>
7. violation of internal/external regulations	<ul style="list-style-type: none"> <li>▪ third-party pre- and post-trade compliance</li> <li>▪ Investment Policy Statement</li> <li>▪ regulatory compliance</li> </ul>	<ul style="list-style-type: none"> <li>▪ independent Chief Compliance Officer responsible for oversight</li> <li>▪ Investment Manager Agreements</li> </ul>
8. unauthorized trading or transaction processing	<ul style="list-style-type: none"> <li>▪ annual permission review</li> <li>▪ separation of duties</li> </ul>	<ul style="list-style-type: none"> <li>▪ reconciliations/review</li> </ul>
Increased Cost or Inefficiency		
9. incur overdrafts and other expenses	<ul style="list-style-type: none"> <li>▪ daily cash reconciliation process managed jointly with custodian</li> </ul>	<ul style="list-style-type: none"> <li>▪ governance process</li> </ul>
10. failure to make margin or collateral calls	<ul style="list-style-type: none"> <li>▪ daily cash and collateral reconciliation process</li> <li>▪ governance process/SLA</li> </ul>	<ul style="list-style-type: none"> <li>▪ daily cash, margin and collateral reporting</li> </ul>
11. failure to transition assets timely & accurately	<ul style="list-style-type: none"> <li>▪ formalized account opening and transition process</li> <li>▪ post-transition Investment Operations reporting</li> </ul>	<ul style="list-style-type: none"> <li>▪ governance process/SLA</li> <li>▪ detailed tracking of securities settlement status on T+1</li> </ul>
12. failure to optimize software and subscriptions	<ul style="list-style-type: none"> <li>▪ Investment Management Division annual goal setting</li> <li>▪ formalized project management process</li> <li>▪ governance process/SLA</li> </ul>	<ul style="list-style-type: none"> <li>▪ regular dialogue and updates with Enterprise IT and end-users</li> <li>▪ detailed process documents</li> </ul>
Inaccurate Investment Reporting		
13. improper calculation methodologies	<ul style="list-style-type: none"> <li>▪ third-party calculation of performance with internal verification</li> <li>▪ governance process/SLA</li> </ul>	<ul style="list-style-type: none"> <li>▪ Investment Operations daily, weekly, monthly and quarterly verification by profit center</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
None at this time.					

## INVESTMENT OPERATIONS RISK REPORT

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Reconciliation of positions and trades (Risk 1, 2, 4, 5, 6, 8, 9)	Investment Operations	Reconcile positions and trades between State Street (accounting book of record) and Bloomberg trading system (investment book of record).
Governance process in SLA (Risk 1, 4, 5, 6, 10, 11, 12, 13)	Investment Operations	Formalized governance with custodian that includes reporting and monitoring of key processes.
Formalized, repeatable processes (Risk 5, 9, 10, 11, 12)	Investment Operations	Execution of formalized process with checklists and milestones.

# OPEN GOVERNMENT RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Carolina de Onís		June 2015

GOAL	OVERALL RISK
Ensure compliance with laws and rules related to open records and meetings.	Non-compliance could lead to penalties and fines or voiding of board actions.

## SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts many of the risks with existing mitigations, but others require further mitigation. Additional mitigation strategies are in progress or planned to further reduce risks related to confidentiality, records retention, legal holds, open records requests, technology, and staffing. Key mitigations include training, policies and procedures, and technology.

## RISK DETAILS

Risk Description	Mitigations
1. failure to consider open records and records management laws in development of policies	<ul style="list-style-type: none"> <li>▪ training</li> <li>▪ policy review schedules</li> <li>▪ structured legislative implementation process</li> <li>▪ participation in continuing education</li> <li>▪ automated subscription services</li> </ul>
2. lack of education on laws, rules and policies	<ul style="list-style-type: none"> <li>▪ priority on hiring knowledgeable staff</li> <li>▪ publications and newsletters</li> <li>▪ automated subscription services</li> <li>▪ dissemination of updates and changes</li> <li>▪ participation in professional associations</li> <li>▪ training</li> </ul>
3. unauthorized disclosure of confidential information, including accidental disclosures (Action Item 1)	<ul style="list-style-type: none"> <li>▪ training, including development of department specific HIPAA training</li> <li>▪ policies and procedures</li> <li>▪ secondary review prior to disclosure</li> <li>▪ separate repositories for confidential information presented to the board</li> <li>▪ encryption and protection capability and procedures</li> <li>▪ updating technologies</li> <li>▪ new model non-disclosure agreement</li> <li>▪ dedicated job functions and positions for protecting information</li> <li>▪ statutory protection against accidental disclosure</li> <li>▪ software tools for redacting information</li> <li>▪ Information Security Manual</li> <li>▪ development of cloud computing policy</li> <li>▪ data protection project</li> <li>▪ mobile device policy</li> </ul>

## OPEN GOVERNMENT RISK REPORT

Risk Description	Mitigations	
4. unauthorized and/or accidental destruction, removal, or alteration of public or confidential information (Action Item 1)	<ul style="list-style-type: none"> <li>▪ automated system controls</li> <li>▪ security authorization required for altering, deleting or accessing information</li> <li>▪ records retention training</li> </ul>	<ul style="list-style-type: none"> <li>▪ training</li> <li>▪ backup tapes</li> <li>▪ policies and procedures</li> <li>▪ Information Security Manual</li> </ul>
5. failure to timely provide requested public information (Action Item 2, 3)	<ul style="list-style-type: none"> <li>▪ calendars</li> <li>▪ ongoing development and update of structured filing system (file plans)</li> <li>▪ compliance with policies and procedures</li> <li>▪ multi-mailbox search</li> <li>▪ training</li> </ul>	<ul style="list-style-type: none"> <li>▪ coordination with other departments</li> <li>▪ technology tools and adequate staffing</li> <li>▪ FOIAXpress</li> <li>▪ provide more public information on the Internet</li> </ul>
6. failure to destroy information in accordance with records retention schedule (Action Item 4)	<ul style="list-style-type: none"> <li>▪ training</li> <li>▪ annual purge process, including disposition log</li> <li>▪ policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ ongoing development &amp; update of structured filing system (file plans)</li> <li>▪ limited liability</li> </ul>
7. inadequate staffing for processing open records requests (Action Item 2, 5)	<ul style="list-style-type: none"> <li>▪ cross-training</li> <li>▪ adjust response time based on workload</li> <li>▪ develop production schedules based on number and volume of requests</li> <li>▪ intern program</li> </ul>	<ul style="list-style-type: none"> <li>▪ automated tools (e.g., redacting and tracking software)</li> <li>▪ provide more public information on the Internet</li> </ul>
8. issues with implementation of new technologies (Action Item 3)	<ul style="list-style-type: none"> <li>▪ software upgrades</li> <li>▪ training on software</li> <li>▪ funding for technology</li> </ul>	<ul style="list-style-type: none"> <li>▪ ongoing communication with vendor</li> <li>▪ integrate new technology into open records process</li> </ul>
9. civil litigation as a result of open records requests	<ul style="list-style-type: none"> <li>▪ adequate legislation</li> <li>▪ compliance with existing laws</li> </ul>	<ul style="list-style-type: none"> <li>▪ pursuing available remedies</li> <li>▪ outside counsel</li> </ul>
10. criminal violations relating to open records and confidentiality laws	<ul style="list-style-type: none"> <li>▪ timely responses to requests</li> <li>▪ board and staff education and training</li> <li>▪ policies and procedures</li> <li>▪ leadership awareness</li> </ul>	<ul style="list-style-type: none"> <li>▪ culture of adhering to confidentiality laws</li> <li>▪ restricted/limited access to confidential information</li> </ul>
11. criminal violations for failing to comply with open meetings act	<ul style="list-style-type: none"> <li>▪ adequate legislation</li> <li>▪ educate and train staff and board</li> <li>▪ policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ technology tools</li> <li>▪ timely approval of certified agendas</li> </ul>
12. voiding of board actions	<ul style="list-style-type: none"> <li>▪ educate and train staff and board</li> <li>▪ policies and procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ technology tools</li> <li>▪ agenda coordination among departments</li> </ul>

## OPEN GOVERNMENT RISK REPORT

Risk Description	Mitigations	
13. failure to coordinate agenda items prior to posting or properly post meeting notices, and deviating from posted agenda items (e.g., timing, verbiage, substance of wording versus content of deliberation) (Action Item 6)	<ul style="list-style-type: none"> <li>▪ use of technology for managing, enforcing and communicating posting deadlines</li> <li>▪ training for staff and board</li> <li>▪ adherence to posted agenda items</li> <li>▪ redundancy in the process and responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>▪ secretary of state training</li> <li>▪ policies and procedures</li> <li>▪ agenda coordination among departments</li> <li>▪ planning for and timely submission of board meeting materials</li> </ul>
14. demands of and problems with use of technology for conducting teleconferencing / videoconferencing for open meetings	<ul style="list-style-type: none"> <li>▪ policies and procedures</li> <li>▪ testing and monitoring technology prior to meetings</li> <li>▪ IT/Communications/vendor coordination</li> <li>▪ training</li> </ul>	<ul style="list-style-type: none"> <li>▪ due diligence in selecting contractor</li> <li>▪ maintain awareness of latest technology options</li> <li>▪ contract provisions</li> </ul>
15. failure to communicate and manage legal holds for open records requests - identifying and retaining documents and releasing the hold (Action Item 7, 8)	<ul style="list-style-type: none"> <li>▪ Legal Services sends follow-up reminders</li> <li>▪ file plans and standardized folder structures</li> <li>▪ identify and maintain affected information</li> <li>▪ email retention and e-discovery project</li> </ul>	<ul style="list-style-type: none"> <li>▪ implemented automated open records</li> <li>▪ researching discovery and legal hold tools</li> <li>▪ notify personnel of legal holds</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
1. Develop departmental HIPAA training and method for tracking completion (Risk 4)	Management, Human Resources	6/2015	12/2015	In Progress	Health & Insurance Benefits and Information Technology have completed the development of their training. These two models of training will be used to develop similar training for other departments with access to HIPAA information. Training development will coincide with the Data Protection Project.
2. Replenish staffing levels due to recent departures (Risk 5, 8)	Legal Services	5/2015		In Progress	
3. Identifying and resolving technical issues with software updates (Risk 5, 8)	Legal Services	Ongoing		In Progress	
4. Evaluate and investigate P8 Records Manager capabilities for application to e-records repositories (Risk 7)	Records Management	8/2014	8/2016	Planned	Cross-reference Records Management action item for Risk 2, 6, 9.

## OPEN GOVERNMENT RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
5. Seek opportunities to recover actual costs incurred in processing open records requests (Risk 7)	Legal Services	9/2015		Planned	
6. Review plan and make improvements for internal coordination of agenda items (Risk 13)	Executive, Legal Services	7/2015		Planned	
7. Review litigation hold procedures and recommend changes, if any, including developing and implementing training as needed (Risk 15)	Legal Services	9/2014	9/2015	Planned	
8. Legal will update the frequency of communicating legal holds with business units (Risk 15)	IMD, Legal Services	3/2014	9/2015	In Progress	Cross-reference Records Management action item for Risk 7.

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Training (Risk 2, 3, 4, 6, 10)	Information Security, Human Resources, Records Management	Online training regarding confidential information is provided to new employees as part of orientation to existing employees annually. An information awareness quiz is also provided annually. Online training for employees on records management has also been developed. Completion of training is tracked using SharePoint.
Policies and Procedures (Risk 3, 4, 5, 6, 10, 11, 12, 13, 14)	Legal Services, Information Security, Management, Records Management	Policies and procedures are reviewed and updated as needed. Conducted an annual refresher training for staff on records management policies and procedures.
Technology (Risk 3, 4, 5, 7, 8, 11, 12, 13, 14, 15)	Legal Services	Automated software tools for redacting sensitive or confidential information. Use software to track open records requests.

# RECORDS MANAGEMENT RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Barbie Pearson		June 2015

GOAL	OVERALL RISK	OBJECTIVE
Manage the retention and disposition of TRS records through adherence to laws and rules, and by applying TRS records management policies and practices.	An ineffective records management program could result in loss or accidental release of records, loss of credibility, delays in accessing/destroying records, and increased scrutiny and oversight.	Improve compliance with the retention schedules with respect to e-records.

## SUMMARY

The risk owner’s response is to mitigate the higher risks that come from the challenge of e-records. Key mitigations cover on-going actions of communication and training sessions with records liaisons and employees, the annual purge process, monitoring the metrics of the unstructured repositories, and simplifying the records retention schedules.

Recent activities include:

- Online training for employees
- Continued active monitoring of email and network storage volumes including online access to management for review
- Annual purge with emphasis on e-records
- Ongoing review and deletion of e-records accounts (email and network drive) for terminated/terminating employees

## RISK DETAILS

Risk Description	Mitigations	
1. noncompliance with retention schedule, policies and procedures	<ul style="list-style-type: none"> <li>▪ communication with employees regarding retention periods and purge process</li> <li>▪ automated workflow for e-Records of terminated employees</li> <li>▪ annual refresher training for employees</li> </ul>	<ul style="list-style-type: none"> <li>▪ training sessions with records liaisons</li> <li>▪ review and monitor email and network drive storage reports</li> <li>▪ annual purge process</li> </ul>
2. lack of time and resources to properly manage records (Action Item 2)	<ul style="list-style-type: none"> <li>▪ file plans and standardized folder structures</li> <li>▪ future planning for automating process</li> <li>▪ streamline process</li> </ul>	<ul style="list-style-type: none"> <li>▪ dedicated staff and departmental records liaisons</li> </ul>

## RECORDS MANAGEMENT RISK REPORT

Risk Description	Mitigations	
3. lack of understanding of retention schedule and policies	<ul style="list-style-type: none"> <li>▪ communication with employees regarding retention periods and purge process</li> <li>▪ streamline process</li> <li>▪ current and future planning for automating process</li> <li>▪ utilizing existing software with records management features</li> </ul>	<ul style="list-style-type: none"> <li>▪ annual purge process</li> <li>▪ annual refresher training for employees</li> <li>▪ file plans and standardized folder structures</li> <li>▪ consult with records management and legal services staff</li> <li>▪ training sessions with records liaisons</li> </ul>
4. records retention schedule is not updated or maintained (Action Item 3)	<ul style="list-style-type: none"> <li>▪ training sessions with records liaisons and employees</li> <li>▪ annual purge process</li> </ul>	<ul style="list-style-type: none"> <li>▪ review schedules periodically</li> <li>▪ communication with records liaisons</li> </ul>
5. records as actually maintained do not correlate with the retention schedule (Action Item 3)	<ul style="list-style-type: none"> <li>▪ review schedules periodically</li> <li>▪ annual purge process</li> <li>▪ training sessions with records liaisons and employees</li> </ul>	<ul style="list-style-type: none"> <li>▪ communication with records liaisons</li> <li>▪ data protection project</li> <li>▪ use of standardized file structures</li> </ul>
6. records laws and TSL rules are complex and not easily implemented (Action Item 2)	<ul style="list-style-type: none"> <li>▪ ongoing communication with TSL</li> <li>▪ training for records liaisons</li> <li>▪ data protection project</li> </ul>	<ul style="list-style-type: none"> <li>▪ consult with legal services</li> <li>▪ annual online training for employees</li> </ul>
7. failure to communicate and manage legal holds for open records requests - identifying and retaining documents and releasing the hold (Action Item 4, 5)	<ul style="list-style-type: none"> <li>▪ Legal Services sends follow-up reminders</li> <li>▪ file plans and standardized folder structures</li> <li>▪ identify and maintain affected information</li> <li>▪ email retention and e-discovery project</li> </ul>	<ul style="list-style-type: none"> <li>▪ implemented automated open records</li> <li>▪ researching discovery and legal hold tools</li> <li>▪ notify personnel of legal holds</li> </ul>
8. over-reliance on expanding IT resources to retain records (e.g. physical equipment, staff) (Action Item 6)	<ul style="list-style-type: none"> <li>▪ apply retention schedule</li> <li>▪ annual refresher training for employees</li> <li>▪ annual purge process</li> <li>▪ budget process</li> <li>▪ management monitors electronic storage usage</li> </ul>	<ul style="list-style-type: none"> <li>▪ training sessions with records liaisons</li> <li>▪ file plans and standardized folder structures</li> <li>▪ Records Management Policy</li> <li>▪ automated workflow for e-Records of terminated employees</li> </ul>
9. numerous repositories for records and data that require technical proficiency for end users to operate and are difficult to manage for compliance (Action Item 2, 6, 7)	<ul style="list-style-type: none"> <li>▪ file plans and standardized folder structures</li> <li>▪ streamline process</li> <li>▪ departmental training</li> </ul>	<ul style="list-style-type: none"> <li>▪ future planning for enterprise architecture for standardized repositories</li> </ul>

## RECORDS MANAGEMENT RISK REPORT

Risk Description	Mitigations	
10. technology used is not available or reliable for accessing or managing records (e.g., old media, expired licenses)	<ul style="list-style-type: none"> <li>▪ up-to-date backup procedures</li> <li>▪ emergency purchasing flexibility</li> <li>▪ coordination between legal and IT on policy</li> </ul>	<ul style="list-style-type: none"> <li>▪ disaster recovery/ business continuity exercises</li> <li>▪ backup tape retention and disposition policy</li> <li>▪ contract for services</li> </ul>
11. improper use of new technologies to communicate, create, and maintain TRS records (e.g., mobile devices, cloud-based storage, removable media, etc.)	<ul style="list-style-type: none"> <li>▪ updating policies and procedures</li> <li>▪ training on records management policy and ISM policy</li> <li>▪ encryption</li> </ul>	<ul style="list-style-type: none"> <li>▪ research, awareness and implementation of new technologies</li> <li>▪ specialized expertise</li> </ul>
12. third parties who generate and hold TRS records fail to comply with TRS policy and procedures	<ul style="list-style-type: none"> <li>▪ awareness of documentation kept by third parties</li> <li>▪ contract provisions</li> <li>▪ contract management</li> </ul>	<ul style="list-style-type: none"> <li>▪ internal audit of key third-party vendors</li> <li>▪ business associate agreements</li> <li>▪ purchasing specifications in RFP</li> <li>▪ non-disclosure agreements</li> </ul>
13. lack of understanding the nature of the problem in managing e-records (e.g., not keeping enough for regulatory/e-discovery vs. being overwhelmed by volume) (Action Item 8)	<ul style="list-style-type: none"> <li>▪ communication with management</li> </ul>	<ul style="list-style-type: none"> <li>▪ e-Records Project</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
1. Develop automated workflow to streamline the review and disposition of e-records accounts (email and network) for terminating/terminated employees (Risk 1, 8)	Records Management, IT, Management, Human Resources	6/2014		Complete	
2. Evaluate and investigate P8 Records Manager capabilities for application to e-records repositories (Risk 2, 6, 9)	Records Management	8/2014	8/2016	In Progress	Cross-reference Open Government action item for Risk 7.
3. Update retention schedule to correlate with records actually maintained (Risk 4, 5)	IMD, Records Management	8/2014	8/2015	In Progress	Records Management is reviewing the final draft.
4. Review litigation hold procedures and recommend changes, if any, including	Legal Services	9/2014	9/2015	Planned	Cross-reference Open Government action item for Risk #16.

## RECORDS MANAGEMENT RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
developing and implementing training as needed (Risk 7)					
5. Legal will update the frequency of communicating legal holds with business units (Risk 7)	IMD, Legal Services	3/2014	9/2015	In Progress	Cross-reference Open Government action item for Risk 15.
6. Advising on the implementation of new automated systems for retention and disposition capabilities to ensure that they comply with records management policies (Risk 8, 9)	Legal Services, IT, Records Management	8/2016		Planned	Implementation of new automated systems applies to TRUST and FSR TEAM projects.
7. Implement records retention schedule in repositories for records and data (Risk 9)	IMD	12/2014	12/2015	Planned	
8. Formulate and propose e-Records Project (Risk 13)	Records Management	12/2015		Planned	

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Review and monitor email and network drive storage reports (Risk 1)	Records Management, IT, Management	Review to determine if departments are complying with the records retention schedule.	
Training sessions with records liaisons and employees (Risk 1, 3, 4, 5, 8, 12)	Records Management	Conduct annual training sessions.	Training sessions include review of the purge process and past history.
Annual purge process (Risk 1, 3, 4, 8)	Records Management	Analyze purge results	Review volume and record series not purged.
Ongoing communication with records liaisons (Risk 4)	Records Management	Communication with liaisons includes annual purge, training, retention	

# RECORDS MANAGEMENT RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
		schedule amendments, and other records management topics.	
Simplify departmental Records Retention Schedules (Risk 1, 3, 4, 5)	Records Management	Initiate a Records Retention Schedule review department-by-department to identify coverage gaps, potential records series to consolidate, and decrease the complexity of the Schedules.	

# REGULATORY, COMPLIANCE & LITIGATION RISK REPORT

**RISK OWNER**

**RISK LEVEL/TREND**

**REPORTING DATE**

Carolina de Onís



June 2015

## GOAL

## OVERALL RISK

Adhere to and analyze current laws, rules, and policies (e.g., maintain tax qualification status). Render competent advice on legal risk management and awareness, manage litigation risks, and negotiate contracts to address risks.

Non-compliance with laws and rules could lead to penalties, fines, liability and litigation; impaired ability to conduct business; burdensome oversight; third-party investigations/audits; adverse legislation; increased scrutiny; or loss of tax qualification status.

## SUMMARY

Mitigations are appropriate to address the level of risk for this risk category and the risk owner accepts all risks. Additional mitigation strategies are in progress or ongoing to ensure risks related to e-Records and the contract administration manual remain at an acceptable risk level. Key mitigations include internal and/or external counsel, regular review of plan terms, audits, technology solutions, internal procedures, monitoring regulators/information resources, communication, and training.

## RISK DETAILS

Risk Description	Mitigations	
1. failure to recognize changes in federal law that require modifications in plan provisions to maintain plan qualification status	<ul style="list-style-type: none"> <li>▪ retain both in-house and outside counsel with specialized expertise in applicable tax laws</li> <li>▪ participate in multiple retirement related associations</li> </ul>	<ul style="list-style-type: none"> <li>▪ receive notice or guidance from actuary</li> <li>▪ periodically apply for a revised determination from IRS regarding the plan's qualified status</li> </ul>
2. failure to operate in accordance with plan terms and requirements of federal and state law in order to maintain plan qualification status	<ul style="list-style-type: none"> <li>▪ perform operational audits to test controls or determine need for controls</li> <li>▪ modify software applications to automatically enforce Internal Revenue Code (IRC) limits</li> <li>▪ internal audits</li> <li>▪ internal procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ regularly scheduled reviews of TRS rules to ensure that they continue to support compliance with federal and state law</li> <li>▪ keep TRS departments informed of changes to plan year limits</li> <li>▪ internal and external counsel</li> </ul>
3. failure to request IRS determination letter as appropriate	<ul style="list-style-type: none"> <li>▪ monitor IRS communications/ pronouncements</li> <li>▪ internal and external tax counsel</li> <li>▪ networking</li> </ul>	<ul style="list-style-type: none"> <li>▪ multiple staff monitor determination letter requirements</li> </ul>

## REGULATORY, COMPLIANCE & LITIGATION RISK REPORT

Risk Description	Mitigations	
4. failure to monitor or inform the legislature that a revision is needed to state legislation that has a detrimental effect on plan qualification status	<ul style="list-style-type: none"> <li>▪ Executive Director and the Director of Governmental Relations monitor legislation that may impact TRS and assign bills to appropriate TRS staff for review</li> <li>▪ in-house attorneys evaluate proposed state legislation to assess possible effects on qualification status</li> </ul>	<ul style="list-style-type: none"> <li>▪ use the authority under Section 825.506, Government Code, to adopt rules that ensure compliance with federal plan qualification requirements by effectively modifying adopted state legislation</li> </ul>
5. failure to pursue appropriate recoveries	<ul style="list-style-type: none"> <li>▪ redundant sources of information</li> <li>▪ retained custodian to file domestic securities class action claims</li> <li>▪ internal review and monitoring of custodian</li> <li>▪ litigation policy adopted</li> </ul>	<ul style="list-style-type: none"> <li>▪ analysis of foreign recovery opportunities</li> <li>▪ opt-out analysis of domestic actions to increase recoveries</li> <li>▪ internal and external counsel</li> </ul>
6. failure to comply with Dodd-Frank requirements or other federal securities laws	<ul style="list-style-type: none"> <li>▪ monitor SEC and CFTC requirements</li> <li>▪ multiple staff monitor securities laws</li> </ul>	<ul style="list-style-type: none"> <li>▪ internal and external investment counsel</li> <li>▪ networking</li> </ul>
7. failure to comply with investment policies	<ul style="list-style-type: none"> <li>▪ internal and external compliance systems</li> <li>▪ review training needs</li> <li>▪ internal investment counsel</li> </ul>	<ul style="list-style-type: none"> <li>▪ communication</li> <li>▪ Chief Compliance Officer (CCO) and auditor's review of investment compliance</li> </ul>
8. failure to comply with ethics policies	<ul style="list-style-type: none"> <li>▪ training</li> <li>▪ annual compliance certification</li> <li>▪ risk of personnel actions</li> <li>▪ clear drafting and guidance in policies</li> </ul>	<ul style="list-style-type: none"> <li>▪ internal counsel</li> <li>▪ reviewed by CCO and fiduciary counsel</li> <li>▪ reviewing code of ethics for contractors</li> </ul>
9. failure to comply with or recognize state and foreign laws	<ul style="list-style-type: none"> <li>▪ internal and external counsel</li> <li>▪ monitor sources of information</li> <li>▪ networking</li> </ul>	<ul style="list-style-type: none"> <li>▪ clear advice</li> <li>▪ communication</li> </ul>
10. failure to manage litigation risks appropriately	<ul style="list-style-type: none"> <li>▪ internal and external counsel</li> <li>▪ communication</li> <li>▪ internal procedures</li> </ul>	<ul style="list-style-type: none"> <li>▪ appropriate technology</li> <li>▪ litigation policy adopted</li> </ul>
11. failure to have appropriate language in investment contracts to allocate risk	<ul style="list-style-type: none"> <li>▪ internal and external counsel</li> <li>▪ networking</li> <li>▪ management involvement</li> </ul>	<ul style="list-style-type: none"> <li>▪ clear guidelines</li> <li>▪ revising and updating contract administration manual</li> </ul>
12. failure to comply with international market regulations (Action Item 3)	<ul style="list-style-type: none"> <li>▪ internal and external counsel</li> <li>▪ clear advice</li> </ul>	<ul style="list-style-type: none"> <li>▪ researching technology and information service options</li> </ul>

## REGULATORY, COMPLIANCE & LITIGATION RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> <li>▪ monitor sources of information</li> <li>▪ networking</li> <li>▪ communication</li> <li>▪ other custodian resources and services</li> </ul>	<ul style="list-style-type: none"> <li>▪ retained international tax advisor</li> <li>▪ custodian bulletins</li> <li>▪ electronic compliance alerts</li> </ul>
13. failure to comply with personal trading policies	<ul style="list-style-type: none"> <li>▪ training</li> <li>▪ automated trade pre-clearance system</li> <li>▪ require trade confirmations</li> <li>▪ reconciliations of personal trading</li> <li>▪ internal counsel</li> </ul>	<ul style="list-style-type: none"> <li>▪ analysis of personal trading to identify abusive trading</li> <li>▪ procedures for handling of material non-public information (and information barriers)</li> <li>▪ reviewing and updating personal trading policy</li> </ul>
14. failure to use prudent processes to identify qualified vendors	<ul style="list-style-type: none"> <li>▪ training</li> <li>▪ communication</li> <li>▪ clear advice</li> <li>▪ fiduciary counsel can be consulted</li> <li>▪ internal counsel</li> <li>▪ updating contract administration manual</li> </ul>	<ul style="list-style-type: none"> <li>▪ internal audit</li> <li>▪ certification of purchasing staff</li> <li>▪ standard forms and guidelines</li> <li>▪ due diligence forms</li> <li>▪ drafting board policy on procurement</li> <li>▪ contract administrator</li> </ul>
15. failure to comply with the contract administration manual (Action Item 2)	<ul style="list-style-type: none"> <li>▪ communication</li> <li>▪ internal counsel</li> <li>▪ internal procedures</li> <li>▪ training</li> </ul>	<ul style="list-style-type: none"> <li>▪ drafting board policy on procurement</li> <li>▪ consultation with purchasing</li> <li>▪ updating contract administration manual</li> <li>▪ internal audit</li> </ul>
16. failure to manage records as required (e.g., e-records, Outlook) (Action Item 3)	<ul style="list-style-type: none"> <li>▪ identifying scope of issue</li> <li>▪ identifying and utilizing technology solutions</li> </ul>	<ul style="list-style-type: none"> <li>▪ litigation hold procedures</li> <li>▪ records retention training</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
1. Develop training	Legal Services	6/2014		Complete	Moved to other regulatory compliance training.
2. Follow-up with Contract Management regarding training, audit compliance, and revising manual to streamline requirements (Risk 15)	Legal Services, Contract Management	1/2015	9/2015	In Progress	Coordination among Legal Services, Purchasing, and internal business areas.

## REGULATORY, COMPLIANCE & LITIGATION RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
3. Researching technology options (Risk 12, 16)	Legal Services, Investment Management Division	Ongoing		In Progress	

Monitoring Activities		
Key Mitigation	Monitored By	Monitoring Process
Internal and/or external counsel (All risks)	Legal Services	Conduct performance evaluations; collaborative approach to providing legal services; scope of work in contracts; adherence to professional standards; and regularly review deliverables.
Regular review of plan terms (Risk 2, 3)	Legal Services	Seek IRS determination letter every five years; review with outside counsel; and legal review of legislation.
Audits (Risk 2, 7)	Internal Audit	Quarterly investment policy testing; regularly meet and communicate with the auditors; and Legal Services is an audit resource.
IT Solutions (software applications) (Risk 2, 7, 10, 12, 13, 16)	Legal Services, Information Technology	Survey the market; consult with system users; write applications to adhere compliance standards; test system during implementation and on an ongoing basis.
Internal procedures (Risk 2, 10, 15)	Legal Services, Business Units	Collaborative approach to providing legal services and redundant information sources.
Monitoring regulators/information sources (Risk 3, 6, 9, 12)	Legal Services	Review subscriptions and access to multiple sources of information.
Communication (Risk 7, 9, 10, 12, 14, 15)	Legal Services, Executive Council	Regular meetings; collaborative approach to providing legal services; third-party research; and discussions on policy and procedures.
Training (Risk 8, 13, 14)	Purchasing, Legal Services, Human Resources	Schedule and track employee training; multiple departments involved; use of standard forms; and frequent consultation.

# TALENT CONTINUITY RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Janet Bray		June 2015

GOAL	OVERALL RISK	OBJECTIVES
Attract, retain and develop a highly competent staff.	The delivery of member services and pension fund management could be negatively impacted by turnover, the inability to retain qualified staff, lack of a sufficient knowledge transfer program, and an inconsistent performance management process.	<ul style="list-style-type: none"> <li>Develop and maintain a desirable work environment</li> <li>Develop an effective recruitment/retention strategy and a competitive total rewards package.</li> </ul>

## SUMMARY

Risks to workforce continuity include staff turnover, including retirements, lack of effective transfer of key institutional knowledge and skills, and lack of a defined agency-wide performance appraisal system. Key mitigations include:

- Monitoring turnover trends, employee engagement surveys and employee feedback to develop targeted action plans.
- Assessing departmental talent continuity needs, career paths and ongoing learning and development needs to develop succession and knowledge transfer programs.
- Developing an integrated talent management system that standardizes performance management, staffing, recruiting, compensation, professional development and workforce planning.
- Implementing a new Human Resource Information System (HRIS), as part of the Financial System Replacement project, to help track and maintain workforce and employee data.

## RISK DETAILS

Risk Description	Mitigations
1. staff turnover including retirements (Action Item 1, 2, 4)	<ul style="list-style-type: none"> <li>TRS Leadership Development Program</li> <li>positive and rewarding work environment</li> <li>collect and monitor employee feedback regarding areas of concern through surveys and discussion</li> <li>cross-training</li> <li>biennial Workforce Plan</li> <li>exploring options for a knowledge transfer program</li> <li>monitor and assess turnover and retirement trends</li> <li>executive management support and oversight</li> <li>exploring succession planning options</li> <li>career paths</li> </ul>

## TALENT CONTINUITY RISK REPORT

Risk Description	Mitigations	
2. lack of effective transfer of key institutional knowledge and skills (Action Item 1, 2, 4)	<ul style="list-style-type: none"> <li>▪ exploring options for a knowledge transfer program</li> <li>▪ Knowledge Transfer pilot testing</li> <li>▪ exploring succession planning</li> </ul>	<ul style="list-style-type: none"> <li>▪ conduct learning and development needs assessment</li> <li>▪ TRS Leadership Development Program</li> </ul>
3. lack of defined agency-wide performance appraisal system (Action Item 3, 5)	<ul style="list-style-type: none"> <li>▪ training and coaching</li> <li>▪ working toward consistency in performance appraisals across the agency</li> <li>▪ review current performance appraisal processes</li> </ul>	<ul style="list-style-type: none"> <li>▪ HRIS system (in progress)</li> <li>▪ track and monitor performance appraisal data</li> <li>▪ conduct learning and development needs assessment</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
1. Develop a template and process for creating divisional talent continuity plans (Risk 1, 2)	Human Resources	Ongoing		Planned	The planning process to develop talent continuity plans in conjunction with implementing the strategic and workforce plan.
2. Coordinate with divisions to complete talent continuity plans (Risk 1, 2)	Human Resources	Ongoing		Planned	The planning process to obtain workforce continuity plans will be linked to the strategic and workforce plan.
3. Recruit a performance management specialist (Risk 3)	Human Resources	12/2013		Complete	Position was filled.
4. Develop and coordinate a succession planning and knowledge transfer program (Risk 1, 2)	Human Resources	8/2016		In Progress	An HR team was created to focus on developing and coordinating a succession planning and knowledge transfer program.
5. Develop standardized processes and procedures for performance appraisals (Risk 3)	Human Resources	12/2014	8/2016	In Progress	Currently piloting three divisions for the performance management system using existing resources. A standardized process will better enhance the agency's ability to track workforce and succession planning.

## TALENT CONTINUITY RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Monitor organization turnover and assess trends (Risk 1)	Human Resources	Monitor using USPS data and provide individual business unit data to management.	Annual; end of fiscal year, a key measure used to compare TRS to other state entities.
Workforce Plan (Risk 1)	Management	Follow biennial Workforce Plan, review annual turnover data and trends, and update plan as necessary.	Next update is scheduled for spring of 2016.
Employee engagement surveys (Risk 1)	Human Resources	Analyze survey data for trends within TRS control. Evaluate results and recommend actions for management's consideration.	Results were positively high as they were in previous years, so no actions recommended.
Evaluate career paths (Risk 1)	Human Resources	Ongoing review of classification and career paths.	Developing structure and process for evaluating classifications and career paths.
Ongoing learning and development needs assessments conducted by departments (Risk 2, 3)	Human Resources; Management	Conduct ongoing assessment of learning and development needs and knowledge gaps. Acquire, develop, and deliver instruction and/or provide resources to address identified gaps.	Management determines if specific instruction and/or resources are needed prior to the learning and development needs assessment conducted by HR.

# TEAM PROGRAM RISK REPORT

RISK OWNER	RISK LEVEL/TREND	REPORTING DATE
Ken Welch		June 2015

GOAL	OVERALL RISK	OBJECTIVE
Implement cost effective, efficient, and sustainable processes and systems that enable TRS to serve its members, employers, and annuitants.	System design, implementation and functionality of the new processes and systems do not meet the growing demands of TRS in service of its members. Program/project implementation schedule and cost exceeds original estimates.	Implement modern pension and benefit information systems that allow TRS staff to serve our members and deliver accurate benefits effectively and timely by August 2018.

## SUMMARY

Risks identified for the TEAM Program involve people, processes, project management, and change. Management is actively pursuing mitigations for these risks. A summary of activities since the last board reporting in November 2014 include the following:

- Shared preliminary Reporting Entity file format with Reporting Entities
- Completed the Website Redesign RFO and procurement process and made decision to select a vendor from the State vendor’s list
- Finalized and posted Q&As from round two of TEAM Huddles
- Rebaselined the Pension Line of Business project as a result of the PIP impact as well as current and anticipated Change Requests
- Implemented a Process Improvement Phase for the Pension Line of Business project, which has resulted in positive results
- Formed Business Data Conditioning Team
- Completed the Financial System Replacement project RFO but a decision was made to reevaluate the CAPPS solution
- Met with several higher education reporting entities to discuss the impact of full payroll reporting
- Developed the Project Charter for the Quality Assurance Project

## RISK DETAILS

Risk Description	Mitigations
1. conflicting priorities between existing work and TEAM Program-related assignments	<ul style="list-style-type: none"> <li>▪ prioritize workload</li> <li>▪ communication</li> <li>▪ program management services from Provaliant</li> <li>▪ more resources</li> <li>▪ reallocate workload</li> <li>▪ approval to backfill positions</li> <li>▪ weekly TEAM dashboard</li> <li>▪ clear direction</li> </ul>

## TEAM PROGRAM RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> <li>▪ extend schedule</li> <li>▪ willingness to negotiate</li> <li>▪ Independent Program Assessment (IPA) vendor oversight</li> <li>▪ Project Management Office (PMO)</li> </ul>	<ul style="list-style-type: none"> <li>▪ be aware of legislation and planning</li> <li>▪ board/management support</li> <li>▪ OCM Project</li> <li>▪ prioritization for service requests that require IT resources</li> <li>▪ intern program</li> </ul>
2. ineffective decision-making (i.e., decisions not made timely, decisions made too swift which causes us to revisit, and/or made at inappropriate level)	<ul style="list-style-type: none"> <li>▪ program/project management action/decision logs</li> <li>▪ weekly status updates</li> <li>▪ Executive Steering Committee (ESC) and CMT charters</li> <li>▪ assign accountability for action items related to timely decisions</li> <li>▪ standing agenda item on weekly ESC meetings to discuss TEAM project issues and decision due dates/milestones</li> <li>▪ weekly TEAM dashboard</li> <li>▪ change management process</li> <li>▪ clearly identify deadlines for decisions</li> <li>▪ provide adequate time for decision to be made</li> <li>▪ extend schedule</li> </ul>	<ul style="list-style-type: none"> <li>▪ escalate issues if needed</li> <li>▪ program management services from Provaliant</li> <li>▪ clear direction</li> <li>▪ decision-making to the appropriate management level</li> <li>▪ direct communication with CMT and ESC</li> <li>▪ approval to backfill positions</li> <li>▪ willingness to negotiate</li> <li>▪ IPA vendor oversight</li> <li>▪ Responsible, Accountable, Consulted, Informed (RACI) Chart</li> <li>▪ multiple approvals</li> <li>▪ additional input and consultation with partners prior to decision-making</li> </ul>
3. lack of resources (people) (Action Item 1)	<ul style="list-style-type: none"> <li>▪ TRS/TEAM staffing plans</li> <li>▪ prioritize workload</li> <li>▪ approval to backfill positions</li> <li>▪ extend schedule</li> <li>▪ willingness to negotiate</li> <li>▪ IPA vendor oversight</li> <li>▪ minimize resources needed to manage health vendor changes</li> </ul>	<ul style="list-style-type: none"> <li>▪ program/project milestones</li> <li>▪ program management services from Provaliant</li> <li>▪ weekly TEAM dashboard</li> <li>▪ resource loaded project schedule</li> <li>▪ clear direction</li> <li>▪ contractors</li> </ul>
4. internal TEAM governance structure operating inefficiently	<ul style="list-style-type: none"> <li>▪ weekly CMT and ESC meetings</li> <li>▪ committee assignments</li> <li>▪ OCM Project</li> <li>▪ continue to review “lessons learned” from other pension systems</li> </ul>	<ul style="list-style-type: none"> <li>▪ program/project management action/decision logs</li> <li>▪ risk assessments at program and project level</li> <li>▪ program management services from Provaliant</li> <li>▪ weekly TEAM dashboard</li> </ul>

## TEAM PROGRAM RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> <li>▪ IPA vendor oversight</li> <li>▪ CMT regularly attends Executive Briefing meetings</li> <li>▪ effective communication</li> </ul>	<ul style="list-style-type: none"> <li>▪ clear direction</li> <li>▪ RACI chart</li> <li>▪ status reports</li> </ul>
5. inaccurate planning estimates (i.e., cost and schedule)	<ul style="list-style-type: none"> <li>▪ obtain estimates</li> <li>▪ periodic reassessments and communication</li> <li>▪ process improvement plan for the Pension Line-of-Business (LOB)</li> </ul>	<ul style="list-style-type: none"> <li>▪ research vendors and other pension funds</li> <li>▪ vendor demonstrations</li> <li>▪ additional personnel</li> <li>▪ weekly status meetings</li> </ul>
6. failure to manage change (e.g., scope, schedule, budget)	<ul style="list-style-type: none"> <li>▪ communicate, monitor, and enforce the change control process</li> <li>▪ new project launch meetings with teams</li> <li>▪ expectations communicated up front</li> <li>▪ program management services from Provaliant</li> <li>▪ weekly TEAM dashboard</li> <li>▪ clear direction</li> </ul>	<ul style="list-style-type: none"> <li>▪ all projects follow the same organizational structure</li> <li>▪ monthly internal budget meetings</li> <li>▪ quarterly Legislative Budget Board reporting</li> <li>▪ status reports</li> <li>▪ reduce scope</li> <li>▪ more resources</li> <li>▪ willingness to negotiate</li> <li>▪ IPA vendor oversight</li> </ul>
7. lack of staff acceptance for the system and resulting changes	<ul style="list-style-type: none"> <li>▪ vendor demonstrations</li> <li>▪ staff involvement</li> <li>▪ planning</li> <li>▪ research</li> <li>▪ celebrate successes</li> <li>▪ getting buy-in through involvement</li> <li>▪ pulse checks</li> </ul>	<ul style="list-style-type: none"> <li>▪ OCM Project</li> <li>▪ recognition</li> <li>▪ effective execution of the Communications Plan</li> <li>▪ personnel position changes</li> <li>▪ training</li> <li>▪ TEAM huddles</li> <li>▪ OCM troubleshooting</li> </ul>
8. lack of agency staff with appropriate skill sets	<ul style="list-style-type: none"> <li>▪ OCM Project (e.g., train the trainer)</li> <li>▪ use contractors</li> <li>▪ new full-time equivalent (FTE) employees</li> <li>▪ on-the-job training</li> <li>▪ embedding staff with vendors</li> </ul>	<ul style="list-style-type: none"> <li>▪ ability to obtain vendors/ contractors/employees with expertise</li> <li>▪ resource loaded project schedule</li> <li>▪ staffing plan</li> <li>▪ train existing staff</li> </ul>
9. change in executive leadership/board resulting in different priorities	<ul style="list-style-type: none"> <li>▪ communicate to new leadership the importance of supporting program and projects</li> </ul>	<ul style="list-style-type: none"> <li>▪ communicate the value proposition</li> <li>▪ solicit board support</li> </ul>
10. ineffective communication	<ul style="list-style-type: none"> <li>▪ effective execution of the Communications Plan</li> <li>▪ TEAM repository</li> <li>▪ recorded webinars</li> </ul>	<ul style="list-style-type: none"> <li>▪ program manager involvement</li> <li>▪ open meetings</li> <li>▪ solicit employee feedback</li> </ul>

## TEAM PROGRAM RISK REPORT

Risk Description	Mitigations	
	<ul style="list-style-type: none"> <li>▪ training</li> <li>▪ project interdependency meetings</li> <li>▪ TEAM huddles</li> </ul>	<ul style="list-style-type: none"> <li>▪ OCM Project</li> <li>▪ Reporting Entity Outreach (REO) Project</li> <li>▪ program manager liaison between TRS and vendors</li> </ul>
11. legislative changes	<ul style="list-style-type: none"> <li>▪ be aware of legislation and planning</li> <li>▪ board/management support</li> <li>▪ governmental relations</li> </ul>	<ul style="list-style-type: none"> <li>▪ communication of upcoming changes</li> <li>▪ change control process</li> </ul>
12. TEAM Project meetings have too many additional TRS staff attending (inefficient meetings and use of resource time)	<ul style="list-style-type: none"> <li>▪ developed RACI chart to show roles and responsibilities</li> <li>▪ clear/concise agendas with purpose and expected outcome</li> </ul>	<ul style="list-style-type: none"> <li>▪ identify subject matter experts (SMEs) needed throughout the projects</li> <li>▪ define Core Project Team as more projects begin</li> </ul>
13. lack of patience to adhere to contracted schedule and methodology (TRS schedules and vendor schedules conflict to discuss project-related topics)	<ul style="list-style-type: none"> <li>▪ work with vendor to bring forward items on the schedule as long as there is no risk of negatively affecting the schedule</li> </ul>	
14. unknown interdependencies in schedule/project	<ul style="list-style-type: none"> <li>▪ regular project interdependency meetings</li> <li>▪ interdependency schedule</li> </ul>	<ul style="list-style-type: none"> <li>▪ consolidated action/decision logs</li> </ul>
15. lack of vendor staff with appropriate skill sets	<ul style="list-style-type: none"> <li>▪ on the job training</li> <li>▪ ability to obtain people with expertise</li> <li>▪ realign schedule to optimize staff with the skill set</li> </ul>	<ul style="list-style-type: none"> <li>▪ HP hiring additional resources to provide adequate backup for business analysts</li> <li>▪ process improvement plan for LOB</li> </ul>
16. lack of resource availability due to audits occurring at the same time as user acceptance testing and phase one conversion for LOB (e.g., CAFR, internal audits)	<ul style="list-style-type: none"> <li>▪ request that auditor coordinates audit schedule with auditee</li> <li>▪ cross-train backups for subject matter experts</li> </ul>	<ul style="list-style-type: none"> <li>▪ auditor provides detailed list of documents needed and areas they will focus on</li> </ul>
17. lack of resources (e.g., conference rooms, training rooms) (new risk)	<ul style="list-style-type: none"> <li>▪ use of unconventional spaces</li> <li>▪ opening up of normally restricted conference rooms</li> <li>▪ discuss room needs with Staff Services</li> <li>▪ ongoing communication with leadership team</li> </ul>	<ul style="list-style-type: none"> <li>▪ restricting normally opened conference rooms</li> <li>▪ identify rooms for training early and prepare additional space as needed</li> <li>▪ Contingency: use external training facilities</li> </ul>
18. inability to manage conflicting requirements between user departments (new risk)	<ul style="list-style-type: none"> <li>▪ governance structure</li> <li>▪ develop common understanding</li> </ul>	<ul style="list-style-type: none"> <li>▪ ongoing communication</li> <li>▪ TEAM vision statements</li> </ul>

## TEAM PROGRAM RISK REPORT

Risk Description	Mitigations
19. lack of TRS experience with large scale user acceptance testing (UAT) (new risk)	<ul style="list-style-type: none"> <li>▪ training; incremental approach with more than one user acceptance test period</li> <li>▪ experienced program management vendor Provaliant</li> <li>▪ identification of a UAT project SME</li> <li>▪ test plan review</li> <li>▪ involvement of TRS QA team</li> <li>▪ solid benchmarks measurements</li> <li>▪ TRS will engage additional resources to provide UAT</li> <li>▪ QAT project</li> </ul>
20. unable to appropriately analyze increased volume of data (new risk)	<ul style="list-style-type: none"> <li>▪ training</li> <li>▪ planning</li> <li>▪ additional FTEs</li> </ul>

Action Item	Owner	Target Date	Revised	Status	Comments
1. Hire TEAM FTEs as outlined in the staffing plan approved by the TRS Board of Trustees (Risk 3)	TEAM Project Sponsors & Managers	Ongoing		In Progress	TRS has filled positions that were allocated during fiscal year 2013 and 2014 budget; currently in the process of filling the positions allocated for fiscal year 2015 and 2016. CMT reviewed the original staffing plan and requested additional resources that were approved by the board of trustees. CMT will continue to assess resources throughout the TEAM Program. This will be an ongoing action item based on the staffing plan priorities.
2. Finalize a Process Improvement Phase for the Pension Line-of-Business (LOB) with HP to improve efficiencies in the detailed level requirement sessions for the project (Risk 5, 16)	LOB Project Sponsor & Manager	11/2014		Completed	HP's objective for the Process Improvement Phase is to drive higher quality into the requirements gathering process to ensure the final deliverable meets or exceeds TRS expectations. TRS will be looking at areas that TRS can improve on to expedite the requirements gathering and decision-making processes.
3. TRS is working on process improvement action items internally that will provide efficiencies in the remaining detailed level requirements sessions as well as items that will	LOB Project Sponsor	11/2014		Completed	The TRS process improvement action items were identified through TRS self-assessments and conversations with the TEAM vendors. TRS has already put a process in place to monitor these process improvement action items that TRS is responsible for.

## TEAM PROGRAM RISK REPORT

Action Item	Owner	Target Date	Revised	Status	Comments
help in all areas of TEAM (e.g., faster decision-making)					
4. Hire additional OCM Project FTEs (Risk 7, 11)	OCM Project Sponsor & Manager	8/2014	10/2014	Completed	A request for one additional FTE—in lieu of a vendor—was reposted and interviews are being scheduled. The new target date is October 2014. The resource was hired to begin on May 15, 2015.

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
Project management (Risk 1, 2, 3, 4, 6)	Program & Project Manager	Minimum weekly program/project meetings to review all risk and mitigation plan updates with the program/project manager and sponsor. The PMO meets with project managers regularly to ensure project consistency. As new projects begin, they will utilize the Service Request Process to help ensure that resources are tracked better.	A project sponsor and project manager is assigned to each project; this has been effective to manage the various concurrent projects.
Weekly reviews (Risk 1, 2, 3, 4, 5, 6)	Project Sponsor	Project manager works with project sponsor regarding the reviewing, monitoring, and updating of the risks on the status reports. Project sponsor reports risks and issues to the CMT and ESC.	Reassessing the list of risks on the status report is completed as needed; issues or changes are communicated to the CMT or ESC. The drop-dead lead time date is monitored to ensure the key risk is mitigated.
OCM Project (Risk 1, 4, 7, 9, 11, 13)	Project Sponsor, Program & Project Manager	Human Resources (HR) will solicit feedback and suggestions throughout the life of the TEAM Program through meetings, online surveys, advisory groups, focus sessions, and one-on-one interviews. The project sponsor provides regular updates to the CMT and receives feedback. The executive sponsor provides updates to the ESC and receives feedback. Written weekly project status updates are provided to the TEAM Program managers and are added to the weekly risk	Two employee advisory groups meet monthly to provide employee input. Once the new HR FTEs are on board, focus sessions will be conducted to gather input from all Red River employees. A plan for training employees and managers on OCM skills is being developed. Communication from the executive director and deputy director occurs through a combination of all-hands meetings to update employees about the TEAM Program and department TEAM Huddles to answer department-specific questions and concerns about TEAM. An internal website devoted to employee-friendly communications

## TEAM PROGRAM RISK REPORT

Monitoring Activities			
Key Mitigation	Monitored By	Monitoring Process	Comments
		log/status summary. The IPA vendor also provides feedback regarding OCM efforts.	about the TEAM Program has launched and is regularly updated. HR will continue to interview managers and randomly selected employees of departments most impacted by the TEAM Program and adjust OCM plans as needed based on the input received.
Action and decision logs (Risk 2, 4)	ESC, CMT, Program & Project Manager	Documented action and decisions are received and reviewed weekly by the ESC, CMT, and program and project manager.	Logs provide documented support and quick reference for actions and decisions made that impact a project or the program. Separate logs are in place for the ESC, CMT, and individual projects. Project-level logs are part of the weekly status report.
Risk assessments (Risk 4)	Risk Management, Project Sponsor, Program & Project Manager	Risk assessments are conducted and tracked on the risk log. Results are shared with the ESC, CMT, project sponsor, and program and project manager.	As projects begin, initial risk assessments are conducted. In addition, the risks are reviewed every other month or more frequently if necessary. Team members review the risks and mitigations for addition to the risk log as well as reassessing impact and likelihood.
Meeting minutes (Risk 4, 5)	ESC, CMT, Program & Project Manager	Meeting agenda, minutes and decisions are documented and sent out for review. These are available in the TEAM Repository for all staff.	Minutes are reviewed by all participants and formally approved during meetings. These are an effective communication tool and also provide background and validation of actions taken and decisions made during project meetings.