CURTIS E. MEIER, JR.
WYOMING STATE TREASURER

DAWN A. WILLIAMS, DEPUTY STATE TREASURER

MEMORANDUM

TO: Members, Select Committee on Capital Financing & Investments
Members, Joint Appropriations Committee

FROM: Dawn Williams, Deputy State Treasurer

DATE: July 21, 2022

SUBJECT: Workflow Automation Report, July 2022
LSO Report ID 1481

Pursuant to 2022 Wyoming Session Laws, Chapter 51, Section 2, Section 004, Footnote 9, I provide the following information:

(i) *The status of and any expenditure regarding project plan milestones and deliverables achieved or missed for accounting workflow automation.*

For the last two years, the State Treasurer's Office has been aggressively pursuing modernization and upgrade of its investment accounting software. In December 2021 we contracted with Broadridge to begin the process. We aligned our transition to the new system to coincide with the beginning of the new fiscal year and biennium, July 1, 2022. The upgrade is occurring in three phases. (Attachment A) In Phase I we established a new chart of accounts, manager and custodial data feeds and generally laid the groundwork for the new system. During Phase II we will fine-tune data aggregation and reconciliation processes, create the directives module and refine the distributions process. We anticipate the third phase to include upgrades and services that we become aware of during implementation of Phases I and II that will bring value to the overall success of the project.

Phase 1 of the Broadridge/QED Workflow Initiative project had a successful go-live this month. There are a few tasks to complete in this phase before we will begin the next phase of this initiative. (Attachment B)

- The requirements gathering was completed for all process improvements within Phase 1, and we finished the review and approval of the associated Business Requirements documents. We are testing each process improvement as the vendor's development work is complete. There are three sets of process improvements that are not yet ready, and we are working with the vendor to complete them prior to the required dates in the new system (such as the first month end).
- After successful parallel testing and the end of the fiscal year, the go-live conversion began on July 1 and the conversion verification started on July 11. We went live with the new system on July 13 for the Treasurer's Office. The WYOSTAR portal went live on July 18 for participants.

Expenditures to date: $0

(ii) *The status of and any expenditure regarding project plan milestones and deliverables achieved or missed for the order management system (OMS).*

On February 1, 2022 the State Treasurer's Office entered into a contract with Bloomberg Finance to provide an order management system (OMS). An OMS is a software system that facilitates and manages the execution of trade orders. This system will interface with the accounting software. We have established our go-live date as August 15, 2022, which allowed us to pace the rollouts of the accounting system and the OMS. The OMS implementation project is progressing well and is on schedule. (Attachment C)

- The integrated testing of the setup and the new processes has been successful, and the training is now complete. There are a few more testing tasks which will be completed during the unit acceptance testing onsite scheduled for July 25 through August 4.
- This week we are preparing the databases for the unit acceptance testing
- After the unit acceptance testing, we will clear and refresh the data in the system and prepare for parallel testing and go-live.

Expenditures to date: $257,186.88

(iii) *The status of and any expenditure regarding project plan milestones and deliverables achieved or missed for contractual accounting assistance.*

At the end of January 2022, the Office retained KPMG to assist with reconciling investment accounts, and additionally to provide observations and recommendations for improving our processes and procedures related to investment accounting. KPMG spent just over three months learning our business to meaningfully assess our needs and began to complete manager reconciliations in mid-May. The team has prepared all of the reconciliations that are now in our hands for review. (Attachment D) We have retained KPMG to finish this project, as well as to assist us with the statewide external audit.

Expenditures to date: $273,166.25

Cc: Treasurer Meier
Investment Funds Committee

EXECUTION COPY

Statement of Work No. 003 (this "***SOW No. 003***")
to the
Software Maintenance Agreement
between
QED Financial Systems, Inc. and the State of Wyoming, State Treasurer's Office

EXHIBIT B

Scope of Work

Group #	Initiatives	Recommendation	Responsible	Estimate of Effort	Hourly Rate	Estimated Cost
Phase I						
0	Establish New Servers and Upgrade BIA	Establish and verify QA, UAT, and Prod instances of the Hydrogen release of BIA. Also, miscellaneous hours not directly attributable to a specific recommendation.	Business Analysts Development Service Delivery Network Team Project Management Subtotal	102 hrs. 52 hrs. 63 hrs. 36 hrs. 63 hrs. 316 hrs.	$ 200 /hr.	$63,200
1a	Data Aggregation and Reconciliation	Establish data feeds for 2 Custodians Utilize the BIA data aggregation to upload transaction level manager data into the BIA Application.	Business Analysts Development Service Delivery Network Team Project Management Subtotal	33 hrs. 11 hrs. 10 hrs. 0 hrs. 13 hrs. 67 hrs.	$ 200 /hr.	$13,400 or $26,800
3	Fund Structure and Data Conversion	Fund Data Conversation Data conversion and Restructure the funds for easier tracking of data and report writing capabilities.	Business Analysts Development Service Delivery Network Team Project Management Subtotal	235 hrs. 76 hrs. 12 hrs. 0 hrs. 80 hrs. 403 hrs.	$ 200 /hr.	$80,600
6	BIA General Ledger	Utilize the General ledger to create a trial balance that can be used for reconciliations, distributions, and reporting.	Business Analysts Development Service Delivery Network Team Project Management Subtotal	172 hrs. 8 hrs. 8 hrs. 0 hrs. 47 hrs. 235 hrs.	$ 200 /hr.	$47,000
7	Quantum Business Intelligence Reporting	Utilize Quantum Business Intelligence (QBI) reporting to replace the manual preparation of most Excel worksheets.	Business Analysts Development Service Delivery Network Team Project Management Subtotal	493 hrs. 660 hrs. 18 hrs. 0 hrs. 292 hrs. 1,463 hrs.	$ 200 /hr.	$292,600
Phase I	Sub-Total		Business Analysts Development Service Delivery Network Team Project Management Subtotal	1,068 hrs. 818 hrs. 121 hrs. 36 hrs. 508 hrs. 2,551 hrs.	$ 200 /hr.	$510,200
Phase II						
1a	Data Aggregation and Reconciliation	Establish data feeds for 67 Managers Utilize the BIA data aggregation to upload transaction level manager data into the BIA Application.	Business Analysts Development Service Delivery Network Team Project Management Subtotal	33 hrs. 11 hrs. 10 hrs. 0 hrs. 13 hrs. 67 hrs.	$ 200 /hr.	$13,400 or $897,800
2	Data Aggregation and Reconciliation	Configure Pair-off Tool Utilize the BIA reconciliation module to compare position level data in the BIA database against the position level data received directly from a Custodial data feed.	Business Analysts Development Service Delivery Network Team Project Management Subtotal	85 hrs. 0 hrs. 0 hrs. 0 hrs. 21 hrs. 106 hrs.	$ 200 /hr.	$21,200
4a	Directives	Build a custom version of iPAS for the WYSTO Investment team to enter Directives Automate processing of Directives by file upload or using a reconfigured iPAS.	Business Analysts Development Service Delivery Network Team Project Management Subtotal	81 hrs. 460 hrs. 76 hrs. 0 hrs. 154 hrs. 771 hrs.	$ 200 /hr.	$154,200
5	Distributions Redirections	Enhance the current process of creating distributions, redirections, and In-kind JV interface.	Business Analysts Development Service Delivery Network Team Project Management Subtotal	80 hrs. 189 hrs. 2 hrs. 0 hrs. 67 hrs. 338 hrs.	$ 200 /hr.	$67,600
Phase II	Sub-Total		Business Analysts Development Service Delivery Network Team Project Management Subtotal	*2,457 hrs.* *1,386 hrs.* *748 hrs.* *0 hrs.* *1,113 hrs.* *5,704 hrs.*	$ 200 /hr.	*$ 1,140,800*
Total			Business Analysts Development Service Delivery Network Team Project Management Subtotal	*3,525 hrs.* *2,204 hrs.* *869 hrs.* *36 hrs.* *1,621 hrs.* *8,255 hrs.*	$ 200 /hr.	*$ 1,651,000*

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ATTACHMENT B

Broadridge/QED Workflow Initiative Project - Phase 1

Description	Responsible	Start Date	End Date	Status	% Complete	Notes
Prepare Requests and Deployment Plans						
Prepare requests, deployment plans for all zones	Broadridge	11/29/2021	01/04/2022	Complete	100%	
Hydrogen QA Zone						
Establish Hydrogen QA Zone, Upgrade Q2 to Hydrogen	Broadridge	12/21/2021	01/11/2022	Complete	100%	
Establish criteria & plan for QA & UAT testing of Q2 to H2	WYSTO	12/15/2021	01/11/2022	Complete	100%	
Create test cases for QA & UAT testing of Q2 to H2 Upgrade	WYSTO	01/04/2022	01/11/2022	Complete	100%	
QA testing of Q2 to H2 upgrade (using WYSTO criteria)	Broadridge	01/12/2022	01/18/2022	Complete	100%	
Update QA Deployment Plan for UAT Env	Broadridge	01/19/2022	01/20/2022	Complete	100%	
iPAS Hydrogen QA Zone						
Establish iPAS in QA Zone, Upgrade to iPAS Hydrogen	Broadridge	12/21/2021	01/20/2022	Complete	100%	
Update QA Zone for fund data expansion/conversion	Broadridge	02/01/2022	03/02/2022	Complete	100%	
QA testing of iPAS H2 upgrade with WYSTO criteria	Broadridge	02/16/2022	03/07/2022	Complete	100%	
Update iPAS Deployment Plan for iPAS UAT Env	Broadridge	03/04/2022	03/07/2022	Complete	100%	
Hydrogen UAT Zone						
Establish Hydrogen UAT Zone, Load QA into UAT Zone	Broadridge	12/21/2021	01/28/2022	Complete	100%	
Provide list of UAT users	WYSTO	12/21/2021	01/04/2022	Complete	100%	
Firewall updates for UAT zone - Provide IP addresses	Broadridge	01/21/2022	01/28/2022	Complete	100%	
Firewall updates for UAT zone -Updates firewall	WYSTO	01/21/2022	01/28/2022	Complete	100%	
Update UAT Deployment Plan for Prod Env	Broadridge	01/31/2022	02/01/2022	Complete	100%	
Training on Appl. Changes associated with H2 Release	WYSTO, Broadridge	01/31/2022	01/31/2022	Complete	100%	
Hydrogen Converted Data Validation in UAT Zone	WYSTO	01/31/2022	01/31/2022	Complete	100%	
Hydrogen Appl. testing with WYSTO plan in UAT Zone	WYSTO	02/01/2022	02/14/2022	Complete	100%	
Support UAT Testing of Hydrogen Upgrade	Broadridge	01/31/2022	02/14/2022	Complete	100%	
Identify Q2 Prod data to carry forward into H2 Prod Env	WYSTO, Broadridge	02/15/2022	03/02/2022	Complete	100%	
Approval of Hydrogen Upgrade	WYSTO	03/03/2022	03/04/2022	Complete	100%	
iPAS Hydrogen UAT Zone						
Establish iPAS in UAT Zone, Upgrade to iPAS Hydrogen	Broadridge	03/07/2022	03/11/2022	Complete	100%	
Create plan & test cases for QA & UAT of iPAS H2 Upgrade	WYSTO	12/15/2021	01/31/2022	Complete	100%	
Update iPAS UAT Deployment Plan for iPAS Prod Env	Broadridge	03/16/2022	03/17/2022	Complete	100%	
Hydogen iPAS Converted Data Validation in UAT Zone	WYSTO	03/14/2022	04/11/2022	Complete	100%	
Hydrogen iPAS testing with WYSTO plan in UAT Zone	WYSTO	04/11/2022	04/25/2022	Complete	100%	
Support UAT Testing of iPAS Hydrogen Upgrade	Broadridge	04/11/2022	04/25/2022	Complete	100%	
Approval of Hydrogen iPAS Upgrade	WYSTO	04/25/2022	04/25/2022	Complete	100%	
Fund Data Conversion						
Data upload, restructuring funds, QA test of data/funds	Broadridge	01/18/2022	02/23/2022	Complete	100%	
Tracking of Q2 restructured data for Parallel catchup	WYSTO	01/18/2022	05/05/2022	Complete	100%	
Create Business Req. Document for Misc. Development	Broadridge	02/24/2022	03/02/2022	Complete	100%	
Establish success criteria for QA & UAT testing	WYSTO	02/24/2022	05/13/2022	Complete	100%	
Create test plan & test cases for QA & UAT testing	WYSTO	02/24/2022	05/13/2022	Complete	100%	
Client approval of Business Req. Document	WYSTO	02/24/2022	05/13/2022	Complete	100%	
Coding, QA & UAT Testing for Fund Data Conversion	Broadridge	03/03/2022	05/13/2022	Complete	100%	
Training, Including changes to Directives upload sheet.	WYSTO, Broadridge	04/18/2022	05/13/2022	Complete	100%	
Client UAT Testing for Fund Data Conversion	WYSTO	04/21/2022	05/13/2022	Complete	100%	
Approval of Fund Data Conversation	WYSTO	05/13/2022	05/13/2022	Complete	100%	
Migration of Data and Misc Development to Prod Zone	Broadridge	05/13/2022	05/20/2022	Complete	100%	

Broadridge/QED Workflow Initiative Project - Phase 1

Description	Responsible	Start Date	End Date	Status	% Complete	Notes
Migration of restructured UAT data for Parallel testing	Broadridge	05/13/2022	05/20/2022	Complete	100%	
Tracking of Q2 restructured data for Go-Live catchup	WYSTO	05/16/2022	06/30/2022	Complete	100%	
Available Cash by Pool Report/Process - includes 2 reports (Priority #1)						
Example, approval of report layout	WYSTO	01/12/2022	01/13/2022	Complete	100%	
Creation of report layout	Broadridge	01/18/2022	01/21/2022	Complete	100%	
Gather requirements, Create Business Req. Document	WYSTO, Broadridge	03/18/2022	03/22/2022	Complete	100%	
Establish success criteria for QA & UAT testing	WYSTO	03/23/2022	05/03/2022	Complete	100%	
Create test plan & test cases for QA & UAT testing	WYSTO	03/23/2022	05/03/2022	Complete	100%	
Approve Business Requirements Doc	WYSTO	04/28/2022	05/03/2022	Complete	100%	
Development, Coding, QA testing, Move to UAT Env	Broadridge	05/03/2022	05/18/2022	Complete	100%	
UAT testing in UAT Zone	WYSTO	05/18/2022	05/24/2022	Complete	100%	
Client Approval of UAT testing	WYSTO	05/24/2022	05/24/2022	Complete	100%	
Move to Prod Env	Broadridge	05/25/2022	05/25/2022	Complete	100%	
Asset Allocation Report/Process - includes 3 reports (Priority #2)						
Example, approval of report layout	WYSTO	01/12/2022	01/13/2022	Complete	100%	
Creation of report layout	Broadridge	01/18/2022	01/21/2022	Complete	100%	
Gather requirements, Create Business Req. Document	WYSTO, Broadridge	04/01/2022	04/29/2022	Complete	100%	
Establish success criteria for QA & UAT testing	WYSTO	04/01/2022	05/04/2022	Complete	100%	
Create test plan & test cases for QA & UAT testing	WYSTO	04/02/2022	05/04/2022	Complete	100%	
Approve Business Requirements Doc	WYSTO	04/09/2022	05/13/2022	Complete	100%	
Development, Coding, QA testing, Move to UAT Env	Broadridge	05/03/2022	06/15/2022	Complete	100%	
UAT testing in UAT Zone	WYSTO	06/16/2022	06/21/2022	Late	75%	Behind schedule.
Client Approval of UAT testing	WYSTO	06/22/2022	06/22/2022	Late	0%	Vendor to provide by
Move to Prod Env	Broadridge	06/23/2022	06/23/2022	Late	0%	July month end.
VisualQED Report and Extract - includes approximately 20 reports/extracts (Priority #3)						
VisualQED report & extract requirements gathering	Broadridge	03/02/2022	03/08/2022	Complete	100%	
Example, approval of report layout	WYSTO	03/02/2022	03/08/2022	Complete	100%	
VisualQED report creation and extracts	Broadridge	03/09/2022	05/20/2022	Complete	100%	
Establish success criteria for QA & UAT testing	WYSTO	03/09/2022	05/20/2022	Complete	100%	
Create test plan & test cases for QA & UAT testing	WYSTO	03/09/2022	05/20/2022	Complete	100%	
Approve report creation and extracts	WYSTO	05/16/2022	05/20/2022	Complete	100%	
QA testing, Move to UAT Env	Broadridge	03/28/2022	05/20/2022	Complete	100%	
UAT testing in UAT Zone	WYSTO	04/06/2022	05/31/2022	Complete	100%	
Client Approval of UAT testing	WYSTO	05/16/2022	05/31/2022	Complete	100%	
Move to Prod Env	Broadridge	05/16/2022	05/31/2022	Complete	100%	
TO64 Inc/Gain/Loss Report/Process - includes 2 reports (Priority #4)						
Gather requirements, Create Business Req. Document	WYSTO, Broadridge	04/11/2022	04/13/2022	Complete	100%	
Establish success criteria for QA & UAT testing	WYSTO	04/14/2022	04/22/2022	Complete	100%	
Create test plan & test cases for QA & UAT testing	WYSTO	04/14/2022	05/03/2022	Complete	100%	
Approve Business Requirements Doc	WYSTO	04/25/2022	05/03/2022	Complete	100%	
Development, Coding, QA testing, Move to UAT Env	Broadridge	05/03/2022	05/27/2022	Late	75%	Behind schedule.
UAT testing in UAT Zone	WYSTO	05/31/2022	06/10/2022	Late	50%	Working with vendor
Client Approval of UAT testing	WYSTO	06/10/2022	06/10/2022	Late		on date required in
Move to Prod Env	Broadridge	06/10/2022	06/10/2022	Late		system.
TO64 Colorful Report/Process - includes 1 report (Priority #5)						

Broadridge/QED Workflow Initiative Project - Phase 1

Description	Responsible	Start Date	End Date	Status	% Complete	Notes
Gather requirements, Create Business Req. Document	WYSTO, Broadridge	04/13/2022	04/18/2022	Complete	100%	
Establish success criteria for QA & UAT testing	WYSTO	04/19/2022	04/26/2022	Complete	100%	
Create test plan & test cases for QA & UAT testing	WYSTO	04/19/2022	04/26/2022	Complete	100%	
Approve Business Requirements Doc	WYSTO	04/27/2022	05/13/2022	Complete	100%	
Development, Coding, QA testing, Move to UAT Env	Broadridge	05/13/2022	06/01/2022	Late	75%	Behind schedule. Working with vendor on date required in system.
UAT testing in UAT Zone	WYSTO	06/02/2022	06/10/2022	Late		
Client Approval of UAT testing	WYSTO	06/10/2022	06/10/2022	Late		
Move to Prod Env	Broadridge	06/10/2022	06/10/2022	Late		
QED Balancing Report/Process - includes 4 reports (Priority #6)						
Example, approval of report layout	WYSTO	01/12/2022	01/13/2022	Complete	100%	
Creation of report layout	Broadridge	01/18/2022	01/21/2022	Complete	100%	
Gather requirements, Create Business Req. Document	WYSTO, Broadridge	03/02/2022	05/20/2022	Complete	100%	
Establish success criteria for QA & UAT testing	WYSTO	03/07/2022	05/20/2022	Complete	100%	
Create test plan & test cases for QA & UAT testing	WYSTO	03/07/2022	05/20/2022	Complete	100%	
Approve Business Requirements Doc	WYSTO	05/20/2022	06/15/2022	Complete	100%	
Development, Coding, QA testing, Move to UAT Env	Broadridge	05/23/2022	06/15/2022	Complete	100%	
UAT testing in UAT Zone	WYSTO	06/06/2022	06/20/2022	Complete	100%	
Client Approval of UAT testing	WYSTO	06/10/2022	06/20/2022	Complete	100%	
Move to Prod Env	Broadridge	06/10/2022	06/20/2022	Complete	100%	
Hydrogen Prod Zone						
Establish PROD Zone for Hydrogen and iPAS Hydrogen	Broadridge	12/21/2021	05/16/2022	Complete	100%	
Provide list of Prod users	WYSTO	01/12/2022	01/20/2022	Complete	100%	
Firewall updates for Prod - Provides IP addresses	Broadridge	05/02/2022	05/09/2022	Complete	100%	
Firewall updates for Prod - Updates/test IP access	WYSTO	05/16/2022	05/20/2022	Complete	100%	
Update UAT Zone with Q2 carry forward data for Prod	WYSTO	05/13/2022	05/23/2022	Complete	100%	
Backup UAT data, balances forward, Load into H2 Prod	Broadridge	05/13/2022	05/23/2022	Complete	100%	
Prepare/Verify Hydrogen ready for Parallel test	Broadridge	05/20/2022	05/23/2022	Complete	100%	
Parallel Testing in Prod Zone						
Establish plan, success criteria for parallel testing	WYSTO	01/04/2022	05/06/2022	Complete	100%	
Perform parallel testing in Hydrogen & iPAS Prod	WYSTO	05/23/2022	06/30/2022	Complete	100%	
Access and remediate parallel findings	Broadridge	05/23/2022	06/30/2022	Complete	100%	
Approval of "Go Live" to the Hydrogen Prod zone	WYSTO	06/30/2022	06/30/2022	Complete	100%	
Production Go-Live						
Post June 30 to Q2 and notify BIA ready to cut-over	WYSTO	07/01/2022	07/01/2022	Complete	100%	
Create 07/01/22 Beginning Balances from Q2 Prod	Broadridge	07/01/2022	07/02/2022	Complete	100%	
Copy Parallel testing data from Prod to UAT zone	Broadridge	07/01/2022	07/05/2022	Complete	100%	
Remove Parallel Activity from Production Database	Broadridge	07/01/2022	07/05/2022	Complete	100%	
Load 07/01/22 Q2 Beginning Balances into H2 Prod	Broadridge	07/06/2022	07/10/2022	Complete	100%	
Verify Beginning Balance in Hydrogen Prod Env	WYSTO	07/11/2022	07/11/2022	Complete	100%	
Certify acceptance of Hydrogen Production Env	WYSTO	07/12/2022	07/12/2022	Complete	100%	**Phase 1 went live July 13!**
Maintain Q2 Prod through WYSTO annual audit						
Maintain Q2 Prod through WYSTO annual audit	Broadridge	07/11/2022	11/30/2022	In-Progress	5%	

Broadridge/QED Workflow Initiative Project - Phase 1

Description	Responsible	Start Date	End Date	Status	% Complete	Notes
Data Aggregation and Reconciliation - Part 1 (Start in Phase 1, Finish in Phase 1.2 - Post Live)						
Authorization for Custodian accounts data feed to BIA	WYSTO	12/21/2021	01/05/2022	Complete	100%	
Data feed from Custodian accounts (setup, develop, test)	Broadridge	02/11/2022	09/30/2022	In-Progress	65%	On schedule
Data feed from Custodian accounts (verification, automation)	WYSTO	10/01/2022	12/31/2022	Future task		
General Ledger for Manager's Recon (Moved to Phase 1.2 - Post Live)						
Investment Balance Sheet Report/Process (Moved to Phase 1.2 - Post Live)						
Ownership (PSA) Report/Process (Moved to Phase 1.2 - Post Live)						

ATTACHMENT C

AIM Order Management System (OMS) Implementation

Description	Responsible	Start Date	End Date	Status	% Complete	Notes
Project Planning						
Create Project Framework	WYSTO, Bloomberg	02/07/2022	02/18/2022	Complete	100%	
Static Data Gathering	WYSTO, Bloomberg	02/14/2022	02/25/2022	Complete	100%	
Identify Resources	WYSTO, Bloomberg	02/14/2022	02/25/2022	Complete	100%	
Review Licenses	WYSTO, Bloomberg	02/14/2022	02/18/2022	Complete	100%	
Project Planning						
Database Setup	Bloomberg	02/17/2022	02/21/2022	Complete	100%	
Enable OMS database settings, modules, & AFMT bits	Bloomberg	02/22/2022	02/24/2022	Complete	100%	
Additional Infrastructure Setup	Bloomberg	02/22/2022	02/24/2022	Complete	100%	
Review Static Data	WYSTO, Bloomberg	02/23/2022	02/25/2022	Complete	100%	
Database Configuration						
Firm Structure & User Permissions (Accounts/Groups/Users)	WYSTO, Bloomberg	03/01/2022	07/13/2022	Complete	100%	
Brokers - Setup, Training, Mapping	WYSTO, Bloomberg	03/07/2022	03/08/2022	Complete	100%	
Custodians - Setup, Training, Mapping	WYSTO, Bloomberg	03/08/2022	03/11/2022	Complete	100%	
Firm Defaults - Settings, Identifier Waterfall, Durations	WYSTO, Bloomberg	03/08/2022	03/10/2022	Complete	100%	
Firm Defaults - Pricing, Valuation, Workflow by Product	WYSTO, Bloomberg	03/10/2022	03/14/2022	Complete	100%	
Firm Defaults - Note fields, Corporate Actions	WYSTO, Bloomberg	03/14/2022	03/18/2022	Complete	100%	
Firm Defaults - Transaction Costs	WYSTO, Bloomberg	03/14/2022	03/18/2022	Complete	100%	
Custom Data & Private Securities - Private Placements	WYSTO, Bloomberg	03/21/2022	03/23/2022	Complete	100%	
Custom Data & Private Securities - Custom Grouping/Sectors	WYSTO, Bloomberg	03/21/2022	03/24/2022	Complete	100%	
Custom Data & Private Securities - Index Benchmarks	WYSTO, Bloomberg	03/21/2022	03/28/2022	Complete	100%	
Position Management						
Position Upload - Prepare Initial Positions to Upload	WYSTO	03/22/2022	03/24/2022	Complete	100%	
Position Upload - Initial Position Upload	Bloomberg	03/22/2022	03/24/2022	Complete	100%	
Configuration of Position Views	WYSTO, Bloomberg	03/28/2022	04/04/2022	Complete	100%	
Configuration of Order Management Views	WYSTO, Bloomberg	04/04/2022	04/05/2022	Complete	100%	
Setup Trading Blotters	WYSTO, Bloomberg	04/05/2022	04/06/2022	Complete	100%	
Training on AIM position management tools	WYSTO, Bloomberg	04/07/2022	04/08/2022	Complete	100%	
Connectivity to Bloomberg Execution Platforms						
Broker FIX connection	Bloomberg	04/11/2022	04/15/2022	Complete	100%	
Market Axess - Kickoff	WYSTO, MA, Bloomberg	04/18/2022	04/18/2022	Complete	100%	
Market Axess - Setup & Connectivity	MA, Bloomberg	04/19/2022	04/22/2022	Complete	100%	
Market Axess - Enable Test Brokers in MA	Market Axess	04/28/2022	04/28/2022	Complete	100%	
Market Axess - Broker & Account mapping for MA in TSOX	WYSTO, Bloomberg	04/29/2022	05/02/2022	Complete	100%	
Market Axess - Enable Users for MA in TSLP	WYSTO, Bloomberg	05/03/2022	05/03/2022	Complete	100%	
Market Axess - MA Units testing	WYSTO, MA, Bloomberg	05/04/2022	05/04/2022	Complete	100%	
EMSX Workflow Training	WYSTO, Bloomberg	04/15/2022	04/18/2022	Complete	100%	
Order Management - Equity Workflows						
Single security order generation	WYSTO, Bloomberg	04/18/2022	04/18/2022	Complete	100%	
Bulk order import using OI	WYSTO, Bloomberg	04/18/2022	04/18/2022	Complete	100%	
Portfolio rebalance	WYSTO, Bloomberg	04/19/2022	04/20/2022	Complete	100%	
EMSX order execution	WYSTO, Bloomberg	04/21/2022	04/25/2022	Complete	100%	
Order Allocation	WYSTO, Bloomberg	04/26/2022	04/27/2022	Complete	100%	
Post trade correction	WYSTO, Bloomberg	04/28/2022	04/29/2022	Complete	100%	
Order Management - FI Workflows						

AIM Order Management System (OMS) Implementation

Description	Responsible	Start Date	End Date	Status	% Complete	Notes
Single security order generation	WYSTO, Bloomberg	05/02/2022	05/02/2022	Complete	100%	
Bulk order import using OI	WYSTO, Bloomberg	05/02/2022	05/02/2022	Complete	100%	
Portfolio rebalance	WYSTO, Bloomberg	05/03/2022	05/05/2022	Complete	100%	
TSOX execution - FIT, VCON, MA trading	WYSTO, Bloomberg	05/06/2022	05/13/2022	Complete	100%	
New Issue Workflow (PREL)	WYSTO, Bloomberg	05/11/2022	05/12/2022	Complete	100%	
Order Allocation	WYSTO, Bloomberg	05/12/2022	05/13/2022	Complete	100%	
Post trade correction	WYSTO, Bloomberg	05/12/2022	05/13/2022	Complete	100%	
Order Management - Money Market Workflows						
Money Market program	WYSTO, Bloomberg	05/16/2022	05/16/2022	Complete	100%	
TSOX execution - BOOM, VCON trading	WYSTO, Bloomberg	05/17/2022	05/19/2022	Complete	100%	
Order Allocation	WYSTO, Bloomberg	05/20/2022	05/20/2022	Complete	100%	
Post trade correction	WYSTO, Bloomberg	05/20/2022	05/20/2022	Complete	100%	
Cash Management						
Corporate action cashflows	WYSTO, Bloomberg	05/23/2022	05/24/2022	Complete	100%	
Cash upload & ticketing	WYSTO, Bloomberg	05/24/2022	05/24/2022	Complete	100%	
CCMS training	WYSTO, Bloomberg	05/25/2022	05/27/2022	Complete	100%	
Cash Reconciliation	WYSTO, Bloomberg	05/25/2022	05/27/2022	Complete	100%	
Reporting						
ERA reports	WYSTO, Bloomberg	06/07/2022	06/15/2022	Complete	100%	
MAV export/report	WYSTO, Bloomberg	06/07/2022	06/15/2022	Complete	100%	
Trade history report from THRS	WYSTO, Bloomberg	06/07/2022	06/15/2022	Complete	100%	
Compliance						
Pre-work - Templates, Watchlists	WYSTO, Bloomberg	02/21/2022	03/18/2022	Complete	100%	
Define Rules - Templates, Groups, Requirements	WYSTO, Bloomberg	03/14/2022	03/18/2022	Complete	100%	
Compliance Manuals & Guides, Templates, Rule Types	Bloomberg	06/03/2022	06/03/2022	Complete	100%	
Training - Compliance Workshop, Violations workflow	WYSTO, Bloomberg	06/06/2022	06/10/2022	Complete	100%	
CMGR Custom Data - Data, Issuers, Watchlists	WYSTO, Bloomberg	03/28/2022	06/10/2022	Complete	100%	
Build rules	Bloomberg	04/04/2022	04/29/2022	Complete	100%	
Test rules	WYSTO, Bloomberg	07/25/2022	08/04/2022	Future task		
Rules Sign-off	WYSTO	08/05/2022	08/05/2022	Future task		
Middle Office Configuration						
SWIFT Application	WYSTO, Bloomberg	02/01/2022	03/14/2022	Complete	100%	
Settlement Instructions - Provide Instructions	WYSTO	02/21/2022	03/11/2022	Complete	100%	
Settlement Instructions - SSI Validation	WYSTO, Bloomberg	03/14/2022	03/18/2022	Complete	100%	
Settlement Instructions - SSI Upload	WYSTO, Bloomberg	03/21/2022	03/25/2022	Complete	100%	
Settlement Instructions - SSI Workshop/Training	WYSTO, Bloomberg	05/10/2022	05/13/2022	Complete	100%	
Trade Copmlete (TC) - Setup middle office workflow	WYSTO, Bloomberg	05/10/2022	05/12/2022	Complete	100%	
Trade Copmlete (TC) - TC blotter setup	WYSTO, Bloomberg	05/10/2022	05/12/2022	Complete	100%	
Trade Matching in CTM						
Gather Broker CTM BICS & ALERT codes	WYSTO	02/21/2022	03/11/2022	Complete	100%	
CTM Setup at DTCC - ALERT setup	DTCC-CTM, WYSTO	03/14/2022	07/13/2022	Late	75%	Finish 7/25-8/04
CTM Setup at DTCC - Matching Profile & Tolerance	DTCC-CTM, WYSTO	03/14/2022	03/23/2022	Complete	100%	
CTM Setup at DTCC - Broker Matching Group	DTCC-CTM, WYSTO	03/14/2022	03/29/2022	Complete	100%	
CTM Setup at DTCC - CTM Views	DTCC-CTM, WYSTO	03/23/2022	03/29/2022	Complete	100%	
CTM Configuration in AIM - DTCC Connectivity, Link Client	DTCC-CTM, Bloomberg	03/14/2022	05/12/2022	Complete	100%	

AIM Order Management System (OMS) Implementation

Description	Responsible	Start Date	End Date	Status	% Complete	Notes
CTM Configuration in AIM - SSI configuration	WYSTO, DTCC, Bloomberg	05/10/2022	05/13/2022	Complete	100%	
CTM Configuration in AIM - CTM testing with DTCC	WYSTO, DTCC, Bloomberg	05/10/2022	06/15/2022	Late	75%	Finish in 07/25-08/04 testing
CTM Sign-off	WYSTO	06/15/2022	06/15/2022	Late	0%	
SWIFT Implementation						
Bloomberg enablement	JPM, Bloomberg	03/14/2022	03/29/2022	Complete	100%	
SWIFT Connectivity with custodian	JPM, Bloomberg	03/21/2022	04/07/2022	Complete	100%	
SWIFT Testing with JPM	WYSTO, JPM, Bloomberg	05/10/2022	06/15/2022	Complete	100%	
SWIFT Sign-off	WYSTO	06/15/2022	06/15/2022	Complete	100%	
Reconciliation						
Installation - Enable REC, Set profile & settings	Bloomberg	05/09/2022	05/11/2022	Complete	100%	
Inbound MT535 from JPM - Enable in PROD	JPM	05/09/2022	05/20/2022	Complete	100%	
Inbound MT535 from JPM - Templates Configuration	WYSTO, Bloomberg	05/10/2022	05/12/2022	Complete	100%	
Inbound MT535 from JPM - Full Automation Setup	JPM, Bloomberg	05/10/2022	05/12/2022	Complete	100%	
Set Up & Training - User Training	WYSTO, Bloomberg	05/10/2022	05/12/2022	Complete	100%	
Set Up & Training - Recon Pairs Structure & Practice Setup	WYSTO, Bloomberg	05/13/2022	06/15/2022	Late	75%	Finish in 07/25-08/04 testing
REC Sign-off	WYSTO	06/15/2022	06/15/2022	Late	0%	
Custodian/JPM Integration						
Integration Pre-work - File specifications & requirements	JPM, Bloomberg	02/14/2022	02/18/2022	Complete	100%	
Infrastructure Setup & Connectivity testing	WYSTO, JPM, Bloomberg	02/22/2022	03/08/2022	Complete	100%	
Cash Upload - Data Acquisition from JPM	WYSTO, JPM, Bloomberg	03/07/2022	03/25/2022	Complete	100%	
Cash Upload - Build cash upload transform in GNET	Bloomberg	03/28/2022	04/08/2022	Complete	100%	
Cash Upload - Testing	WYSTO, Bloomberg	04/11/2022	07/15/2022	Complete	100%	
Cash Upload Sign-off	WYSTO	06/15/2022	07/15/2022	Complete	100%	
Price Upload - Data Acquisition from JPM	JPM, Bloomberg	04/18/2022	04/29/2022	Complete	100%	
Price Upload - Build price file transform in GNET	Bloomberg	05/02/2022	05/13/2022	Complete	100%	
Price Upload - Testing	WYSTO, Bloomberg	05/16/2022	05/27/2022	Complete	100%	
Price Upload Sign-off	WYSTO	05/27/2022	05/27/2022	Complete	100%	
Open Middle Office						
Open Middle Office Setup	Bloomberg	05/30/2022	08/04/2022	In-Progress	25%	
Trade Status and Notes Validation	WYSTO, Bloomberg	06/13/2022	08/04/2022	In-Progress	0%	
Middle Office Sign-off	WYSTO	06/24/2022	08/05/2022	In-Progress	0%	
User Training						
Database cleanup	Bloomberg	05/31/2022	06/01/2022	Complete	100%	
Position Refresh	Bloomberg	06/02/2022	06/02/2022	Complete	100%	
All Front-Office Users Training for UAT	WYSTO, Bloomberg	06/07/2022	06/20/2022	Complete	100%	
All Middle-Office Users Training for UAT	WYSTO, Bloomberg	05/09/2022	06/20/2022	Complete	100%	
Training Sign-off	WYSTO	06/30/2022	06/30/2022	Complete	100%	
Users Acceptance Testing (UAT)						
Create UAT testing script	WYSTO	06/27/2022	07/22/2022	In-Progress	75%	
Database cleanup	Bloomberg	07/20/2022	07/21/2022	Future task		
Position Refresh	Bloomberg	07/22/2022	07/22/2022	Future task		
UAT Testing	WYSTO, Bloomberg	07/25/2022	08/04/2022	Future task		
UAT Sign-off	WYSTO	08/04/2022	08/04/2022	Future task		
Preparation for Go-live						
Database clean-up (Position/Transactions/P&L)	Bloomberg	08/04/2022	08/05/2022	Future task		

AIM Order Management System (OMS) Implementation

Description	Responsible	Start Date	End Date	Status	% Complete	Notes
Upload of live positions	WYSTO, Bloomberg	08/05/2022	08/05/2022	Future task		
AIM Parallel	WYSTO, Bloomberg	08/08/2022	08/12/2022	Future task		
Production Configuration	WYSTO, Bloomberg	08/10/2022	08/11/2022	Future task		
Decommission: Apps & Jobs	WYSTO, Bloomberg	08/12/2022	08/12/2022	Future task		
Go-Live Sign-off	WYSTO	08/12/2022	08/12/2022	Future task		
Go-live		**08/15/2022**	**08/15/2022**			

ATTACHMENT D

Wyoming State Treasurer's Office
KPMG Status Report – Period ending July 1st, 2022

Client & Program		
Wyoming State Treasurer's Office		
Prepared by	**As of Date**	**Due Date**
KPMG	July 1st, 2022	July 1st, 2022

Overview

KPMG is assisting the Wyoming State Treasurer's Office (WSTO) with professional services pertaining to finishing investment manager reconciliations to custodial reports and continuous improvement of its process and procedures related to investment accounting. We have assembled a team of professionals who are dedicated and with the relevant skill sets to execute this engagement. As part of the communication process, KPMG will provide a status report on a weekly basis to WSTO. This report will speak to the progress being made, open tasks, key meetings attended/conducted, deliverables and resource availability.

KPMG Accomplishments and Planned Activities

Current period project accomplishments	Planned activities for next period

• Submitted 6/24/2022 Weekly Status Report on 6/27/2022
• Submit final version of reconciliation spreadsheet to WSTO with all completed managers for WSTO review
  ➢ PIMCO remains unresolved and requires further guidance from WSTO
  ➢ KPMG and WSTO shall continue to discuss the necessary steps to resolve PIMCO in phase 2
• Submit Investment Reconciliation Memo with observations/recommendations
	• KPMG will be observing a firmwide shutdown 7/4/2022 through 7/8/2022
	• KPMG and WSTO will re-connect during the week of 7/11/22 to discuss phase 2 of the engagement

Open Tasks

Task #	Description	Owner	Date	Task #	Description	Owner	Date
8.12	PIMCO	KPMG	TBD				

Note: The Task# may not be sequential since this reflects only open items

Completed Tasks

Task #	Description	Owner	Date	Task #	Description	Owner	Date
1	12.1 Excel Spreadsheet Overview	WSTO	3/22/22	8.20	WILD	KPMG	6/9/22
2	8.4 Reconciliation/Source Mapping	KPMG	3/24/22	8.21	Stone Harbor	KPMG	6/9/22
2.1	8.4 Reconciliation/Source Mapping – Sec Lending	KPMG	3/22/22	3	Reconciliation of key workbooks to ACFR	KPMG	6/10/22
2.2	8.4 Reconciliation/Source Mapping – Trade Payable	KPMG	3/22/22	3.1	Reconciliation of 8.4 to ACFR	KPMG	6/10/22
2.3	8.4 Reconciliation/Source Mapping – Trade Receivable	KPMG	3/22/22	8.22	Barings	KPMG	6/17/22
2.4	8.4 Reconciliation/Source Mapping – Sec Lending (Cash Collateral Value)	KPMG	3/24/22	8.23	Fisher	KPMG	6/17/22
2.5	8.4 Reconciliation/Source Mapping – Accrued Income	KPMG	3/24/22	8.24	Hamilton Lane	KPMG	6/17/22
2.6	8.4 Reconciliation/Source Mapping – Net Unrealized GNL Distribution	KPMG	3/24/22	8.25	Goldman Sachs	KPMG	6/17/22
8.1	Harvest Active 2021	KPMG & WSTO	4/13/22	8.28	MetLife	KPMG	6/17/22
8.2	Van Berkom	KPMG & WSTO	4/22/22	8.29	Neuberger Berman Sauger	KPMG	6/17/22
8.3	State Street US Equity	KPMG	5/20/22	8.30	Paamco Jackalope	KPMG	6/17/22
8.6	Harvest Passive	KPMG	5/25/22	8.31	SC Capital	KPMG	6/17/22
8.8	WILONG	KPMG	5/20/22	8.32	State Street Tips	KPMG	6/17/22
8.4	Northern Trust	KPMG	6/2/22	5	Tracking shared documents	KPMG	6/24/22
8.9	Cheyenne Capital	KPMG	6/2/22	8.11	Payden & Regal	KPMG	6/24/22
8.10	Clarion Lion	KPMG	6/2/22	8.26	JPM Extended Cash	KPMG	6/24/22
8.13	Arrowstreet International	KPMG	6/9/22	8.27	M&G	KPMG	6/24/22
8.14	JPM MBS	KPMG	6/9/22	8.5	Harvest Active 2020	KPMG	6/30/22
8.15	Northwood	KPMG	6/7/22	8.7	WIFIP	KPMG	6/24/22
8.16	WYLAD	KPMG	6/7/22	4 & 6	Wyoming Investment Reconciliation Memo/ Observations and Recommendations	KPMG	7/1/22
8.17	UW Portfolio	KPMG	6/8/22	7	Weekly Status Report	KPMG	7/1/22
8.18	UBS Trumbull	KPMG	6/9/22	8	JPM to Manager Reconciliations (minus PIMCO)	WSTO & KPMG	7/1/22
8.19	Ninety-One	KPMG	6/9/22				

Note: The Task# may not be sequential since this reflects only completed items

Note Per Manager Reconciliations: Yellow - pending WSTO review, Gray – pending submission/resubmission, Green - Completed

Key Meetings Attended/Conducted

Note: Weekly Status Meeting cancelled this week

KPMG Deliverables

Deliverable Name	Description
Investment Reconciliation Memo	This deliverable will provide details regarding document mapping for key operational workpapers used for the financial accounting of WSTO investments, and the current state process pertaining to the investment manager reconciliations to custodial reports.
Observations and Recommendations	This deliverable will provide detailed observations and recommendations for improvement of the current processes and procedures related to WSTO investment accounting.
Weekly Status Report	This is an ongoing deliverable that will be presented weekly during the Weekly Status Report Meeting and highlights project activities.

KPMG's Resource Availability for Current and Next Period

KPMG Resource	Current Period (week of 7/1/2022)	Next Period (week of 7/8/2022)
Geoff Plante	Available as needed	• KPMG will be observing a firmwide shutdown 7/4/2022 through 7/8/2022 • KPMG and WSTO will re-connect during the week of 7/11/22 to discuss phase 2 of the engagement
Julie K. Barrientos	Available as needed	
Habib Agha	☒Monday ☒Tuesday ☒Wednesday ☒Thursday ☒Friday	
Nicholas Verbeck	☒Monday ☒Tuesday ☒Wednesday ☒Thursday ☒Friday	

KPMG's Burn Rate

KPMG Resource	Actual Hours through 6/30/2022	Project Forecast (Hours)
Geoff Plante	19.5	• Forecasted Hours to reach Project Completion: ➢ 1,180 hours • Estimated Remaining Hours: ➢ 22.5 hours
Julie K. Barrientos	46.50	
Habib Agha	528	
Paul Commisso	3	
Vickie Chen	4.50	
Remy Alexander	55.75	
Krystle Diaz	42.50	
Sarah Schrader-Nahoom	84.75	
Nicholas Verbeck	350	
Poojan Desai	23	
Total Actual Hours	**1157.50**	

Risks

Risk #	Risk	Risk Detail	Status
1	Manager Reconciliations 2021	There are a total of four (4) manager reconciliations in scope. • Two (2) managers have been completed • The remaining two (2) managers have been deemed unnecessary as WSTO is currently resolving the matter with their auditors	Completed
2	Manager Reconciliations 2020	There are a total of thirty-three (33) manager reconciliations in scope. • WSTO has provided supporting documents for all 2020 managers • KPMG status regarding the thirty-three (33) managers: ➢ Reconciliations completed pending STO review: 29 ➢ Reconciliations pending/in progress: 1 – PIMCO requires further guidance from WSTO ➢ Deemed Unnecessary by WSTO: 3	Low

Legend

Low	Medium	High
Task is progressing	Task is falling below target	Task is at risk of missing target