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: May 11, 2022

SUBJECT: Workflow Automation Report, May 2022

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 have aligned our transition to the new system to coincide with the beginning of the new fiscal year and biennium, July 1, 2022. The upgrade will occur in three phases. Phase I will establish a new chart of accounts, establish manager and custodial data feeds and generally lay 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. Items in Phase II are being developed as we move through Phase I, but they will not be finalized until after the go-live date of July 1. (Attachment A) We are anticipating a 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.

The main tasks for Phase 1 of this project are progressing and are on-track for the July go-live. (Attachment B)

Phase 1 of the Broadridge/QED Workflow Initiative project progress is continuing forward and is on-track for the July go-live.

- The Fund Data Conversion (new Chart of Accounts) is progressing well. The new configuration is being unit tested by the STO accountants. So far, the unit test results appear promising and advantageous, and the accountants are looking forward to the parallel testing of these enhancements.
- The requirements gathering is almost complete for the report/process improvements within Phase 1. We are reviewing and approving Business Requirement documents, when ready, and the vendor's development work has begun on multiple items.
- Several lower priority reports to improve processes have been moved to a post-live phase 1.2 to ensure adequate time and resources are applied to the higher priority reports for successful results.
- The data point for the parallel testing window has been identified as close of business Friday, May 13. The parallel testing will start on May 23 with the verification of converted data first, followed by the daily testing of all production work from May 16 forward.

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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 will allow 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 setup and configuration of the system is mostly complete, and the administrators are testing the many processes in the test system.
- The connectivity with the custodian, the brokers and the DTCC system are complete, and integrated testing is starting this week.
- The compliance rules have been set up in the system and are being validated.
- There will be on-site training of the middle office (accountants) this week, May 10-12.
- The on-site training for the front office (investors) is planned for late June.

Expenditures to date: $140,531.25

(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, a top accounting firm, to assist us with reconciling investment accounts, and additionally to provide observations and recommendations for improving our processes and procedures related to investment accounting. So far, KPMG has spent most of its time learning our business to meaningfully assess our needs but has recently begun to complete manager reconciliations. Upon determining what is required to complete a manager reconciliation, however, KPMG has concluded the project will take longer than it expected. (Attachment D) Our intention is to retain KPMG past its current contract end-date of June 30 not only to work on this project, but also to assist us with the statewide external audit.

Expenditures to date: $75,703.75

Cc: Treasurer Meier
Investment Funds Committee

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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
Prepare Requests and Deployment Plans				
Prepare requests, deployment plans for all zones	Broadridge	11/29/2021	01/04/2022	Complete
Hydrogen QA Zone				
Establish Hydrogen QA Zone, Upgrade Q2 to Hydrogen	Broadridge	12/21/2021	01/11/2022	Complete
Establish criteria & plan for QA & UAT testing of Q2 to H2	WYSTO	12/15/2021	01/11/2022	Complete
Create test cases for QA & UAT testing of Q2 to H2 Upgrade	WYSTO	01/04/2022	01/11/2022	Complete
QA testing of Q2 to H2 upgrade (using WYSTO criteria)	Broadridge	01/12/2022	01/18/2022	Complete
Update QA Deployment Plan for UAT Env	Broadridge	01/19/2022	01/20/2022	Complete
iPAS Hydrogen QA Zone				
Establish iPAS in QA Zone, Upgrade to iPAS Hydrogen	Broadridge	12/21/2021	01/20/2022	Complete
Update QA Zone for fund data expansion/conversion	Broadridge	02/01/2022	03/02/2022	Complete
QA testing of iPAS H2 upgrade with WYSTO criteria	Broadridge	02/16/2022	03/07/2022	Complete
Update iPAS Deployment Plan for iPAS UAT Env	Broadridge	03/04/2022	03/07/2022	Complete
Hydrogen UAT Zone				
Establish Hydrogen UAT Zone, Load QA into UAT Zone	Broadridge	12/21/2021	01/28/2022	Complete
Provide list of UAT users	WYSTO	12/21/2021	01/04/2022	Complete
Firewall updates for UAT zone - Provide IP addresses	Broadridge	01/21/2022	01/28/2022	Complete
Firewall updates for UAT zone -Updates firewall	WYSTO	01/21/2022	01/28/2022	Complete
Update UAT Deployment Plan for Prod Env	Broadridge	01/31/2022	02/01/2022	Complete
Training on Appl. Changes associated with H2 Release	WYSTO, Broadridge	01/31/2022	01/31/2022	Complete
Hydrogen Converted Data Validation in UAT Zone	WYSTO	01/31/2022	01/31/2022	Complete
Hydrogen Appl. testing with WYSTO plan in UAT Zone	WYSTO	02/01/2022	02/14/2022	Complete
Support UAT Testing of Hydrogen Upgrade	Broadridge	01/31/2022	02/14/2022	Complete
Identify Q2 Prod data to carry forward into H2 Prod Env	WYSTO, Broadridge	02/15/2022	03/02/2022	Complete
Approval of Hydrogen Upgrade	WYSTO	03/03/2022	03/04/2022	Complete
iPAS Hydrogen UAT Zone				
Establish iPAS in UAT Zone, Upgrade to iPAS Hydrogen	Broadridge	03/07/2022	03/11/2022	Complete
Create plan & test cases for QA & UAT of iPAS H2 Upgrade	WYSTO	12/15/2021	01/31/2022	Complete
Update iPAS UAT Deployment Plan for iPAS Prod Env	Broadridge	03/16/2022	03/17/2022	Complete
Hydogen iPAS Converted Data Validation in UAT Zone	WYSTO	03/14/2022	04/11/2022	Complete
Hydrogen iPAS testing with WYSTO plan in UAT Zone	WYSTO	04/11/2022	04/25/2022	Complete
Support UAT Testing of iPAS Hydrogen Upgrade	Broadridge	04/11/2022	04/25/2022	Complete
Approval of Hydrogen iPAS Upgrade	WYSTO	04/25/2022	04/25/2022	Complete
Data Aggregation and Reconciliation (Part 1)				
Authorization for Custodian accounts data feed to BIA	WYSTO	12/21/2021	01/05/2022	Complete
Data feed from Custodian accounts(setup,develop,test)	Broadridge	02/11/2022	05/20/2022	In-Progress
Fund Data Conversion				
Data upload, restructuring funds, QA test of data/funds	Broadridge	01/18/2022	02/23/2022	Complete
Tracking of Q2 restructured data for Parallel catchup	WYSTO	01/18/2022	05/05/2022	Complete
Create Business Req. Document for Misc. Development	Broadridge	02/24/2022	03/02/2022	Complete
Establish success criteria for QA & UAT testing	WYSTO	02/24/2022	05/13/2022	In-Progress
Create test plan & test cases for QA & UAT testing	WYSTO	02/24/2022	05/13/2022	In-Progress
Client approval of Business Req. Document	WYSTO	02/24/2022	05/13/2022	In-Progress
Coding, QA & UAT Testing for Fund Data Conversion	Broadridge	03/03/2022	05/13/2022	In-Progress
Training, Including changes to Directives upload sheet.	WYSTO, Broadridge	04/18/2022	05/13/2022	In-Progress
Client UAT Testing for Fund Data Conversion	WYSTO	04/21/2022	05/13/2022	In-Progress
Approval of Fund Data Conversation	WYSTO	05/13/2022	05/13/2022	
Migration of Data and Misc Development to Prod Zone	Broadridge	05/13/2022	05/20/2022	
Migration of restructured UAT data for Parallel testing	Broadridge	05/13/2022	05/20/2022	
Tracking of Q2 restructured data for Go-Live catchup	WYSTO	05/16/2022	06/30/2022	
Available Cash by Pool Report/Process - includes 2 reports (Priority #1)				
Example, approval of report layout	WYSTO	01/12/2022	01/13/2022	Complete
Creation of report layout	Broadridge	01/18/2022	01/21/2022	Complete
Gather requirements, Create Business Req. Document	WYSTO, Broadridge	03/18/2022	03/22/2022	Complete
Establish success criteria for QA & UAT testing	WYSTO	03/23/2022	05/03/2022	Complete
Create test plan & test cases for QA & UAT testing	WYSTO	03/23/2022	05/03/2022	Complete
Approve Business Requirements Doc	WYSTO	04/28/2022	05/03/2022	Complete

Broadridge/QED Workflow Initiative Project - Phase 1

Description	Responsible	Start Date	End Date	Status
Development, Coding, QA testing, Move to UAT Env	Broadridge	05/03/2022	05/18/2022	In-Progress
UAT testing in UAT Zone	WYSTO	05/18/2022	05/24/2022	
Client Approval of UAT testing	WYSTO	05/24/2022	05/24/2022	
Move to Prod Env	Broadridge	05/25/2022	05/25/2022	
Asset Allocation Report/Process - includes 3 reports (Priority #2)				
Example, approval of report layout	WYSTO	01/12/2022	01/13/2022	Complete
Creation of report layout	Broadridge	01/18/2022	01/21/2022	Complete
Gather requirements, Create Business Req. Document	WYSTO, Broadridge	04/01/2022	04/29/2022	Complete
Establish success criteria for QA & UAT testing	WYSTO	04/01/2022	05/04/2022	Complete
Create test plan & test cases for QA & UAT testing	WYSTO	04/02/2022	05/04/2022	Complete
Approve Business Requirements Doc	WYSTO	04/09/2022	05/13/2022	In-Progress
Development, Coding, QA testing, Move to UAT Env	Broadridge	05/03/2022	06/15/2022	In-Progress
UAT testing in UAT Zone	WYSTO	05/23/2022	06/15/2022	
Client Approval of UAT testing	WYSTO	06/10/2022	06/20/2022	
Move to Prod Env	Broadridge	06/15/2022	06/20/2022	
VisualQED Report and Extract - includes approximately 20 reports/extracts (Priority #3)				
VisualQED report & extract requirements gathering	Broadridge	03/02/2022	03/08/2022	Complete
Example, approval of report layout	WYSTO	03/02/2022	03/08/2022	Complete
VisualQED report creation and extracts	Broadridge	03/09/2022	05/20/2022	In-Progress
Establish success criteria for QA & UAT testing	WYSTO	03/09/2022	05/20/2022	In-Progress
Create test plan & test cases for QA & UAT testing	WYSTO	03/09/2022	05/20/2022	In-Progress
Approve report creation and extracts	WYSTO	05/16/2022	05/20/2022	In-Progress
QA testing, Move to UAT Env	Broadridge	03/28/2022	05/20/2022	In-Progress
UAT testing in UAT Zone	WYSTO	04/06/2022	05/31/2022	In-Progress
Client Approval of UAT testing	WYSTO	05/16/2022	05/31/2022	
Move to Prod Env	Broadridge	05/16/2022	05/31/2022	
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
Establish success criteria for QA & UAT testing	WYSTO	04/14/2022	04/22/2022	Complete
Create test plan & test cases for QA & UAT testing	WYSTO	04/14/2022	05/03/2022	Complete
Approve Business Requirements Doc	WYSTO	04/25/2022	05/03/2022	Complete
Development, Coding, QA testing, Move to UAT Env	Broadridge	05/03/2022	05/27/2022	In-Progress
UAT testing in UAT Zone	WYSTO	05/31/2022	06/10/2022	
Client Approval of UAT testing	WYSTO	06/10/2022	06/10/2022	
Move to Prod Env	Broadridge	06/10/2022	06/10/2022	
TO64 Colorful Report/Process - includes 1 report (Priority #5)				
Gather requirements, Create Business Req. Document	WYSTO, Broadridge	04/13/2022	04/18/2022	Complete
Establish success criteria for QA & UAT testing	WYSTO	04/19/2022	04/26/2022	Complete
Create test plan & test cases for QA & UAT testing	WYSTO	04/19/2022	04/26/2022	Complete
Approve Business Requirements Doc	WYSTO	04/27/2022	05/13/2022	In-Progress
Development, Coding, QA testing, Move to UAT Env	Broadridge	05/13/2022	06/01/2022	
UAT testing in UAT Zone	WYSTO	06/02/2022	06/10/2022	
Client Approval of UAT testing	WYSTO	06/10/2022	06/10/2022	
Move to Prod Env	Broadridge	06/10/2022	06/10/2022	
QED Balancing Report/Process - includes 4 reports (Priority #6)				
Example, approval of report layout	WYSTO	01/12/2022	01/13/2022	Complete
Creation of report layout	Broadridge	01/18/2022	01/21/2022	Complete
Gather requirements, Create Business Req. Document	WYSTO, Broadridge	03/02/2022	05/20/2022	In-Progress
Establish success criteria for QA & UAT testing	WYSTO	03/07/2022	05/20/2022	In-Progress
Create test plan & test cases for QA & UAT testing	WYSTO	03/07/2022	05/20/2022	In-Progress
Approve Business Requirements Doc	WYSTO	05/20/2022	05/20/2022	
Development, Coding, QA testing, Move to UAT Env	Broadridge	05/23/2022	06/03/2022	
UAT testing in UAT Zone	WYSTO	06/06/2022	06/10/2022	
Client Approval of UAT testing	WYSTO	06/10/2022	06/10/2022	
Move to Prod Env	Broadridge	06/10/2022	06/10/2022	
Hydrogen Prod Zone				
Establish PROD Zone for Hydrogen and iPAS Hydrogen	Broadridge	12/21/2021	05/16/2022	In-Progress

Broadridge/QED Workflow Initiative Project - Phase 1

Description	Responsible	Start Date	End Date	Status
Provide list of Prod users	WYSTO	01/12/2022	01/20/2022	Complete
Firewall updates for Prod - Provides IP addresses	Broadridge	05/02/2022	05/09/2022	Complete
Firewall updates for Prod - Updates/test IP access	WYSTO	05/16/2022	05/20/2022	
Update UAT Zone with Q2 carry forward data for Prod	WYSTO	05/13/2022	05/23/2022	
Backup UAT data, balances forward, Load into H2 Prod	Broadridge	05/13/2022	05/23/2022	
Prepare/Verify Hydrogen ready for Parallel test	Broadridge	05/20/2022	05/23/2022	
Parallel Testing in Prod Zone				
Establish plan, success criteria for parallel testing	WYSTO	01/04/2022	05/06/2022	Complete
Perform parallel testing in Hydrogen & iPAS Prod	WYSTO	05/23/2022	06/30/2022	
Access and remediate parallel findings	Broadridge	05/23/2022	06/30/2022	
Approval of "Go Live" to the Hydrogen Prod zone	WYSTO	05/23/2022	06/30/2022	
Production Go-Live				
Post June 30 to Q2 and notify BIA ready to cut-over	WYSTO	07/01/2022	07/01/2022	
Create 07/01/22 Beginning Balances from Q2 Prod	Broadridge	07/01/2022	07/02/2022	
Copy Parallel testing data from Prod to UAT zone	Broadridge	07/01/2022	07/05/2022	
Remove Parallel Activity from Production Database	Broadridge	07/06/2022	07/10/2022	
Load 07/01/22 Q2 Beginning Balances into H2 Prod	Broadridge	07/06/2022	07/10/2022	
Verify Beginning Balance in Hydrogen Prod Env	WYSTO	07/11/2022	07/11/2022	
Certify acceptance of Hydrogen Production Env	WYSTO	07/12/2022	07/12/2022	
Maintain Q2 Prod through WYSTO annual audit				
Maintain Q2 Prod through WYSTO annual audit	Broadridge	07/01/2022	11/30/2022	
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
Project Planning				
Create Project Framework	WYSTO, Bloomberg	02/07/2022	02/18/2022	Complete
Static Data Gathering	WYSTO, Bloomberg	02/14/2022	02/25/2022	Complete
Identify Resources	WYSTO, Bloomberg	02/14/2022	02/25/2022	Complete
Review Licenses	WYSTO, Bloomberg	02/14/2022	02/18/2022	Complete
Project Planning				
Database Setup	Bloomberg	02/17/2022	02/21/2022	Complete
Enable OMS database settings, modules, & AFMT bits	Bloomberg	02/22/2022	02/24/2022	Complete
Additional Infrastructure Setup	Bloomberg	02/22/2022	02/24/2022	Complete
Review Static Data	WYSTO, Bloomberg	02/23/2022	02/25/2022	Complete
Database Configuration				
Firm Structure & User Permissions (Accounts/Groups/Users)	WYSTO, Bloomberg	03/01/2022	05/13/2022	In-Progress
Brokers - Setup, Training, Mapping	WYSTO, Bloomberg	03/07/2022	03/08/2022	Complete
Custodians - Setup, Training, Mapping	WYSTO, Bloomberg	03/08/2022	03/11/2022	Complete
Firm Defaults - Settings, Identifier Waterfall, Durations	WYSTO, Bloomberg	03/08/2022	03/10/2022	Complete
Firm Defaults - Pricing, Valuation, Workflow by Product	WYSTO, Bloomberg	03/10/2022	03/14/2022	Complete
Firm Defaults - Note fields, Corporate Actions	WYSTO, Bloomberg	03/14/2022	03/18/2022	Complete
Firm Defaults - Transaction Costs	WYSTO, Bloomberg	03/14/2022	03/18/2022	Complete
Custom Data & Private Securities - Private Placements	WYSTO, Bloomberg	03/21/2022	03/23/2022	Complete
Custom Data & Private Securities - Custom Grouping/Sectors	WYSTO, Bloomberg	03/21/2022	03/24/2022	Complete
Custom Data & Private Securities - Index Benchmarks	WYSTO, Bloomberg	03/21/2022	03/28/2022	Complete
Position Management				
Position Upload - Prepare Initial Positions to Upload	WYSTO	03/22/2022	03/24/2022	Complete
Position Upload - Initial Position Upload	Bloomberg	03/22/2022	03/24/2022	Complete
Configuration of Position Views	WYSTO, Bloomberg	03/28/2022	04/04/2022	Complete
Configuration of Order Management Views	WYSTO, Bloomberg	04/04/2022	04/05/2022	Complete
Setup Trading Blotters	WYSTO, Bloomberg	04/05/2022	04/06/2022	Complete
Training on AIM position management tools	WYSTO, Bloomberg	04/07/2022	04/08/2022	Complete
Connectivity to Bloomberg Execution Platforms				
Broker FIX connection	Bloomberg	04/11/2022	04/15/2022	Complete
Market Axess - Kickoff	WYSTO, MA, Bloomberg	04/18/2022	04/18/2022	Complete
Market Axess - Setup & Connectivity	MA, Bloomberg	04/19/2022	04/22/2022	Complete
Market Axess - Enable Test Brokers in MA	Market Axess	04/28/2022	04/28/2022	Complete
Market Axess - Broker & Account mapping for MA in TSOX	WYSTO, Bloomberg	04/29/2022	05/02/2022	Complete
Market Axess - Enable Users for MA in TSLP	WYSTO, Bloomberg	05/03/2022	05/03/2022	Complete
Market Axess - MA Units testing	WYSTO, MA, Bloomberg	05/04/2022	05/04/2022	Complete
EMSX Workflow Training	WYSTO, Bloomberg	04/15/2022	04/18/2022	Complete
Order Management - Equity Workflows				
Single security order generation	WYSTO, Bloomberg	04/18/2022	04/18/2022	Complete
Bulk order import using OI	WYSTO, Bloomberg	04/18/2022	04/18/2022	Complete
Portfolio rebalance	WYSTO, Bloomberg	04/19/2022	04/20/2022	Complete
EMSX order execution	WYSTO, Bloomberg	04/21/2022	04/25/2022	Complete
Order Allocation	WYSTO, Bloomberg	04/26/2022	04/27/2022	Complete
Post trade correction	WYSTO, Bloomberg	04/28/2022	04/29/2022	Complete
Order Management - FI Workflows				
Single security order generation	WYSTO, Bloomberg	05/02/2022	05/02/2022	Complete
Bulk order import using OI	WYSTO, Bloomberg	05/02/2022	05/02/2022	Complete
Portfolio rebalance	WYSTO, Bloomberg	05/03/2022	05/05/2022	In-Progress
TSOX execution - FIT, VCON, MA trading	WYSTO, Bloomberg	05/06/2022	05/13/2022	Complete
New Issue Workflow (PREL)	WYSTO, Bloomberg	05/11/2022	05/12/2022	Complete
Order Allocation	WYSTO, Bloomberg	05/12/2022	05/13/2022	Complete
Post trade correction	WYSTO, Bloomberg	05/12/2022	05/13/2022	Complete
Order Management - Money Market Workflows				
Money Market program	WYSTO, Bloomberg	05/16/2022	05/16/2022	Complete
TSOX execution - BOOM, VCON trading	WYSTO, Bloomberg	05/17/2022	05/19/2022	Complete
Order Allocation	WYSTO, Bloomberg	05/20/2022	05/20/2022	Complete
Post trade correction	WYSTO, Bloomberg	05/20/2022	05/20/2022	
Cash Management				
Corporate action cashflows	WYSTO, Bloomberg	05/23/2022	05/24/2022	Complete
Cash upload & ticketing	WYSTO, Bloomberg	05/24/2022	05/24/2022	Complete
CCMS training	WYSTO, Bloomberg	05/25/2022	05/27/2022	Complete
Cash Reconciliation	WYSTO, Bloomberg	05/25/2022	05/27/2022	Complete
Reporting				
ERA reports	WYSTO, Bloomberg	05/26/2022	05/30/2022	

AIM Order Management System (OMS) Implementation

Description	Responsible	Start Date	End Date	Status
MAV export/report	WYSTO, Bloomberg	05/26/2022	05/27/2022	
Trade history report from THRS	WYSTO, Bloomberg	05/26/2022	05/27/2022	
Compliance				
Pre-work - Templates, Watchlists	WYSTO, Bloomberg	02/21/2022	03/18/2022	Complete
Define Rules - Templates, Groups, Requirements	WYSTO, Bloomberg	03/14/2022	03/18/2022	Complete
Compliance Manuals & Guides, Templates, Rule Types	Bloomberg	06/03/2022	06/03/2022	
Training - Compliance Workshop, Violations workflow	WYSTO, Bloomberg	06/06/2022	06/10/2022	
CMGR Custom Data - Data, Issuers, Watchlists	WYSTO, Bloomberg	03/28/2022	06/07/2022	In-Progress
Build rules	Bloomberg	04/04/2022	04/29/2022	Complete
Test rules	WYSTO, Bloomberg	06/16/2022	07/29/2022	
Rules Sign-off	WYSTO	07/29/2022	07/29/2022	
Middle Office Configuration				
SWIFT Application	WYSTO, Bloomberg	02/01/2022	03/14/2022	Complete
Settlement Instructions - Provide Instructions	WYSTO	02/21/2022	03/11/2022	Complete
Settlement Instructions - SSI Validation	WYSTO, Bloomberg	03/14/2022	03/18/2022	Complete
Settlement Instructions - SSI Upload	WYSTO, Bloomberg	03/21/2022	03/25/2022	Complete
Settlement Instructions - SSI Workshop/Training	WYSTO, Bloomberg	05/10/2022	05/13/2022	
Trade Copmlete (TC) - Setup middle office workflow	WYSTO, Bloomberg	05/10/2022	05/12/2022	
Trade Copmlete (TC) - TC blotter setup	WYSTO, Bloomberg	05/10/2022	05/12/2022	
Trade Matching in CTM				
Gather Broker CTM BICS & ALERT codes	WYSTO	02/21/2022	03/11/2022	Complete
CTM Setup at DTCC - ALERT setup	DTCC-CTM, WYSTO	03/14/2022	04/22/2022	In-Progress
CTM Setup at DTCC - Matching Profile & Tolerance	DTCC-CTM, WYSTO	03/14/2022	03/23/2022	Complete
CTM Setup at DTCC - Broker Matching Group	DTCC-CTM, WYSTO	03/14/2022	03/29/2022	In-Progress
CTM Setup at DTCC - CTM Views	DTCC-CTM, WYSTO	03/23/2022	03/29/2022	Complete
CTM Configuration in AIM - DTCC Connectivity, Link Client	DTCC-CTM, Bloomberg	03/14/2022	05/12/2022	In-Progress
CTM Configuration in AIM - SSI configuration	WYSTO, DTCC, Bloomberg	05/10/2022	05/13/2022	
CTM Configuration in AIM - CTM testing with DTCC	WYSTO, DTCC, Bloomberg	05/10/2022	06/15/2022	
CTM Sign-off	WYSTO	06/15/2022	06/15/2022	
SWIFT Implementation				
Bloomberg enablement	JPM, Bloomberg	03/14/2022	03/29/2022	Complete
SWIFT Connectivity with custodian	JPM, Bloomberg	03/21/2022	04/07/2022	Complete
SWIFT Testing with JPM	WYSTO, JPM, Bloomberg	05/10/2022	06/15/2022	
SWIFT Sign-off	WYSTO	06/15/2022	06/15/2022	
Reconciliation				
Installation - Enable REC, Set profile & settings	Bloomberg	05/09/2022	05/11/2022	Complete
Inbound MT535 from JPM - Enable in PROD	JPM	05/09/2022	05/20/2022	In-Progress
Inbound MT535 from JPM - Templates Configuration	WYSTO, Bloomberg	05/10/2022	05/12/2022	
Inbound MT535 from JPM - Full Automation Setup	JPM, Bloomberg	05/10/2022	05/12/2022	
Set Up & Training - User Training	WYSTO, Bloomberg	05/10/2022	05/12/2022	
Set Up & Training - Recon Pairs Structure & Practice Setup	WYSTO, Bloomberg	05/13/2022	06/15/2022	
REC Sign-off	WYSTO	06/15/2022	06/15/2022	
Custodian/JPM Integration				
Integration Pre-work - File specifications & requirements	JPM, Bloomberg	02/14/2022	02/18/2022	Complete
Infrastructure Setup & Connectivity testing	WYSTO, JPM, Bloomberg	02/22/2022	03/08/2022	Complete
Cash Upload - Data Acquisition from JPM	WYSTO, JPM, Bloomberg	03/07/2022	03/25/2022	Complete
Cash Upload - Build cash upload transform in GNET	Bloomberg	03/28/2022	04/08/2022	Complete
Cash Upload - Testing	WYSTO, Bloomberg	04/11/2022	04/29/2022	In-Progress
Cash Upload Sign-off	WYSTO	04/29/2022	04/29/2022	
Price Upload - Data Acquisition from JPM	JPM, Bloomberg	04/18/2022	04/29/2022	Complete
Price Upload - Build price file transform in GNET	Bloomberg	05/02/2022	05/13/2022	Complete
Price Upload - Testing	WYSTO, Bloomberg	05/16/2022	05/27/2022	In-Progress
Price Upload Sign-off	WYSTO	05/27/2022	05/27/2022	
Open Middle Office				
Open Middle Office Setup	Bloomberg	05/30/2022	06/10/2022	
Trade Status and Notes Validation	WYSTO, Bloomberg	06/13/2022	06/24/2022	
Middle Office Sign-off	WYSTO	06/24/2022	06/24/2022	
User Training				
Database cleanup	Bloomberg	06/03/2022	06/06/2022	
Position Refresh	Bloomberg	06/07/2022	06/07/2022	
All Front-Office Users Training for UAT	WYSTO, Bloomberg	06/08/2022	06/21/2022	
All Middle-Office Users Training for UAT	WYSTO, Bloomberg	06/17/2022	06/30/2022	
Training Sign-off	WYSTO	06/30/2022	06/30/2022	
Users Acceptance Testing (UAT)				

AIM Order Management System (OMS) Implementation

Description	Responsible	Start Date	End Date	Status
Create UAT testing script	WYSTO	07/01/2022	07/07/2022	
Database cleanup	Bloomberg	07/13/2022	07/14/2022	
Position Refresh	Bloomberg	07/15/2022	07/16/2022	
UAT Testing	WYSTO, Bloomberg	07/18/2022	08/05/2022	
UAT Sign-off	WYSTO	08/05/2022	08/05/2022	
Preparation for Go-live				
Database clean-up (Position/Transactions/P&L)	Bloomberg	08/08/2022	08/10/2022	
Production Configuration	WYSTO, Bloomberg	08/10/2022	08/11/2022	
Decommission: Apps & Jobs	WYSTO	08/12/2022	08/12/2022	
Upload of live positions	Bloomberg	08/12/2022	08/12/2022	
Go-Live Sign-off	WYSTO	08/12/2022	08/12/2022	
Go-live		**08/15/2022**	**08/15/2022**	

ATTACHMENT D

Wyoming State Treasurer's Office
KPMG Status Report – Period ending May 6th, 2022

Client & Program		
Wyoming State Treasurer's Office		
Prepared by	**As of Date**	**Due Date**
KPMG	May 6th, 2022	May 9th, 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 4/29/2022 Weekly Status Report on 5/2/2022
• Received 58 support documents for manager reconciliations
  ➢ Successfully pulled all 58 documents into our internal KPMG drive for team review which included newer support files and managers such as:
  • All transactions report
  • WIFIP
  • WILONG
• Continued review of support documents for the following managers
  ➢ State Street US Equity
  ➢ Northern Trust
  ➢ Harvest Active
  ➢ Harvest Passive
• Developed a document for tracking KPMG questions/WSTO responses
	• Submit 5/06/2022 Weekly Status Report on 5/9/2022
	• Continue review of the provided managers and support files
	  ➢ State Street US Equity
	  ➢ Northern Trust
	  ➢ Harvest Active
	  ➢ Harvest Passive
	  ➢ WIFIP
	  ➢ WILONG
	  ➢ All transactions report, manager recons, manager income workbook, yellowbooks, directives
	• Conduct working session for manager recon spreadsheet on 5/9/2022
	• Continue documenting questions for WSTO
	• Continue building audit trail using the established template
	• Conduct additional working sessions (as needed) to provide updates, highlight progress, and address any questions or concerns.

Open Tasks

Task #	Description	Status	Owner	Completion Date
#2	8.4 Reconciliation/Source Mapping	In Progress	KPMG	TBD
#3	Reconciliation of key workbooks to ACFR	Pending	KPMG	TBD
#3.1	Reconciliation of 8.4 to ACFR	Pending	KPMG	TBD
#4	Wyoming Accounting Process Memo	Ongoing	KPMG	See Deliverable Tracker
#5	Tracking shared documents vs. completed reconciliation	Ongoing	KPMG	Ongoing
#6	Observations and Recommendations	Ongoing	KPMG	See Deliverable Tracker
#7	Weekly Status Report	Ongoing	KPMG	See Deliverable Tracker
#8	JPM to Manager Reconciliations	Ongoing	WSTO & KPMG	TBD
#8.3	State Street US Equity	Pending	KPMG	TBD
#8.4	Northern Trust	Pending	KPMG	TBD
#8.5	Harvest Active 2020	Pending	KPMG	TBD
#8.6	Harvest Passive	Pending	KPMG	TBD
#8.7	WIFIP	Pending	KPMG	TBD
#8.8	WILONG	Pending	KPMG	TBD

Note:

- *The Task# may not be sequential since this reflects only open items*

Completed Tasks

Task #	Description	Status	Owner	Completion Date
#1	12.1 Excel Spreadsheet Overview	Completed	Wyoming	3/22/22
#2.1	8.4 Reconciliation/Source Mapping – Sec Lending	Completed	KPMG	3/22/22
#2.2	8.4 Reconciliation/Source Mapping – Trade Payable	Completed	KPMG	3/22/22
#2.3	8.4 Reconciliation/Source Mapping – Trade Receivable	Completed	KPMG	3/22/22
#2.4	8.4 Reconciliation/Source Mapping – Sec Lending (Cash Collateral Value)	Completed	KPMG	3/24/22
#2.5	8.4 Reconciliation/Source Mapping – Accrued Income	Completed	KPMG	3/24/22
#2.6	8.4 Reconciliation/Source Mapping – Net Unrealized GNL Distribution	Completed	KPMG	3/24/22
#8.1	Harvest Active 2021	Completed	WSTO & KPMG	4/13/22
#8.2	Van Berkom	Completed	KPMG & WSTO	4/22/22

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

Key Meetings Attended/Conducted

Meeting Names	Date	Status	Attendees
Internal KPMG	5/4/2022	Conducted	• **KPMG:** Julie Barrientos, Habib Agha, Remy Alexander, Krystle Diaz

Note: Weekly Status Meeting was cancelled, and updates were provided via email for the week ending 5/6/2022

KPMG Deliverables

Deliverable Name	Status/Due Date	Description
Wyoming Accounting Process Memo	TBD	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	TBD	This deliverable will provide detailed observations and recommendations for improvement of the current processes and procedures related to WSTO investment accounting.
Weekly Status Report	Ongoing	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 5/6/2022)	Next Period (week of 5/13/2022)
Geoff Plante	Available as needed	Available as needed
Julie K. Barrientos	Available as needed	Available as needed
Habib Agha	☒Monday ☒Tuesday ☒Wednesday ☒Thursday ☒Friday	☒Monday ☒Tuesday ☒Wednesday ☒Thursday ☒Friday
Remy Alexander	☒Monday ☒Tuesday ☒Wednesday ☒Thursday ☒Friday	☒Monday ☒Tuesday ☒Wednesday ☒Thursday ☒Friday
Krystle Diaz	☒Monday ☒Tuesday ☒Wednesday ☒Thursday ☒Friday	☒Monday ☒Tuesday ☒Wednesday ☒Thursday ☒Friday

Nicholas Verbeck	☒Monday ☒Tuesday ☒Wednesday ☒Thursday ☒Friday	☒Monday ☒Tuesday ☒Wednesday ☒Thursday ☒Friday

KPMG's Burn Rate

KPMG Resource	Actual Hours through 4/29/2022	Project Forecast (Hours)
Geoff Plante	8	• Forecasted Hours to reach Project Completion: ➢ 1,180 hours • Estimated Remaining Hours: ➢ 669 hours
Julie K. Barrientos	36.50	
Habib Agha	280	
Paul Commisso	3	
Vickie Chen	4.50	
Remy Alexander	48.75	
Krystle Diaz	38	
Sarah Schrader-Nahoom	84.75	
Nicholas Verbeck	7.50	
Total Actual Hours	**511**	

Note: Actual hours are reflected as of the prior week

Risks

Risk #	Risk	Risk Detail	Status
1	Manager Reconciliations 2021	There are four (4) remaining manager reconciliations pending completion. KPMG/WSTO have established an approach to addressing remaining tasks.	Medium/Low
2	Manager Reconciliations 2020	We estimate thirty-three (33) remaining manager reconciliations pending completion. KPMG and WSTO agreed to focus on FY21 reconciliation before attempting to reconcile FY20. WSTO will be providing information for the 33 managers as needed.	High

Legend

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