MEMORANDUM

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To:	Joint Legislative Committee on Information Management and Technology
From:	Robert L. Cummings, Principal Legislative Analyst (IT)
Date:	February 19, 2020
Subject:	Public Employees Retirement System (PERS), Department of Administrative Services (DAS), Office of the Chief Information Officer (OSCIO), and Chief Financial Office (CFO): Progress Reports on the Implementation of SB 1049 (2019) - LFO Analysis and Recommendations

Agency Request

During the 2019 legislative session, the Joint Committee on Ways and Means (JWM) approved House Bill 5032 (2019), which included a budget note that required the Public Employees Retirement System (PERS), the Department of Administrative Services (DAS), the Office of the Chief Information Officer (OSCIO), and the Chief Financial Office (CFO) to report separately to the Joint Legislative Committee on Information Management and Technology (JLCIMT) and the Joint Committee on Ways and Means (JWM), during the 2020 legislative session, on the progress and status of the implementation of SB 1049 (2019). In accordance with the budget note, PERS has submitted its report, and DAS, OSCIO, and CFO have chosen to submit a consolidated report. PERS, DAS, OSCIO, and CFO are requesting acknowledgement of the receipt of their reports.

Executive Summary

SB 1049 was a legislative initiative to primarily address future Public Employees Retirement System (PERS) employer contribution rate increases. The measure established the scope of the PERS implementation including: elimination of restrictions on annual hours of employment for retired workers; limitation on the Final Average Salary; redirecting a portion of employee contributions from the employee's defined contribution plan, the Individual Account Program (IAP), to partially fund prospectively an employee's defined benefit or pension plan; and providing IAP members a choice in selecting investment options. The measure included other changes, apart from the project implementation, including the re-amortized Unfunded Actuarial Labilities and additional funding for various employer programs. The implementation schedule was established in statute with various implementation dates throughout the biennium. Implementation was to be completed by January 1, 2021. The one-time cost of implementation of SB 1049, as approved by the Legislature, totals $39 million, and includes 37 Limited Duration positions (33.60 FTE) and 6 Permanent positions (5.44 FTE). Such costs are funded by revenue transfers from the retirement trust funds. Select provisions of the measure have been challenged in court and are under expedited legal review by the Oregon Supreme Court.

The project is under the oversight of the Department of Administrative Services - Office of the Chief Information Officer (OSCIO) and Chief Financial Office (CFO). The implementation effort is utilizing a modified Stage Gate Review process. PERS recently acquired the services of an independent Quality Assurance (QA) vendor. Legislative Branch oversight, including that of the Legislative Fiscal Office (LFO), is being conducted in cooperation with, and through, the OSCIO and CFO.

At this time, SB 1049 implementation is not currently well defined enough to verify the scope, schedule, budget, or the total risk environment. This is in large part due to the short deadlines given to PERS to implement key elements of SB 1049, and the PERS decision to use an "incremental development and implementation" strategy, which puts in place temporary solutions to meet legislative deadlines, followed by later permanent solutions. The independent quality assurance vendor's initial risk assessment report shows the project scope, schedule, requirements, business impacts, and organization change management impacts are all high risk. Budgetarily, the implementation effort is significantly underspending the approved budget. In addition, there is not a clearly defined expenditure plan in place, nor is there sufficient supporting evidence, including quality program and project estimates and requirements, to determine the exact cost and duration of the implementation effort. LFO concerns, as verified by the quality assurance vendor's initial risk assessment, including those of financial management and overall implementation have, and continue to be, communicated directly to OSCIO and CFO on a routine basis. A more detailed discussion of the implementation and its challenges can be found in the following LFO analysis, in the HB 5032 (2019) PERS Budget Note Report (January 17, 2020), in the OSCIO/DAS/CFO HB 5032 Budget Note Report (January 17, 2020), and in the SB 1049 - Quality Assurance - Program Risk Assessment Report - Initial (January 29, 2020), that have all been posted to the Oregon Legislative Information System.

A. LFO Analysis

Background

HB 5032 (2019) and SB 1049 (2019) were passed during the 2019 legislative session. Their focus was on key PERS reforms that the Legislature wanted to have implemented during the 2019-21 biennium to address key financial challenges in the system (i.e. unfunded liabilities and employer contribution rates). PERS was provided $39 million in funding for 2019-21. The legislation identified five areas for PERS to implement key changes including: Salary Limit, Work After Retirement, Employer Programs, Member Choice, and Member Redirect. It is important to note that PERS is considering legislation in the 2021 legislative session to make some "technical" adjustments to the original SB 1049 measure, and there is one pending lawsuit related to SB 1049 that may provide significant risk to two of the five legislatively requested PERS reforms.

Budget Note

The detailed budget note included in HB 5032 (2019) provided direction to PERS regarding specific legislative deadlines and future reporting needs. The budget note directed PERS, DAS, OSCIO, and CFO to return to the JWM and JLCIMT during the 2020 legislative session to independently report progress on SB 1049.

Specifically, the budget note required OSCIO to provide lead oversight and guidance to PERS to expedite the progress on implementing the legislatively required changes to PERS's retirement programs. The specific language of the budget note related to HB 5032 (2019) follows:

"The Public Employees Retirement System (PERS) is directed to report to the Joint Committee on Information Management and Technology and the Joint Committee on Ways and Means during the Legislative session in 2020 on the implementation of SB 1049 (2019). The Department of Administrative Services and the Office of the State Chief Information Officer are to provide oversight of the PERS SB 1049 (2019) implementation project. The project shall adhere to the Stage Gate process. The Department of Administrative Services - Office of the State Chief Information Officer and the Department of Administrative Services - Chief Financial Officer, in their oversight roles, are to report separately to the Joint Committee on Information Management and Technology and the Joint Committee on Ways and Means during the Legislative session in 2020 on the implementation of Senate Bill 1049 (2019).

The agencies' reports to the Legislature shall include:
- *Update on project scope, schedule, budget, and total cost of ownership*
- *Identification of costs associated with one-time solutions versus permanent solutions*
- *Independent quality assurance reporting on the project*
- *Impact of Senate Bill 1049 (2019) information technology project on routine agency operations*
- *Any exceptions from administrative rules, policies or procedures, or statutes granted to PERS by the Department of Administrative Services*
- *Other information that helps inform the Legislature on the status of the project or issues that have arisen as the result of the project."*
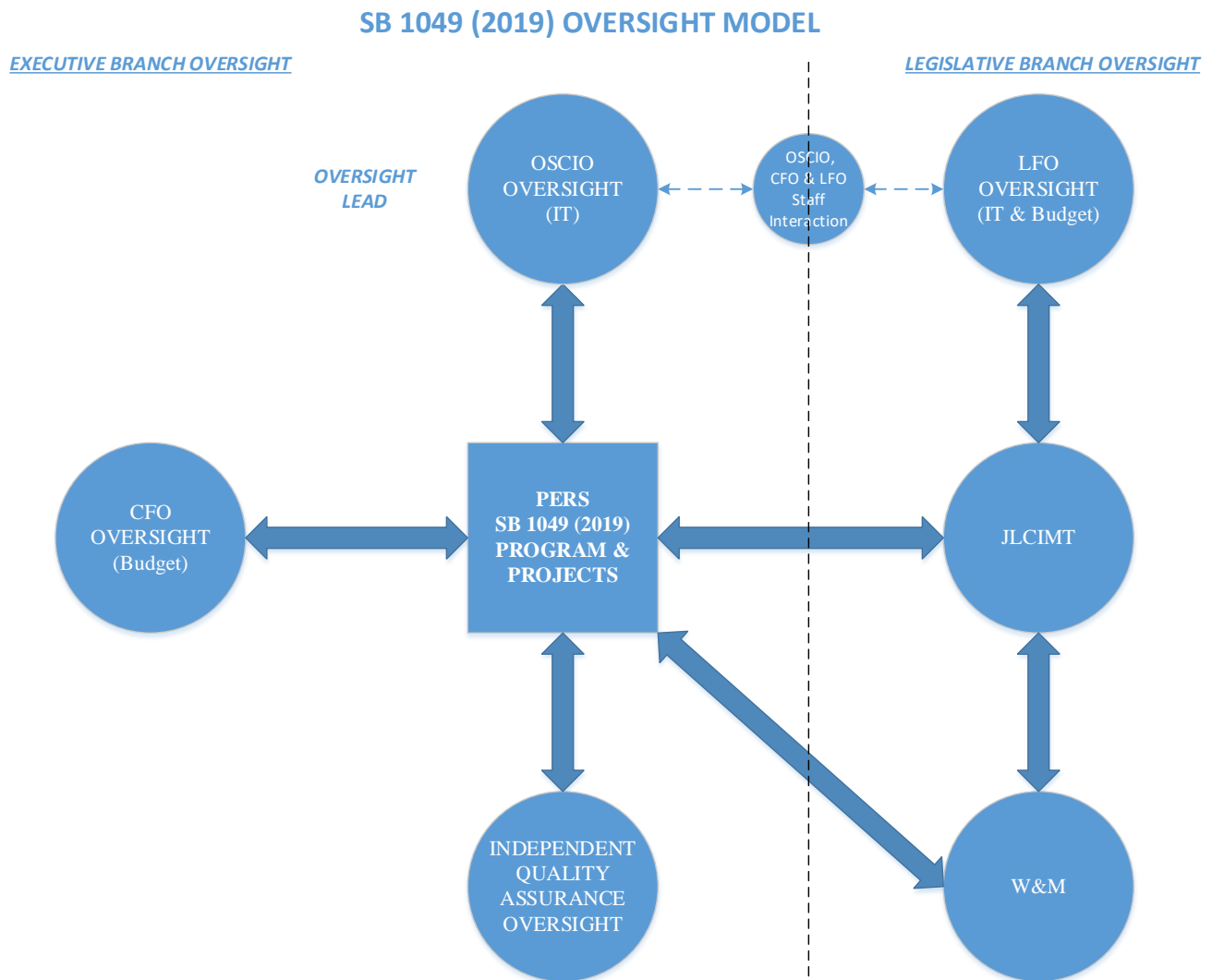
Oversight Model and Responsibilities

To facilitate project progress and to assure continuity in oversight and direction to PERS related to SB 1049, DAS, OSCIO, CFO, and LFO agreed to utilize an oversight model that was specifically tailored to meet the needs of the SB 1049 efforts. Key characteristics of this oversight model include:

1. OSCIO has the primary responsibility for overseeing all projects and activities related to SB 1049. CFO and PERS are responsible for monitoring all financial facets of the effort. The independent quality assurance (QA) vendor reports to PERS and is responsible for providing independent risk assessments and quality control reviews for the program and associated projects. LFO provides an oversight role on behalf of the Legislature for all SB 1049 efforts. And finally, the JLCIMT and JWM subcommittees are responsible for overall legislative oversight and accountability, including assuring proper stewardship and funding of SB 1049.

2. OSCIO has embedded a senior project oversight staff member three days a week at PERS, to provide a direct interface with PERS staff and management. OSCIO, LFO, and CFO oversight staff meet monthly with PERS project management to receive an update by the agency on project status and milestone progress. In addition, LFO, CFO, and OSCIO oversight staff meet

3. monthly to discuss project status, progress, risks, and concerns. OSCIO, CFO, and LFO oversight staff regularly report status to their respective managers.

4. OSCIO, CFO, and LFO will provide separate reports to the appropriate legislative committees: the JLCIMT and the JWM subcommittees. Both the JLCIMT and JWM subcommittees will receive updates during the 2020 legislative session.

The diagram below shows the key components, basic relationships, and interactions of the oversight model that was tailored specifically for use on the SB 1049 implementation effort.

SB 1049 (2019) OVERSIGHT MODEL

EXECUTIVE BRANCH OVERSIGHT

LEGISLATIVE BRANCH OVERSIGHT

OVERSIGHT LEAD

OSCIO OVERSIGHT (IT)

OSCIO, CFO & LFO Staff Interaction

LFO OVERSIGHT (IT & Budget)

CFO OVERSIGHT (Budget)

PERS SB 1049 (2019) PROGRAM & PROJECTS

JLCIMT

INDEPENDENT QUALITY ASSURANCE OVERSIGHT

W&M

LFO Findings

The LFO Findings section is organized into the six sub-sections below, each of which focuses on providing an overview of the key reports and related materials that LFO included in its review of HB 5032 and SB 1049 progress, status, risks, concerns, and recommendations:

1. HB 5032 PERS Budget Note Report (January 17, 2020);
2. OSCIO/DAS/CFO HB 5032 Budget Note Report (January 17, 2020);
3. OSCIO SB 1049 Stage Gate Review Process;
4. SB 1049 - Quality Assurance - Program Risk Assessment Report - Initial (January 29, 2020);
5. LFO Identified Risks and Concerns; and
6. LFO Detailed Recommendations.

HB 5032 PERS Budget Note Report (January 17, 2020)

The PERS report to the JLCIMT and JWM, responding to the budget note reporting requirements of HB 5032 regarding SB 1049 implementation efforts, requested progress and status information on the key project areas listed below:

1. Update on project scope, schedule, and budget (including total cost of ownership);
2. Identification of costs associated with one-time solutions versus permanent solutions;
3. Independent quality assurance reporting on the project;
4. Impacts on routine agency operations;
5. Exceptions to administrative rules; and
6. Other relevant information (i.e., status, issues, etc.).

As part of its budget note report to the JLCIMT and JWM, PERS also provided its most recent monthly PERS SB 1049 Status Report (January 17, 2020), which provides additional supporting detail. LFO utilized both of these reports to summarize the agency's responses to each of the six areas of legislatively requested information identified above. A discussion of each of these key focus areas follows:

(Project Scope)

Both PERS' reports (budget note and monthly status) indicate that project scope remains basically the same since the passage of SB 1049. A majority of the implementation efforts impact the current ORION System (Oregon Retirement Information Online Network), which is a system of integrated applications, including interfaces with the Individual Account Program (IAP) Third Party Administrator, VOYA.

(Project Schedule)

PERS has been working on the program and five sub-projects related to SB 1049 since early July 2019. The initial work has primarily focused on project setup and initiation, planning, and Stage Gate #1 and #2 related work, which includes high-level business cases, project charters, initial project scope and requirements definition, etc. The agency has also focused on identifying strategies for going forward, defining a program (portfolio of projects), acquiring project managers, facilities and equipment, and establishing governance. The table below shows the single program and five projects that have been setup by PERS to complete all legislatively requested PERS reforms. It provides a summary of the

mandated, temporary, and permanent/full (complete) solution dates for each of the five projects that PERS has identified for implementing the requirements of SB 1049.

Mandated vs. Proposed Completion Dates

Program/Projects	Mandated Effective Dates	Temporary Solutions Completion Dates	Permanent/Full Solution Completion Dates
SB 1049 Program	January 1, 2021	n/a	July 1, 2021
Employer Programs Project	July 1, 2019	tbd	September 30, 2020
Work After Retirement Project	January 1, 2020	January 1, 2020	Sept. 30, 2020
Salary Limit Project	January 1, 2020	January 1, 2020 January 24, 2020	Sept. 30, 2020
Member Redirect Project	July 1, 2020	July 1, 2020 Sept. 30, 2020	Beyond July 1, 2021
Member Choice Project	January 1, 2021	tbd	January 1, 2021

PERS's reports show that four stage gate endorsements related to the overall program and individual projects were obtained, and that they are nearing stage gate #3 endorsement on the Member Redirect Project. PERS also recently completed a high-level SB 1049 Implementation Program Roadmap that provides a basic high-level schedule and list of work packets and deliverables for completing and implementing all temporary and permanent solutions related to the five PERS reform projects. A copy of this roadmap is provided below.
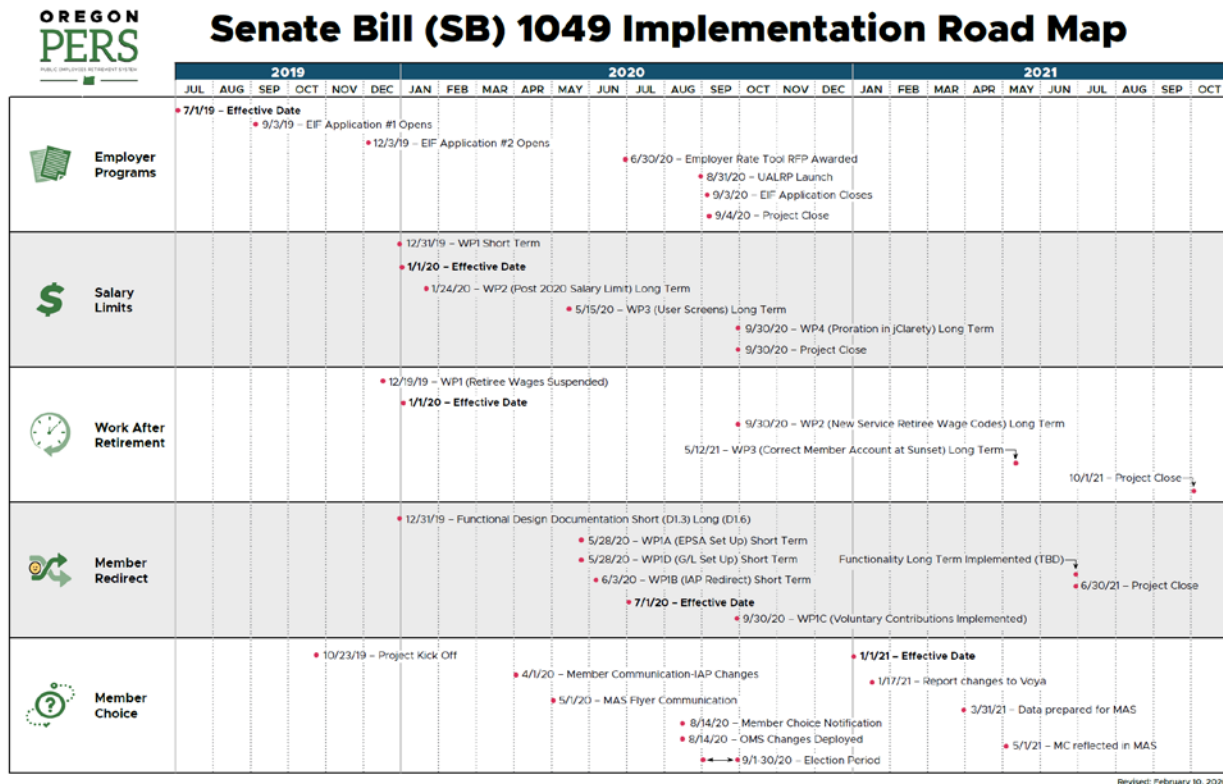
It is important to note that the roadmap above clearly shows that the SB 1049 implementation effort will likely push out into the 2021-23 biennium. LFO has not seen detailed supporting evidence such as quality control reviewed baseline scope statements, requirements, schedules, budgets, resource plans, and risks assessments to support the viability of this roadmap.

(Project Budget)

PERS' status report dated January 17, 2020 provided basic financial information in the table below related to planned and actual expenditures for a portion of the $39M that has been provided to PERS within HB 5032. Other than the OSCIO-provided cost information provided in the table below, LFO has not seen evidence of a finalized detailed baseline integrated budget (with expenditure plans) for the program and five projects, that shows how PERS plans on allocating and spending the total $39 million that has been provided to PERS for SB 1049 related work. PERS did not submit any additional budget requests for consideration in the 2020 legislative session.

Program/Projects	Estimated Project Costs*	Expenditures to Date	Project Budgets**
1. SB 1049 Program	$5,500,000	775,119	5,500,000
2. Employer Programs Project	1,455,752	9,421	1,455,752
3. Work After Retirement Project	982,164	124,860	982,164
4. Salary Limit Project	900,947	9,133	990,947
5. Member Redirect Project	28,054,657	9,074	2,076,194
6. Member Choice Project	2,076,194	9,074	2,076,194
Totals	$39,059,714	$936,681	$13,081,151

  *Source - DAS/OSCIO/CFO Report (01/17/20)   **Source - PERS Status Report (01/17/20)

(Total Cost of Ownership)

PERS defines "Total Cost of Ownership" as the budgeted expenditures against "specifically noted" appropriations, as well as accounting for internal resource draws to support the initial implementation. Total Cost of Ownership will include the $39,059,717 plus ongoing maintenance and enhancement costs to support ORION ($2.2 million in the 2017-19 biennium and $2.1 million budget for the 2019-21 biennium), additional VOYA contract costs, and actuarial software support costs. Ongoing maintenance costs past the 2019-21 biennium were not identified in PERS' responses to the SB 5032 budget note. The exact cost savings, if any, to the state, is not clear from the business cases that PERS has developed regarding SB 1049.

(One-Time Versus Permanent Solutions)

PERS did not break down one-time costs versus permanent solutions, as they currently see little throwaway costs being incurred due to their strategy of using an incremental iterative development process to gradually build up each new required system capability over time, until a permanent solution is completed.

PERS has acquired a quality assurance vendor to provide a wide-range of quality assurance, quality control, risk assessment, and quality management planning services. An initial risk assessment was finalized on January 29, 2020. The results of the independent quality assurance initial risk assessment are provided in detail in a later section of this analysis.

The most recent SB 1049 monthly status report (January 17, 2020) provides PERS' internal view of program and individual project risks. The report indicates that overall, PERS feels that things are going as well as can be expected, given the tight timelines and resource challenges. The report shows a "yellow" (at risk) overall status rating for the SB 1049 Program. At the program level, this report also shows a "green" status level for budget, a "yellow" status level for schedule, and a "green" status level for scope. For the five individual projects that make up PERS' SB 1049 effort, the status report shows a "green" project status for the Employer Program Project, a "yellow" project status for the Work After Retirement (WAR) project, a "green" project status for the Salary Limit Project, a "yellow" project status for the Member Redirect Project, and a "green" project status for the Member Choice Project.

(Impacts on Routine Agency Operations)

PERS reports that they have taken numerous steps to minimize impacts to its routine agency operations including:

a.   Placing all non-essential IT projects on hold. The Backup Data Center Project - 06/30/20 and the Data Center Migration Project - 06/30/21, will both continue.
b.   Backfilling of subject matter experts who are working on SB 1049 requirements gathering efforts (21 positions are still vacant due to recruitment challenges).

Despite these efforts, PERS reports that overall, SB 1049 has impacted many critical services, resulting in increased volumes, decreased service levels, additional backlogs, and delays in projects and maintenance of desktop tools. At this point 150 PERS staff have been involved, to some degree, in the implementation of SB 1049.

(Exceptions to Administrative Rules)

As of January 17, 2020, PERS reports that it has not been granted exceptions from administrative rules, policies, procedures, or statutes by DAS. However, due to the mandated January 1, 2020, delivery timeframe for the Salary Limit and Work After Retirement projects, PERS had to proceed with execution work activities prior to receiving OSCIO endorsement for all project planning documents. On December 6, 2019, the OSCIO acknowledged that project execution activities for these two projects were proceeding without OSCIO approvals in order to meet the tight January 1, 2020 deadlines. Temporary solutions were put in place for both Salary Limit and Work After Retirement by the mandated deadline. Permanent solutions will be in place by September 30, 2020.

(Other)

PERS noted in its report that the PERS reforms required by SB 1049, along with the associated technical debt, substantially increased the complexity of the PERS technical and business environments, and the overall risk profile of PERS. PERS reminded the Legislature in its report that

according to Cost Effective Measurement Benchmarking (CEM), PERS is the second most complex public sector retirement system in the nation. PERS also reiterated its commitment to continue to diligently work to ensure ongoing stability of the ORION System, as they proceed to make the required legislative changes.

<u>OSCIO/DAS/CFO HB 5032 Budget Note Report (January 17, 2020)</u>

As noted earlier, DAS, OSCIO, and CFO were instructed to come back to the JLCIMT and JWM during the 2020 legislative session to report on the progress and status of the work related to SB 1049. Compliance to these instructions is addressed in the table below:

Budget Note Requirements	Met Partially Met Not Met
1. Report to JLCIMT and JWM during 2020 legislative session on implementation of SB 1049.	Met
2. DAS and OSCIO are to provide oversight of the PERS SB 1049 (2019) implementation project.	Met
3. The project will adhere to the Stage Gate Process.	Met
4. DAS/OSCIO/CFO will report separately to the JLCIMT and JWM during the 2020 legislative session on implementation of SB 1049.	Met
5. Update on project scope, schedule, and budget, and total cost of ownership.	Partially
6. Identification of costs associated with one-time solutions versus permanent solutions.	Not met
7. Independent quality assurance reporting on the project.	Partially
8. Impact of the Senate Bill 1049 information technology project on routine agency operations.	Not met
9. Any exceptions from administrative rules, policies or procedures, or statutes granted to PERS by DAS.	Met
10. Other information that helps inform the Legislature on the status of the project or issues that have arisen as the result of the project.	Partially

LFO has identified several incomplete responses to the ten key legislative expectations from the budget note for HB 5032. A brief discussion of these deficiencies follows:

<u>Requirement #5</u> above requests that an update on project scope, schedule, budget, and total cost of ownership be provided. The OSCIO/CFO response does not mention that while the overall high-level scope of the project has not changed, the actual detailed scope, including the requirements upon which it is based is still not clear (the recent initial QA report supports this concern). While the response does address what was originally budgeted for the overall effort and sub-projects, it does not provide any update as to what the estimated costs of these projects will be based upon what is currently now known about the level of effort for each of these projects. The agency has provided several revised high-level schedules and estimates for one or more of these projects, and it is still not clear to LFO as to the validity of these schedules (and related costs), nor what the actual costs of all of the efforts related to SB 1049 will be. In addition, while total cost of ownership is the responsibility of

PERS to establish, after 8-9 months of effort on the SB 1049 effort, OSCIO/DAS/CFO should be able to provide to the Legislature what PERS thinks these costs will be.

Requirement #6 above requires DAS and OSCIO to identify the costs associated with one-time versus permanent solutions. This information was not provided by in the DAS/OSCIO letter dated January 17, 2020. However, PERS did provide this information in their report to the JLCIMT, and stated that there would be no cost impacts (i.e. throw-aways), as the temporary solutions would become part of the permanent ones.

Requirement #7 above requires DAS and OSCIO to make sure that independent quality assurance reporting is in place for SB 1049 implementation work. While the quality assurance vendor is now on board, they didn't come on board until December 16, 2019, too late to complete important quality control reviews of key Stage Gate 2 and 3 documents (i.e. business cases, charters, requirements, scope statements, project schedules, estimates, etc.). As a result, their recent initial risk assessment was based on only their first three weeks or so onsite, and could not be expected to be as thorough or complete as it might have been, if they were given more time. The OSCIO/DAS report states "the timing of the iQMS engagement is appropriate for a program of this type and complexity." For a variety of reasons, LFO feels that the quality assurance vendor should have been on board much earlier to allow the vendor to evaluate key project deliverables and to assess project risks earlier on this highly complex and time-constrained set of projects. PERS' explanation for the delay in acquiring the quality assurance (QA), was that it was due to their and DAS Procurement's decision, to initially focus on acquiring project management and development resources, and then shift to the independent quality management services (iQMS) needs of the SB 1049 effort.

Requirement #8 above requires OSCIO/DAS to address any impacts of SB 1049 information technology project on routine agency operations. This information was not provided in the DAS/OSCIO letter dated January 17, 2020. However, it was provided by PERS in its parallel report on the SB 5032 budget note.

Requirement #10 above requires OSCIO/DAS to provide other information that helps inform the Legislature on the status of the project or issues that have risen as the result of the project. While the OSCIO/DAS letter dated January 17, 2020 does address impacts to employer rates, it does not address (or point to other sources for) a variety of additional key impacts, issues, and risks that have resulted from the initiation of the SB 1049 effort. These impacts include such things as the acquisition of additional offsite work space and equipment for the project team, impacts to the operational services, and impacts to PERS' current workload, including in-progress projects such as the implementation of disaster recovery and business continuity programs, a security program, a data center transfer effort, a warm-site implementation effort, and long-term modernization efforts. Again, PERS did address many of these issues in its parallel report on the SB 5032 budget note.

It is important to note that in addition to their specific responses related to the budget note requirements, DAS, OSCIO, and CFO also identified several key observations related to the SB 1049 effort:

1. "Realistically, PERS has been behind schedule from the start." (page 2)
2. "From the very beginning of the SB 1049 implementation, the estimated level of effort has exceeded the time available for the work." (page 2)

3. "Scope of work required under the SB 1049 mandate has remained stable throughout the project timeframe." (page 2)
4. "It is possible that the mandated timeframes for SB 1049 functionality may need to be extended." (page 3)

<u>OSCIO SB 1049 Stage Gate Review Progress</u>

The OSCIO developed chart below provides an overview of the Stage Gate Review Process that is being used to help provide oversight for the PERS SB 1049 related program and projects.
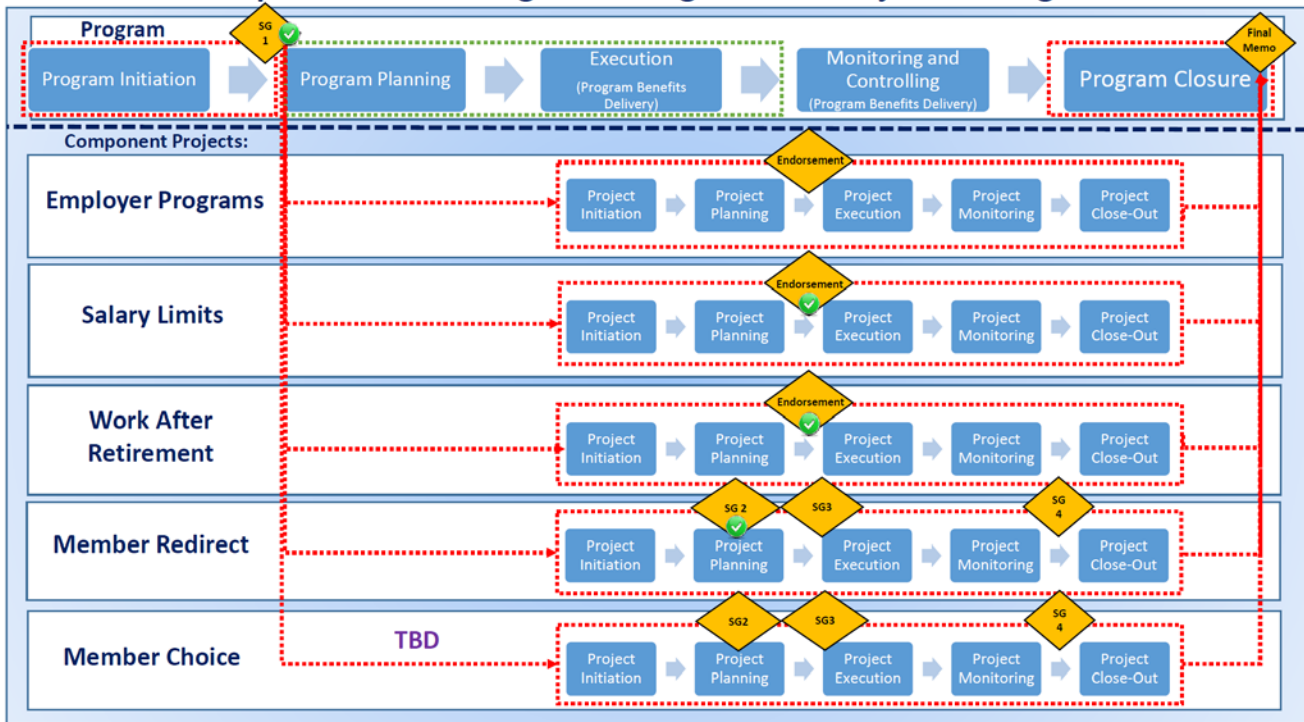
This stage gate review process is based on the oversight "umbrella" concept that OSCIO originally created to provide oversight on the Oregon Department of Transportation's (ODOT) DMV Services Transformation Program (STP). This ODOT effort also included multiple projects within the overall STP implementation effort. The goal of this stage gate oversight model is to minimize the unnecessary creation of artifacts that accompany a group of related IT investments/projects (recognizing that there are often interdependencies between and among the projects that a program approach will more effectively and efficiently document).

The Salary Limit and Work After Retirement sub-projects were deemed to be non-Stage Gate, and have already received the OSCIO endorsement to move into the execution phase (equivalent of Stage Gate #3 endorsement) of the SB 1049 effort. The diagram above also shows that the Member Redirect Project was deemed by OSCIO as needing to go through the Stage Gate Review process, and currently has received a Stage Gate #2 endorsement. In addition, the diagram shows that the OSCIO anticipates that the Employer Programs Project will be non-Stage Gate, and that the Member Choice Project may need to go through the Stage Gate Review process.

<u>SB 1049 - Quality Assurance Program Risk Assessment Report - Initial (January 29, 2020)</u>

The independent quality assurance (QA) vendor came on board on December 16, 2019 and had approximately three weeks to familiarize itself with PERS's SB 1049 related efforts prior to producing its initial risk assessment analysis. Their report was reviewed and accepted as-is by PERS executive management. The report identified the following project strengths:

1. Executive Commitment (i.e. comprehensive executive sponsorship);
2. Program Dedication (dedicated program and project teams);
3. External Collaboration (transparency and improved working relations within PERS and external partners); and
4. Creative Solutioning (i.e. minimal viable product (MVP) - aka minimal temporary solution strategy - to achieve aggressive legislatively-mandated deadlines).

The report identified the following four key foundational risk areas for immediate focus:

1. <u>Future State Vision</u> - lack of comprehensive vision and understanding of what needs to be accomplished to meet SB 1049 - i.e., business requirements, technical requirements, business process changes/impacts, stakeholder expectations, etc.
2. <u>Program Schedule</u> - no comprehensive program schedule in place, making it difficult to track overall progress towards critical milestones and cross-project dependencies.
3. <u>Project Management Discipline</u> - there is a lack of required project management discipline for a program of this complexity - i.e., adherence to standard project management artifacts, Organizational Change Management (OCM), resource management, etc.
4. <u>Organizational Structure</u> - i.e., the program execution team, as structured, lacks nimbleness and clarity in roles and responsibilities leading to inefficiencies in Program execution.

The QA vendor's Risk Assessment Scorecard identified the overall risk rating of 31 specific measures as low (based upon their decision to equally weight risk categories). This assessment identified four risk categories as high in risk, twelve risk categories as medium in risk, and fifteen as low in risk. The high risk categories included:

1. <u>Project scope</u> - (i.e., full scope of change and dependencies are not defined, the use of an incremental development approach will present challenges in scope development and management, the PERS definition of MVP (i.e. minimal temporary solution strategy) does not meet the Gartner definition of the term, the existence of undocumented resource contentions, and the use of limited duration staff);

2. <u>Project schedule</u> - (i.e., aggressive schedule from the start and ramp-up has been challenging, confusing for project team members, project teams and schedules are being developed and managed independently despite reliance on shared resources, not all project interdependencies are well defined, and project schedules are duration based and do not include the level of effort by resources);

3. <u>Business Process & Requirements</u> - (i.e., lack of a comprehensive, consolidated list of new and changed business processes, lack of a unified collective understanding of how the vision and

scope of each project will translate to requirements, and long extended requirement definition timelines); and

4. <u>Organizational Management</u> - (i.e., the lack of a clear vision or path on how OCM is to be integrated into the final solution, PERS's leadership is underestimating OCM's ability to help improve project outcomes, and organizational resistance is not documented nor fully understood).

The initial QA risk assessment also identified the following key summary recommendations:

1. Develop a master program schedule;
2. Develop a detailed resource management plan;
3. Define the full scope of SB 1049 changes;
4. Document and communicate decision-making owners (i.e., RACI matrix);
5. Identify and address technical debt;
6. Elevate OCM requirements;
7. Identify and document new and changed business processes; and
8. Ongoing engagement with external stakeholders.

PERS accepted the QA vendor's initial risk assessment "as-is" with no changes or comments. LFO has not seen an action plan for dealing with the identified risks. As the QA vendor did not come on board until December 16, 2019, no quality control reviews of any SB 1049 Project Management Body of Knowledge (PMBOK) or systems development lifecycle (SDLC) artifacts have been developed.

<center>LFO Identified Risks & Concerns</center>

Since August 2019, LFO has continued its legislative responsibilities related to overseeing the SB 1049 work efforts. OSCIO has taken the lead oversight responsibility for the effort, and has worked closely with PERS in the initial planning efforts for the overall SB 1049 work efforts and the related five projects that have been identified by PERS to address the legislative required directives by the desired dates. LFO has participated in monthly status and progress meetings jointly with PERS and OSCIO. LFO has also participated in separate monthly follow-up oversight-focused meetings with OSCIO.

The following summary of key high-level findings related to the current status and progress to date of SB 1049 were extracted from the PERS's monthly program and individual project status reports, OSCIO's monthly status reports, and the quality assurance vendor's initial risk assessment (January 29, 2020):

1. <u>PERS Key Strategies</u> - during the 2019 legislative session, PERS was directed to develop and implement a series of five PERS reforms to its business processes. The Legislature provided the delivery dates that it wanted for each of the reforms. During the 2019 legislative session, PERS made their best estimates for completing the work in the timeframes specified by the Legislature. Agencies typically have several options for going forward with legislatively-requested major information technology projects, with very tight deadlines. The first option is to review and analyze the scope of the requested work in more detail, determine its feasibility, and come back to the Legislature with a detailed plan on what is actually possible

(now that the scope, schedule, and budget requirements are better defined). Due to the critical nature of the Legislature's request related to SB 1049, PERS did not feel that it had this option. As such, recognizing that it could not meet all of the tight deadlines that the Legislature had requested, PERS chose a second option that included developing a plan to meet the Legislature's expectations, initially with temporary solutions, each to be followed up with a permanent future solution.

During the fall 2019 timeframe, PERS formulated this strategy and began its implementation. The strategy basically called for developing temporary solutions to meet each of the five legislative deadlines, to be followed up later with a permanent, complete, automated solution. PERS also has chosen to utilize an (Agile) project management methodology to go along with its iterative system development lifecycle (SDLC), allowing for the development and implementation of incremental capabilities for each of the five PERS reform projects.

While there are benefits to this incremental "temporary first, then permanent solution" approach, there are also many drawbacks: a) possibly throwing-away some, or all, of the temporary solutions (often manual, or partially automated); b) forcing the five projects to be executed in parallel (requiring the sharing of critical resources); c) possible higher costs; d) possible "soft/moving" implementation dates (schedule slippages); and e) challenges in developing and iteratively integrating development workpackets into PERS' technical and operational environments (ORION and jClarety).

2. Overall Magnitude of the SB 1049 Effort - despite the time that has elapsed since the 2019 legislative session, and the insights that have been provided from the Stage Gate #1, #2, and #3 planning work that PERS and OSCIO have completed over the past 7-8 months, the true magnitude of the SB 1049 effort is still not fully defined. While PERS has developed a high-level roadmap to try and show the basic timing of each of the five SB 1049 projects (both temporary and permanent solutions), the initial QA risk assessment clearly indicates considerable concerns about the scope of the program and projects, the completeness and quality of their underlying requirements, the lack of quality "level of effort" estimates for the work to be done, the accuracy of initial one-time and ongoing costs for all program components, and ultimately, the likelihood of successfully completing all elements on the recently developed roadmap in a timely and cost-effective manner.

While PERS has attempted to develop a clearer picture of each reform effort via the development of project charters, basic scope statements, high-level detailed requirements, work packets, project schedules, etc., neither the quality assurance vendor nor LFO feel that this key foundational information (i.e. scope, costs, schedules, resources, and risks) is solid. The bottom-line is LFO does not feel that the program or projects are at the -/+10% accuracy level required for Stage Gate #3 OSCIO endorsement. The total project costs, ongoing maintenance costs, and ongoing operational costs are simply not clearly defined (with supporting evidence) anywhere, including in the various business cases that have been developed. Neither the agency, OSCIO, CFO, LFO, or DAS has sufficient information to provide a clear picture of the total cost of ownership related to SB1049. There are simply too many unknowns.

3. <u>Schedule and Budget Validity</u> - LFO believes that both PERS's roadmap schedule and initial project budgets are useful for providing a high-level look at what PERS is trying to accomplish, and in what general timeframes each PERS reform will be completed. However, because detailed quality reviewed overall and detailed baseline project scope(s) and requirements documents, work breakdown structure diagrams, and detailed level of efforts estimates, are not available, LFO and the QA vendor do not feel that there is a solid basis for budget estimates or for a baseline integrated master project schedule. In addition, PERS's decision to utilize an iterative incremental approach for system development and implementation, further complicates establishing a solid overall program and project scope statement, an integrated project schedule, quality one-time and ongoing costs, and resource plans.

4. <u>Schedule Challenges</u> - PERS has provided estimated completion dates for the permanent solutions for each of the five SB 1049 reform efforts. LFO believes that it is likely that these dates will slip even further based on:

   a. the quality assurance vendor's inability to find a robust integrated baselined project schedule, and a foundational detailed scope statement (based upon a solid quality control reviewed set of requirements and associated requirements traceability matrix);
   b. the complexity of the PERS business processes related to the five legislatively mandated reforms;
   c. the strong PERS desire to make sure that the five reform efforts do not impact PERS's ability to properly perform its key operational business processes;
   d. the potential impacts of the pending lawsuit related to the reforms;
   e. the impacts of any future legislative changes to the PERS business and technical environment;
   f. the many challenges and risks identified in the initial quality assurance risk assessment;
   g. the challenges that PERS faces related to the acquisition and retention of qualified resources;
   h. the challenges in balancing operational and development resources across multiple projects with a highly restricted internal resource pool of subject matter experts;
   i. the volume of work across multiple projects being done in parallel, with a limited resource pool, and insufficiently developed baseline artifacts such as requirements, scope statements, schedules, budgets, resource plans, and risk analyses. Key PMBOK work is being done in parallel with actual design and development work;
   j. relationships between ORION, jClarety, and each of the five reform efforts are not clearly known and LFO hasn't seen clear evidence that it is fully understood. There is little evidence of a solid business system design or technical system design showing how the five new system components fit with existing legacy application systems or one another;
   k. PERS's has limited experience in executing simultaneous complex application development efforts using an Agile project management methodology, utilizing an iterative system development lifecycle, with incremental application functions/service deliveries; and
   l. the challenges related to significantly modifying and enhancing PERS' highly siloed business, technical, application, and data architectures, which need significant modernization to deal with long-standing technical debt deficiencies.

5. <u>Financial Management and Accountability</u> - It is not clear how valid PERS' original estimates to the Legislature for funding for SB 1049 were. It is not possible for OSCIO, LFO, or independent QA to validate initial estimates (level of effort or financial) for the program and projects until a more solid set of detailed baseline scope statements (program and project), requirements, and associated work breakdown structure charts are developed. The finalized baseline scope, schedule, budget, resource plan, and risk analysis should be based entirely upon this foundational analysis work, which is not complete at a detailed and integrated level at this time. The program and project estimates (cost, schedule, resources) are not at a solid -/+ 10% accuracy level, which is normally required for Stage Gate #3 endorsement.

   In addition to the challenges related to developing solid budget estimates, the financial planning and expenditure tracking mechanisms that are currently in place, make it very difficult to accurately track project planned versus actual expenditures. Over the first seven months of the SB 1049 efforts, PERS has only spent $936,681 to date of its total $39 million legislatively approved budget. This expenditure rate is very low for a project of this size that has been in progress for at least seven months. It is impossible to tell if the program and projects are spending according to plan, as expenditure plans by iteration, activities, workpacket, phase, or calendar periods (i.e. monthly) are not in place. Variance reporting is impossible.

6. <u>Resource Management</u>- Project technical and business resource management is a major challenge for PERS in trying to simultaneously work on five separate highly complex IT projects, while not impacting PERS' day-to-day operational responsibilities. It was LFO's initial understanding that PERS was sharing its subjective matter experts (SME's) and technical operational resources between the SB 1049 projects and their normal operational work. However, PERS has recently advised LFO that the SME's are being dedicated only to the SB 1049 effort (thereby not being used as interruptible resources). Historically, the sharing of subject matter experts and technical operational support staff between projects and operational business units, has traditionally not been an industry best practice.

   While PERS' effort to minimize the impacts of the use of interruptible resources by dedicating the SME's to the SB 1049 effort makes good sense, it is not always possible to fully insulate SME's or operational support staff when particularly problematic major system problems occur. When major production issues arise, these key resources often have to be taken off the project to deal with higher priority operational issues. This is particularly true, if they were backfilled with individuals who do not have significant experience in the PERS production and operational environments.

   And finally, the hiring and retention of scarce information technology technical resources will also prove to be problematic for PERS. Given the significant budget that PERS has been given, LFO is concerned that PERS is not taking advantage of its significant financial resources to more aggressively deal with its technical and business resource acquisition challenges. PERS' position is that they have, and are doing everything they can to work with DAS Procurement,

to acquire technical and SME resources on a timely basis. The fact that 21 vacancies still exist, clearly shows the challenges of acquiring and retaining the needed SB 1049 resources.

7. Leadership Resources - LFO has been concerned as early as August 2019 about PERS's need to acquire highly experienced external program and project management leadership to help lead and direct the overall SB 1049 implementation effort. This concern has also been identified by OSCIO oversight staff and the QA vendor. PERS does not have sufficient internal program/project management resources that have significant experience with efforts that require the simultaneous execution of a portfolio of complex projects. To help address this problem, PERS has hired several additional resources to help address their project manager deficiency. That said, they still have limited internal resources that have the experience needed to provide the substantial skills required to direct, manage, and coordinate the portfolio of projects that make up the SB 1049 effort. Ideally, a firm that provides a project management office (PMO) capability would be retained to provide access to highly qualified system integration, program director, and project manager resources. LFO feels that some of the challenges that the project is facing today, and the limited progress that has been made in meeting legislatively mandated deadlines, can be at least partially attributed to the lack of an external, full-time highly experienced program/project director (i.e. a systems integrator).

    PERS' position on this issue, is that despite strong efforts to acquire highly experienced program and project managers, they have encountered numerous challenges due to the lack of availability of these resources in the Portland area. PERS also recently notified LFO that it is currently working with DAS Procurement to bring in additional Program Management resources.

8. Quality Assurance and Risk Level - The quality assurance vendor's initial risk assessment assigned an overall "low" risk level to the project, despite identifying at least four key risk categories (i.e. schedule, scope and requirements, business processes, and organizational change management) with a high risk level. The assessment included 31 risk categories (4 high in risk, 12 medium in risk, and 15 low in risk) that all were equally weighted. LFO feels that the risk categories should not have been weighted equally, as some categories such as scope, requirements, schedule, budget, resources, etc. are far more critical than many of the remaining 27 risk categories. In particular, any program or project that is "red" on scope, schedule, or budget, is usually automatically viewed as "red" in overall risk. In addition, because the QA vendor did not come on board until December 16, 2019, no quality reviews have been conducted on any PERS SB 1049 foundational project management or systems development lifecycle artifacts. Validation of the quality of critical program and project artifacts will clarify the validity and severity of many of the risks identified in the initial risk assessment finalized on January 29, 2020.

9. Temporary and Permanent Solutions Delivery Dates - Based upon PERS' most recent status reports and its SB 1049 - Implementation Roadmap, it is highly unlikely that PERS will be able to provide a permanent complete automated solution for all of the five major PERS reforms (i.e. Work After Retirement - 01/01/20, Salary Limit - 01/01/20, Employer Programs - 07/01/19, Member Redirect - 07/01/20, and Member Choice - 01/01/21) by the legislatively required dates. However, LFO does believe that PERS should be able to develop and

implement at least temporary partial work-around solutions (some of which may contain retroactive processing requirements) by the five legislatively required deadlines.

10. <u>PERS Reform Backouts</u> - LFO feels that a considerable amount of PERS' work on two of the five reforms, may have to be backed out if pending lawsuits are successful. It is not clear to oversight what precautions PERS is taking to allow it to quickly undo any SB 1049 related system and business changes that might result from one or more of the pending lawsuits.

11. <u>OSCIO Oversight and Stage Gate Review</u> - a significant investment in oversight staff has been provided to PERS to help make sure that the SB 1049 got off to a solid start and that the program and projects utilized appropriate stage gate processes, standards, and guidelines. Whenever possible, OSCIO has tried to apply stage gate discipline in a manner that allows these highly date-driven efforts to proceed in a timely manner. In general, LFO feels that this flexibility in determining what is subject to the stage gate process, and what is exempt, has benefited the SB 1049 effort.

    That said, LFO has two key concerns related to oversight and the stage gate process. The first is related to the use of conditional endorsements and their potential to add additional risks to the project. The second concern is OSCIO's recent decision to replace the current highly PERS-experienced oversight (i.e., PERS' business, IT environment, PMBOK, and stage gate), and the ongoing need for OSCIO to continue to provide a consistent day-to-day oversight presence within the SB 1049 effort.

12. <u>Status Reporting and Communications</u> - the modified joint OSCIO/LFO oversight model that is being used on the SB 1049 effort is not consistently providing LFO with the normal timely access to project status information or key deliverables. The agency monthly status reports have not been as complete as they need to be (although significant improvements have been made recently). Only a single QA risk assessment has been completed and no quality control reviews have been conducted on key project management and SDLC artifacts. Few, if any, key project artifacts (other than the monthly SB 1049 status reports) are shared directly with LFO, and no notifications are provided when key artifacts are placed in the OSCIO's project portfolio management system. Similar projects managed by other agencies are much more proactive in providing LFO directly with key project artifacts as they are drafted and finalized, and many provide LFO with comprehensive CD's or DVD's on a monthly basis to make sure that LFO is kept in the loop on project progress. The sharing of critical project artifacts is even more critical on the SB 1049 effort due to the modified project oversight model that is being used, which provides LFO with less direct interaction and communications with PERS.

<div align="center">LFO Detailed Recommendations</div>

LFO's specific detailed recommendations related to the findings above, are generally consistent with those provided to PERS and OSCIO from the initial QA risk assessment. Per the approved oversight model for SB 1049, these LFO detailed recommendations have been transmitted to the Office of the Chief Information Officer and Chief Financial Office in the Department of Administrative Services.

B. LFO Recommendations

LFO recommends acknowledgement of the receipt of the Public Employees Retirement System's report related to the budget note for HB 5032 (2019) and progress on the implementation efforts for SB 1049. LFO also recommends acknowledgement of the receipt of Department of Administration's, Office of the State Chief Information Officer's, and Chief Financial Office's report on progress related to the budget note for HB 5032 (2019).

- Motion on the LFO recommendations

C. Final IT Subcommittee Action

Acknowledge receipt of the reports.