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**VIA E-FILE AND ELECTRONIC MAIL**

August 9, 2016

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
400 North Street  
Harrisburg, PA 17120

**RE: Affiliated Interest Agreement of SUEZ Water Pennsylvania Inc. (water and wastewater divisions) and SUEZ Water Management & Services Inc. at Docket Nos. G-2016-2546454 and G-2016-2557846**

Dear Secretary Chiavetta:

SUEZ Water Pennsylvania Inc.'s responses to Data Request's **G-1 thru G-14** in the above referenced matter were e-filed today with the PUC.

Please do not hesitate to contact me if you have any questions or concerns.

Best regards,

A handwritten signature in black ink, appearing to be 'James C. Cagle', written over a circular scribble.

James C. Cagle  
Vice President – Regulatory Business

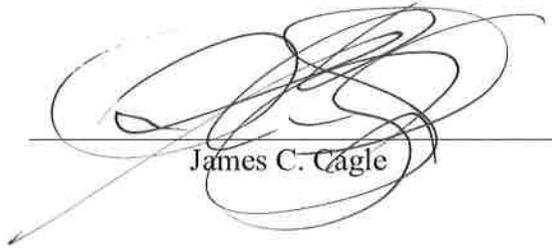
cc: Manasi Deshpande, PUC TUS Water/Wastewater (w/ enclosure)

**VERIFICATION**

I, James C. Cagle, Vice President, Regulatory Business of SUEZ Water Management and Services, hereby state that the facts set forth above are true and correct to the best of my knowledge, information and belief and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).

Date:

8-9-16

  
James C. Cagle

Affiliated Interest Agreement of SUEZ Water Pennsylvania Inc.  
(water and wastewater divisions)  
and SUEZ Water Management & Services Inc. at  
Docket Nos. G-2016-2546454 and G-2016-2557846

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**G-1**  
**(Cagle)**

**G-1** Please indicate the date when the Company plans to file its name change from United Water Pennsylvania Inc. - Wastewater Division to SUEZ Water Pennsylvania Inc. - Wastewater Division (SWP-WD).

**Response:** The Company filed its name change in November 2015 and is in the process of filing a new tariff pursuant to the letter attached as G-1 Attachment.



COMMONWEALTH OF PENNSYLVANIA  
PENNSYLVANIA PUBLIC UTILITY COMMISSION  
400 North Street, Harrisburg, PA 17120

IN REPLY PLEASE  
REFER TO OUR FILE

June 23, 2016

Utility Code: 230077  
BPid: 1095006

Suez Water Pennsylvania Inc.  
Attention Debra Visconti  
461 From Road, Suite 400  
Paramus, NJ 07652

Re: Tariff Wastewater – Pa. PUC No. 1  
United Pennsylvania Water Inc. (Company)

Dear Ms. Visconti:

The Company's November 2015 name change has not been effected at the Commission for the wastewater services under utility code 230077. More recently, you provided our staff with a draft replacement tariff as a prelude to accomplishing this change; however, it appears the Company's files and the official tariff on file at the Commission are not the same. On June 21, 2016, Gary Prettyman, director regulatory business Suez Water and I discussed the situation and ways of achieving the desired changes.

Enclosed is a copy of the official Tariff No. 1. Since it is the Company's desire to replace all tariff pages to reflect its recent name change from United Water Pennsylvania Inc. to Suez Water Pennsylvania Inc., please use this version as your base document to replace Tariff No. 1 with a new Tariff No. 2. All pages should be marked as originals. The right margin is to be void of any symbols, e.g., (I), (D) or (C) reflecting previously approved increases, decreases or changes. The correct verbiage for the upper right corner of each page should be formatted with the following information:

Tariff Wastewater – Pa. P.U.C. No. 2  
Original Page \_\_\_\_\_

Suez Water Pennsylvania Inc. Cancelling and Superseding Tariff-Wastewater Pa. P.U.C. No. 1

If the only change being made to the tariff is the name change, i.e., the content of the pages remain the same, you may file the new tariff on one day's notice and include a verification statement to that effect. A sample verification statement is enclosed for your convenience.

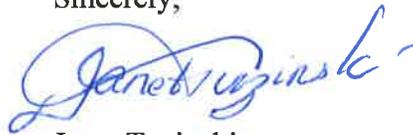
If the content of any page is being revised, the filing requires a full 60 days' notice. We also require that your cover letter include a description of the proposed revision as well as the page number. In the alternative, you may prefer to file the simple name change as noted above

on one day's notice and then file a separate supplement for revisions to the content at a later time.

Please be sure to serve notice of the filing on the Office of Consumer Advocate and the Office of Small Business Advocate.

Questions may be directed to Jani Tuzinski (717) 783-6175 or [jtuzinski@pa.gov](mailto:jtuzinski@pa.gov) or Marie Intrieri (717) 214-9114 or [maintrieri@pa.gov](mailto:maintrieri@pa.gov).

Sincerely,



Janet Tuzinski  
Manager Water/Wastewater  
Bureau of Technical Utility Service

Enclosures:

Sample Verification Sheet  
Tariff-Wastewater – Pa. P.U.C. No. 1

Copies (w/o tariff enclosure):

Marie Intrieri, TUS

Gary Prettyman, Suez  
200 Old Hook Road  
Harrington Park, NJ 07640

**SAMPLE**

STATE OF NEW JERSEY :  
 : SS  
COUNTY OF \_\_\_\_\_ :

**VERIFICATION**

I, \_\_\_\_\_, state that I am \_\_\_\_\_ of SUEZ Water Pennsylvania, Inc.; that I am authorized to make this Verification on behalf of SUEZ Water Pennsylvania, Inc.; that the foregoing Wastewater Pa. P.U.C. Tariff No. 2, which cancels and supersedes SUEZ Water Pennsylvania, Inc.'s Wastewater Pa. P.U.C. Tariff No. 1, makes changes only to reflect the new name of the company as SUEZ Water Pennsylvania, Inc. (formerly known as United Water Pennsylvania, Inc.); that Wastewater Pa. P.U.C. Tariff No. 2 was prepared under my direction and supervision; and that the contents are true and correct to the best of my knowledge, information and belief.

\_\_\_\_\_  
*Signature*

\_\_\_\_\_  
Printed Name

Date: \_\_\_\_\_

\_\_\_\_\_  
Title

Sworn to and subscribed before me  
this \_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Notary Public

My commission expires: \_\_\_\_\_

Affiliated Interest Agreement of SUEZ Water Pennsylvania Inc.  
(water and wastewater divisions)  
and SUEZ Water Management & Services Inc. at  
Docket Nos. G-2016-2546454 and G-2016-2557846

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**G-2**  
**(Cagle)**

**G-2** The organization chart provided in the AIA's Appendix A is not legible.  
Please provide a legible copy of Appendix A.

**Response:** Please see the attached file G-2 Attachment.pdf.



Affiliated Interest Agreement of SUEZ Water Pennsylvania Inc.  
(water and wastewater divisions)  
and SUEZ Water Management & Services Inc. at  
Docket Nos. G-2016-2546454 and G-2016-2557846

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**G-3**  
**(Cagle)**

**G-3** Please state if the AIA is based on a competitive analysis. If yes, please state the alternatives considered other than SWM&S.

**Response:** The allocation factors are based upon an analysis and benchmarking study performed by PA Consulting which is attached as "G-3 Attachment.pdf". While the study is somewhat specific to the Company's New York operations, the results are applicable to each of the Company's operating utilities.



# **UNITED WATER NEW YORK INC.**

## Comprehensive Review of United Water Management and Services Fees

April 24, 2015

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# 1 EXECUTIVE SUMMARY

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## 1.1 Introduction

Pursuant to NYPSC Order dated June 26, 2014 in Case 13-W-0295, Order No. 6:

*“The Company is directed to conduct a comprehensive examination of its management practices...which examination shall include an audit of the fees it is charged by United Water Management & Services Company Inc. The Company shall coordinate the scope of the examination with the staff of the Department of Public Service...to ensure a thorough review of the issues identified in this order.”*

The comprehensive review is intended to address the issues related to United Water Management & Services, Inc. (M&S) identified in the Recommended Decision:

- Improper charges and misallocation of expenses;
- Equitability of continued application of the three factor methodology to regulated affiliates; and,
- A cost/benefit analysis that compares M&S services to alternative outside services.

In addition, the Commission required United Water – New York (UW-NY) to file a comprehensive cost allocation manual governing its transactions with its affiliates under the M&S Agreement. More broadly, the Commission expressed its concern regarding the extent to which UW-NY is exercising diligent management oversight over the UW-NY operations and pursuing all reasonable cost control strategies to minimize rates.

In compliance with the above order, M&S subsequently issued a Request for Qualifications (RFQ) in December 2014 for a *“Comprehensive Review of United Water Management and Services to United Water New York, Inc.”* This RFQ was subsequently revised and re-issued on January 13, 2015. PA Consulting Group was selected by the Company to perform the Review. This report presents the results of the comprehensive review completed by PA Consulting Group (PA).

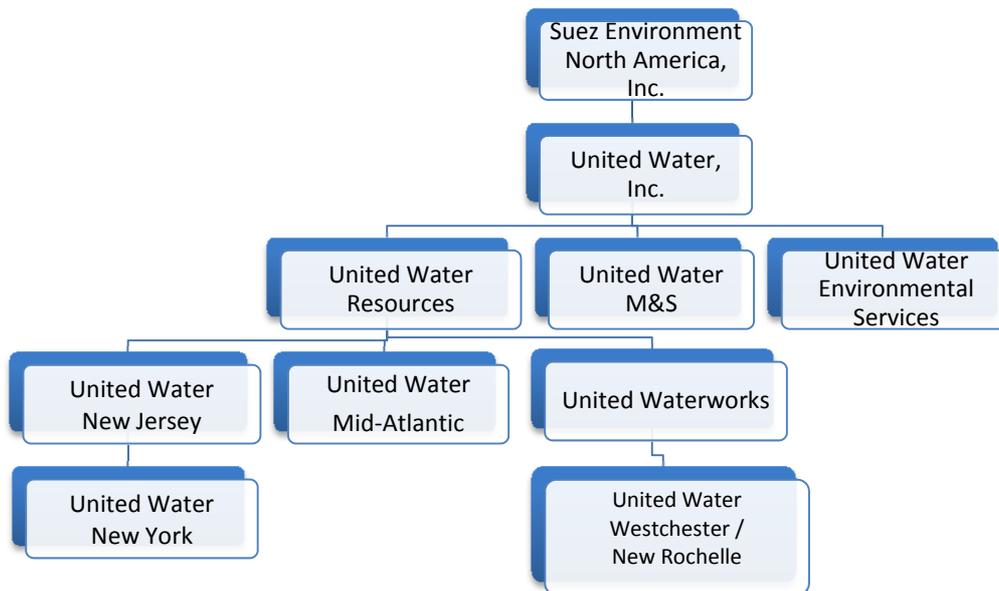
### 1.1.1 Company Overview

United Water, Inc. originally founded as Hackensack Water Company in 1869, is an American water service company headquartered in Harrington Park, New Jersey. Currently, United Water owns and operates 16 water and wastewater utilities, and operates 90 municipal water and waste water systems through public-private partnerships and contract agreements. The company has over 2,300 employees. In 2014, United Water generated \$750 million in revenue, and managed \$2.6 billion in total utility plant.

United Water Management and Services, Inc. is a wholly owned subsidiary of United Water, Inc. (UW), which is a wholly owned subsidiary of Suez North America, Inc. (SENA).

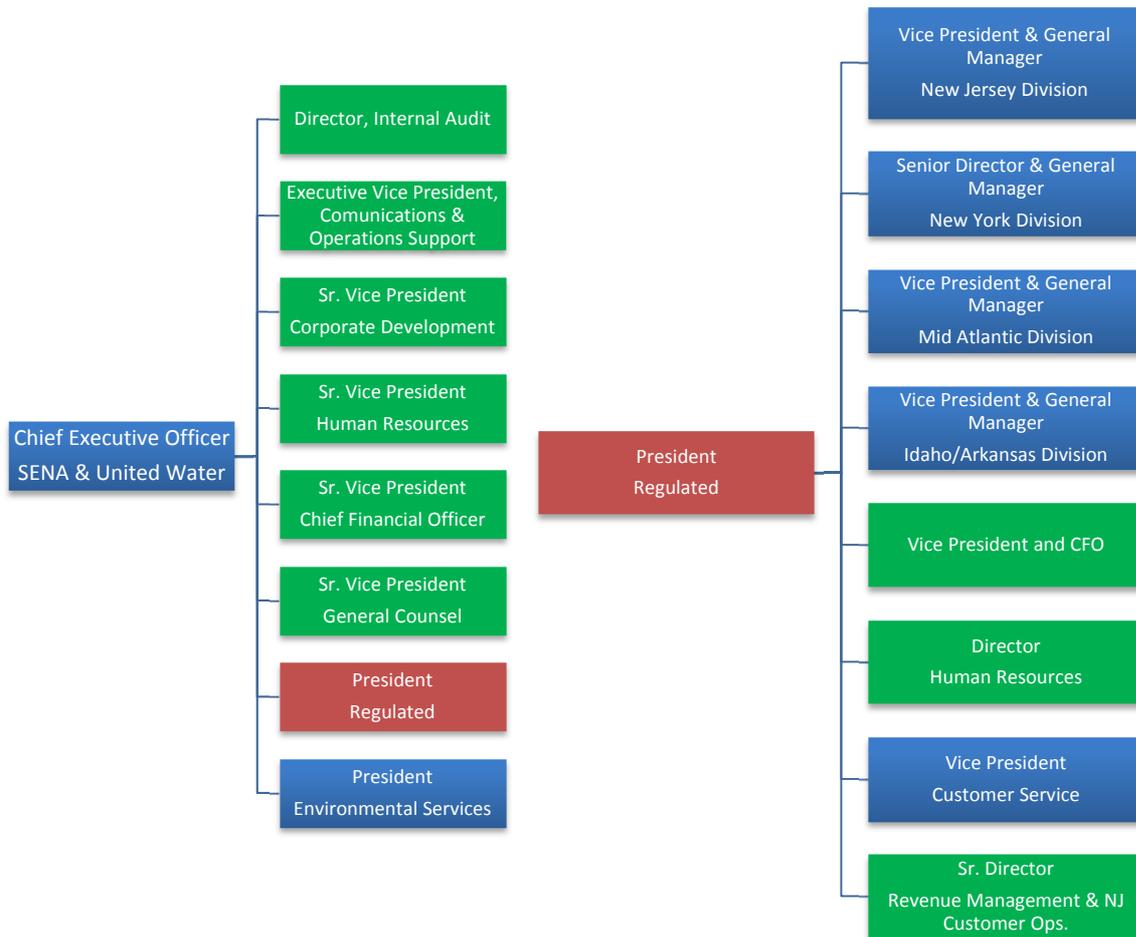
Based on the Agreement between M&S and UW-NY provides administrative, engineering, legal, operations, accounting, finance, human resources, purchasing, insurance, data processing, customer service, billing, public relations, planning and ratemaking services, collectively known as "Shared Services" to the operating subsidiaries of UW, including, United Water, New Jersey (UW-NJ), United Water, New York (UW-NY), United Water, New Rochelle/Westchester (UW-WC), United Water Mid-Atlantic (UWMA), United Waterworks (UW-W), and United Water Environmental Services (UW-ES). UW-NY is a regulated water utility and a subsidiary of UW-NJ that consists of 113 employees, approximately 74,000 customers and annual revenues of about \$81.5 million.

A partial legal entity organization chart showing the relevant entities is below.



### 1.1.2 United Water Organization Structure

The following charts represent the executive organization structure of UW and the regulated business segment:



M&S provides services through the organizations represented by the green-shaded boxes.<sup>1</sup>

The remainder of this chapter presents a high level summary of the objectives, approach, findings and recommendations associated with each of the five tasks described in the RFQ. More detailed discussions are provided in the individual chapters by Task area.

## 1.2 Task 1: Economic Analysis

### 1.2.1 Objectives

- Identify the current services provided by M&S at the department level;
- Evaluate the effectiveness and efficiency of the needed services;
- Evaluate the benefit of such services to the customers of the UW-NY utility;
- Examine and benchmark the most recent cost of the services the UW-NY utility receives from M&S;

<sup>1</sup> UW-NY is a wholly owned subsidiary of UW-NJ.

- Determine if the provisions of these services are the most cost effective alternative;
- Perform a cost benefit analysis comparing M&S services to alternative outside sources of equivalent services; and,
- Recommend, if needed, sufficient and proper controls so that charges for services under the agreement result in reasonable costs and are the best alternative for provision of the service such that the UW-NY utility can independently compare the cost of obtaining the service through the M&S Company to that of non-related parties or having the utility performing the service itself.

### 1.2.2 Approach

The focus of this comprehensive review is on the fees UW-NY is charged by M&S. However, to assess the effectiveness and efficiency of the services provided to UW-NY, PA believes the review needs to also include an assessment of the service costs in the aggregate (or M&S level). An analysis at this level avoids issues associated with differing capitalization and cost allocation practices among peer panel companies which impact service costs at the individual operating company (e.g., UW-NY) level.

To assess the effectiveness and efficiency of the services provided by M&S, PA compared the total cost of each of the ten services (described below) to the normalized peer panel median value of these same services for the companies participating in PA's Corporate and Shared Services benchmarking study. Our specific approach to completing this assessment, as well as the results of this assessment, is provided in Appendix A to this report.

To assess costs charged to UW-NY, we started by identifying costs on the books of UW-NY for 2014 for each of the ten services and then compared those costs to the normalized peer panel median value for these same services.

To accomplish this cost comparison, and the other requirements of the economic analysis task described above, PA performed the following for each service provided by M&S to the UW-NY utility:

- Obtained copies of the monthly M&S invoices for services billed to UW-NY in 2014;
- Obtained financial reports detailing costs direct charged to UW-NY related to the Shared Services;
- Provided the Company with an initial data request (IDR), including a request for cost data for approximately 190 sub-processes typically included in Shared Services provided to affiliate companies;
- Reviewed responses to IDR and submitted follow-up request to M&S;
- Met with M&S and UW-NY employees for each Shared Service; and,
- Completed the benchmarking model and analysed results.

### 1.2.3 Key Findings

1. The total cost of the ten services provided to UW-NY is well below the normalized peer-panel median in aggregate.<sup>2</sup>

Shown below are the total 2014 costs charged to UW-NY for the ten services provided by M&S and the normalized utility peer panel median cost for these same services.

Service	Peer Panel Normalized Median	Total M&S Charges to UW-NY	Difference (\$000)
	(\$000)	(\$000)	
Financial Planning	\$348	\$705	\$357
Accounting	301	1,005	704
Treasury	356	323	(33)
Internal Audit	136	162	26
Information Technology	4,281	2,208	(2,073)
Human Resources	572	397	(175)
Legal	589	473	(116)
Procurement	346	130	(216)
Corporate Communications	458	458	1
Regulatory Business	287	311	26
<b>Total</b>	<b>\$ 7,671</b>	<b>\$ 6,172</b>	<b>(\$ 1,499)</b>

- The total cost of these services was **\$1.5M or 19.5%** below the normalized peer panel median cost for these same ten services.
- Costs to UW-NY are significantly below the normalized peer-panel median cost for Information Technology Services.
  - United Water is currently in the process of upgrading its version of PeopleSoft ERP and adding a front end business planning and budgeting tool (Hyperion). Similar investments in these technology enablers have typically already been made by most of the peer panel companies.
  - Spending on Information Technology often favorably impacts effectiveness and efficiency in other services provided.
  - M&S IT in total spent \$1.980M for outside services in 2014. This represents only 10.0% of the 2014 UW IT spend, while members of our peer panel average 21.3% of total spend to on outside services.

<sup>2</sup> For purposes of this study, references to services provided to UW-NY include the cost of services provided by M&S and allocated (or direct charged) to UW-NY, the cost of allocated “corporate assumptions,” the cost of certain services provided by outside service providers, and the cost of employees embedded in utility operations.

- Costs to UW-NY are significantly above the normalized peer-panel median cost for both Financial Planning and Accounting Services (\$357K and \$704K respectively) which may be attributed to:
  - Suez Environment North America (SENA) has a complex organization structure. SENA operates in approximately twenty States as well as in Canada. The other members of the peer panel will have various numbers of affiliates or business unit but SENA is well above the number of business units supported by the panel members.
  - During the period of analysis, financial systems utilized by these Services did not adequately address the complexity of the SENA structure, requiring an above average level of manual intervention.
- In addition to a planned NY Operational Revenue Cycle Audit, Internal Audit had an unplanned engagement in UW-NY, the cost of which was directly charged to UW-NY. This contributed to the higher than the peer panel median cost for Internal Audit to UW-NY in 2014.

#### 1.2.4 Recommendations

1. The Company should develop both a short-term and long-term strategic plan for Information Technology toward modernizing all operational and financial systems used by M&S to provide Shared Services.
  - a. IT Services play a critical role in implementing systems that support the growth of the utility and enable efficient management of the complex organizational structure.
  - b. It appears that M&S is somewhat behind in developing IT systems and services to address financial system needs. We believe this has contributed to the higher than median cost for both Financial Planning and Accounting Services.
  - c. The use of outside services is a common method for modernizing or upgrading IT system. Spend for IT outside services is less than half the average for our normalized peer panel.
2. Consider broader participation in utility benchmarking programs.
3. Consider completing data gathering and analysis using the PA Corporate and Shared Services benchmarking study to assess performance at the subprocess level. This will provide a more informed analysis of the variances from the peer panel median used in this review.

### 1.3 Task Two: Internal Controls

#### 1.3.1 Objective

The objective of the task is to review the current cost structures, processes and controls and evaluate the strength of those processes and controls to assess the possibility of improper charges and / or misallocation of expenses.

### 1.3.2 Approach

PA assessed the effectiveness of the system of internal controls by reviewing documentation of the systems of internal controls related to the M&S billing process, interviewing key individuals with responsibility for designing the system of internal controls, testing the system of internal controls, and executing M&S billing processes and the related systems of internal controls.

In addition, we reviewed governance practices and related controls including planning, budgeting, reporting and monitoring.

Finally, the results of our assessment were informed by the results of the detailed review we completed as part of the Accounting and Internal Processes task.

### 1.3.3 Key Findings

1. Responsibility for establishing appropriate M&S controlled budgets as well as the appropriate assignment of those costs to individual regulated and non-regulated business units resides at "Corporate" (i.e., at M&S).
2. The complexity of the process results in a lack of traceability of allocated costs, from the original M&S charge to the amount billed to an individual business unit, implying a lack of transparency. This limits the effectiveness of the business unit finance department review of the monthly M&S bill.
3. The M&S Financial Planning department has primary responsibility for M&S (referred to internal as Sales, General & Administrative, or SG&A) variances. Individual M&S department heads do not formally submit explanations for actual and projected variances and do not have formal periodic meetings to discuss operating results. Variances are reviewed primarily by the CFO in the review of the SG&A cost line item and by the individual Executive Management Team (EMT) members.
4. The monthly M&S allocations process is well-defined and controlled, although the efficiency of the process could be improved, if simplified.
5. The Company uses controls embedded in its PeopleSoft financial system to mitigate the risk that M&S departmental costs are allocated to the incorrect business units.
6. The system of internal controls follows the M&S affiliate agreement which governs the Company's allocation practices. These agreements do not provide the flexibility to update allocation practices without refileing the agreements with the appropriate state regulatory agencies. Consequently, allocation practices have not been routinely updated to reflect changes in the Company's business environment.
7. Some practices exist to ensure the pricing of services provided is at or below market, but improvements can be made.
8. While the system of internal controls is documented and assessed through COVAL, we did not see evidence that the M&S allocation process controls were specifically included. Internal Audit indicated they did not perform an audit of the M&S fee allocation process in 2014. The last internal audit of M&S allocation process controls occurred in 2011.

9. Employee time reports are not subject to supervisory approval but compensating controls are adequate.
10. Time reporting guidance provides suggested percentages for time charged to Capex (using the “Overhead” project). These percentages are based on a “high level review.”
11. M&S department heads generally have budgetary control over costs they are responsible for which do not include certain costs such as pension and benefit costs. .
  - Certain costs are budgeted at the M&S department level (and some M&S departments have budgets specifically for certain business units activities);
  - Some related costs (e.g., certain legal fees) are budgeted directly by the Business Units; and,
  - Some costs are allocated or assigned directly to the Business Units (i.e., Corporate Assumptions) with budgetary control at the EMT (or other appropriate senior manager) level for the aggregate level of spend.
12. Spend for capital projects is controlled by the project manager at the project level, and is monitored and reviewed by the Corporate Capital Planning function and the EMT (i.e., subject to control processes outside of the departmental budgetary control processes).

#### 1.3.4 Recommendations

1. Change the M&S allocation process to improve the traceability and auditability of costs down to the BU level; this will, in turn, improve the perceived transparency of the allocation process.
2. Simplify the allocation process, which is governed by the practices delineated in the current M&S agreement, by eliminating the allocation of certain costs to the department level. For example, IT and space costs are allocated to individual departments. While the theory behind doing this is certainly valid, it may make more sense to consolidate these costs and allocate them in total.
3. Simplify the allocation process by excluding costs allocated to M&S departments based on the number of M&S employees, workstations, etc. from the allocation basis and instead include these costs in the amounts directly charged to the regulated and non-regulated segments.
4. Consider fully allocating all actual M&S Opex each month rather than using forecasted spend (which is within the current M&S agreement) to allocate costs to improve traceability and auditability, which will in turn improve the perceived transparency of the allocation process.
5. Ensure that Internal Audit reviews the M&S fee allocation process on a periodic basis.
6. Include a section in the Cost Allocation Manual which describes control processes around costs allocated or charged through the Corporate Assumptions process.
7. Perform a more detailed study to support the capitalization of A&G costs.

## 1.4 Task Three: Accounting and Internal Processes

### 1.4.1 Objective

The objective of this task was to ensure the amounts billed by M&S represent legitimate charges for services provided to the UW-NY utility consistent with the Service Agreement and draft Cost Allocation Manual (CAM) and are properly recorded on the books of the UW-NY utility consistent with the Uniform System of Accounts (USoA) approved by the New York Public Service Commission.

### 1.4.2 Approach

PA assessed the effectiveness and efficiency of the accounting and internal processes associated with M&S billing to affiliates by performing the following:

- Tested the mechanics of the allocation process for accuracy;
- Reviewed a sample of amounts billed to the UW-NY utility to ensure the appropriateness of labor and non-labor charges; and,
- Reviewed the calculation of the allocation factors for accuracy and agreement with appropriate sources and for consistency with the Agreements.

### 1.4.3 Key Findings

1. The results of transaction testing found that the mechanics of the allocation process are working as designed.
2. The testing of the allocation factors themselves found some errors and inconsistencies, in part attributable to differences between the operations of the regulated and non-regulated segments and in part due to a lack of standardization and automation which likely resulted in fewer costs being allocated to UW-NY in 2014.
3. The allocation process is very complex, which in turn results in a lack of traceability of the costs billed to the BU level.
4. Amounts are charged to the appropriate accounts consistent with the USoA adopted by the New York Public Service Commission.

### 1.4.4 Recommendations

1. Improve the standardization and documentation of data sources used to develop the allocation factors to reduce the risk of mistakes associated with communication.
2. Establish detailed definitions for allocation factors and a standard method of documenting support for each allocation factor.
3. Align allocation factors to regulatory filings to reduce communication issues and increase traceability and perceived transparency.
4. Allocation factors should be comparable across multiple business types, and not dependent on the composition of the business unit's services.

5. Set up a standard review of department level time coding to ensure that M&S employees are billing in congruence with work performed.

## 1.5 Task Four: Three Factor Methodology

### 1.5.1 Objectives

There was a significant discussion in the Order and testimony regarding the Company's three factor methodology (commonly referred to as a "general allocator"). Specifically, Commission Staff questioned whether the use of "Number of Customers" results in an over-allocation of costs to the regulated New York utilities as a result of under-allocating costs to certain non-regulated businesses. The June 2014 Order requires this study to address the appropriateness of the continued application of the current three factor methodology to regulated affiliates, including an assessment of the impact of any mis-allocation for the last 3 years.

The objective of this task is to address the equitability of the continued application of the current three factor methodology to regulated affiliates, over the last 3 years.

### 1.5.2 Approach

To assess the appropriateness of the current Three Factor Methodology, PA performed the following:

- Compared the methodology to common practices in the utility industry for use of a general allocator;
- Assessed whether the use of the three factor methodology to allocate specific corporate and shared services costs is consistent with common practices in the utility industry; and,
- Assessed whether the components are sufficiently cost causative given the nature of the services provided and the nature of the affiliates to whom these services are provided

### 1.5.3 Key Findings

1. The Agreement Between United Water Management & Services Inc. and United Water New York Inc., which specifies the use of the three factor methodology as currently used, is dated October 20, 1995. The Agreement specifies that this methodology be used to allocate Administrative, Purchasing, Insurance and General Services.
2. M&S's use of a three factor methodology (or general allocator) to allocate the cost of the following services is reasonable when coupled with the direct charging of costs benefiting specific business units:
  - Executive-level services; that is, the CEO and office of the COO;
  - Legal (i.e., for legal services which cannot be direct charged to an affiliate);
  - Business Development (no business development costs were allocated to the regulated segment in 2014 as a policy decision); and,
  - Procurement.

3. The individual components used in M&S’s three factor methodology (number of employees, number of customers and O&M expenses) do not best reflect the underlying cost drivers as compared to commonly accepted industry practices and the Company’s current portfolio of regulated and non-regulated businesses.
  - One of the three components should reflect investment requirements such as Gross Plant, Net Plant, or Capitalization.
  - Number of customers is not reflective of cost causation for non-regulated contracts in which UW affiliates do not provide meter reading and/or billing services. This represents a majority of the individual contracts. A reasonable alternative would be “revenues” or “gross margin.”
  - Commonly accepted practices suggest that either “payroll,” “number of employees” or “operating expenses” would be a reasonable third component, but the general allocator should not use two of the three.
4. It is a common practice in the North American utility industry to use the general allocator to apportion costs among affiliates for functions providing “governance, general corporate support services or business sustainability” services.
5. Strategic planning is performed within the Commercial Development function (also referred to as Business Development). The cost of strategic planning is not currently allocated to the regulated affiliates.
6. While UW does not currently allocate the Suez Environmental management fee to the regulated and non-regulated segments, it is likely that some corporate services represented by this management fee are commonly allocated in the utility industry using a general allocator.

#### 1.5.4 Recommendations

1. The components of M&S’s current three factor methodology should be changed to better reflect common utility industry practices for the use of general allocators as discussed above.
2. To the extent possible, the components should reflect readily available data and match public documents such as the Annual Reports filed with State utility regulatory commissions.
3. The three factor methodology should also be comprised of components that better reflect cost drivers of the Company’s current business model. For example, the Company should consider the following; however, this list is not intended to represent all possible options.

Current	Number of Employees	Number of Customers	O&M Expenses
<b>Proposed</b> <b>(select one from each column)</b>	<ul style="list-style-type: none"> <li>• Operating expenses</li> <li>• # of Employees</li> <li>• Payroll Dollars</li> </ul>	<ul style="list-style-type: none"> <li>• Operating Revenues</li> <li>• Gross Margin</li> </ul>	<ul style="list-style-type: none"> <li>• Gross Plant</li> <li>• Net Plant</li> <li>• Net Assets</li> <li>• Total Capitalization</li> </ul>

4. There are a number of M&S functional areas where replacing the current allocation factor with a general allocator, utilizing the components suggested in 3 above, would both simplify the overall process as well as improve the cost causality of the allocation basis.
5. UWM&S should consider apportioning strategic planning services to both regulated and non-regulated business units using a general allocator. Strategic Planning costs are not currently allocated to the regulated business segment.

## 1.6 Task Five: Cost Allocation Manual

### 1.6.1 Objectives

The objective of this task is to examine the draft M&S Cost Allocation Manual (CAM) and provide recommended changes where appropriate consistent with generally accepted industry practices.

### 1.6.2 Approach

To accomplish this objective, PA evaluated the draft CAM and compared it to common practices in the United States utility industry for the following:

- Comprehensiveness of the scope of the CAM;
- Completeness of the components of the CAM;
- Effectiveness in providing guidance for cost allocations, both labor and non-labor; and,
- Appropriateness of specific allocation factors used.

### 1.6.3 Key Findings

1. The CAM is an incomplete draft document and does not have the same weight as a formal corporate policy. As a result, the document is not generally acknowledged as a source of guidance to employees.
2. Employees are not periodically trained on the policies and practices included in the CAM, and it is likely that M&S employees are neither familiar with the CAM in its draft form nor turn to it for guidance.
3. The framework of the draft CAM is reasonably consistent with industry practices. However, there are many subcomponents of a cost allocation manual which are not included in the draft CAM.
4. Specific cost allocation factors are at the departmental level rather than at the “service” level.
  - For example, for Human Resource department, all costs are allocated based on the Number of Employees. Defining an HR cost pool to capture costs of services related specifically to the bargaining unit workforce (e.g., labor contract negotiations and grievance handling) and allocating these costs based on the Number of Union Employees may be more appropriate, especially given the non-union composition of the non-regulated segment workforce.
  - Certain non-labor expenses such as ADP-provided payroll services are also allocated based on Number of Employees through the Corporate Assumptions process. In most organizations,

the complexity of a union payroll is significantly greater than a non-union payroll due to pay differentials, premiums, deductions, etc. In addition, union employees are paid on a weekly basis rather than a bi-weekly basis which is typical for the rest of the Company.

- Strategic planning services are embedded in Business Development costs which are not allocated to the regulated business segment.
5. Some non-labor costs associated with services provided by M&S employees are directly charged to business units rather than go through the M&S billing process. Examples include:
    - Out of pocket expenses related to internal audits and regulatory services
    - Certain legal fees
  6. The use of “Capitalization” as the allocation factor for functions such as IT (excluding CC&B-related costs and many non-labor costs) and Finance and Accounting (charged to BU 305) resulted in approximately 98% of these costs being allocated to the regulated segment in 2014. This result may not be fully reflective of the underlying cost drivers. For these functions, the use of the general allocator may result in allocations more reflective of underlying cost drivers.
  7. The following costs are not allocated to the regulated and non-regulated business units, including UW-NY:
    - Non-regulated segment related memberships and sponsorships;
    - Suez management fee;
    - Certain consulting costs (included lobbying expenditures);
    - Certain external audit fees;
    - Certain legal expenses;
    - Corporate charitable contributions; and,
    - Certain business development costs (e.g., costs associated with the acquisition of the Long Island properties were direct charged to Corporate in 2014).
  8. Company management has indicated that it has started a process to update its cost allocation practices and the related affiliate agreements. This update is being coordinated with the upgrade to the PeopleSoft ERP which is currently underway.

#### **1.6.4 Recommendations**

1. The draft CAM should be updated to address the items described in the above findings and made an official Company policy document.
2. Revise the set of allocation factors currently used, including the three factor methodology described in the previous chapter, to better reflect underlying cost drivers, improve consistency, and improve efficiency. This includes the expanded use of the three factor formula and the tailored use of a limited number of “service” based allocators.

- As an example, the allocation process for Human Resources and Payroll services could be tailored to better reflect the underlying differences in cost drivers discussed above between union and non-union workforces.
  - This could be accomplished by allocating payroll costs based on the number of paychecks issued per month. For Human Resources, an additional cost pool could be established to accumulate costs uniquely driven by bargaining unit issues (grievances, contract negotiations, etc.); these costs would then be allocated to business units based on the number of represented employees.
  - The change recommended here, while not a process simplification, is consistent with the general nature of our recommendations in that it is more reflective of the Company's current business model while still being based on readily available allocation factor data.
3. Develop policies and procedures to ensure that new hires and employee changes resulting from internal transfers and departmental reorganizations are trained on time reporting and cost allocation practices, including the direct charging of time and expenses when appropriate.
  4. Continue the processes currently underway to update cost allocation practices and affiliate agreements consistent with the recommendations include in this report.

## 2 SERVICE COMPANY OVERVIEW

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### 2.1 Corporate Shared Services Overview

As the utility industry has worked to realize the benefits of specialization, scale, and scope in the context of industry specific issues, one successful approach for delivering these benefits has been the shared services model.

In this model, the parent corporation or an affiliated Service Company is set up to provide a common suite of services to several utility service provider affiliates. This enables significant specialization and provides the scale to enable investment in sophisticated information systems to support all processes. Often, corporate acquisitions of additional utility service providers result in an increasing ability to share the costs of these specialized services over a greater base. This is referred to as “economies of scale”.

Given the larger service volume delivered through such shared service models, selective sourcing to third parties may also be enabled, as the volume of work in specific areas may become large enough to be economically attractive for third party service providers. Thus, the shared service model has the potential to be an enabler of further sophisticated third party sourcing, as it provides the aggregation of volume necessary to achieve attractive pricing. PC help desk services are an example of this, where support for a hundred PC users is not especially attractive, while support for a thousand or more PC users is much more attractive to a service provider.

The consolidation of electric, gas, water and telecommunications industries have led to the structural changes that created holding companies, service companies and shared service organizations. All of this helps to reduce costs, provide better service, and standardize practices and procedures.

There is little argument regarding the benefits of centralizing functions and providing them on a shared basis. The regulatory scrutiny, therefore, has focused primarily on the overall level of cost, the assignment of those costs to specific utility franchises and the extent to which a utility has explored opportunities to further reduce these costs.

There are two basic structures that can be used for the provision of corporate shared services. The first is the formation of a stand-alone “Service Company” where all services for the affiliates are performed. All personnel would be employees of the Service Company (M&S in this case) and costs are part of the Service Company budget and either directly charged or allocated to the affiliates utilizing appropriate cost allocation methodology. M&S uses this approach for Shared Services such as Information Technology, Internal Audit, Treasury and Procurement.

The second option is a “matrix” style of structure, where some services are provided to the affiliates by employees centralized at the Service Company (M&S in this case), while other services or portions are provided by employees of the business unit (UW-NY in this case). In this model, the utility personnel typically only perform services for their utility and as such all of their costs are part of the utility’s operating budget, eliminating the need for cost assignment through either direct charging or allocation.

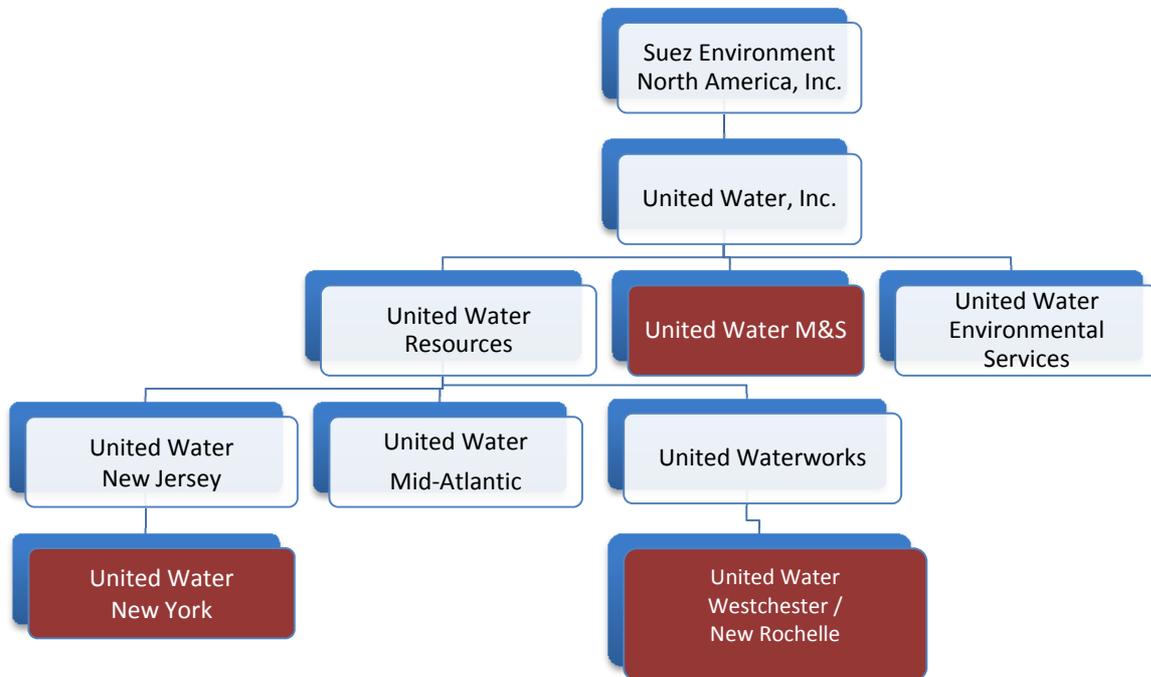
We refer to these as “embedded employees.” M&S uses this approach for Shared Services such as Financial Planning, Human Resources and Corporate Communications.

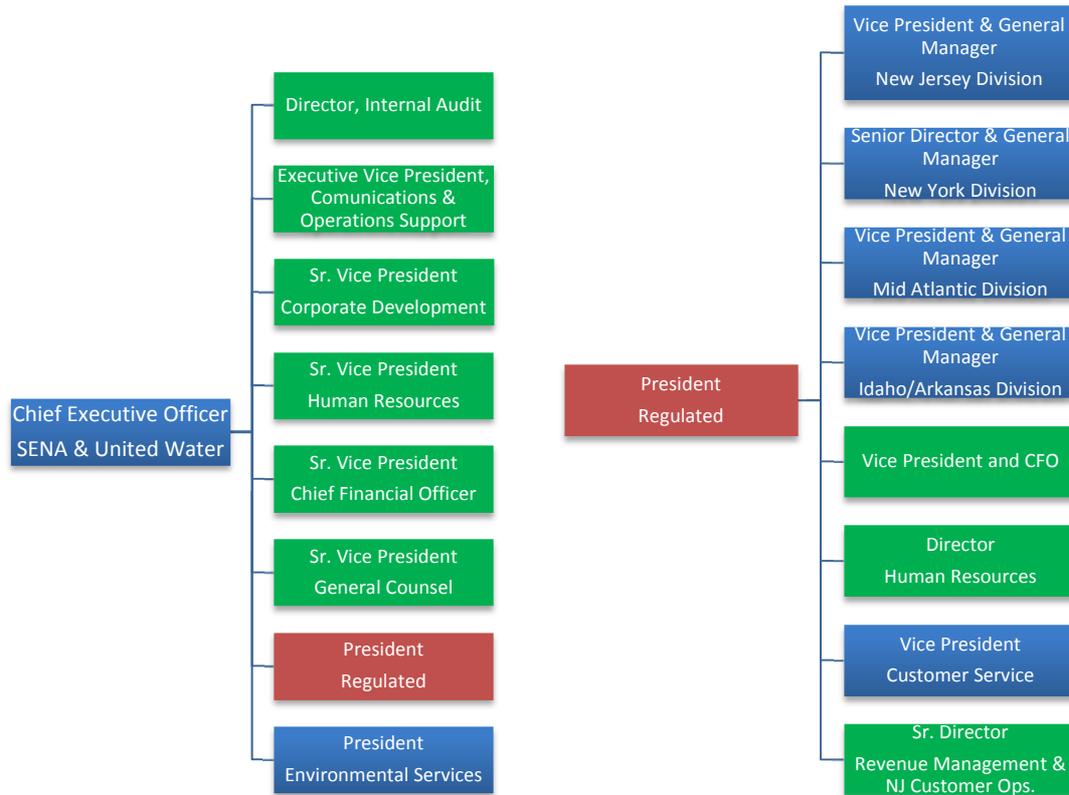
For example, the Director of Finance (New York), who reports to the UW-NY General Manager, supports both UW-NY and UW-W, with his costs apportioned equally between the two operating units. However, he performs services solely in support of the Shared Service - *Financial Planning Services*.

Also, in this structure, some companies choose to provide leadership and direction for these utility employees through a small leadership team at the Service Company that also oversees the analogous function(s) at other affiliated utilities. With this approach, the costs for this typically small leadership team are directly charged or allocated to the utilities they support. An example of this at M&S is for services such as External Affairs and Environmental, Health & Safety.

## 2.2 United Water Organization Structure

The following charts represent the organization structure of UW and the regulated business segment:





M&S provides services through the organizations represented by the green-shaded boxes.<sup>3</sup>

## 2.3 Services Included In Our Report

For the purposes of our Review, we selected Shared Services categories that are typical of Shared Services Companies and are aligned with the data included in our peer panel data. These are:

1. *Financial Planning*, including:
  - a. Corporate Strategy
  - b. Financial Planning
  - c. Budgeting & Analysis
  - d. Management Reporting
  - e. Internal Control & Enterprise Risk Management
2. *Accounting*, including:
  - a. General Accounting
  - b. Accounting Policy
  - c. Taxes
  - d. External Reporting
3. *Treasury*, including:
  - a. Cash Management

<sup>3</sup> UW-NY is a wholly owned subsidiary of UW-NJ.

- b. Corporate Finance
- c. Accounts Payable
- 4. *Internal Audit*
- 5. *Procurement*
- 6. *Legal*
- 7. *Information Technology*
- 8. *Human Resources, including:*
  - a. Payroll
- 9. *Corporate Communications, including:*
  - a. Media Relations
  - b. Stakeholder Communications
  - c. Employee Communications
- 10. *Regulatory Business*

The next step was to develop the costs of each of these ten Shared Services for UW-NY. The Economic Analysis Chapter of this Report is organized around these ten Shared Services.

## 2.4 Determination of UW-NY Shared Services Costs for Benchmarking

In order to meet the Commissions requirement to “...examine and benchmark the most recent cost of the services UW-NY utilities receive from M&S”, it was necessary to determine the total costs of each of the Shared Services provided by M&S to UW-NY.

This was accomplished by performing the following.

### **M&S Billing**

We obtained copies of the monthly invoices for services billed by M&S to UW-NY in 2014. The costs included in the invoices was compiled and mapped to the ten service categories identified above as appropriate. To these amounts, we added back a portion of costs representing M&S departmental costs which had been capitalized (the “A&G Capitalized” amounts) and not billed through the M&S invoicing process to ensure comparability with peer panel data.<sup>4</sup>

### **Treatment of Embedded and Direct Costs**

We identified the cost of both employees embedded in UW-NY and well as costs direct charged to UW-NY that relate to the ten services benchmarked. In some instances, cost were direct charged to UW-NY through the corporate assumptions allocation process,<sup>5</sup> in other cases costs were direct charged as having exclusively benefited UW-NY (for example, certain legal expenses and out-of-pocket expenses of M&S departments incurred while providing services exclusively to UW-NY).

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<sup>4</sup> Description of PA benchmarking methodology and use of a peer panel is discussed in Chapter 3 below.

<sup>5</sup> Corporate Assumptions are discussed below in Chapter 5.

## Treatment of Capital Costs

For benchmarking purposes, PA includes capital costs at the regular run rate. Special projects, large one-time investments, and large-scale upgrades are excluded to the extent they result in costs substantially above the process' normal rate of spend. Regular run rate capital costs include labor and non-labor expenses. A portion of these capital costs representing UW-NY overall share of M&S costs were included in UW-NY costs to ensure consistency with the benchmarking panel.

## 2.5 Costs Not Reviewed in this Report

Certain M&S Department costs are not reflected in the cost of the ten shared services benchmarked. These include the following departments:

- Office of the CEO;
- Office of the COO;
- Customer Care;
- Environmental Health and Safety;
- Engineering & Technical Services;
- Business Development;
- Revenue Management; and,
- Facilities.

These functions represent approximately 30 percent of total M&S departmental costs.<sup>66</sup> This is consistent with other corporate and shared services benchmarking studies we have performed, in which approximately 70 percent of total service company costs are typically benchmarked.

The reasons for excluding these functions from the current study include: lack of comparable peer panel data, costs are not allocated to the regulated segment including UW-NY, and immateriality.

In the following Chapter, we present the results of our Benchmarking Analysis for UW-NY.

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<sup>66</sup> Or 34 percent if including Business Development (BD); we excluded BD from the percent of total as no BD costs are allocated to the regulated segment.

## 3 BENCHMARKING OVERVIEW

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### 3.1 Shared Services Benchmarking Methodology

To help analyze the costs for M&S's Corporate and Shared Services<sup>7</sup> charged to UW-NY, we compared the actual costs charged to UW-NY in 2014 to those in our panel of North American utilities.

This panel includes, in addition to UW-NY, 14 utilities<sup>8</sup> representing a range of size and operating environments, for a total of 15 panel members. For 14 of the panel utilities, the available cost data is for calendar year 2013. To compare this data with UW-NY's 2014 cost data, we inflated the 2013 costs by 1.6%.<sup>9</sup>

For some Services, certain utilities are not included in the panel due to lack of data or anomalies in their structure. For example, one member of the panel is excluded from all Services except Information Technology since we only have data for IT from that panel member.

### 3.2 Normalization

The total, or absolute, cost of Shared Services for any company is clearly directly related to the size of the company. However, the relative cost of Shared Services tends to decrease as a company's size increases, consistent with the economies of scale discussed above. Since no two companies are exactly the same size, to compare costs across a group of companies, the absolute level of cost needs to be normalized to adjust for size.

To normalize for size across our data set of 14 utilities and UW-NY, we have used three equally weighted measures of size – gross margin, net assets, and employee headcount. These factors comprise the "Massachusetts Formula", a widely accepted and time-tested approach for allocating many Corporate Shared Services costs among jurisdictions and utility affiliates.

This approach allows us to directly compare costs for our panel of utilities, where they range in size, from \$1 billion to \$10 billion in gross margin, from \$2 billion to nearly \$26 billion in net assets, and from 500 to 23,000 full time employees. Through the use of the Massachusetts Formula, as described below, we have normalized all of these companies, to the actual size UW-NY.

This normalization is a three-step process:

#### Step 1: Calculate the Average Massachusetts Formula for the peer group:

- a. Separately total the gross margin, net assets, and headcount for UW-NY and all other 14 utilities in the panel;

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<sup>7</sup> M&S costs, including corporate assumptions, and costs related to these services that are embedded in the utility affiliates.

<sup>8</sup> PA has confidentiality obligations with each utility. They will be labelled "A", "B", "C", etc.

<sup>9</sup> Bureau of Labor Statistics: CPI Detailed Report Data for December 2014

- b. Calculate the percent of the total for each utilities (1) gross margin, (2) net assets and (3) headcount; and,
- c. Determine the average 1+2+3 above for each company.
- d. This result equates to the average Massachusetts Formula for UW-NY and each of the other 14 utilities in the peer group.

#### **Step 2: Calculate the Normalization Factor**

- a. For each utility in the panel, divide it's average Massachusetts Formula, from Step 1(d) above, by the average Massachusetts Formula for UW-NY, also from Step 1(d) above;
- b. This result is the normalization factor for each utility.

#### **Step 3: Normalize the Services Cost for each Utility in the Panel**

- a. Multiply the normalization factor, determined in Step 2 above, by the actual 2013 costs<sup>10</sup> for each shared service for each utility in the peer panel;
- b. Costs for shared services in all utilities in the panel are now normalized;
- c. Now, each member of the peer panel has been adjusted in size to that of UW-NY.

### **3.3 Benchmarking Results**

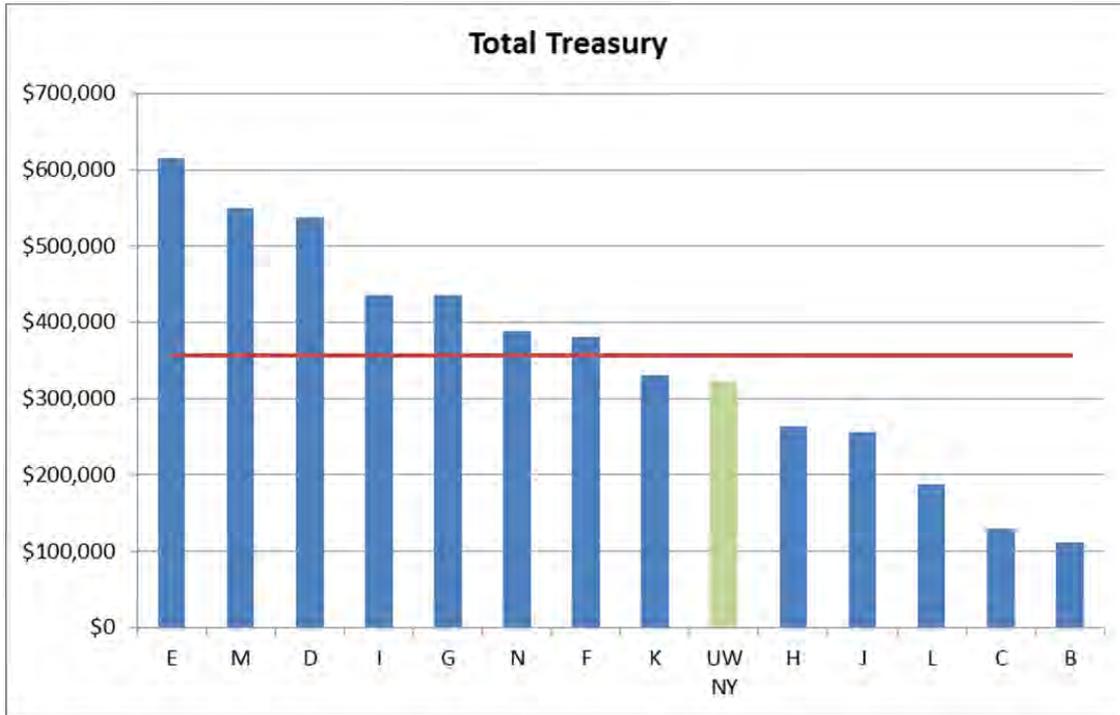
Once each utility in the peer group is normalized to the size of UW-NY, we use the median cost of the peer group for each Service to compare to actual 2014 UW-NY.

We report our findings for each Service in Chapter 4, the Economic Analysis section of this report, using the following charts and tables.

For Services where the UW-NY actuals costs are at or below the median of the normalized peer panel, we will show those results in **GREEN** similar to the chart below,

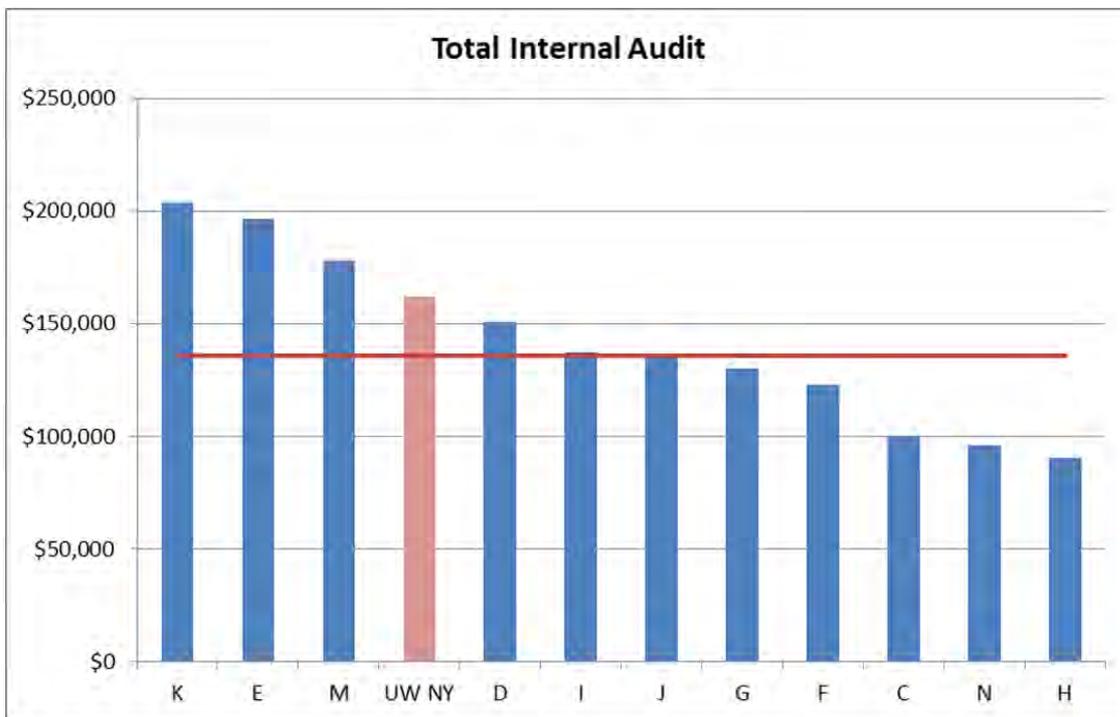
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<sup>10</sup> Inflated by 1.6% as discussed above.



The red line represents the median of the normalized peer panel

For Services where the UW-NY actuals costs are above the median of the normalized peer panel, we will show those results in RED similar to the chart below.



As shown above, once normalized, the display will show where the M&S costs charged to UW-NY fit in the overall cost structure of the peer group. Differences can be the result of several different factors including: the overall higher or lower cost structure of the peer; the presence of economies of scale, and the demographics of the respective service territories.

These benchmark comparisons provide an understanding of the efficiency with which M&S provides each Shared Service to UW-NY, in comparison to our nationwide panel of utilities.

This information will also be displayed numerically in a table as shown in the example below:

(Name of Service) (\$000)	
<b>Peer Group Median</b>	963
<b>2012 UW-NY Actual Costs</b>	827
<b>UW-NY Costs vs. Peer Median</b>	(136)

### 3.4 Analysis of Benchmarking Results

Typically, our methodology allows us to understand which sub-process elements are driving the cost of a service to be above or below the median. First we look for one-time cost or costs that have spiked for some reason. For example, we might see certain Regulatory Business Services or Legal Services increase inordinately as a result of a particular regulatory proceeding. Once we have identified the outlier, we can make a judgment regarding the efficiency of the shared services process.

PA’s template for gathering benchmarking data is a rigorous data request of information from the Company that matches the data received from the other utilities in our peer panel.

The template includes approximately 190 cost data points related to a vast array of shared services provided to utility affiliates. We ask the Company to provide detailed cost information for each one sub processes. These data points are then aligned with the Shared Services.

Below is an example of this template which was sent to the Company as a data request.

**Portion of Benchmarking Template for Information Technology**

Dept.	Sub Process Code	Sub Process Title	Sub Process Definition	Cost Data <sup>11</sup>
IT	IT01	Maintenance of the Application Portfolio	Technical support, problem resolution, application of minor enhancements, upgrades and patches. License and maintenance fees for the application portfolio should be included here. This sub-process INCLUDES execution and management review of IT controls for existing applications for SOX purposes, however independent SOX testing should be reported in FI22a.	
IT	IT02	Data Center Operations & Production Control	Operate & monitor data center infrastructure and applications, backup & restore services, change management administration, batch job management, HW/SW installation and decommissioning. This includes disaster recovery facilities and the overall disaster recovery plan. Disaster recovery for individual applications is included with each application or piece of infrastructure. This sub-process includes asset management activities for data center assets. This sub-process INCLUDES execution and management review of data center IT controls for SOX purposes, however independent SOX testing should be reported in FI22a. Includes: Common server & storage support work, E-mail, Instant message, Internet content filtering, user directories.	
IT	IT03	Computing Engineering	Design, test, implement, and monitor technical issues within the data center production, storage and communications infrastructure.	
IT	IT04	Process and Project management	Process development, support and management of methodologies and measurements for effective delivery of business solutions. Includes: IT PMO and project management resources for solution and implementation projects.	
IT	IT05	Development of Solutions	Design, develop, test and implement new information technology features or functions that provide business solutions and application development. This sub-process INCLUDES execution and management review of IT controls for SOX purposes for new applications, however independent SOX testing should be reported in FI22a. Excludes: Project Management Office (PMO) or resources dedicated to project management activities.	
IT	IT06	Enterprise Architecture	Design, test and implement new information technology standards and tools for computing environments.	

Once the data is provided and verified, we typically compare each sub-process cost to the panel and identify which one(s) may be contributing to the total Shared Service being above the median.

However, M&S could not complete our full data request due to the complexity of the request and degree time and effort to complete within the schedule set by the Commission.

<sup>11</sup> We request this data be provided in detail i.e. FTE's, labor, outside services, material & other costs.

As a result, PA used its experience in these matters as well as meeting and interviews to attempt to identify cost causation factors.

### 3.5 Schedule

The contract for the *Comprehensive Review of United Water Management and Services Fees* was awarded to PA Consulting Group on February 23, 2015. Project planning commenced immediately upon award and consisted of the review of documents attached to the contract, the preparation and submission of an initial data request, planning for the project kick-off meeting held on March 5, 2015, the review of responses to the initial data request, and coordination of activities required to complete the benchmarking study (the activity with the longest lead time).

Following the kick-off meeting, on-site fieldwork began the week of March 9, 2015 which included interviews with functional area heads, continued benchmarking study data gathering and analysis, transaction audits, accounting and internal controls reviews, and reviews of allocation practices including an assessment of the three-factor general allocator and the cost allocation manual.

The draft report was completed on April 15, 2015 and submitted to the client for fact checking, and the final report provided on April 24, 2015. There were a total of eight weeks available to complete the agreed upon work tasks. This timing was driven by a filing deadline of April 27, 2015.

## 4 TASK ONE: ECONOMIC ANALYSIS

### 4.1 Total Cost of M&S Shared Services

The focus of this comprehensive review is on the fees UW-NY is charged by M&S. However, to assess the effectiveness and efficiency of the services provided to UW-NY, PA believes the review needs to also include an assessment of the service costs in the aggregate (or M&S level). An analysis at this level avoids issues associated with differing capitalization and cost allocation practices which impact service costs at the individual operating company (e.g., UW-NY) level.

To assess the effectiveness and efficiency of the services provided by M&S, PA compared the total cost of each of the ten services (described below) to the normalized peer panel median value of these same services for the companies participating in PA's Corporate and Shared Services benchmarking study. Our specific approach to completing this assessment, as well as the results of this assessment, is provided in Appendix A to this report.

The remainder of this chapter is devoted to the Economic Analysis of the cost of M&S Shared Services to UW-NY.

### 4.2 Shared Services Cost to UW-NY

Our approach to assessing costs charged to UW-NY was similar to that used to assess costs in the aggregate. For each of the ten services, we identified the comparable costs on the books of UW-NY for 2014 and compared those costs to the normalized peer panel median value for these same services.

The benchmarked cost of the ten services included the cost of employees embedded in the business units in UW-NY and other applicable UW-NY direct costs. Shown below are the total 2014 costs charged to UW-NY. Note that the total cost to UW-NY is **\$1.5M or 19.5% below** the peer panel median.

Service	Peer Panel Normalized Median (\$000)	Total M&S Charges to UW-NY (\$000)	Difference (\$000)
Financial Planning	\$348	\$705	\$357
Accounting	301	1,005	704
Treasury	356	323	(33)
Internal Audit	136	162	26
Information Technology	4,281	2,208	(2,073)
Human Resources	57	397	(175)
Legal	589	473	(116)
Procurement	346	130	(216)
Corporate Communications	458	458	1
Regulatory Business	287	311	26
Total	\$7,671	\$6,172	\$(1,499)

### 4.3 Need and Benefit of these Services to Ratepayers

Based on our experience in the utility industry as well as our discussions with UW-NY employees, there is little doubt that all the Services shown in the table above are required Services that benefit the Company and its ratepayers. They are all necessary components of a corporate structure.

As noted previously, a Service Company is set up to provide a common suite of services to several utility service provider affiliates. This enables significant specialization and provides the scale to enable investment in sophisticated information systems to support all processes. Often, corporate acquisitions of additional utility service providers result in an increasing ability to share the costs of these specialized services over a greater base. This is referred to as “economies of scale”. Economies of scale benefit ratepayers by the “sharing” of services and costs among affiliates those reducing the costs to individual affiliates, including UW-NY.

### 4.4 Third Party Market Information

In theory, all corporate services could be sourced from third party providers. However, this breaks down in practice, as, for example, virtually every major corporation of which we are aware has prudently chosen to retain leadership, governance, and certain technical skills and services in house. This is to ensure their responsibilities to shareholders, regulators, and customers are being met with effective and consistent company policies and standards, while confidential and proprietary information is properly safeguarded.

In addition, we consider whether there is a significant relationship between the Service and an impact on UW-NY customers that might affect service and reliability.

Many Services require specific knowledge of utility regulation as well as the various technology and Information Technology systems that would make outsourcing unadvisable. Others are an integral part of UW’s strategic and business planning process. In some instances we considered the economic and practical realities of outsourcing a small volume of services and the costs to manage a small contract.

With this logic in mind, we have identified certain M&S provided services that we would not recommend for outsourcing to third parties. These include:

- Accounting Services;
- Financial Planning Services;
- Procurement Services;
- Accounts Payable Services;
- Treasury Services; and,
- Regulatory Business Services.

For these Services, we have not explored, in any detail, the costs associated with third party outsourcing, either at the M&S cost pool level or at the individual utility level.

However, there are certain services that can be prudently outsourced, at least in part, given that the governance and strategic aspects of the service are maintained in-house. Examples include:

- Internal Audit Services;
- Human Resource Services (e.g. Payroll);
- Information Technology Services (e.g. Helpdesk); and,
- Legal Services (e.g. Litigation).

For certain services, the combination of the attributes of the service and the resources available in the marketplace make the use of a staff augmentation sourcing model is more cost effective (i.e., where a level of internal staffing is maintained, but is augmented by outsourcing certain activities or workloads), while for other services a comprehensive outsourcing could be the most cost effective market solution.

Generally, PA is able to obtain sufficient market information to analyze Shared Service costs to the outside market from the utilities that engage us. For example, in some cases we have obtained reports from compensation consulting firms engaged by the utility to analyze its compensation plans.

We were informed that the Company had data from Towers Watson, Mercer and PayFactors.

*Towers Watson & Co.* is a global professional services firm. Its principal lines of business are risk management and human resource consulting. It also has actuarial and investment consulting practices.

*Mercer* is a global consulting firm in talent, health, retirement, and investments. Its services include human resources consulting regarding benefits and compensation.

According to their website, *PayFactors* offers a robust source of market data for over 4,000 jobs from across 143 different industries, all benchmarked following World at Work standards.

We requested a complete set of data from these sources but we were unable to obtain market information for all Shared Services in time for the release of this report. Where we received sufficient data we will comment on it. Otherwise, PA's conclusions regarding the availability of market service choices will be based on our experience in the industry.

Following is our function-by-function economic analysis for the ten services identified above.

## 4.5 Financial Planning Services

### 4.5.1 Description of Financial Planning Services

Financial Planning Services include:

- Assessing the business environment; identification of key issues; developing business unit strategies and objectives, and examination of alternatives; developing multi-year earnings, margin, cash, O&M, and capital plan; modeling the financial impact of new capital investments and balance sheet restructuring; forecasting for regulatory filings; performing analytic support for external stakeholders, and governing corporate capital expenditures;
- Develops business unit and department financial business plans for the next year including earnings, margin, cash, O&M and capital plans;
- Performs analysis of results and prepares variance commentary for earnings, margin, O&M, and Capital within the Company and business unit;
- Prepares and revises forecasts for earnings, margin, cash, O&M, and Capital within the business units; and,
- Review's actual information and projects the remainder of the current year future years. This function performs “what-if” analysis for various scenarios for business unit decision-making.

Financial Planning Services are the responsibility of the Senior Director, Financial Control & Corporate Finance within the Senior Vice President & Chief Financial Officer organization. There are a total of fifteen employees providing Financial Planning Services.

In addition, there are *three* embedded employees in UW-NY. These embedded employees provide support to the UW-NY President for planning and budget related matters as well as support to the M&S Financial Planning organization. Costs for these employees have been included in the M&S costs for benchmarking purposes.

### 4.5.2 Results of Financial Planning Services Benchmarking

In order to benchmark UW-NY costs on a comparable basis, we normalized each of the peer panel companies’ costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW-NY. The table below shows the actual UW-NY costs for Financial Planning Services with the median of our panel.

Allocated to UW-NY (\$000)	Embedded UW-NY (\$000)	Cost to UW-NY (\$000)	Peer Panel Normalized Median Cost (\$000)
\$460	\$245	<b>\$705</b>	\$348

As noted above, the cost for Financial Planning Services to UW-NY in 2014 was **\$705K**.

The chart below compares this actual total cost with the peer median costs and shows that the total cost to UW-NY is well above the line.



Looking at our analysis another way, the table below shows that, the actual costs to UW-NY are \$357K or 102.6% above the median.

Financial Planning Services (\$000)	
Peer Group Median	\$348
2012 UW-NY Actual Costs	\$705
UW-NY Costs vs. Peer Median	\$357

### 4.5.3 PA Comment On These Results

Analysis of the results of this benchmarking result is hampered by the fact that Financial Planning could not complete the sub-process cost template that PA provided with our initial data request. This template breaks cost down into *sixteen* sub-process cost pools for Financial Planning that would identify which sub-processes are driving the cost above the median. These templates take a significant amount of time and effort to complete.

Unfortunately, the schedule for the completion of the report and the required filing date with the PSC did not allow sufficient time to complete the process.

However, we are able to make the following observations regarding Financial Planning that likely contribute to its higher costs.

As shown on the following page Suez Environment North America (SENA) has a complex organization structure. SENA operates in approximately *twenty* States as well as in Canada. The other members of the peer panel will have various numbers of affiliates or business unit but SENA is well above the number of business units supported by the panel members.

As we will discuss later in this Section, the much lower than peer panel median spend for Information Technology is an indication that the upgrading and modernization of UW's financial and operating systems has not been a priority. While UW is in the process of upgrading its financial systems to the latest version of the PeopleSoft ERP and adding a front end business planning and budgeting tool (Hyperion) with implementation later this year, there need to be a thorough examination of UW's IT processes and systems resulting in a long term IT Strategic Plan.

Similar investments in these technology enablers have typically already been made by most of the peer panel companies.

As noted above, during the review period (2014) there were *three* embedded employees in UW-NY providing Financial Planning Services. Staffing levels have since been reduced from three employees to two employees. As we noted earlier, one of the benefits of the shared services structure is the increase in "economies of scale" whereby the cost of centralized services are allocated over a large (and growing) universe of service users. The matrix style of structure adopted by M&S for Financial Planning can partially defeat that benefit when employees remain embedded in the operating company.

The total number of employees providing Financial Planning service is *twenty-seven* (fifteen at M&S + twelve embedded). The normalized median of employees staffing for Financial Planning in our peer panel is *nineteen*. Thus, M&S Financial Planning has *eight* more employees than the peer panel median. This would add a higher level of costs for allocation to UW-NY, The complexity of SENA structure and the number of affiliates requiring services is a likely driver for these higher staffing levels and costs.

Financial Planning is comprised of mostly more senior employees than many of the other services at M&S and, in our experience, in the peer panel. This results in higher employee related costs for Financial Planning.

Finally, the cost allocation factor for allocating Financial Planning costs to affiliates is total Capitalization. Business units with fewer assets would likely receive a lower allocation of costs if a more appropriate factor were used.

#### **4.5.4 Market information for Financial Planning Services**

##### Currently Outsourced Services

There are no outsourced Financial Planning Services.

##### Appropriateness for Third Party Provisioning

Financial Planning is an integral part of M&S's strategic and business planning. Many of the functions performed have a direct impact on UW-NY ratepayers by developing financial plans supporting capital expenditures that effect service and reliability.

For this reason and others discussed above, in our opinion, it would not be prudent to outsource Financial Planning Services from a third party.

*Available Market Information*

PA has not examined market information for Financial Planning Services.





## 4.6 Accounting and Tax Services

### 4.6.1 Description of Accounting and Tax Services

Accounting and Tax Services includes the following:

- Managing the monthly closing process including account reconciliations, accounting issue resolution, and process improvement; preparing standard monthly journal entries and analysis to support accounting;
- Managing the accounting for fixed assets including: work order creation and set-up, analysis and monitoring of capital projects; creating and managing fixed asset records including asset addition, retirements, transfers or adjustments and the preparation of any related journal entries and account reconciliations; reporting of plant asset information for financial, audits, regulatory reporting, rate cases or other internal needs; process associated with the development, analysis, and accounting for depreciation;
- Managing accounting policies, GAAP research, and implementation of new accounting pronouncements; providing guidance on accounting issues; communicating any new accounting guidelines and procedures and their impact to appropriate organizations organization;
- Determining technical accounting details for specific transactions; performs research, consultations with external audit and guidance provided to the Company;
- Preparing and filing standard regulatory reports, and other mandated reports as well as with preparing the accounting information needed to complete the annual report;
- Ensures accurate accounting in all accounts;
- Performs tax services including audit of assessed property taxes, payment of property taxes, and the accounting for property taxes;
- Develops long-range tax planning to optimize tax positions for the Company; this also involves analysis of laws and regulations as they impact the company's interest;
- Files federal state and local tax returns and defends all related income tax audits as well as all applicable sales, use, and gross receipts tax returns; and,
- Ensures proper accounting in all tax accounts.

Accounting Services responsibility is with the Corporate Controller, within the Senior Vice President & Chief Financial Officer's organization. There are thirty M&S employees that provide these services to UW-NY and other M&S affiliates.

The Corporate Tax related services above, are performed in the Director, Tax Compliance, which is also a part of the Senior Vice President & Chief Financial Officer's organization. There are *seven* employees providing these services.

M&S provides all the Accounting and Tax Services required by UW affiliates and there are no embedded employees at UW-NY.

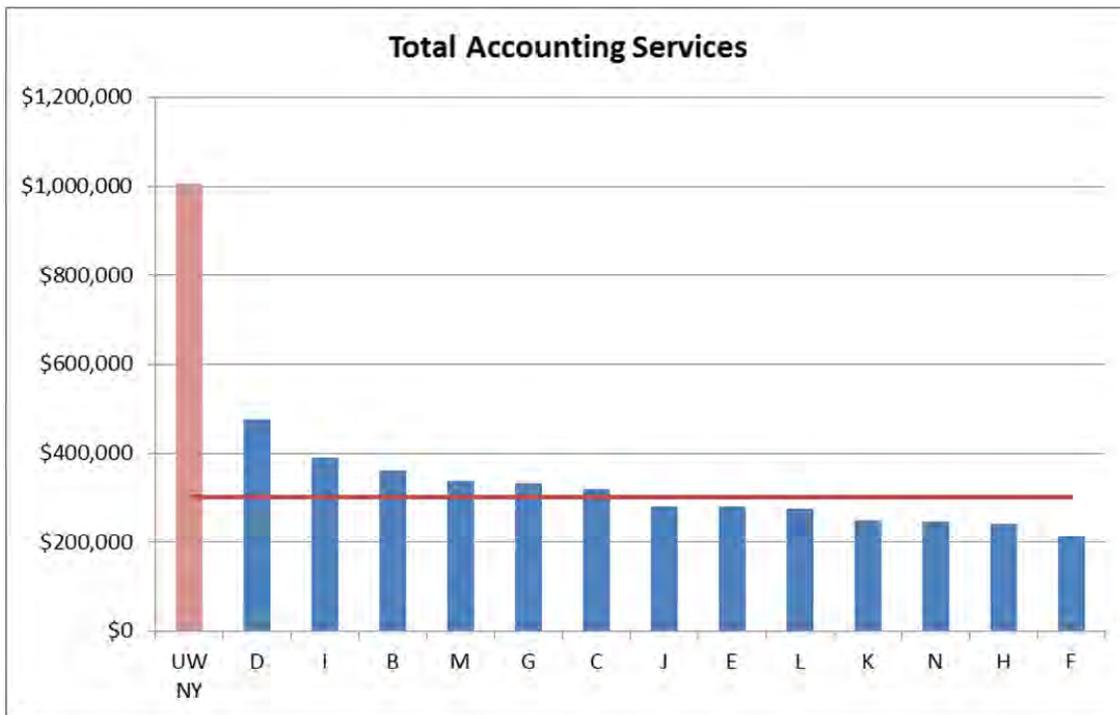
### 4.6.2 Results of Accounting Services Benchmarking

In order to benchmark UW-NY costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW-NY. The table below shows the actual UW-NY costs for Accounting Services with the median of our panel.

Allocated to UW-NY (\$000)	Embedded UW-NY (\$000)	Cost to UW-NY (\$000)	Peer Panel Normalized Median Cost (\$000)
\$1,005	-	<b>\$1,005</b>	\$301

As shown above, the total cost of Accounting Services to UW-NY is **\$1.005M**

The chart below compares this actual total cost with the peer median costs and shows that the amount allocated to UW-NY is well above the Median.



Looking at our analysis another way, the table below shows that, the actual costs to UW-NY are \$704K or 233.8% above the median.

Accounting Services (\$000)	
Peer Group Median	\$301
2012 UW-NY Actual Costs	\$1,005
UW-NY Costs vs. Peer Median	\$704

### 4.6.3 PA Comment On These Results

Analysis of the benchmarking results was hampered by the fact that Accounting & Tax Services could not complete the sub-process cost template that PA provided with our initial data request. This template breaks cost down into *fourteen* sub-process cost pools for Accounting & Tax Services that would identify which sub-processes are driving the cost above the median. These templates take a significant amount of time and effort to complete and, unfortunately, given the project start date, the schedule for the completion of the report and the required filing date with the PSC did not allow sufficient time to complete the process.

However, we are able to make the following observations regarding Accounting & Tax Services that likely contribute to its higher costs.

As shown on above, SENA has a complex organization structure. SENA operates in approximately *twenty* States as well as in Canada. The other members of the peer panel will have various numbers of affiliates or business unit but SENA is well above the number of business units supported by the panel members.

The total number of employees providing Accounting & Tax Services is *thirty-seven* (*thirty* for Accounting and *seven* for Tax). The normalized median of employees staffing for Accounting & Tax Services in our peer panel is *thirty-four*. Thus, UW Financial Planning has *three* fewer employees than the peer panel median.

Accounting Services management have told us that their processes continue to be highly manual including the reconciliation of 44 bank accounts. Management also indicates that they continue to rework/revise accounting issues from past years

As we will discuss later in this Chapter, the much lower than peer panel median spend for Information Technology is an indication that the upgrading and modernization of M&S's financial and operating systems has not been performed. While M&S is in the process of upgrading its financial systems to the latest version of the PeopleSoft ERP, with implementation later this year, there need to be a thorough examination of UW's IT processes and systems resulting in a long term IT Strategic Plan.

Finally, the cost allocation factor for allocating Accounting & Tax Services costs to affiliates is Total Capitalization. Business units with significant assets would likely receive a lower allocation of costs if a more appropriate factor were used.

### 4.6.4 Market information for Accounting Services

#### Appropriateness for Third Party Provisioning

Accounting and Tax Services in the utility industry require specific knowledge of regulatory and tax accounting as well as the various technologies used in the industry. In addition, detailed knowledge of departmental budgets and IT systems would make outsourcing inadvisable. For these reasons and those discussed previously, in our opinion, it would not be prudent to source Accounting Services from third parties.

#### Currently Outsourced Services

Local expertise is engaged to investigate and challenge property and gross receipts tax assessments. Forensic audit firms have been utilized for independent review of accounting issues.

Available Market Information

PA did not review any market data for Accounting Services.

## 4.7 Treasury Services

We have included the following cost pools in Treasury Services:

1. Treasury Services (Cash Management; Corporate Finance)
2. Accounts Payable

### 4.7.1 Description of Treasury Services

Treasury Services include:

- Short term borrowing and investing, including activities such as, commercial paper issuance and associated activity or issuance fees, rating agency activity or issuance fees, money, cash pooling, EFT originations, tax payments, intercompany loans administration of transactions and daily settlement, determining daily cash position, and costs for issuing and paying agents;
- Daily cash account reconciliations, treasury workstation administration; bank or third-party fees, such as service charges, positive pay fees, and security related fees for both utility and non-utility account; all bank credit facility costs (e.g. bank lines, credit lines, revolvers) including any upfront fees and on-going fees;
- Develops a long-range financing and dividend strategy consistent with the targeted credit profile, setting balance sheet targets, developing and recommending hurdle rates for the company's business lines;
- Rating agency relations includes managing communications with the three agencies. It also includes annual rating maintenance fees and commercial paper surveillance fees;

There are three M&S employees who provide these and other Treasury Services. They report to the Vice President, Treasurer.

#### Accounts Payable

The Accounts Payable Services performed for UW-NY by M&S include:

- Processing and payment of vendor invoices, including special payments, for goods and services purchased through a purchase order;
- Special payments meant to capture payments to vendors and other service providers that are made on an expedited basis, or are processed without all of the normal elements of an invoice, a purchase order, and a notice of receipt;
- Managing and monitoring the use of the M&S Procurement Card process

There are six M&S employees providing Accounts Payable Services. They report to the Vice President, Treasurer.

There are no embedded employees at UW-NY.

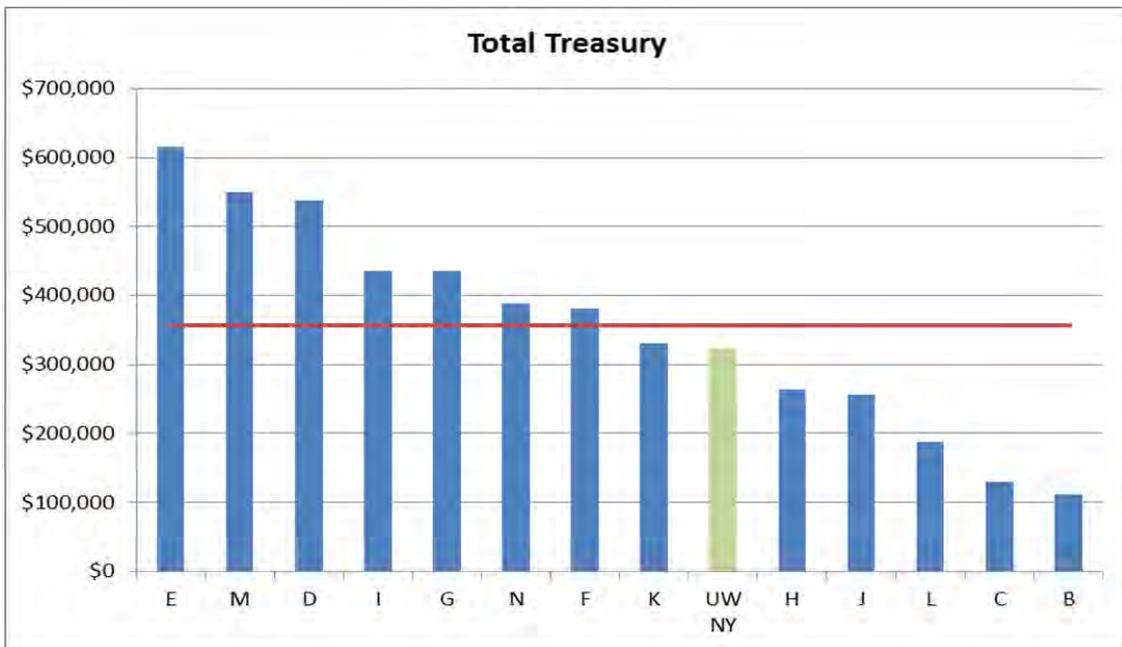
### 4.7.2 Results of Treasury Services Benchmarking

In order to benchmark UW-NY costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW-NY. The table below shows the actual UW-NY costs for Treasury Services with the median of our panel.

M&S Allocated to UW-NY (\$000)	Embedded UW-NY (\$000)	Cost to UW-NY (\$000)	Peer Panel Normalized Median Cost (\$000)
\$323	-	\$323	\$356

As shown above, the cost of Treasury Services to UW-NY is **\$323K**.

The chart below compares this actual total cost with the peer median costs and shows that the amount allocated to UW-NY is below the peer median.



Looking at our analysis another way, the table below shows that, the actual costs to UW-NY are **\$33k or 9.3% below the median**.

Treasury Services (\$000)	
Peer Group Median	\$356
2012 UW-NY Actual Costs	\$323
UW-NY Costs vs. Peer Median	\$(33)

### 4.7.3 PA Comment On These Results

Treasury Services does not perform some sub-processes such as Investor Relations, which contributes to its lower costs. There are a total of *forty-four* banks that the Treasury Services organization interfaces with. The median employee staffing for Treasury Services in our peer panel is *fifteen*. This compares to the *ten* for M&S Treasury Services.

### 4.7.4 Market Information for Treasury Services

#### Currently Outsourced Services

Treasury has outsourced Payroll Services to ADT. The latest contract was effective January 13, 2013 for five years. Payroll has been aligned with Human Resources for the purposes of this report.

#### Appropriateness for Third Party Provisioning

Treasury Services is an integral part of UW's financial processes. Many of the functions performed have a direct impact on UW-NY ratepayers by developing financing plans that reduce revenue requirements while obtaining capital required for expenditures that effect service and reliability. This requires not only keen finance skills but also solid knowledge of the financing markets available to the utility industry. For these reasons and those discussed previously, in our opinion, it would not be prudent to outsource Treasury Services.

Accounts Payable Services processed 132,800 invoices in 2014. These invoices totaled approximately \$432.7M from 8,677 active suppliers. To process this volume in an efficient manner requires that Accounts Payable staff have a sound familiarity with the products and services provided and the organizations that benefited from them, and be tightly integrated with these organizations technologically. For these reasons and those discussed previously, in our opinion, it would not be prudent to outsource Accounts Payable Services to a third party.

Also, as noted above, these services do not appear to be over-staffed and are operating below the peer panel cost line. We do not see a cost advantage to outsourcing these services.

#### Available Market Information

PA has not examined market information for Treasury Services.

## 4.8 Internal Audit Services

We have included the following cost pools in Internal Audit Services:

1. Internal Audit
2. Corporate Ethics Compliance

### 4.8.1 Description of Internal Audit Services

M&S Internal Audit Services is established as an independent area primarily responsible for the analysis, assessment and supervision of the relevant internal control and risk management systems for the Company. Services include:

- Performs independent, objective assurance and control advisory services. This includes all audits as well as development of forward looking audit plans that are independent and reviewed with the Company's Audit Committee; and,
- Manages and administers corporate ethics compliance programs. This includes various codes of conduct requirements, whistle-blower cases, ombudsmen services, and associated compliance reporting.

Internal Audit Services are the responsibility of four M&S employees including the Director of Internal Audit who reports to the CEO with direct oversight by the Board of Directors and United Water's parent company.

There are no embedded employees at UW-NY or other affiliates. All costs are at the M&S level and are directly charged or allocated to affiliates.

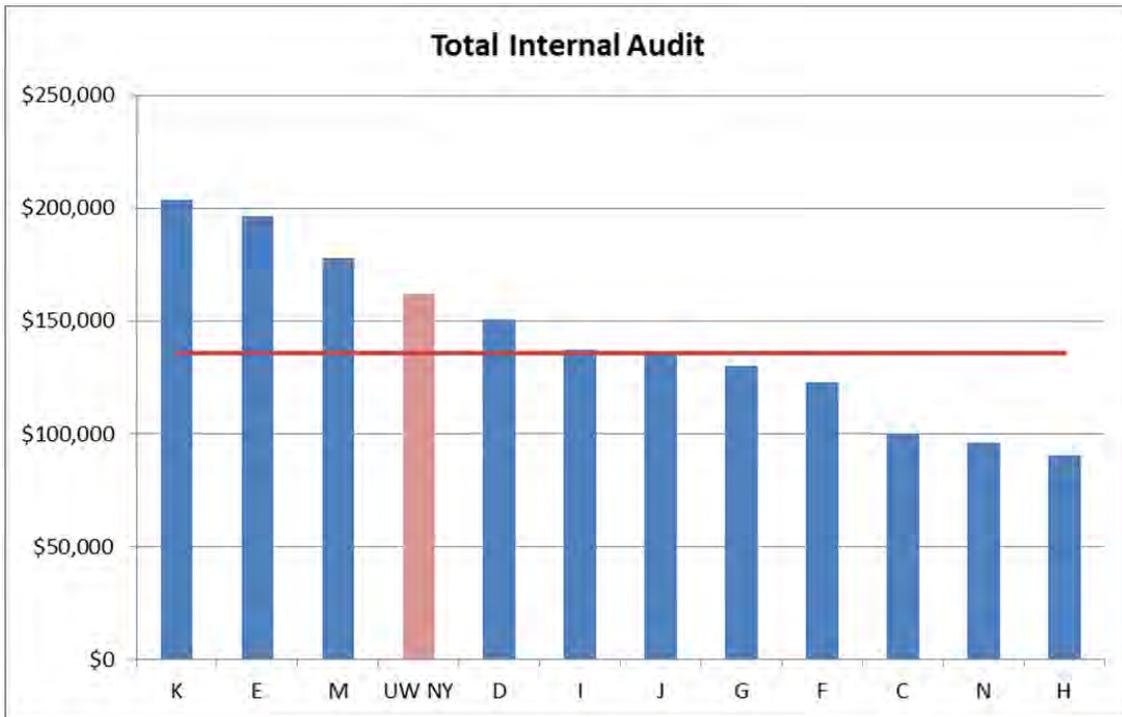
### 4.8.2 Results of Internal Audit Services Benchmarking

In order to benchmark UW-NY costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW-NY. The table below shows the actual UW-NY costs for Internal Audit Services with the median of our panel.

M&S Allocated to UW-NY (\$000)	Embedded UW-NY (\$000)	Cost to UW-NY (\$000)	Peer Panel Normalized Median Cost (\$000)
\$162	-	\$162	\$136

As noted above, the cost for Internal Audit Services to UW-NY in 2014 was **\$162K**.

The chart below compares this actual total cost with the peer median costs and shows that the amount allocated to UW-NY.



As the chart above shows, Internal Audit Services is above the median level of the peer panel.

Looking at our analysis another way, the table below shows that, the actual costs to UW-NY are above the median. Internal Audit costs to UW-NY are **\$26K or 19.1% above** the peer panel median.

Internal Audit Services (\$000)	
Peer Group Median	\$136
2012 UW-NY Actual Costs	\$162
UW-NY Costs vs. Peer Median	\$26

### 4.8.3 PA Comment On These Results

In our meeting with the Director of Internal Audit, we learned that there was an unplanned engagement performed for UW-NY in 2014, the costs of which were directly charged to UW-NY.

### 4.8.4 Market Information for Internal Audit Services

#### Currently Outsourced Services

External Audit Services are currently sourced to Mazars. The use of an independent external auditor is consistent with best practice. Internal Audit Services are not currently outsourced.

#### Appropriateness for Third Party Provisioning

In 2014, Internal Audit completed 25 audits consuming 6,460 hours. 22 audits are planned for 2015.

Utility Internal Audit Services organizations are typically staffed with versatile, multi-disciplinary, professionals with an in-depth knowledge of the utility industry. Team members typically bring to bear their in-house experience within the utility business units and they generally have prior experience in public accounting.

While Internal Audit Services has the potential to be outsourced, in our experience at investor-owned utilities, the service is not typically outsourced. Only one of the utilities in a prior peer panel used an outsourced service provider for Internal Audit and we have observed that this approach has resulted in higher than average costs for that utility.

On the other hand, Internal Audit Services will, on occasion, outsource specific one-time audits that either required specific expertise not found in the organization or other workload requires temporary staff augmentation. Internal Audit informs us that they had no such instances during 2014.

In our opinion, Internal Audit Services is not a service where UW-NY could reasonably expect cost savings to be achieved through outsourcing.

#### Available Market Information

PA did not investigate market information for Internal Audit Services. In our experience, pricing for these services reflect many factors, which combine to make pricing difficult to assess. Given that the overall cost of Audit Services is equal to the peer panel median, we did not analyze the market further for these services.

## 4.9 Procurement Services

### 4.9.1 Description of Procurement Services

Procurement Services includes procurement planning and scheduling; RFP, RFQ, RFI creation; and management of the bidding process which consists of bidder selection, invitation, bid package preparation and distribution, bid evaluations, vendor selection, and contract award, including master agreements.

There are *fourteen* M&S employees who provide Procurement Services to the UW affiliates. They report to the Vice President Treasury & Chief Procurement Officer.

There are no embedded employees in UW-NY providing Procurement Services.

Procurement Services issued 84 RFPs, RFIs, and RFQs for professional services in 2014.

### 4.9.2 Results of Procurement Services Benchmarking

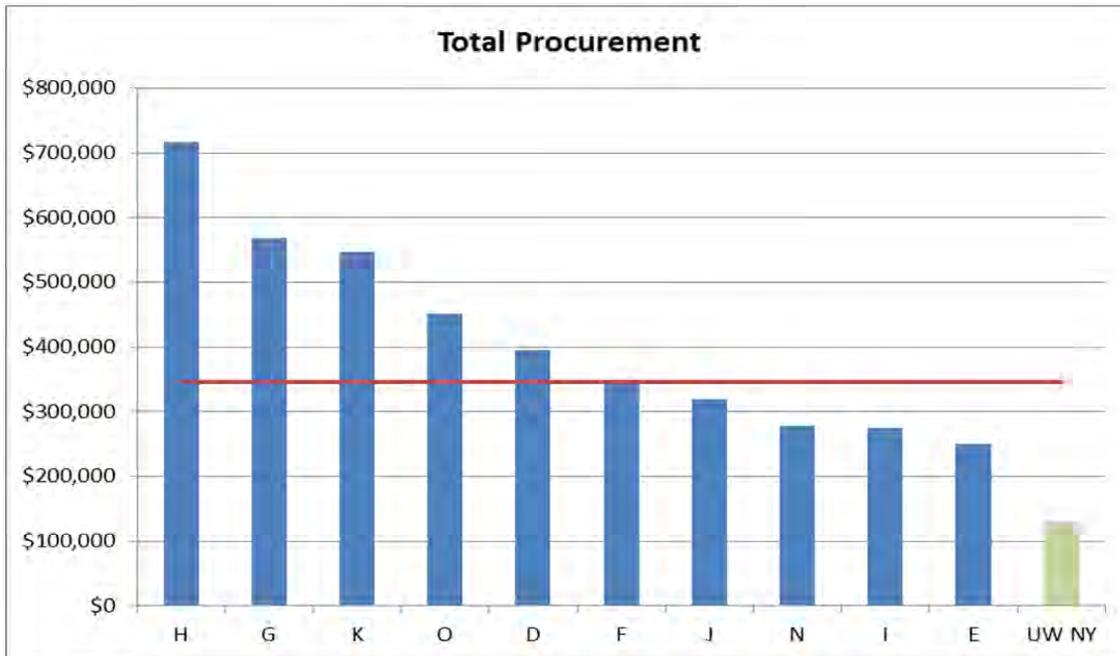
In order to benchmark UW-NY costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW-NY. The table below shows the actual UW-NY costs for Procurement Services with the median of our panel.

The table below shows this cost as compared to the peer panel median for this Service.

M&S Allocated to UW-NY (\$000)	Embedded UW-NY (\$000)	Cost to UW-NY (\$000)	Peer Panel Normalized Median Cost (\$000)
\$130	-	\$130	\$346

The cost for Procurement Services to UW-NY in 2014 was **\$130K**.

The chart below compares this actual total cost with the peer median costs and shows that the amount allocated to UW-NY is below the peer median.



Looking at our analysis another way, the table below shows that, the actual costs to UW-NY are \$216K or 62.4% below the median.

Procurement Services (\$000)	
Peer Group Median	\$346
2012 UW-NY Actual Costs	\$130
UW-NY Costs vs. Peer Median	\$216

### 4.9.3 PA Comment On These Results

None

### 4.9.4 Market Information for Procurement Services

#### Currently Outsourced Services

There are no Procurement Services outsourced to third parties.

#### Appropriateness for Third Party Provisioning

Procurement Services requires specific and detailed knowledge of the water utility business, and contributes the most value to the business when it is tightly integrated with utility operations. PA does not consider this service as a candidate for third party sourcing.

#### Available Market Information

PA did not review market information for this service

## 4.10 Legal Services

### 4.10.1 Description of Legal Services

Legal Services provides the following services:

- Legal Services handles all matters related to general litigation involving the corporation;
- Performs legal services for securities and corporate financial transactions, financial reporting and disclosures, business organizations, mergers, acquisitions and business development, corporate governance, internal controls and risk management, insurance, executive compensation;
- Manages legal services for commercial and contract law matters for the corporation, including real estate matters and land use permits;
- Serves as board secretary and support corporate governance functions, board of directors meetings, legal opinion letters, assists audit and compliance functions, performs and attests internal controls, and ensures compliance with corporate registration and regulation;
- Retains and manages external counsel to provide legal representation in specialized areas of law and to manage variable level legal work;
- Legal work supporting the negotiation of water purchase agreements and other procurement contracts as well as legal work related to franchise renewals, water rights;
- Provides legal advice and representation with regard to intellectual property matters;
- Performs legal services for matters involving environmental law for the corporation including environmental permitting activities, due diligence, defense in enforcement actions, compliance advice, representation in environmental clean-up and environmental litigation costs;
- Provides legal advice, representation and counselling in matters arising under federal and state water regulatory laws, regulations and policies as they relate to the Company's utility related assets for water and waste water;
- Provides risk management services including management of the insurance and surety bond programs; and,
- Manages and administers corporate legal and regulatory compliance programs, other than Ethics Compliance.

Legal Services are the responsibility of the Vice President, General Counsel. There are *twenty-one* M&S employees providing Legal Services at M&S, including two employees providing risk management services.

There are no embedded UW-NY employees performing Legal Services.

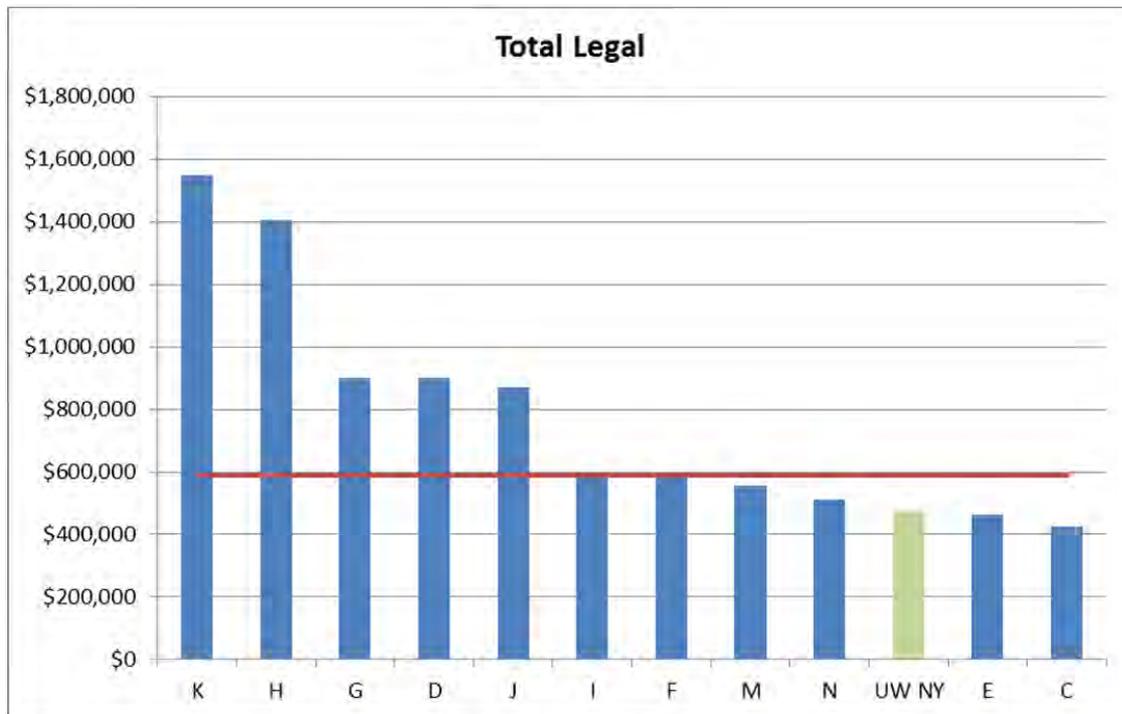
### 4.10.2 Results of Legal Services Benchmarking

In order to benchmark UW-NY costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW-NY. The table below shows the actual UW-NY costs for Legal Services with the median of our panel.

M&S Allocated to UW-NY (\$000)	Embedded UW-NY (\$000)	Cost to UW-NY (\$000)	Peer Panel Normalized Median Cost (\$000)
\$473	-	\$473	\$589

As noted above, the cost for Legal Services to UW-NY in 2014 was **\$418K**.

The chart below compares this actual total cost with the peer median costs and shows that the amount allocated to UW-NY is below the peer median.



Looking at our analysis another way, the table below shows that, the actual costs to UW-NY are \$116K or 19.7% below the median.

Legal Services (\$000)	
Peer Group Median	\$589
2012 UW-NY Actual Costs	\$473

UW-NY Costs vs. Peer Median	\$116
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### 4.10.3 PA Comment On These Results

None

### 4.10.4 Market Information for Legal Services

#### Currently Outsourced Services

Legal Services currently outsource a significant amount of work. In 2014, the amount outsourced totaled \$3.1M, or 58.2%, of total legal spend for the year.

#### Appropriateness for Third Party Provisioning

There are certain Legal Services that can be prudently outsourced, at least in part, given that the governance remains at M&S. As discussed above, Legal Services at M&S utilizes third-party legal services frequently.

#### Available Market Information

The legal work routinely outsourced is usually of a complicated, specialized nature where the company is seeking to obtain specialized knowledge and expertise. Senior-level legal resources are typically selected for these assignments based on the possession of these specialized, unique skills.

PA did not review market information for legal services.

## 4.11 Information Technology

### 4.11.1 Description of Information Technology Services

Information and Operations Technology Services include:

- Operates and monitors data center infrastructure and applications, backup & restore services, change management administration, batch job management, hardware and software installation and decommissioning;
- Technical support, problem resolution, and the application of minor enhancements, upgrades and patches to applications;
- Develops, supports and manages methodologies and measurements for effective delivery of business solutions;
- Designs, develops, tests and implements new information technology and new information technology standards and tools for computing environments.
- Services provide support center user interface as well as Tier 1 and Tier 2 support for End User support requests;
- Installs, maintains and resolves service problems for end user computing devices, software, LANs and peripherals;
- Manages the installation, operation, and on-going network security administration including: identity and access management, user provisioning, access control, monitoring and managing security systems including firewalls, IDS/IPS, and event management systems, vulnerability management (patching and antivirus administration), etc.;
- Architecture, design, implementation, technical support, problem resolution, application of minor enhancements, upgrades and patches for operating and financial systems;
- Monitors security events, assists with information gathering for required system audits and provides project management support for new system implementations, upgrades and enhancements;
- Sets standards for procuring network equipment and supporting configurations;
- Implements the cyber security policies and controls development and architecture evaluation of security solutions and it monitors alignment with best practices, incident response planning, and;
- Manage equipment, service and usage expenses paid to telecom providers for phone, data circuits, Internet, etc. This includes WAN costs such as fiber backbone or microwave, whether those WAN costs are external service provider costs or are provided by internal resources.

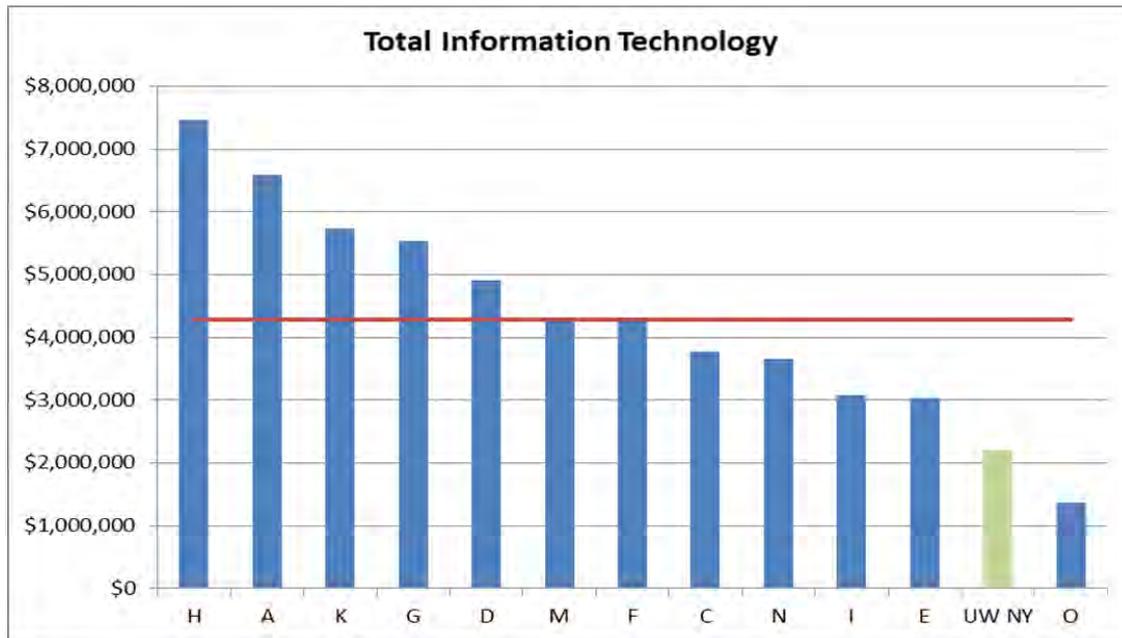
There are *thirty-nine* M&S employees included in this analysis who report to the Senior Director, Information Technology. There are no embedded employees.

### 4.11.2 Results of Information Technology Services Benchmarking

In order to benchmark UW-NY costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW-NY. The table below shows the actual UW-NY costs for Information Technology Services with the median of our panel.

Allocated to UW-NY (\$000)	Embedded UW-NY (\$000)	Cost to UW-NY (\$000)	Peer Panel Normalized Median Cost (\$000)
\$2,208	-	\$2,208	\$4,281

As noted above, the cost for Information Technology Services to UW-NY in 2014 was \$2.2M. The chart below compares this actual total cost with the peer median costs and shows that the amount allocated to UW-NY is well below the peer median.



Looking at our analysis another way, the table below shows that, the actual costs to UW-NY are \$2.1M, or 48.4%, below the median.

IT Services (\$000)	
Peer Group Median	\$4,281
2012 UW-NY Actual Costs	\$2,208
UW-NY Costs vs. Peer Median	\$(2,073)

### 4.11.3 PA Comment On These Results

Information Technology costs to UW-NY is below the peer panel median spending by 48.4%. In our view, this indicates that M&S has not made financial and operational system modernization a priority. As we discussed in the Financial Planning and Accounting Services sections above, the complexity of the SENA structure require significant manual effort to provide those services. While the upgrade to PeopleSoft scheduled for later this year will provide some relief, it is not clear that UW has long term strategy to modernize all financial and operating systems.

IT Services play a critical role in implementing systems that support the growth of the utility and enable efficient management of the complex organizational structure that follows. It appears that UW is somewhat behind in developing IT systems and services to address financial system needs. We believe this has contributed to the higher than median cost for both Financial Planning and Accounting Services.

The use of outside services is a common method for modernizing or upgrading IT system. M&S spend for IT outside services is less than half the average for our normalized peer panel.

Another indication of the lack of focus on IT is that there are *thirty-nine* employees in M&S IT. Our peer panel median number of employees is *ninety-three*. This is a significant gap in resources vs. the peer panel benchmark.

### 4.11.4 Market Information for Information Technology

#### Currently Outsourced Services

Information Technology typically sources a significant number of services to third-party suppliers. Data provided to PA shows that Information Technology spent \$1.980M for outside services in 2014. This is 10.0% of the 2014 IT spend. Members of our peer panel average 21.3% of total spend to outside services.

#### Appropriateness for Third Party Provisioning

Many IT services are suitable for sourcing to third parties. These include; data center operations & production control; computing engineering; process and project management; development of solutions; help desk; desktop, laptop & LAN services; business engagement; network and infrastructure security administration; utility operational technology systems; telecom infrastructure; provide telephony services; cyber security.

The Company has not provided us with a detailed list of outsourced functions.

#### Available Market Information

PA did not review market information for Information Technology.

## 4.12 Human Resource Services

Human Resource Services includes Payroll Services.

### 4.12.1 Description of Human Resource Services

#### Human Resource Services

- The recruitment, screening, and selection of internal and external candidates;
- Establishing relocation programs and management of employee relocations, including all administration and execution costs of the relocation program;
- Designs and administers compensation processes including job evaluations, annual salary planning, incentive programs, executive compensation, deferred compensation, long term incentive programs;
- Design, management and implementation of health, prescription, life insurance, pension and retirement, reimbursement accounts, employee assistance programs, and other benefits for all employees;
- Manages strategy, negotiations, and contract interpretation. This includes arbitration resolution, mutual gains bargaining, local management support on grievances, discipline, adherence to the contract and training;
- Identification, development, and delivery of training programs to enhance the skills and capabilities of the workforce;
- Provides support on Human Resources technology and processes, technology strategy and solutions, portfolio management, corporate and ad hoc reporting, data analysis, data integrity and oversight, and system testing; and, process and release management;
- Succession planning, performance management, career development, mentoring, executive coaching, career planning & development, and employee/organizational assessments;
- Management and administration of all short and long term disability programs and FMLA, whether done internally or by a third party; disability insurance premiums, if any, and the cost of claims for self-insured programs and insured programs with a deductible; medical services required by the Company for disability cases, such as second opinions, consultations, etc.; disability case management and return to work programs; investigations of short term disability claims; legal services, whether internal or external, related to disability cases;
- Provides safety training requirements and communication tools, needs assessments and training program development, and compliance reporting, including investigation leadership and support; and,
- Labor Relations including contract negotiations and grievance management.

There are *twenty* M&S employees providing Human Resource Services in the Vice President, Human Resources organization.

There are no embedded employees at UW-NY providing Human Resources Services.

Payroll Services

- Payroll Services have been outsourced to ADT. These Services include: the issuance of employee payroll checks as well as processing employee withholding information, tax withholding deposits, quarterly payroll tax returns, payroll calculations, annual W-2s and 1099Rs and government reporting; processes pay adjustments; special pays and garnishments; preparing payroll tax filings; printing, stuffing, and distributing pay checks and electronic deposit statements;
- M&S provides call center support for employee calls concerning time and attendance issues, as well as pay & recognition related issues (i.e. paycheck, final paycheck, sick time, vacation time, floating holidays, etc.); and,
- M&S also provides guidance to timekeeping system users to troubleshoot time entry issues, determine how business processes impact time entry rules, answer time entry questions, create reports on time entry data, training to employees on time entry and issue communications about time entry/work rules and deadlines.

There are six employees providing these services at M&S. These employees report to the Vice President, Treasury. There are no embedded UW-NY employees providing Payroll Services.

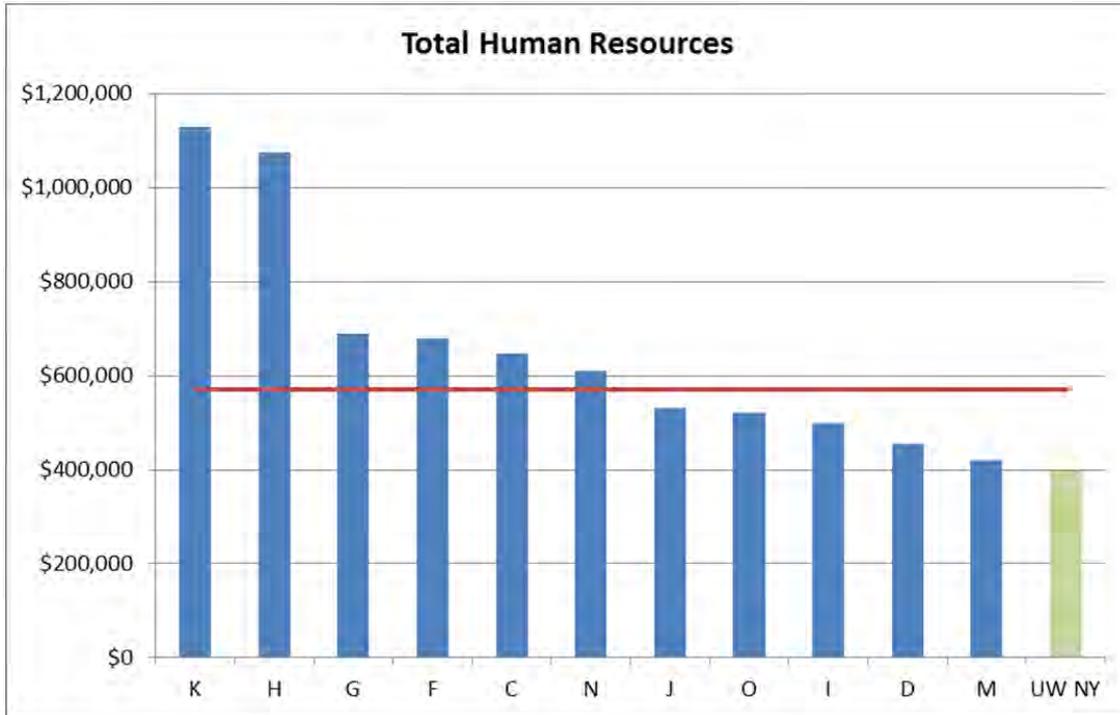
**4.12.2 Results of Human Resource Services Benchmarking**

In order to benchmark UW-NY costs on a comparable basis, we normalized each of the peer panel companies’ costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW-NY. The table below shows the actual UW-NY costs for Human Resources Services with the median of our panel.

<b>M&amp;S Allocated to UW-NY (\$000)</b>	<b>Embedded UW-NY (\$000)</b>	<b>Cost to UW-NY (\$000)</b>	<b>Peer Panel Normalized Median Cost (\$000)</b>
\$397	-	\$397	\$571

As discussed above, the cost for Human Resource Services to UW-NY in 2014 was **\$397K**.

The chart below compares this actual total cost with the peer median costs and shows that the amount allocated to UW-NY is below the peer median.



Looking at our analysis another way, the table below shows that, the actual costs to UW-NY are \$174K or 30.5% below the median.

HR Services (\$000)	
Peer Group Median	\$571
2012 UW-NY Actual Costs	\$397
UW-NY Costs vs. Peer Median	\$174

#### 4.12.3 PA Comment On These Results

None

#### 4.12.4 Market Information for Human Resource Services

##### Currently Outsourced Services

We did not receive data from the Company regarding HR market information.

##### Appropriateness for Third Party Provisioning

As discussed earlier, certain services can be prudently outsourced, at least in part, given that the governance and strategic aspects of the service are maintained in-house. HR services that are typically considered for outsourcing include: relocation services; temporary staffing managed services program;

HR services center; Medicare coordinator; health and welfare annual enrollment support; retiree drug subsidy reconciliation support; wellness program administration; financial basics training program; HR survey services; HR coaching; health and welfare plan management & active and retiree annual enrollment.

The Company has not provided a detailed list of outsourced services. However, we were informed during a meeting with HR that most of the above services, if provided, have been outsourced.

Available Market Information

PA did not review any market information for Human Resources Services.

## 4.13 Corporate Communication Services

### 4.13.1 Description of Corporate Communication Services

- **Media Relations:** Research and develop media response, positioning, and strategy to respond to media inquiries or place stories in the media. Develop press releases, arrange interviews, and maintain 24/7 media relations availability. Act as company spokesperson. Also includes communications resources with respect to corporate responsibility, etc.
- **Corporate Awareness Communications or Advertising:** General corporate awareness and brand image purposes, including "issue advertising". Spend includes agency/vendor fees to create and execute advertising.
- **External Informational, Safety, and Educational Communications:** Communications or advertising spend that provides information and educational messaging on topics such as: billing and payment options, such as e-billing, budget billing, and direct debit; rate options; low-income programs, consumer protection and privacy rights notices; general water efficiency information; public safety, including "'call before you dig'" programs; school education programs; special educational programs such as environmental programs.
- **Product/Service Promotion:** Communications or advertising spend that promotes products or/or services from which the utility will benefit.
- **Internal and Intranet Communications:** Internal Communications included Company communications between employees or departments across all levels, or divisions, of an organization. Intranet Communications includes posting of content to the internal intranet, managing intranet user experience, interfacing with IT for intranet administration, measurement and analysis of intranet traffic and other data.
- **External Publication and Communications:** Communication targeted for non-employee audiences (public, media).
- **Annual Report:** Design, production, printing and distribution of the Annual report, including postage.
- **Internet Website Content Development and Maintenance:** Development and/or curation of content for all externally facing company websites.
- **Social Media Communications:** Management and administration of established corporate social media accounts, such as Facebook, Twitter, Instagram, and others, and the delivery of content through those social media channels.

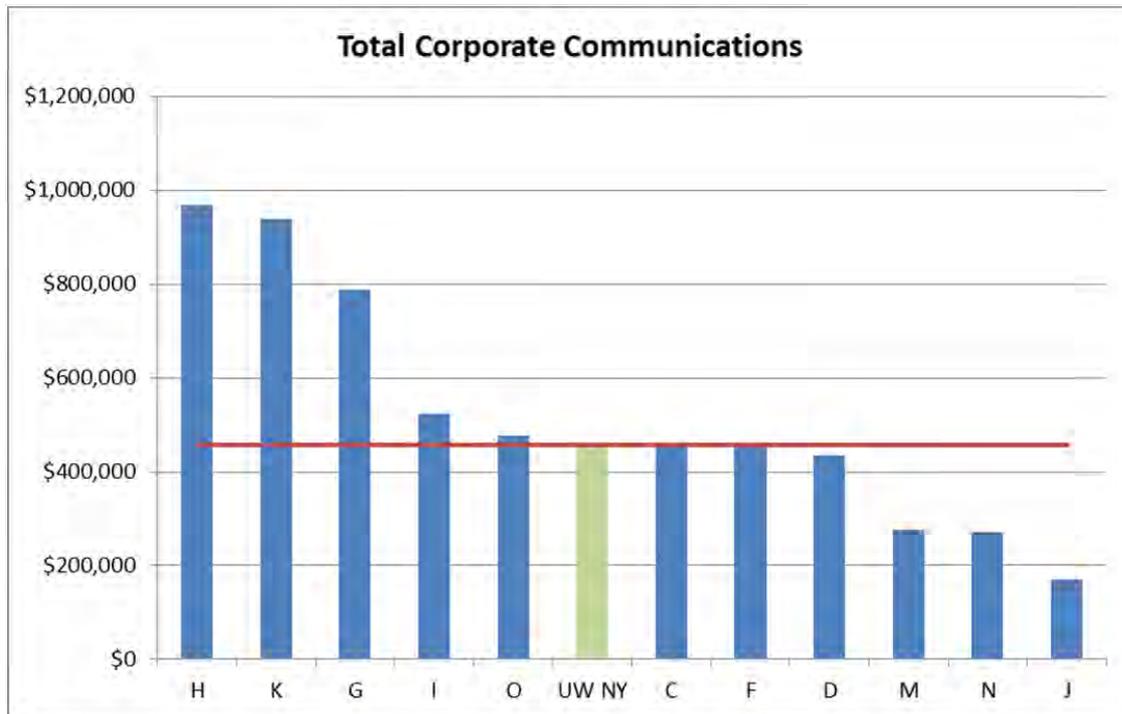
### 4.13.2 Results of Corporate Communication Services Benchmarking

In order to benchmark UW-NY costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW-NY. The table below shows the actual UW-NY costs for Corporate Communications Services with the median of our panel.

M&S Allocated to UW-NY (\$000)	Embedded UW-NY (\$000)	Cost to UW-NY (\$000)	Peer Panel Normalized Median Cost (\$000)
\$458	-	\$458	\$458

As noted below, the cost for Corporate Communication Services to UW-NY in 2014 was **\$458K**.

The chart below compares this actual total cost with the peer median costs and shows that the amount allocated to UW-NY is equal to the peer median.



Looking at our analysis another way, the table below shows that, the actual costs to UW-NY are equal to the median.

Corp. Comm. Services (\$000)	
Peer Group Median	\$458
2012 UW-NY Actual Costs	\$458
UW-NY Costs vs. Peer Median	-

### **4.13.3 PA Comment On These Results**

None

### **4.13.4 Third Party Sourcing**

Corporate Communications outsources a significant portion of its work. In 2014, \$791k, or 22.5%, of its total cost of \$3.5M was paid to third party providers for services such as printing, web support community relations, and employee surveys.

## 4.14 Regulatory Business Services

### 4.14.1 Description of Regulatory Business Services

The Regulatory Business Services provided by M&S include:

- Translation of financial data into a State and regulated revenue requirements, including the preparation of supporting work papers for rate cases and other regulatory filings;
- Internal and external costs for cost of capital and cost of equity testimony;<sup>12</sup> calculations of formula rates and filings associated with these calculations;
- Oversight and policy guidance on regulatory proceedings;
- Management and maintenance of routine State economic regulatory relationships and contacts;
- Management and maintenance of routine regulatory contacts, with stakeholders;
- Monitors issues and advocates positions in federal regulatory proceedings as they pertain to the Company's businesses;
- Rate design and tariff administration activities. This also includes tariff interpretation activities, marginal cost analyses, and the pricing and tariff-related aspects of special contracts requiring regulatory approval;
- Participation in technical conferences, monitoring regulatory activities, and discussing issues with PUC staff; and,
- Prepare required State and Federal regulatory reporting for initiatives including service quality indicator quarterly reports.

There are *eleven* providing M&S Regulatory Business Services including the Vice President, Regulatory Business.

### 4.14.2 Results of Regulatory Business Services Benchmarking

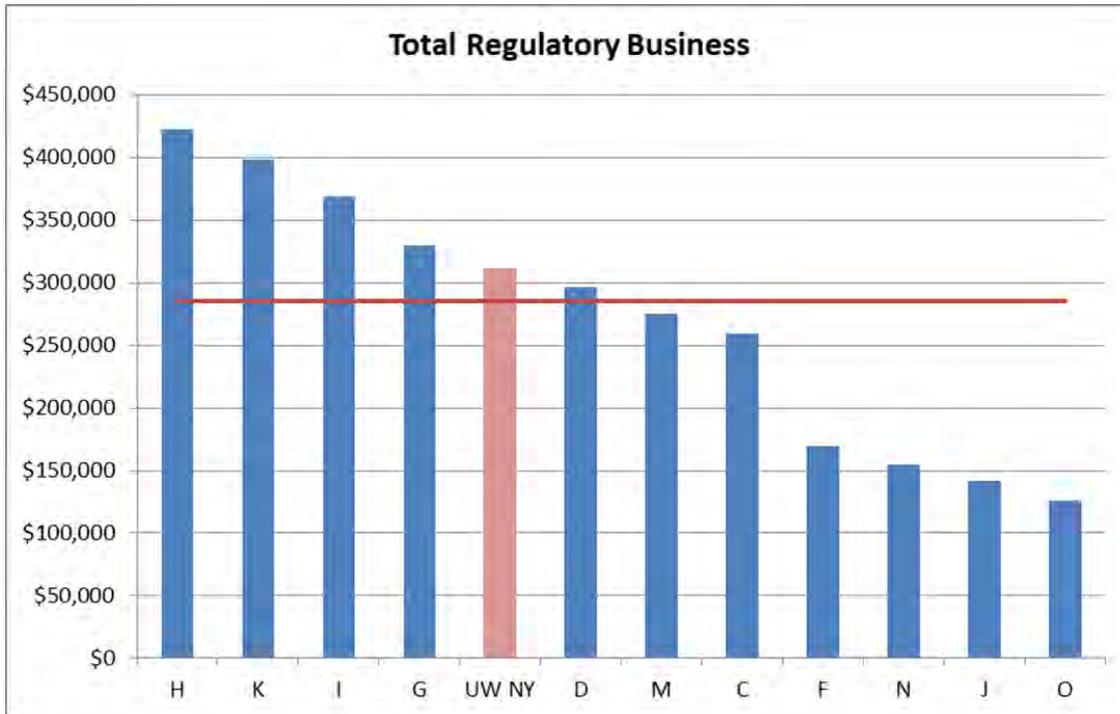
In order to benchmark UW-NY costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW-NY. The table below shows the actual UW-NY costs for Regulatory Business Services with the median of our panel.

Allocated to UW-NY (\$000)	Embedded UW-NY (\$000)	Cost to UW-NY (\$000)	Peer Panel Normalized Median Cost (\$000)
\$311	-	\$311	\$286

As noted above, the cost for Regulatory Business Services to UW-NY in 2014 was \$311k.

<sup>12</sup> Mostly outsourced

The chart below compares this actual total cost with the peer median costs and shows that the amount allocated to UW-NY is above the peer median.



Looking at our analysis another way, the table below shows that, the actual costs to UW-NY are \$25k or 8.7% above the median.

Reg. Bus. Services (\$000)	
Peer Group Median	\$286
2012 UW-NY Actual Costs	\$311
UW-NY Costs vs. Peer Median	\$25

#### 4.14.3 PA Comment On These Results

The cost of Regulatory Business function at any utility is typically related to the regulatory activity in the jurisdictions it serves. M&S Regulatory Business supports approximately a dozen regulated affiliates in several States. The peer panel median staffing for this service is *eleven*, which is the number of employees providing Regulatory Business Service at M&S.

#### 4.14.4 Market Information for Regulatory Business Services

##### Currently Outsourced Services

The Regulatory Business at M&S regularly engages third parties for expert analysis and testimony during regulatory proceedings. This is a common practice for specialized services such as depreciation studies, cost of service studies, and cost of equity studies. No other regulatory services are outsourced.

#### Appropriateness for Third Party Provisioning

Regulatory Management Services are an integral part of M&S's financial and regulatory compliance processes. Many of the functions performed have a direct impact on UW-NY ratepayers by developing plans that support the revenue requirements to obtain capital required for expenditures that effect service and reliability. This requires not only keen finance and regulatory skills but also solid knowledge of regulatory compliance requirements and how they have evolved over time. For this reason, in our opinion, it would not be prudent to outsource Regulatory Management Services to a third party.

#### Available Market Information

PA did not investigate market information for this service.

## 5 INTERNAL CONTROLS

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### 5.1 Objective

The objective of the task is to review the current cost structures processes and controls and evaluate the strength of those processes and controls to assess the possibility of improper charges and/or misallocation of expenses. As described in the RFQ, this objective includes:

- Evaluating the controls followed by the UW-NY utilities for affiliate transactions and compared those controls to transactions with unrelated parties;
- Identifying and evaluating controls unique to transactions among the UW-NY utilities and determined whether the controls should be considered compensating for controls found missing related to M&S service charges transactions; and,
- Reviewing the M&S budgetary process and controls to determine the process whereby UW-NY Utilities and M&S coordinate the provision of services and control and monitor the costs of the M&S in providing such services.

### 5.2 Approach

To accomplish this objective, PA performed the following:

- Obtained and reviewed documentation of the current system of internal controls related to transactions between M&S and the UW-NY utilities;
- Interviewed the Director of Internal Controls and Enterprise Risk Management and the Director of Internal Audit to understand their roles related to the overall system of internal controls;
- Assessed the adequacy of the design of the system of internal controls, including controls designed to protect against improper charges and/or the misallocation of expenses;
- Assessed the adequacy of the extent to which the company tests the effectiveness of the system of internal controls. This will include discussions with individuals responsible for the execution of key controls as well as work performed by both external and internal auditors;
- Using the results of the work performed in Task 3, assessed the possibility of improper charges and/or misallocation of expenses; and,
- Made recommendations for improvement as appropriate.

## 5.3 Background

There are several different cost streams resulting in costs on the books of the regulated and non-regulated business units. The M&S bill does not comprehensively bill for all costs associated with services provided by the M&S functional areas; instead, costs are charged or allocated through the following processes:

- M&S billing process (opex only except CC&B costs);
- Customer Care and Billing (CC&B) system costs – labor costs associated with this system are charged to a separate allocation code and allocated to the individual business units based on numbers of customers in a process separate from the M&S billing process;
- Direct charges to capital projects, with completed projects then allocated to the Business Units (PA did not review this process);
- Allocations to the capital overhead activity and loaded on capital projects based on capex spend (PA did not review this process);
- “Corporate Assumptions” – certain non-labor costs (more fully described below) are directly allocated or assigned to individual business units without going through the M&S business units; and,
- Direct Charge – Some costs are specifically identified with specific BUs and are directly charged to those business units (e.g., some legal fees, out-of pocket expenses associated with internal audits).

Due to the complexity of the budgeting and reporting processes associated with the M&S and Corporate Assumptions billing processes, budgetary controls over M&S spend in total and on an allocated basis generally reside within the M&S Financial Planning department.

Within the regulated and non-regulated segments, cost management is focused on costs considered to be controllable at the local level and generally exclude allocated costs. This practice is reinforced by short-term incentive compensation plan (STIP) objectives. While the financial directors (or staff) located in the regulated and non-regulated segments review the monthly invoices from M&S, the value of these reviews from a cost control perspective are limited due to the lack of traceability associated with the amounts billed.

The Company has an established process referred to as COVAL for the design and testing of the system of internal controls related to financial transactions. Responsibility for the design of the system of internal controls resides with the Director of Internal Controls and Enterprise Risk Management with responsibility for ensuring the effectiveness of the system of internal controls residing with the Director of Internal Audit. As the subsidiary of Suez Environmental, United Water is not subject to United States SOX requirements.

M&S employee time reports do not require supervisory approval whereas all expense reporting is subject to supervisory approval (and multiple levels of approval depending on the amount of the charge).

For M&S functions, budgetary control typically resides at the department head level.

### 5.3.1 M&S Billing Process

The M&S billing process and related system of internal controls is shown in the flowchart in Appendix B.

The M&S billing process is the responsibility of the M&S Accounting function within the Accounting Services department. The function is comprised of a Manager, a Senior Accountant, and two accountants. The manager reports directly to Corporate Controller.

The M&S billing process is integrated with the corporate accounting monthly close process with actions and the timing of those actions included in the monthly accounting close calendar. Controls include the review of current period charges and allocations against budget and against prior period (including same period last year) actuals for reasonableness.

The M&S billing process is complicated by the use of forecasted spend rather than actual spend and the two (or three) step process whereby certain costs (primarily those coming through the corporate assumptions process) are first allocated to M&S departments and then reallocated to the regulated and non-regulated business units. In some cases, costs are allocated to M&S Department 950 and then reallocated to the specific other M&S business units prior to billing the affiliates.

Forecasted spend is used in the billing process to levelize the amounts billed. While M&S is not a profit center, the use of levelized spend results in the over (under) allocation of costs on a monthly basis while fully clearing out at year end.

### 5.3.2 Corporate Assumptions

The term “corporate assumptions” is used to describe the allocation of certain non-labor costs as well as CC&B labor to the business units. The following table describes costs included as corporate assumptions. The origin of the term came from the “non-controllable” nature of these costs at the business unit level.

BU	Detail Acct	Description	Allocation Basis	Auto Allocation?
00305	AUDIT_FEES	Audit Fees	Engagement letter	No
00305	AWWARF	Water Research Foundation	Billed Water volume prior year	No
00305	BOD_FEES	Board of Directors fees	Per contract	No
00305	E-BILLING	Charges for billing customer electronically	Count of e-billed customers	No
00305	IT_HRIS	IT HRIS	Head count	No
00305	PEBOP_SERP	PEBOP	BU specific data provided by actuary	No
00305	PENSION	PENSION	BU specific data provided by	No

			actuary	
00305	R&IALLFEE	R&I Alliance Fee	Net Uility plant + CWIP+ Water Volume+ Fuel+ Power+ Chemical	No
00305	WIKTI	WIKTI is a self-assessment performance improvement and benchmarking tool that was developed by Suez.	Net Uility plant + CWIP+ Water Volume+ Fuel+ Power+ Chemical	No
00305	AONACTUFEE	Actuarial Fees	Tower Watson	No.
00305	AP_IMAGING	AP IMAGING	Workstations	Yes
00305	BARG	Retirement Plan Vanguard Admin Fees - Barg	Head count	Yes
00305	CCB_HDWE	Hardware	Customer count	Yes
00305	CCB_MAINT	CC&B Maintenance	Customer count	Yes
00305	CCB_ORACLE	Database COBOL & Microfocus	Customer count	Yes
00305	CCB_POSTAG	Postage	Customer count	Yes
00305	CCB_PRINT	Printing	Customer count	Yes
00305	CCB_PROFEE	CCB Infras Outsourcing	Customer count	Yes
00305	CCB_SOA	SOA	Customer count	Yes
00305	CCB_TOOLS	SAP Reporting & Data Tools	Customer count	Yes
00305	DATA_CTR	Data center operations and monitoring costs	Workstations	Yes
00305	ENWISEN	Human Resources web site hosting cost	Head count	Yes
00305	GIS	Geographic Information System maintenance costs	Workstations	Yes
00305	HELP_LVL1	Help Desk consulting cost	Workstations	Yes
00305	IT_ADP	IT ADP	Head count	Yes
00305	IT_LINES	Telecom costs for data network	Workstations	Yes

00305	NON_BARG	Retirement plans Vanguard Admin Fees - Non Barg	Head count	Yes
00305	ORACLE_OTH	Oracle database maintenance costs	Workstations	Yes
00305	OTHSYSMAIN	Other System Maintenance	Workstations	Yes
00305	PROF_FEE_O	IT professional fees	Workstations	Yes
00305	PS_MAINT	PeopleSoft Maintenance	Workstations	Yes
00305	PS_MISC	PeopleSoft Misc.	Workstations	Yes
00305	SAFE_TRAIN	Pure Safety Training	Head count	Yes
00305	SOFTWARE	IT PeopleSoft - Software Oracle	Workstations	Yes
00305	SOFTWARE-O	Other Desktop Software - Microsoft & Virus	Workstations	Yes
00305	SUCCEFACT	Employees' Performance/Development review system	Head count	Yes
00305	WORKCARE	Work Care is a contract we have with a group of doctors that provide early injury intervention for all workplace accidents. They essentially act as a medical intermediary when an employee gets hurt to advise on self-care and evaluate the need for an EE to go to a medical clinic.	Head count	Yes
00305	WEB_HOST	Web Hosting	Workstations	Yes
00305	ETHICS		Head count	Yes

CC&B labor is allocated based on the number of customers by business unit.

To the extent that M&S employees benefit from these cost pools (for example, using landline telephones or help desk services), a portion of the costs will be allocated to M&S as well as the regulated and non-regulated business segments.

## 5.4 Findings

The findings presented below are based on discussions with appropriate United Water personnel, including representatives from both M&S and UW-NY, and the review of relevant documentation.

1. Responsibility for establishing appropriate M&S controlled budgets as well as the appropriate assignment of those costs to individual regulated and non-regulated business units resides at “Corporate” (i.e., at M&S).
  - a. The regulated and non-regulated business units Presidents, as a part of the Executive Management Team (EMT), review the M&S budget and amount of M&S spend in total and allocated to their individual business units. This responsibility does not reside with the individual business units, including the operating company general managers.
  - b. As M&S budgets are being developed, responsibility for challenging individual M&S department budgets is the responsibility of the Financial Planning department, and not the responsibility of either the Regulated Segment, as a whole, or individual business units.
2. Throughout the year, the regulated and non-regulated business units provide explanations for monthly actual-to-budget variances including projected variances for the year focused on controllable costs.
  - a. For the regulated and non-regulated business units, controllable costs do not include allocated costs.
  - b. The M&S Financial Planning department has dedicated resources supporting the regulated and non-regulated segments to assist with this analysis and compile segment and aggregate level results from the data provided by the individual business units.
  - c. As a result of the complexity of the process, short term incentives (STIP) objectives related to cost control at the regulated and non-regulated segments are focused on costs excluding M&S charges (that is, excluding allocated costs).
3. The complexity of the process results in a lack of traceability of allocated costs, from the original M&S charge to the amount billed to an individual business unit, implying a lack of transparency. This limits the effectiveness of the business unit finance department review of the monthly M&S bill.
  - a. Allocated costs appear on the M&S bill with the following detail contained in each line item: Direct/Indirect, BU, Department Number and Name, Employee Name, Project Charged (i.e., allocation code), and amount.
  - b. Consistent with the current M&S affiliate agreement, the allocation process loads all department costs on labor for billing purposes, so no detail is provided that reflects by Department a breakdown, for example, between direct labor, ordinary departmental expenses, and major expense items. There is no way to readily compare the billed detail to budgeted detail to develop an understanding of the business drivers behind budget-to-actual

- variances, or even understand which departments are driving the variances based solely upon a review of the M&S bill.
- c. This review is generally limited to M&S direct charges, which are minor compared to allocated charges.
  - d. Questions regarding M&S allocations or direct charges are addressed to the appropriate M&S Financial Planning group which will then follow-up with individual M&S departments as needed
4. The M&S Financial Planning department has primary responsibility for M&S variances; individual M&S department heads do not formally submit explanations for actual and projected variances and do not have formal periodic meetings to discuss operating results. Variances are reviewed by the EMT in the review of the SG&A (Sales, General & Administrative) cost line item.
- a. During our interviews with M&S department representatives, we found a general lack of awareness of significant cost items and budget-to-actual variances.
5. The monthly M&S allocations process is well-defined and controlled, although the efficiency of the process could be improved if simplified.
- a. Internal control documentation exists and reflects current practices.
  - b. PA confirmed the effectiveness of the allocation process as part of our detailed transaction testing with minor exceptions.
6. The Company uses controls embedded in its PeopleSoft financial system to mitigate the risk that M&S departmental costs are allocated to the incorrect business units.
- a. Within certain M&S departments, the cost of resources dedicated to supporting either the regulated or non-regulated segment are accumulated in separate business units (987 for regulated and 988 for non-regulated); allocation mechanisms based on the use of the 987 and 988 business unit codes automatically allocated these costs to the appropriate segments/business units.
  - b. The time reporting system limits the allocation codes available for charging purposes based on the approved codes for individual employees and departments.
  - c. In some instances, entire M&S Department costs are coded as allocable to either the regulated and/or non-regulated segment (e.g., Business Development department costs are allocated only to the non-regulated business segment).
  - d. In other instances, dedicated resources within a department charge a code reflecting a unique department/business unit combination which is then coded as being allocable to either the regulated or non-regulated business segment.
  - e. Coding flexibility is provided to allow costs to be charged to balance sheet accounts; charges to balance sheet accounts are automatically excluded from cost pools subject to allocation (in 2014, these expenses totaled \$1.1 million). This amount represents costs to be retained at Corporate.

- f. Certain corporate expenses are accounted for within business units other than M&S (e.g., Suez management fees and charitable contributions) Costs in these business units are excluded from the existing allocation processes.
7. The system of internal controls follows the M&S affiliate agreement which governs the Company's allocation practices. These agreements do not provide the flexibility to update allocation practices without refiling the agreements with the appropriate state regulatory agencies; consequently, allocation practices have not been routinely updated to reflect changes in the Company's business environment.
  - a. Current processes have been in place for many years.
  - b. The business has grown and changed without substantial modifications in the allocation factors and / or calculation of these factors.
8. Some practices exist to ensure the pricing of services provided is at or below market, but improvements can be made.
  - a. External salary survey data is periodically obtained and used to benchmark internal salaries.
  - b. The use of outside service providers (e.g., ADP) appears in line with practices common to the utility industry.
  - c. The costs of corporate and shared services are not routinely benchmarked.
9. While the system of internal controls is documented and assessed through COVAL, we did not see evidence that the M&S allocation process controls were specifically included.
  - a. Internal Audit indicated they did not perform an audit of the M&S fee allocation process in 2014. The last internal audit of M&S allocation process controls occurred in 2011.
10. Employee time reports are not subject to supervisory approval but compensating controls are adequate.
  - a. Specific guidance was provided to all M&S employees in early 2014 regarding time reporting, allocation codes and percentage of time to be capitalized.
  - b. The budget process mirrors the actual process, so any significant budget to actual variances driven by time reporting practices, which are inconsistent with expectations, would likely be detected.
11. The time reporting guidance provided in 2014 included instructions that time spent supporting a specific project for more than 8 hours a week should be charged to that project. We found few instances in which it appeared that time had been direct charged to a project.
12. In addition, this guidance provided suggested percentages for time charged to Capex (using the "Overhead" project). These percentages were based on a "high level review."
13. M&S department heads generally have budgetary control over costs they are responsible for which do not include certain costs such as pension and benefit costs.

- a. Certain costs are budgeted at the M&S department level (and some M&S departments have budgets specifically for certain business unit activities).
  - b. Some related costs (e.g., certain legal fees) are budgeted directly by the Business Units.
  - c. Some costs are allocated or assigned directly to the Business Units (i.e., Corporate Assumptions) with budgetary control at the EMT (or other appropriate senior manager) level for the aggregate level of spend.
14. Spend for capital projects is controlled by the project manager at the project level, and is monitored and reviewed by the Corporate Capital Planning function and the EMT (i.e., subject to budgetary controls outside the departmental budgetary control processes).

## 5.5 Recommendations

1. Change the M&S allocation process to improve the traceability and auditability of M&S costs allocated down to the BU level; this will, in turn, improve the perceived transparency of the allocation process.
  - For example, consider simplifying the process for allocating non-labor expenses; i.e., separately allocate certain non-labor costs rather than bill as an adder to labor.
  - Summarize amounts billed at the department (or service) level, rather than show employee level detail for allocated costs.
2. Simplify the allocation process, which is governed by the practices delineated in the current M&S agreements, by eliminating the allocation of certain costs to the department level. For example, IT and space costs are allocated to individual departments; while the theory behind doing this is certainly valid, it may make more sense to consolidate these costs and allocate them in total.
3. Simplify the allocation process by excluding costs allocated to M&S departments based on the number of M&S employees, workstations, etc. from the allocation basis and instead include these costs in the amounts directly charged to the regulated and non-regulated segments.
4. Consider fully allocating all actual M&S Opex each month rather than using forecasted spend (which is within the current M&S agreement) to allocate costs to improve traceability and auditability, which will in turn improve the perceived transparency of the allocation process.
5. Ensure that Internal Audit reviews the M&S fee allocation process on a periodic basis.
6. Include a section in the Cost Allocation Manual which describes control processes around costs allocated or charged through the Corporate Assumptions process.
7. Complete a more detailed study to support the allocation of A&G costs to construction.

## 6 ACCOUNTING AND INTERNAL PROCESSES

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### 6.1 Objective

Perform a review of a sample of transactions between M&S and the UW-NY utilities to ensure the transactions represent legitimate charges for services provided to the UW-NY utilities consistent with the Service Agreement and draft Cost Allocation Manual (CAM) and are properly recorded on the books of the UW-NY utilities consistent with the Uniform System of Accounts (USoA) approved by the New York Public Service Commission.

### 6.2 Approach

To accomplish this objective, PA performed the following:

1. Developed an understanding of the UW-NY utilities, (defined as United Water New York and United Water New Rochelle/ Westchester) corporate organizational structure, accounting processes and systems of internal controls.
2. Reviewed and analyzed a sample of transactions for the year ended December 31, 2014 covering all M&S cost streams (labor, benefits, general and administrative, fringe benefits) examining whether, and the extent to which, UW accounting procedures properly identify the costs related to providing the various services under the contract agreement and, through direct assignment or by allocation, charge these costs to the proper United Water affiliate(s) receiving the related service. Examine the sources of M&S costs to determine if adequately supported with documentation and properly accounted for and allocated and make recommendations to improve the traceability of transactions from the incurrence of charges at the M&S Company through the allocation process to a charge to a UW-NY utility.

Specific tasks performed include:

- Documented for the year ending December 31, 2014 the major affiliate transactions to identify all direct and indirect affiliate transaction flows that result in amounts being recorded to the books of the UW-NY utilities from UW Management and Services, Inc. For this period, examine the M&S agreement and other arrangements that the UW-NY utilities have entered into with the M&S Company and the related accounting procedures associated with these arrangements.
- Confirmed the appropriateness and accuracy of loaders to direct labor to develop the fully loaded rate for billing purposes. Assess whether costs included as overhead costs should have more properly been separately billed.

- Assessed the reasonableness of the allocation factors used.<sup>13</sup>
  - Examined the financial accounting reporting controls related to the M&S Company transactions and evaluate the ability of the UW-NY Utilities to monitor the charges billed to it. Determine if there are appropriate controls providing periodic review and comparison of budgeted to actual amounts billed for services rendered to each UW-NY utility with an explanation of variances for the monitoring and control the costs for each of the services provided to them by the M&S Company under the contracts.
  - Evaluated the accounting procedures at the M&S Company and recommend procedures to ensure costs allocated to affiliates are recorded to the proper UW-NY's Utility Uniform Systems of Accounts (USOA) account including controls related to lobbying, charitable contributions and other non- business costs incurred by the M&S Company are properly recorded to non-utility operating accounts.
  - Evaluated whether sufficient transaction information is maintained in preparation of the bills to easily examine the underlying details of individual cost transactions incurred by the M&S Company and allocated to affiliates.
  - Evaluated the procedures for the review and approval by the UW-NY utilities of the monthly M&S Company billings to determine if these procedures provide assurance that the amounts billed to the UW-NY utilities are for services rendered and are reasonable, the documentation of the UW-NY utilities' monthly bill review and approval process, and accounting information systems and other resources available to the UW-NY utilities to review individual line item charges and obtain the source documentation for such charges at the M&S Company.<sup>14</sup>
3. Reviewed the accounting for costs allocated by UWM&S to UW-NY for 2014.
  4. Summarized findings based on the review of the Company's accounting and internal processes and suggest recommendations for improvement.

## 6.3 Background

The process for generating an M&S invoice for services provided to the regulated and non-regulated business units is a multi-step process. This process is described in the "Agreement Between United Water Management and Services Inc. and United Water New York Inc." ("Agreement").

The starting point for the M&S billing process is time reporting. Employees charge their time based on guidelines that establish business as usual time-coding for employees of the individual M&S departments. These time coding guidelines are based on the work performed by the departments and the business segments receiving (or benefiting from) the services provided.

Next, direct labor hours are priced out using employee specific labor rates and then burdened with the department's non-labor expenses. These non-labor costs include fringe benefits and "general and administrative" costs. General and Administrative (G&A) costs include a department's direct expenses

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<sup>13</sup> This subtask was completed in connection with the review of the three factor formula (Task 4) and cost allocation manual (Task 5).

<sup>14</sup> This subtask was completed in connection with the review of internal controls (Task 2)

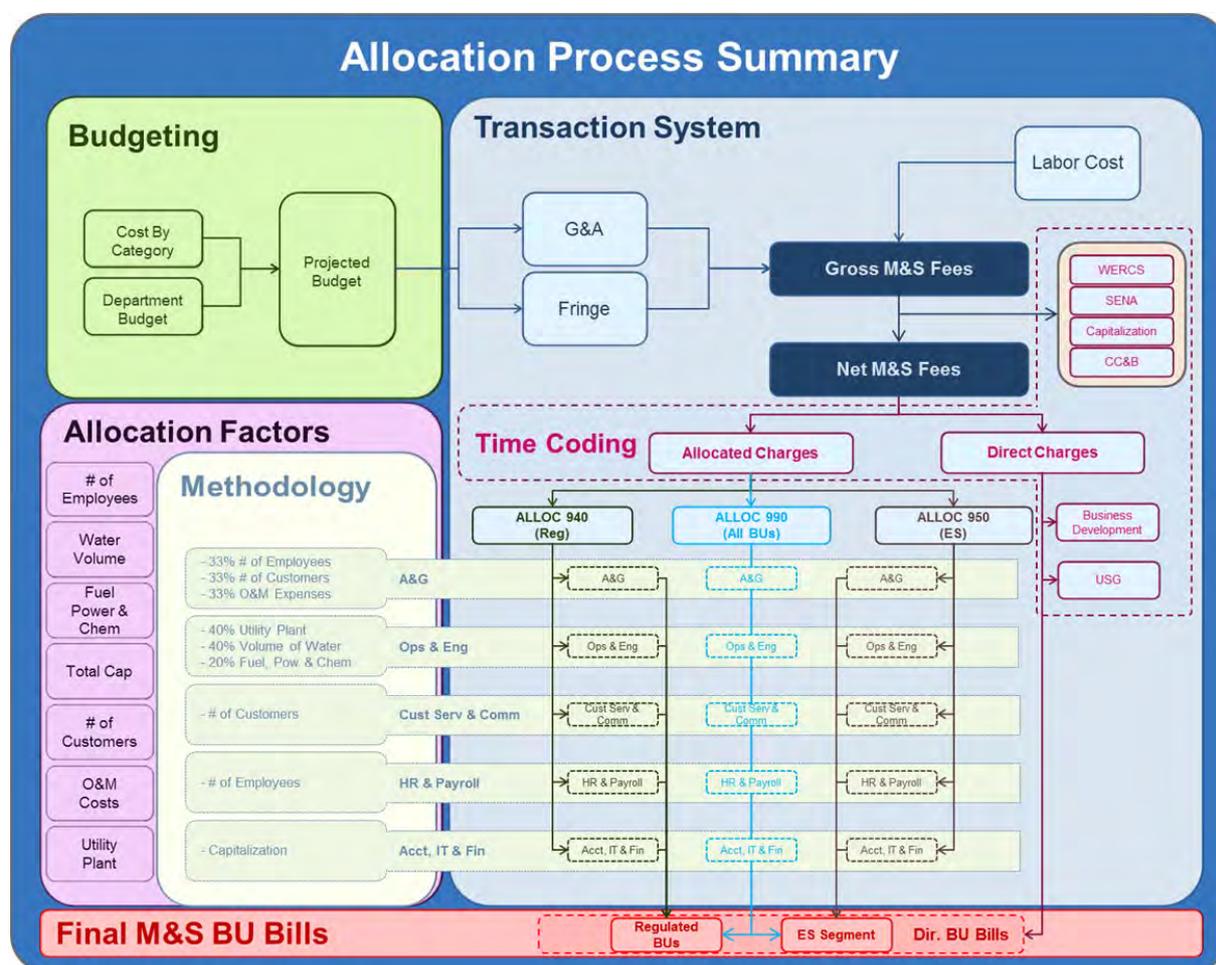
for office supplies, training, travel, rent, and other non-labor costs. The fully loaded labor costs are allocated to business units based on the allocation codes used.

Finally, loaded labor costs are allocated to individual business units using the calculated allocation factors, with those charges appearing individual lines on the M&S bill to the individual invoice. The allocation factors are calculated based on the underlying cost drivers using the methodologies defined in the draft CAM.

The M&S Accounting function within the Accounting Service’s department is responsible for the allocation and billing process described above.

The flowchart below illustrates the high level process used to construct the final M&S bill delivered to business units.

**Figure 1: UW M&S Allocation Methodology**



## 6.4 Results of Testing

Given the process used by M&S, it is not possible to follow a single receipt from the projected budget to a final business unit bill. Since G&A charges are based on projections, then pooled and loaded onto labor,

the allocated charges are not receipt driven. This is an unavoidable element of the allocation process and is not a unique problem in the industry. The accuracy of the final bill is therefore reliant on the processes and methodologies defined in the CAM and in the Agreements.

Since a single, actualized charge cannot be followed from the charge to the final M&S bill to a business unit, our review focused on testing the human generated parts of system and assumptions that govern how M&S invoices their bill. By testing the various components of the M&S invoicing process, and reviewing those components for accuracy, PA was able to assess whether the allocation process is working according to the draft CAM and Agreements. If the components are verified, then the foundations of the system can then be assessed in light of common industry practices. This is the basis of the review performed here-within. The overall review was performed in four parts:

1. An review of the allocation factors and methodologies;
2. An review of the M&S invoicing process;
3. A review of the internal controls for billing time; and,
4. A testing of the individual transactions calculated by the allocation system.

The results of the reviews performed are presented in the following sections of this chapter.

#### 6.4.1 Allocation Factor Review

The allocation factor review was comprised of two phases. First, PA tested the calculation of the percentages used to allocate costs to the individual business units for each allocation factor based on the methodologies defined in the CAM.<sup>15</sup> Second, PA compared the data used to develop the individual allocation factors by business unit (e.g., number of customers) to appropriate source documents.

In the first phase, the procedure for determining allocations, outlined in the CAM, was compared to the procedure used for the 2014 allocation process for the full year. The following department types and respective methodologies used to allocate costs shown in the table below based on information provided in the CAM.

**Figure 2: Cost allocation method according the draft Cost Allocation Manual and Agreements**

Methodology Type	Allocation
<b>A. Administrative and General (A&amp;G)</b>	33 1/3% Employees
	33 1/3% Number of Customers
	33 1/3% O&M Expenses
<b>B. Operations and Engineering</b>	40% Net Utility Plant
	40% Volume of Water Delivered
	20% Fuel, Power, and Chemical Costs

<sup>15</sup> The allocation factors included draft Cost Allocation Manual are identical to those included in the Agreements between UWM&S and its Affiliates.

<b>D. Customer Service and Communications</b>	100% Number of Customers
<b>E. Human Resources &amp; Payroll</b>	10% Number of Employees
<b>F. Accounting, IT, Planning, and Treasury</b>	100% Total Capitalization

In detail, allocation methodologies are calculated by expressing each allocation factor as a percent of the total value for the whole business, then applying those percentages to the formulas in the cost allocation manual. For example, Administrative and General costs (defined as being comprised of the departments listed in the above table) are allocated with Method A – number of employees, number of customers, and O&M expenses. UW-NY has roughly 5.4% of the total employees, 11.2% of the total customers, and 5% of the total O&M costs for business units that are charged an M&S fee. Therefore they are charged 7.38% of the M&S fees for costs classified as Administrative and General, as shown in the table below.

**Figure 3: Example Calculation – Administrative and General Allocation for UW New York**

Alloc_990	# of Employees	# of Customers	O&M Costs
<b>Total All Business Units</b>	2,005	647,153	\$404,297
<b>00200 – (UW-NY)</b>	110	72,834	\$21,907
<b>Percent of Total – UW-NY</b>	0.05486	0.11255	0.05419
<b>Weighted A&amp;G Allocation = (0.05486*.33333)+(0.11255*.33333)+ (0.5419*.33333) = 0.073845 = 7.3845%</b>			

PA found that the calculations used to develop the methodologies were consistently correct across all months in fiscal 2014 for all billing codes. When entering the allocation factors into the software system, the allocations must add up to 100% across all business units that fall under alloc\_990. The system automatically adjusts the factors for alloc\_987 and alloc\_988. Rounding that must take place to net the system input to 100% total is burdened onto the non-regulated business segments.

In the second phase, the allocation factor worksheets were compared to primary source documents, including values found in the general ledger, values reported directly by departments, and/or values as they appear in PSC regulatory filings. Five regulated business units and environmental services (ES) were tested. Those five regulated units were:

- United Water New York;
- United Water New Rochelle;
- United Water Westchester;
- United Water New Jersey; and
- United Water Idaho.

Environmental Services was tested as a single business unit.

For each business unit, the allocation factor used was agreed to appropriate source documents, with the source documents compared among business units for consistency.

PA found that the draft CAM does not provide the detailed definition of each factor. Thus, follow-up discussions were required to ensure a consistent method was used to calculate the allocation factors across regulated and non-regulated business units. Detailed definitions for the allocation factors used are shown in the table below.

**Figure 4: Allocation Factor Definitions**

Allocation Factor	Details
1. <b>Number of Employees</b>	Net full-time-employees at year-end. Interns and part-time workers are not counted as an employee, but rather as a portion of an FTE based on actual hours worked.
2. <b>Number of Customers</b>	Billed customers at year-end, number pulled by IT
3. <b>Operations &amp; Maintenance Costs</b>	Does not include M&S fees or costs never incurred by a non-regulated unit <sup>16</sup>
4. <b>Utility Plant, including CWIP</b>	Net utility plant less customer advances for construction and contribution in aid of construction
5. <b>Volume of Water</b>	Billed volume of water for general use <sup>17</sup> and system use <sup>18</sup> . For Business Units providing water and wastewater services, volumes of wastewater collected/treated is assumed to equal volumes of water delivered.
6. <b>Fuel, Power, &amp; Chemicals</b>	General ledger items: 50610, 50620, 50635 (“Purchased Power”, “Other Utilities”, & “Chemicals”). This cost does not include warehousing, labor, logistics, fleet costs, etc. associated with the storage, use, or processing of fuel, power, or chemicals.
7. <b>Total Capitalization</b>	Total, without adjustment (sum of long-term debt and equity from the balance sheet)

The detailed allocation factors were then validated for the selected regulated business units and environmental services. For each of the business units selected, the data was agreed to one or more primary sources; that is, they were checked against the most recent PSC regulatory filings, the general

<sup>16</sup> Costs not incurred by non-regulated units are: Regulatory Commission Expense, Amortization of Rate Case Expense, Amortization of Deferred Expenses, Amortization of Tank Painting, Amortization-Miscellaneous, Amortization of OPEB Costs, Amortization of AFUDC Equity GU [Not sure what this last one is]

<sup>17</sup> Customer classes included in general use are: Residential, Commercial, Industrial, Public Authority, Fire Protection, Other (RSL)

<sup>18</sup> System use was not the standard used across all volume of water factors; however follow up determined that it should be the standard across the business units.

ledger for the business unit, and/or a direct data query to a department. These numbers were compared to the allocation charts, which were revised periodically throughout the year. Allocation charts were based on either 2013 or 2014 allocation factors. Allocation factors were used according to the following schedule:

- January
  - Regulated Units: Prior calendar year’s allocation factors (2013)
  - Environmental Services: Prior calendar year’s allocation factors (2013)
- February
  - Regulated Units: Updated 2014 factors
  - Environmental Services: Prior calendar year’s allocation factors (2013)
- March
  - Regulated Units: Updated 2014 factors
  - Environmental Services: Updated 2014 factors
- April-May
  - Regulated Units: Updated 2014 factors
  - Environmental Services: Updated 2014 factors
- June-December
  - Regulated Units: Updated 2014 factors
  - Environmental Services: Updated 2014 factors

The allocation factors were updated in June due to an error that started in the April allocation update. The allocation spreadsheets had accidentally listed a business unit that was being considered for acquisition at the start of 2015, which added an additional 172 full time employees to the employee count. Due to this error, some M&S fees associated with allocation methods A and E were not charged to business units. For this brief period, both the regulated and non-regulated units were undercharged. Beginning June, 2014, this error was rectified.

The allocation factors were tested for the six business units across all of the allocation sheets, in all months.

Included below as an example, is an excerpt from that summary of findings (UW-NY in February):

**Figure 5: UW-NY Allocation Factor Review Summary**

Business Unit	Month	Factor	Source			Match?	
			2013 Annual Report	General Ledger	Dept. Query		Actual Value Used in Tool
200- New York	February	# of Employees			110	110	YES
200- New York	February	# of Customers			72,834	72,834	YES
200- New York	February	O&M Costs (000’s)		21,907		21,907	YES

<b>200- New York</b>	February	Utility Plant (000's)	363,621	363,621	336,621	<b>NO</b>
<b>200- New York</b>	February	Volume of Water		8146	8146	<b>YES</b>
<b>200- New York</b>	February	Fuel, Power, & Chem (000's)		4224	4224	<b>YES</b>
<b>200- New York</b>	February	Total Capitalization		285,764	285,764	<b>YES</b>

PA identified several errors and inconsistencies in testing the allocation factor process. The above table summarizes the results of the testing performed for UW-NY: details of the individual errors found and related findings are discussed below.

### 6.4.2 Results of Testing

1. The net utility plant costs for New York were incorrectly entered into the allocation spreadsheet. The actual net utility plant cost, less customer advances for construction and less contribution in aid of construction, for New York was \$363,621,457. In the cost allocation spreadsheet, this cost was incorrectly typed as \$336,621 (000's). Taking the month of June as an example, if the allocation factor has been entered correctly, New York would incur an additional 0.447% of the Engineering and Operations M&S costs booked to allocation code 990.
2. Volume of water was not calculated correctly for all business units. Some units did not report water consumption associated with "system use" and therefore under reported their water consumption. The New York BUs reported this factor correctly.
3. The allocation tools, for 2014, utilize Environmental Services' (ES's) "gross Non-Utility property" rather than "net plant" costs for the factor "Utility Plant, including CWIP". This is because the regulated units are contract services and thus comparable data was difficult to establish for this factor. Further, the ES segment should be reporting their net value. The gross cost for ES is greater than the net cost. As a result of this reporting error, the non-regulated units received additional costs associated with M&S departments allocated as Engineering and Operations.
4. The "Number of Employees" factor for the April-December months of Environmental Services includes BU 463 – United Water Canada, whereas previously, the number of employees count excluded that business unit. The number should consistently exclude BU 463.
5. Number of customers and volumes of water backup data could not be located for ES 2013 (allocation sheets for January and February). This is because an employee violated company policy by storing the backup data locally on their hard drive before subsequently being let go.
6. Environmental Services did not report 50620 "Other Utilities" as part of their Fuel, Chemicals, and Purchased Power costs. This value was reported by the regulated units.
7. Number of customers does not match number of meters in the PSC filings. This is because number of customers is the number of billed accounts and number of meters includes all meters in the system.

8. The calculation for volume of water in environmental services relies on historical data and not actual data. At one point, the sum of ES, Rahway, Hoboken, and Jersey City volumes of water and wastewater equalled 83776. For future calculations, only Rahway, Hoboken, and Jersey City had known volumes of water. To adjust the volume of water calculation for all non reg, a shorthand workaround was developed that is mathematically inaccurate.<sup>19</sup>

### 6.4.3 Invoicing Process Review

For invoicing purposes, non-labor costs are loaded onto labor costs and subsequently allocated (billed) to the business units are based on projected department spend using the annual budget as the starting point. Each month, department level budgets are estimated given business as usual costs and anticipating onetime expenses. They are then adjusted to smooth monthly variances in spending and structured to meet the calendar year budget target. Variance reports are developed and reviewed by management to explain over or under spend. In general, this form of budget management ensures that M&S bills can be invoiced for the same month the costs are incurred, rather than recouping actuals at a later time, and that invoices are relatively consistent throughout the year. However, this fundamentally depends on active management of these costs over the course of the year. Additionally, since the budget projections are based on historical trends, and not receipts for services rendered or items purchased, the monthly M&S bill does not reflect actual costs, but rather reflects an estimation of what costs should be. The management groups responsible for tracking yearly budgets are very important for truing up costs over the year long timeline and for adjusting for uncertainty, or large, onetime costs.

At a detailed budgeting level, variances are both normal and expected, as projections are monitored and adjusted based on the expenses actually incurred throughout the year. On a whole, the actual M&S charges billed to the business units was about \$800k less than budgeted. The table below illustrates the budgeted and actual costs at a high level.

**Figure 6: Overall M&S Bill**

(in 000's)	Personnel	Travel	Outside Services	Other	Total Gross	Capitalization	M&S Billed Fee
<b>Budget</b>	\$52,494	\$2,779	\$5,841	\$6,667	\$67,780	20.6%	<b>\$53,841</b>
<b>Actual</b>	\$51,265	\$2,195	\$5,375	\$7,000	\$65,835	19.4%	<b>\$53,037</b>
<b>Net</b>	<b>\$1,229</b>	<b>\$584</b>	<b>\$466</b>	<b>(\$334)</b>	<b>\$1,945</b>	<b>(1.2%)</b>	<b>\$804</b>

Since monthly invoices are based on actual labor costs plus projected non-labor expenses, we could not tie-in and test actual monthly non-labor charges to the supporting detail. As a result, since amounts invoiced are trued-up to actual expenses by year-end, our approach included a review of actual expenditures throughout 2014 for selected departments.

<sup>19</sup> The shorthand for calculating ES volume of water and wastewater is (83776 – Current Rahway – Current Hoboken – Current Jersey City). This automatically deflates the ES value by the exact same amount as the other units increase each year. The excel formula used to generate this number was incorrectly applied, with the function drawing from a blank box. If the function had been accurate the final ES water number would remain 83776 every year.

The first step of our review was to confirm that actual expenditures for the year matched the amounts billed. Next, for selected departments, we reviewed a sample of expenditures to confirm the reasonableness of those costs related to the services provided by the departments selected. To obtain our sample, PA viewed the 2014 detailed actuals reports for budget items that stood out as abnormally high, abnormally low, or with significant variance from year end expectations with a focus on outside services. The 24 departments and subaccounts shown in the table below were selected for review.

**Figure 7: Subaccounts Reviewed**

M&S BU	DEPT	DEPT NAME	SUB ACCT	ACCT DESCRIPTION
305	400	Administration General	50100	Supervisory labor
305	410	Corporate Office Support	91350	Outside service - other
305	435	Commercial Development	90600	Travel expense
987	455	Customer Care	91300	Outside service - temp help
305	205	Engineering	99085	CCB Support
305	210	Environmental Health & Safety	50650	Meals
987	401	Office of the COO	90500	Club and professional dues
305	415	Human Resources	92350	Corporate initiatives
305	415	Human Resources	91350	Outside service - other
305	530	Financial Planning - ES	91350	Outside service - other
305	530	Financial Planning - Reg.	50600	Rents
305	530	Financial Planning - Corp	99084	Non Expense
305	530	Financial Planning - Corp	50600	Rents
988	530	Financial Planning - Corp	91350	Outside service - other
305	500	General Accounting - Corp	91350	Outside service - other
305	500	General Accounting - Corp	91300	Outside service - temp help
987	425	IT	99084	Non Expense
987	425	IT	91350	Outside service - other
987	460	Revenue Management	91700	Employee group health & life
987	460	Revenue Management	50120	Supervisory labor trans out

<b>987</b>	460	Revenue Management	50100	Supervisory labor
<b>305</b>	705	External Affairs	91350	Outside service - other
<b>305</b>	405	Corporate Comm.	91860	Other Awards
<b>305</b>	405	Corporate Comm.	92150	Staff mtgs, conf's & seminars

PA reviewed the supporting documentation for 24 budget items and found that the detailed subaccount charges generally matched the total actual charges for the year. In a few cases, the actuals did not match because the sample that was selected included proxy accounts. Some subaccounts are used as a tracking tool for CC&B, Capitalized, and Non-Expensed charges and have no actuals to report. Conceptually, these subaccounts track net costs associated with activities not recoverable by a business unit through the allocation process. For example, work done for the parent company would not be recoverable in M&S bills. As a result, the overhead that is loaded onto labor and allocated to the parent company will be totaled within subaccount 99084: Non-Expense.

PA reviewed the detailed subaccount information for significant variances between budgeted and actual expenditures, transactions that were exceptionally large, and transactions that had no obvious supporting detail. In all a few transactions stood out. They were:

**Figure 8: Exceptional Transactions**

Reason	Dept	MS BU	Date	Cost	Sub Acct	Description
<b>Travel</b>	435	00305	6/26/2014	\$8022.10	90600	UNITED AIRLINES 4187000028-061
<b>Meals</b>	210	00305	1/24/2014	\$1291.16	50650	BANK OF AMERICA PURCHASING CAR

A follow up on these two charges revealed that the travel expense for department 435, Business Development, was a 4-segment international round-trip ticket for meetings with United Water’s parent company management. Business Development expenses are not billed to the regulated segment so UW-NY and UWNR/W did not receive an allocated portion of this expense. The meals expense was a holiday dinner for 15 people at Park Steakhouse in Park Ridge, NJ on Wednesday 12/11/13 for the Environmental, Health and Safety department. Both charges were backed by supporting documentation. The holiday dinner was approved by Treasury.

#### 6.4.4 Review of Time Coding Controls

Coding time according to the work done by an employee is important for the proper allocation of costs to business units. United Water’s internal control for coding time is based on two primary means: one, providing specific guidance for each department, and two, only allowing a few time reporting codes to be available to employees. M&S employee bi-weekly time reports are not subject to supervisory review and approval at the time of submission.

At the employee level, the allocation of an employee’s net M&S fee is determined by the allocation code that employees bill their time to. The indirect allocation codes that appear on the M&S bill to regulated business units are shown in the table below.

**Figure 9: Allocation Code Descriptions**

Alloc	Business Units Charged
990	All regulated and non-regulated business units
940	Regulated Utilities
945	Consolidated Regulated Segment

In addition to these allocation codes, employees who appear on the final UW-NY M&S bill can also direct bill their time, allocate to a non-expensed account, or capitalize their time. PA compared the actual allocation of time for a sample of departments to the time coding instructions issued in 2014. The codes available to book to were preselected for employees, so all allocated time is booked to the available codes.

Memos sent to the departments in January of 2014 outline the specifics for time coding. Below is a sample excerpt from one of these time coding memos.

” ...

1. ...You are limited to the following Project IDs:
  - OVERHEAD\_305 for Capex related charges
  - ALLOC\_990\_305 for Opex related charges
  
2. Based upon a high level review of your department’s activities, we believe that you should charge 6 hours per week (15%) to OVERHEAD\_305 and 34 hours per week (85%) to ALLOC\_990\_305...

...”

In order to identify departments that consistently coded their time much differently than expected in a business as usual setting, the projected rate of time not allocated was compared to actual capitalization rates for 2014. Overall 34 departments were selected across M&S 305, 987, and 988.

**Figure 10: Proposed vs. Actual Capitalization**

	Department	Actuals		Memos		
		Gross M&S	Actual Cap.	Proposed Cap.	Difference	Fav/(Unfav)
305	Environmental Health & Safety	\$1,308,415	9.763%	15.00%	-5.24%	(\$68,518)
305	Internal Audit	\$811,766	0.000%	0.00%	0.00%	\$0.00

<b>305</b>	<b>Procurement</b>	\$2,129,568	29.627%	30.00%	-0.37%	(\$7,951)
<b>305</b>	<b>General Accounting</b>	\$4,766,963	16.352%	15.00%	1.35%	\$64,449
<b>305</b>	<b>Accounts Payable</b>	\$694,509	14.471%	15.00%	-0.53%	(\$3,675)
<b>305</b>	<b>UWM&amp;S Payroll</b>	\$867,908.76	15.604%	15.00%	0.60%	\$5,243
<b>305</b>	<b>Financial Planning</b>	\$2,494,647.37	21.796%	15.00%	6.80%	\$169,539

PA found that the capitalized time and associated non-labor expenses were relatively similar for most departments. Small variances are often a product of employee code selection – employees bill their hours to match the work they perform and this does not always match the business as usual scenario outlined in the memos. The department with the greatest variance was 305 Taxes. Taxes capitalized over 40% of their gross M&S bill. The time coding memo for the department, suggested that 15% of their time that is not directly billed to a business unit, should be booked as overhead. This larger variance was unique and is a result of the department’s work on capital projects. The department billed their time directly to capitalization at a high rate in 2014. This fact actually decreased the burden of cost allocated to business units, including UW-NY.

Overall, 19.4% of the gross M&S bill was capitalized. This was 1.2% less than budgeted for calendar year 2014. For M&S Departments 305 and 987, the departments who appear on M&S invoices to regulated units, United Water budgeted that 22.9% of their gross M&S bill be capitalized, and 21.5% of their gross M&S bill was actually capitalized. While capitalization rates overall were very slightly under what was expected, this could be due to several reasons. For example, an employee may have direct billed more time than expected to a single business unit, they may have been working with customer care and billing, they may have allocated their time to Suez, the parent company, or they could have under allocated their time.

As the reported variance is a reflection of many possible mechanisms, including employee’s working schedule, and M&S employee bi-weekly time reports are not subject to supervisory review and approval at the time of submission, it is not possible to validate that time was booked in absolute congruence with work performed. However, at the overall and at the department levels, capitalized rates were similar to expectations and to the billing standards set out in the time coding memos.

#### 6.4.5 Transaction Testing

The transaction testing portion of this review evaluated the internal billing system’s allocation of fully loaded labor costs, including fringe and general & administrative (G&A), across the regulated and non-regulated business units. The transaction testing consisted of two major components. First, PA tested that the correct allocation methodologies were used within the M&S Invoicing system; second, PA tested that the total M&S bill for each employee was distributed to the business units with the correct math and factors.

To test this, one-hundred individual transactions were selected at random<sup>20</sup>. A transaction, for the purpose of testing, was defined as the invoice of a single person, in a single month, attributed to a specific allocation code. For example, a single transaction could be, “employee A’s charge to United Water Westchester under Alloc\_305\_990 in January.” This is the level of detail that appears on an invoice to each business unit. Across United Water Westchester, United Water New York, and United Water New Rochelle, there were 7524 individual transactions in 2014.

In the first phase, the final allocation percentages calculated in the allocation factor review were tested against a sample of one hundred detailed transactions to ensure that they matched the allocations used in the billing system. For the sample, a variance between the calculated and the actual value was reported and variances that appeared greater than rounding errors were investigated (net variance > 0.00050). The following variances did not have matching values:

**Figure 11: Sample with Unmatched Allocations**

	Month	Dept.	Function	Name
1.	September	610	Legal	Redacted
2.	January	610	Legal	Redacted
3.	September	210	Environmental Health & Safety	Redacted

Each of the three charges that did not match their allocation was investigated to explain the variance. It was found that the allocation factors are rounded at two separate points in time. The first is when the allocation factors are manually calculated. In order for the allocation system to accept a manual entry, the total percentages must add up to 100%. Any rounding that has to occur is transferred to ES. The second rounding happens by the internal allocation system. Only allocations for code 990 are entered into the system. The system then automatically removes business units and calculated allocations 940 and 950. Rounding may also occur in the internal system at this point. Variances are within the accepted thresholds to be explained by those rounding mechanisms.

In addition to confirming that the allocation methodologies matched the methods defined in the Agreement, PA also tested that the system calculated the charges correctly using the reported allocations. This consisted of replicating the calculations done by the internal system. In all, PA found that the allocation process accurately allocated costs according to the allocation codes billed within the M&S system for all 100 transactions.

The process for testing this was as follows: the business unit level charge for a single person was divided by the allocation factor assigned to that business unit and allocation code to reconstruct the total

<sup>20</sup> Every eligible transaction in 2014 was assigned a number between 1 and 7524. 100 transactions were selected using a random number generating method. The random number was generated using the excel function =TRUNC(RAND()\*(2635-1)+1). According to Microsoft, the RAND function "returns an evenly distributed number greater than or equal to 0 and less than 1". By adjusting this normalized number by the total entries in the 2014 data set, the function returns a random number between (0,7524). PA believes this method is sufficiently random for generating a sample.

monthly M&S fee of a single person. This M&S fee was compared to the actual M&S fee billed for that employee and a variance was calculated. Because the total M&S fee of an individual includes fringe, G&A, and labor costs, if the business unit bill was allocated correctly, as a percentage of the total bill, it verifies that all three components of the loaded labor charge were allocated correctly. Only one reconstructed transaction had a significant variance that could not be explained by rounding. This single outlier was a result of the accounting process used to restructure departments in January of 2014. The variance was adequately accounted for by the individual’s fee charged under their new department title. The restructuring that occurred in January of that year was accounted for by distributing a single employee’s total bill across two separate transactions in the same month. The figure below illustrates an example of the testing process for an employee in Legal (987) and an employee in IT – Service Delivery (305).

**Figure 12: M&S Transaction Testing**

Billed Month	Department Name	Name	M&S BU Bill	Alloc Used	Estimated M&S Fee Based on Factor	Actual M&S fee for employee	Variance
September	Legal	Redacted	\$1,389.00	0.0761	\$18,252.30	\$18,258.00	\$5.70
November	IT – Service Delivery	Redacted	\$197.00	0.0958	\$2056.37	\$2054.00	(\$2.37)

## 6.5 Findings

1. The results of transaction testing found the mechanics of the allocation process are working as designed.
2. The testing of the allocation factors themselves found some errors and inconsistencies, in part attributable to differences between the operations of the regulated and non-regulated segments and in part due to a lack of standardization and automation which likely resulted in fewer costs being allocated to UW-NY in 2014.
3. The efficiency and effectiveness of the allocation factor processes could benefit from further standardization.
  - a. There is not a single data source or information repository for tracking and generating allocation factors across all of the BUs. Each year, generating and validating the allocation factors is done by compiling information from several different sources. In some rare cases, factors had to be estimated<sup>21</sup>. This leaves UW susceptible to mistakes. For example ES’s fuel, power, and chemicals factor did not include a subaccount that was used among the other BUs.
  - b. Since the regulated and non-regulated units provide a somewhat different composition of services, comparable factors are difficult to generate. For example:

<sup>21</sup> E.g. ES Volume of Water

- Environmental Services does not have a Net Utility Plant cost associated with them, thus Net Non-Utility Plant was utilized as a close substitute.
  - O&M costs had to be adjusted for costs never incurred by a non-regulated unit, which limits the ability to do a direct comparison to regulatory filings.
- c. Standardization is important for ensuring that the process remains consistent between time periods.
- Significant employee turnover can result in the loss of institutional knowledge. Factors can change slightly depending on the employee responsible. In one case, historical data could not even be accessed.<sup>22</sup>
4. There are opportunities for improving internal controls related to the allocation process.
- a. There is not a standard review of employee time cards after they have been submitted. The memos, which guide employee business-as-usual, time coding, do not ensure correct time coding, but rather inform employees. As there is no review, incorrect time coding can happen. For example, employees from department 460 billed their time to the incorrect allocation code at the end of 2014, which required extensive manual adjustment in December of 2014 to revise payroll charges to the business units. This mistake was substantial, and identified in a later variance analysis.
  - b. Detailed definitions of the allocation factors are not outlined in the cost allocation manual, adjustments and alignment of the factors are management decisions. Internal review of the allocation factors is not standard, although factors are only updated a couple times a year.
5. The process could benefit from reduced complexity, which in turn would improve the traceability of the costs billed to the BU level.
- a. Rather than allocate all actual costs by department each month, the M&S Accounting function uses a “pooling and projecting” approach to more levelize allocations on a month-to-month basis while still achieving the result that all department expenses are allocated by year-end. While this approach may make sense from a management perspective in avoiding large fluctuations in costs from month to month, the process is reliant on human judgement and is a less efficient process. In addition, the use of projected expense data makes it nearly impossible to track costs in the final bill.
  - b. The complexity of the allocation process results in bills to affiliates which are difficult to meaningfully review from an internal control perspective.
    - Since costs are based on projections and pooled before loading onto labor, it is very difficult and time consuming to audit a single transaction.

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<sup>22</sup> This issue was the result of an employee violating company policy. This individual is no longer employed by UW M&S

- Any audit of the charges must rely on fundamental assumptions about the veracity of the process because rather than the ability to confirm on a month-by-month basis that specific non-labor charges were accurately reflected in the monthly bill.
  - c. Documentation to support the content of the allocation factors is not a formal process. Sources for various data are many across the M&S function. It is not easy to source the allocation factors and not easy for the BUs to see how their allocation factors affect the final M&S bill.
  - d. There are several layers of allocation factor rounding, done both by management and by the allocation software, so small differences are found.
  - e. When employees change departments, costs are accurately accounted for in the M&S bill. However, a single employee may bill their time under multiple department names in a single month and will be assigned varying overhead costs, which can cause confusion.
6. Amounts are charged to the appropriate accounts consistent with the Uniform System of Accounts adopted by the New York Public Service Commission.
- a. PA reviewed the accounting for charges billed by M&S (including corporate assumptions) to UW-NY by NARUC account in total for 2014. All M&S costs invoiced were recorded in account 923, "Outside Professional Services," a common practice in the utility industry.
  - b. Costs billed through the corporate assumptions process were billed to the appropriate accounts; for example, benefits were charged to account 926, insurance costs were charged to account 924, and CC&B costs were charged account 903.
  - c. While the complexity of the M&S billing process makes it very difficult to review billing detail to ensure that costs properly recorded below-the-line are not recorded above-the-line, reasonable controls exist to ensure that "potentially below-the-line" costs are not billed to the regulated business segments.

## 6.6 Recommendations

Several other chapters in this report address issues related to the findings in this chapter. See Chapter 3, *Internal Controls*, for recommendations related to improving the system of internal controls. See Chapter 5, *Three Factor Methodology*, for recommendations related to the use of a general allocator; and see Chapter 8, *Cost Allocation Manual*, for recommendations related to allocation factors. A few additional, specific recommendations follow.

1. Improve the standardization and documentation of data sources used to develop the allocation factors used to reduce the risk and mistakes associated with communication.
2. Establish detailed definitions for allocation factors and establish a standard method of documenting evidence for each allocation factor.
3. Align allocation factors to regulatory filings to reduce communication issues and increase traceability and perceived transparency.

4. Allocation factors should be comparable across multiple business types, and not dependent on the composition of the business unit's services.
5. Set up a standard review of department level time coding to ensure that M&S employees are billing in congruence with work performed.

## 7 THREE FACTOR METHODOLOGY

### 7.1 Background and Objective

M&S uses a three-factor methodology comprised of an equal weighting of: number of employees, number of customers served and O&M expense level ("three factor methodology") to allocate costs of the M&S departments shown in the table below to the business units. In some instances, these costs are allocated across all business segments (referred to as "corporate"); in other instances, the three factor methodology is used to allocate departmental expenses among only the regulated affiliates or among only the non-regulated affiliates. The departmental costs allocated are the costs remaining after costs have been direct charged, capitalized, or charged to other balance sheet accounts. The business unit numbers and allocation codes in the table below indicate whether costs are allocated to all, regulated only, or non-regulated business segments.<sup>23</sup>

Department Number	Business Unit Number	Department Name	Allocation Code
400	305	Administration General	990 <sup>24</sup>
401	305	Office of the COO - Corporate	990
401	987	Office of the COO - Reg	940 <sup>25</sup>
401	988	Office of the COO - Non Reg	950 <sup>26</sup>
435	305	Commercial Development	NREGOP_614 <sup>27</sup>
445	305	Procurement	990
610	305	Legal - Corporate	990

<sup>23</sup> PA's transaction testing confirmed that the allocation methods are working as designed.

<sup>24</sup> Code 990 indicates that costs are allocated among all affiliates.

<sup>25</sup> Code 940 indicates that costs are allocated only to business units within the regulated segment.

<sup>26</sup> Code 950 indicates that costs are allocated only to business units within the regulated segment.

<sup>27</sup> This code indicates that costs are allocated only to non-regulated operations. Commercial Development is also referred to as Business Development.

<b>610</b>	987	Legal - Reg	940
<b>610</b>	988	Legal - Non Reg	950

There was a significant discussion in the Order and testimony regarding the Company’s three factor methodology (commonly referred to as a “general allocator”). Specifically, Commission Staff questioned whether the use of “Number of Customers” results in an over-allocation of costs to the regulated New York utilities as a result of under-allocating costs to certain non-regulated businesses. The June 2014 Order requires this study to address the appropriateness of the continued application of the current three factor methodology to regulated affiliates, including an assessment of the impact of any mis-allocation for the last 3 years.

The objective of this task is to address the equitability of the continued application of the current three factor methodology to regulated affiliates, over the last 3 years.

## 7.2 Approach

The three factor methodology used by M&S is a form of general allocator. General allocators are commonly used to allocate costs which cannot be direct charged or allocated based on cost causative allocation factors.

PA reviewed the use of the three factor allocator for consistency with common accepted uses of general allocators in the utility industry. This included a review of the appropriateness of the services allocated using this factor as well as the appropriateness of the components of the allocator.

PA assessed whether M&S’s use of its current three-factor general allocator is consistent with the following guiding principles. These principles are based accepted industry practices and guidance provided by regulatory agencies.

- The components of the general allocator should impartially and fairly reflect the level of effort and costs required to support each of the operating companies;
- The underlying calculation used to support the components of the general allocator should be as transparent as possible (i.e., based as directly as possible on published information); and,
- The underlying calculation should not vary significantly from period to period based on factors considered to be “non-controllable.”

In performing this assessment, PA compared M&S’s practices to other representative utilities in North America.

Based on a recent PA study, the most common general allocator used in the utility industry is the Massachusetts Formula (MF) or variations of the Massachusetts Formula commonly referred to as the Modified Massachusetts Formula (MMF).

The Massachusetts Formula consists of Plant, Revenues, and Labor, equally weighted; however, “Plant”, “Revenues”, “Labor” are not specifically defined. As a result of the lack of specific, authoritative guidance on the specific definitions of these three components, we found that variations have emerged

over time among utilities claiming to use the MF. For example, revenues may be defined as top line revenues from the income statement or as gross margins; plant may be defined as utility plant or as total assets; and labor may be defined as headcount or as payroll dollars. But in all cases, the variations are sufficiently minor to still be considered as Massachusetts Formulas.

Similar to the Massachusetts Formula, there are a number of Modified Massachusetts Formulas in place, usually with equally weighted component allocation factors, but the components differ somewhat from the Massachusetts Formula.

Following is a list of general allocators used in the utility industry. Please note that the calculation of the general allocator formulas are typically tailored based on the specific set of affiliates receiving or benefiting from the services provided. For a Holding Company with many regulated and non-regulated subsidiaries operating in various jurisdictions, the general allocator formulas are tailored to include only those affiliates receiving or benefiting from the services provided. While the general formula remains unchanged, a single Holding Company may have a dozen or more variations of the general allocator formula depending on the affiliates receiving or benefiting from the service provided.

Nationwide, the following companies use the Massachusetts Formula as their general allocator.

Utility/Holding Company	State	General Allocator Formula
AEP	Multiple States	Total Assets, Number of Employees, and Number of Electric Retail Customers (this is AEP's most commonly used functional allocator)
American Water	Multiple States (including New York)	Operating Revenue, Net PPE, Employees
Black Hills	South Dakota, Wyoming, Montana, Colorado, Iowa, Kansas, Nebraska	Asset Cost, Payroll, Gross Margin
CenterPoint Energy	Texas, Louisiana, Minnesota, Mississippi, Oklahoma	Asset Cost {40%}, Headcount {20%}, Gross Margin {40%}
ConEd	New York	Average of Revenues, Assets, and Labor Costs
Duke Energy	Indiana, North Carolina, Ohio, Kentucky, South Carolina	Gross Margin, Net PPE, Payroll

Iberdrola	New York (RG&E, NYSEG) and Maine (CMP)	Operating Revenue, Net PPE, Payroll
Great Plains Energy (Kansas City Power & Light)	Missouri, Kansas	Operating Revenue, Net PPE, Employees
Unitil	Massachusetts (FG&E, New Hampshire, and Maine)	Labor, Revenue, Plant
Xcel	Minnesota, Colorado, Texas, Michigan, Minnesota, New Mexico, North Dakota, South Dakota, Wisconsin	Average of Revenue, Employee, and Total Asset Ratios

The Modified Massachusetts Formula is also commonly used as shown in the table below.

Utility/Holding Company	State	General Allocator Formula
Ameren	Illinois and Missouri	Use an "Executive Allocator" which includes: Total Capitalization, Total Assets, Sales Volumes
First Energy	Ohio, Pennsylvania and New Jersey	Initial allocation is based on FE's Equity investments in affiliates. For allocations across subsidiaries FE use Gross T&D Plant, O&M Expense, and T&D Revenues.
NiSource	Indiana, Kentucky and Ohio	Total Plant, State Employees and Customers
PPL (not including LG&E/KU)	Pennsylvania	Average invested capital, O&M, and number of employees of subsidiaries.
Progress Energy	North Carolina, South Carolina, Florida	Revenue, Asset, and Operating Expense Ratios
PSE&G	New Jersey	Revenue, Earnings, and CapEx

Southern Company	Georgia, Alabama, Mississippi, Florida	Net Fixed Assets, Operating Expenses, Operating Revenues.
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Companies have also developed other formulas which they believe meet specific needs. For example:

Utility/Holding Company	State	General Allocator Formula
Alliant Energy	Wisconsin, Iowa, Minnesota	General Ratio based on the sum of all Service Company expenses directly assigned or allocated.  Numerator is the Client Company Denominator is all Client Companies and/or the Service Company.
Central Hudson	New York	Net Assets and Number of Employees
Constellation Energy	Maryland (BG&E)	Total Corporate Assets, Equity, Employees and Gross Margin
Entergy	Louisiana, Texas, Arkansas, Mississippi	Employees and Total Amount Billed (Complete allocation factors, not just residuals)
EPCOR	Edmonton, Alberta, Canada	Total Annual Revenue, Total Net Assets, Total Annual CapEx, Average Number of FTE's
Exelon	Illinois (Commonwealth Edison), Pennsylvania (PECO)	Total Average Assets and 12 months Gross Payroll.
Integrus Energy	Wisconsin (Wisconsin Public Service), Illinois (Peoples Gas), Minnesota and Michigan	Two-part formula: Total Assets and Total Non-Fuel O&M

Utility/Holding Company	State	General Allocator Formula
E.On (pre-acquisition by PPL)	Kentucky (LG&E and KU)	Revenue, Total Assets, Number of Employees and Direct Expense Ratios (used for cash management and investment). Other ratios are also used
Northeast Utilities	Connecticut (CL&P), Massachusetts and New Hampshire	Gross Plant and Net Income
NStar	Massachusetts	A number of allocation methodologies including: Number of Customers, Operating Revenue, Avg. Capitalization. Also, Operating Revenues and Capitalization
PNM Resources, Inc.	New Mexico, Texas	Pro-Rata distribution and Transactional allocations
Southern California Edison	California	Operating Revenues, Operating Expenses, Number of Employees, and Total Assets Some governance costs are allocated based on Equity Investment and Advances.

### 7.3 Findings

1. The Agreement Between United Water Management & Services Inc. and United Water New York Inc., which specifies the use of the three factor methodology as currently used, is dated October 20, 1995. The Agreement specifies that this methodology be used to allocate Administrative, Purchasing, Insurance and General Services.
2. M&S’s use of a three factor methodology (or general allocator) to allocate the cost of the following services is reasonable when coupled with the direct charging of costs benefiting specific business units:
  - a. Executive-level services; that is, the CEO and office of the COO;
  - b. Legal (i.e., for legal services which cannot be direct charged to an affiliate);
  - c. Business Development (no business development costs were allocated to the regulated segment in 2014 as a policy decision); and,
  - d. Procurement.

3. The individual components used in M&S's three factor methodology do not best reflect the underlying cost drivers as compared to commonly accepted industry practices as discussed above.
  - a. One of the three components should reflect investment requirements such as Gross or Net Plant or Capitalization.
  - b. Number of customers is not reflective of cost causation for non-regulated contracts in which UW affiliates do not provide meter reading and/or billing services. This represents a majority of the individual contracts. A reasonable alternative would be "revenues" or "gross margin."
  - c. Commonly accepted practices suggest that either "payroll," "number of employees" or "operating expenses" would be a reasonable third component, but not two of the three.
4. It is a common practice in the North American utility industry to use the general allocator to apportion costs among affiliates for functions providing "governance, general corporate support services or business sustainability" services. These services may include, but are not limited to:
  - a. Executives
  - b. Director fees
  - c. Corporate and management accounting
  - d. Risk management
  - e. Investor relations
  - f. Corporate secretary
  - g. Corporate communications
  - h. SOX/Internal controls
  - i. Internal audit (when not direct charged)
5. Strategic planning is performed within the Commercial Development function (also referred to as Business Development). The cost of strategic planning is not currently allocated to the regulated affiliates.
6. While UW does not currently allocate the Suez Environmental management fee to the regulated and non-regulated segments, it is likely that some corporate services represented by the management fee are commonly allocated in the utility industry using a general allocator.
7. Company management has indicated that it has started a process to update its cost allocation practices and the related affiliate agreements. This update is being coordinated with the upgrade to the PeopleSoft ERP which is currently underway.

## 7.4 Recommendations

1. The components of M&S's current three factor methodology should be changed to better reflect common utility industry practices for the use of general allocators as discussed above.

2. To the extent possible, the components should reflect readily available data and match public documents such as the Annual Reports file with the State utility regulatory commissions.
3. The three factor methodology should also be comprised of components that better reflect cost drivers of the Company’s current business model. For example, the Company should consider the following; however, this list is not intended to represent all possible options.

Current	Number of Employees	Number of Customers	O&M Expenses
<b>Proposed</b> <b>(select one from each column)</b>	<ul style="list-style-type: none"> <li>• Operating expenses</li> <li>• # of Employees</li> <li>• Payroll Dollars</li> </ul>	<ul style="list-style-type: none"> <li>• Operating Revenues</li> <li>• Gross Margin</li> </ul>	<ul style="list-style-type: none"> <li>• Gross Plant</li> <li>• Net Plant</li> <li>• Net Assets</li> <li>• Total Capitalization</li> </ul>

- a. The use of Operating Expenses rather than Number of Employees typically better represents an operating environment characterized by the use of subcontractors. If used, Operating Expenses should not include the cost of allocated or direct charged M&S fees.
  - b. The use of Operating Revenues or Gross Margin eliminates the regulatory concerns associated with # of Customers. Gross Margin is simply Operating Revenues less the Cost of Purchased Water.
  - c. The use of Number of Customers should be retained as the allocation factor for Customer Care, Revenue Management and Customer Care and Billing (CC&B) system costs.
  - d. The Net Plant component of the allocation factor used to allocate Operations and Engineering costs is calculated as Utility Plant (or Non-utility Plant in the case of the non-regulated affiliates) including CWIP less accumulated depreciation and Customer Advances and Customer Contributions in Aid of Construction.
4. There are a number of M&S functional areas where replacing the current allocation factor with a general allocator, utilizing the suggested components in item 3 above, would both simplify the overall process as well as improve the cost causality of the allocation basis.
    - a. Consider using a general allocator using suggested components in item 3 above to apportion both Operations and Engineering and Accounting, Finance and IT departmental expenses.
    - b. Departments that currently capitalize their costs should continue to charge the construction overhead (e.g., Engineering).
    - c. Employees in Fixed Asset Accounting (Property Accounting) should charge all of their time to the construction overhead code; currently the work performed by Fixed Asset Accounting is taken into consideration when establishing an average percentage to be used by all Accounting Services department employees for capitalization purposes.
    - d. UWM&S should consider apportioning strategic planning services to both regulated and non-regulated business units using a general allocator. Strategic Planning costs are not currently allocated to the regulated and non-regulated business segments.

## 8 COST ALLOCATION MANUAL

### 8.1 Background and Objective

The Company drafted a United Water Management & Services, Inc. (M&S) Cost Allocation Manual (CAM) in response to an order from the Arkansas Public Service Commission (APSC). The Company’s regulated water utility businesses in Arkansas were sold subsequent to the issuance of the APSC order; the CAM was never filed for approval and remains a draft document. The draft CAM, which was published internally in May 2012, was developed by the M&S Regulatory Business Department.

The CAM has never been made final and has not been updated since its publication in 2012; no organization has been assigned responsibility for maintaining the CAM.

The objective of this task is to examine the draft M&S CAM and provide recommended changes where appropriate.

The CAM includes the following sections based on its table of contents.

Section Heading	Description
<b>Introduction</b>	Provides an overview of the services provided, the purpose of the CAM, and the mission statement of M&S.
<b>Corporate Structure</b>	Describes the three primary divisions within United Water, Inc.
<b>Shared Services</b>	Describes the shared services offered by M&S, by department.
<b>Direct vs. Indirect Costs</b>	Provides definitions of direct and indirect costs, and briefly describes the process for assigning costs to the operating companies under both approaches.
<b>Assigning M&amp;S Costs</b>	Provides brief descriptions of the process for allocating overhead costs; the three M&S business units, and the M&S billing system.
<b>Cost Allocation Methodology</b>	Describes the allocation level codes, provides as allocation level code diagram, and briefly describes the five operating categories used to allocate indirect costs.
<b>Allocation Factors</b>	Briefly describes the allocation factors used.

<b>Allocation Method</b>	For each allocation factor, describes the allocation method used. Includes an (outdated) example of the inputs used to calculate the allocation factors.
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In addition, United Water has a document entitled “United Water M&S: Value Added Assessment Catalog” dated March 2007. This document includes the M&S mission statement, departmental roles and responsibilities, and the M&S allocation methodology. While this document has not been updated to reflect the current organizational structure, its contents are consistent with those commonly included in a Cost Allocation Manual and the description of the M&S allocation methodology is more complete than the description included in the 2012 draft CAM.

In addition, the Agreements in place between United Water Management & Services and the individual regulated water companies contain elements of a CAM including descriptions of the services offered and allocation methodologies to be used.

Neither the Value Added Assessment Catalog nor the Agreements fully reflect current allocation policies and practices.

## 8.2 Approach

Cost allocation manuals are commonly used in the United States utility industry to document policies and practices and provide guidance related to the charging and allocation of corporate and shared services costs among affiliate companies. In addition, the National Association of Regulated Utility Commissioners (NARUC) has provided guidance on cost allocation practices. CAM’s are often filed with the utility regulatory commissions in the States in which a utility operates or included as part of a utility’s general rate case filing.

PA compared the M&S CAM used in the North American utility industry and guidance provided by the NARUC. The findings of this review are presented below.

Our approach specifically included the following steps.

- Reviewed the draft UW M&S Cost Allocation Manual;
- Assessed practices for maintaining the CAM and whether the CAM reflects current circumstances and practices;
- Assessed the adequacy of the detail and guidance included in the CAM based on commonly accepted industry practices, including the scope of transactions included in the CAM;
- Assessed the adequacy of employee training on cost allocation practices as described in the CAM;
- Assessed the overall system of cost allocations for reasonableness compared to commonly accepted industry practices and specific UW circumstances. This included practices for direct charging vs allocations as well as the specific allocation factors used; and,
- Provided recommended changes where appropriate.

## 8.3 Findings

1. The CAM is an incomplete draft document and does not have the same weight as a formal corporate policy; that is, the document is not generally acknowledged as a source of guidance to employees.
2. Consequently, employees are not periodically trained on the policies and practices included in the CAM, and it is unlikely that M&S employees are familiar with the CAM in its draft form or turn to it for guidance.
  - a. For most employees, the relevant guidance relates to how to report their time and this guidance was provided on a department by department basis in connection with the issuance of the time reporting guidance letters in early 2014.
  - b. Instructions of how to report time are not formally embedded in practices associated new hires and also departmental changes due to internal reorganizations.
3. The framework of the draft CAM is reasonably consistent with industry practices.
  - a. Provides a description (albeit brief) of the process whereby certain M&S operating expenses are allocated to affiliates.
  - b. Briefly describes the services provided by M&S.
  - c. Briefly describes the appropriate use of direct charging.
4. However, there are many components of a cost allocation manual which are not included in the draft CAM. The draft CAM does not:
  - a. Fully describe the principles underlying the Company's cost allocation practices. These principles include cost causality, consistency, fairness and efficiency.
  - b. Include descriptions of the process used to apportion non-labor costs related to M&S functions which are not budgeted by M&S departments. The process used to apportion these costs to both M&S and its affiliates is referred to as "Corporate Assumptions."
  - c. Describe practices for direct charging certain non-labor costs associated with activities performed by M&S employees to the business units.
  - Describe practices for allocating the construction overhead component of M&S departmental costs (often referred to as "Capitalized A&G") to the business units.
  - Describe the costs which are not charged or allocated to the regulated and non-regulated business segments. Some of the costs not allocated are native to M&S (referred to as "non-expense" costs); others remain on the books of the parent company (including Suez management fees).
  - Describe the current two-step process for allocating General Administrative costs (Department 950 costs).
  - Describe corporate costs which are not budgeted by M&S and which are retained at "corporate."

- Describe policies and practices related to allocating costs related to the Customer Care and Billing (CC&B) process.
- Describe how capitalized costs, non-expenses and CC&B costs are excluded from those M&S department expenses allocated using the process described in the CAM.
- Describe practices for direct charging specific capital projects for services provided by M&S functional areas.
- Include as an appendix the affiliate agreement between M&S and the regulated utilities and the comparable agreement between M&S and the non-regulated affiliates
- Comprehensively describe policies and practices for apportioning costs among individual business units other than M&S. For example, UW New Jersey provides fleet services and small meter testing services to other business units; these are not included in the CAM.
- Fully describe the calculation and sources used to develop the allocation factors.
- Define the “owner” of the CAM and processes whereby the CAM should be updated, including triggers for mid-year updates (for example, the sale or acquisition of affiliates).

5. The following table summarizes PA’s comparison of M&S’s CAM with components of CAM’s commonly found in the North American utility industry.

CAM Component Description	Included in the UWM&S CAM?	Assessment of Effectiveness
<b>Purpose, including description of regulatory requirements</b>	The purpose is described in general terms and mention is made that the written agreements are on file with the various regulatory jurisdictions.	Acceptable, except that no mention is made of any specific jurisdictional regulatory requirements.
<b>Terms / Acronyms</b>	No	Not applicable
<b>Corporate Overview</b> <ul style="list-style-type: none"> <li>• <b>Entity org structure</b></li> <li>• <b>Brief description of corporate purposes</b></li> </ul>	Yes, but the organization structure discussion is not current and does not reflect services that are provided by corporate entities other than UWM&S	CAM’s typically also include a legal organization chart.
<b>Cost allocation principles</b>	Typically, cost allocation principles described in a CAM include a hierarchy of preferred allocation practices beginning with the direct charging of services. Also, the principles also typically include direction related to the transparency of the policy and consistent	The Company’s draft cost allocation manual is not used to communicate Company policies related to cost allocations. The descriptions are not sufficiently detailed to provide guidance and are not fully aligned with the guidance provided in early 2014 to each department.

	application of the policy.	
<b>Description of services provided among affiliates</b>	The only services described are those provided by UWM&S to the regulated and non-regulated operating segments.	These descriptions are both incomplete and out-of-date and do not describe the functional alignment within departments of groups of employees providing services to specific operating segments.
<b>Detailed description of service company organization, services provided and charging mechanisms</b>	Yes, although the list of departments and their alignment with specific allocation codes and methodologies is not complete.	These descriptions are both incomplete and out-of-date and do not describe the functional alignment within departments of groups of employees providing services to specific operating segments.
<b>Time reporting processes</b>	Yes, time reporting is briefly described.	The description does not reflect the detail by department described in the early 2014 time reporting guidance letters.
<b>Affiliate billing processes</b>	The M&S Billing section of the CAM describes at a very high level the process for billing affiliates for M&S costs.	Additional details related to the billing process would be of value including responsibilities, controls, and processes available to address billing questions or disputes.  The CAM does not include an example copy of a bill.
<b>Responsibility for maintaining CAM including triggers for mid-period updates to the allocation factors</b>	No	Not applicable
<b>Listing of Exhibits (e.g., Service Agreements, Service Level Agreements)</b>	Partial, the only exhibit is a now outdated list of the April 2011 allocation factors	Incomplete; exhibits typically include current calculations of the allocation factors as well as current example Agreements between affiliates (principally the shared services company) and the operating companies and service level agreements.  The Company does not currently utilize service level agreements.

6. Specific cost allocation factors are at the departmental level rather than at the “service” level.

- a. For example, for Human Resource department, all costs are allocated based on the Number of Employees. Defining an HR cost pool to capture costs of services related specifically to the bargaining unit workforce (e.g., labor contract negotiations and grievance handling) and allocating these costs based on the Number of Union Employees may be more appropriate, especially given the non-union composition of the non-regulated segment workforce.
  - b. Certain non-labor expenses such as ADP-provided payroll services are also allocated based on Number of Employees through the Corporate Assumptions process. In most organizations, the complexity of a union payroll is significantly greater than a non-union payroll due to pay differentials, premiums, deductions, etc. In addition, union employees are paid on a weekly basis rather than a bi-weekly basis which is typical for the rest of the Company.
  - c. While not explicitly related to the concept of “services” based allocation practices, Property Accounting costs are commonly allocated in total to construction activities through the A&G capitalization process. This can be accomplished using the Company’s existing processes which allow individual employees to report time to different allocation codes – in this case, the construction overhead code. Through the use of this code, Property Accounting services are effectively allocated to individual business units based on an appropriate underlying cost driver – level of construction spend.
  - d. Strategic planning services are embedded in Business Development costs which are not allocated to the regulated and non-regulated business segments.
7. Some non-labor costs associated with services provided by M&S employees are directly charged to business units rather than go through the M&S billing process. Examples include:
- a. Out of pocket expenses related to internal audits and regulatory services.
  - b. Certain legal fees
8. The use of “Capitalization” as the allocation factor for functions such as IT (excluding CC&B-related costs and many non-labor costs) and Finance and Accounting (charged to BU 305) resulted in approximately 98% of these costs being allocated to the regulated segment in 2014. This result may not be fully reflective of the underlying cost drivers. For these functions, the use of the general allocator may result in allocations more reflective of underlying cost drivers.
9. The following costs are not allocated to the regulated and non-regulated business units including UW-NY:
- Non-regulated segment related memberships and sponsorships;
  - Suez management fee;
  - Certain consulting costs (included lobbying expenditures);
  - Certain external audit fees;
  - Certain legal expenses;
  - Corporate charitable contributions; and,
  - Certain business development costs (e.g., costs associated with the acquisition of the Long Island properties were retained at Corporate in 2014).

9. Company management has indicated that it has started a process to update its cost allocation practices and the related affiliate agreements. This update is being coordinated with the upgrade to the PeopleSoft ERP which is currently underway.

## 8.4 Recommendations

1. The draft M&S CAM should be updated to address the items described in the above findings and made an official Company policy document.
2. Revise the set of allocation factors currently used including the three factor methodology described in the previous chapter to better reflect underlying cost drivers, improve consistent, and improve efficiency. This includes the expanded use of the three factor formula and the tailored use of a limited number of “service” based allocators.
  - a. As an example, the allocation process for Human Resources and Payroll services could be tailored to better reflect the underlying differences in cost drivers discussed above between union and non-union workforces.
  - b. This could be accomplished by allocating payroll costs based on the number of paychecks issued per month. For Human Resources, an additional cost pool could be established to accumulate costs uniquely driven by bargaining unit issues (grievances, contract negotiations, etc.); these costs would then be allocated to business units based on the number of represented employees.
  - c. The change recommended here, while not a process simplification, is consistent with the general nature of our recommendations in that it is more reflective of the Company’s current business model while still being based on readily available allocation factor data.
3. Develop policies and procedures to ensure that new hires and employee changes resulting from internal transfers and departmental reorganizations are trained on time reporting and cost allocation practices including the direct charging of time and expenses.
4. Continue the processes currently underway to update cost allocation practices and affiliate agreements consistent with the recommendations include in this report.

# A APPENDIX A – ECONOMIC ANALYSIS RESULTS FOR M&S SERVICES (TOTAL COST)

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## A.1 Scope of the Review

The scope of review of the economic analysis of M&S services in the aggregate includes the following:

- Identify the current services provided by M&S at the department level;
- Evaluate the effectiveness and efficiency of the needed services;
- Evaluate the benefit of such services to the customers of the UW-NY utility;
- Examine and benchmark the most recent cost of the services the UW-NY utility receives from M&S;
- Determine if the provisions of these services are the most cost effective alternative;
- Perform a cost benefit analysis comparing M&S services to alternative outside sources of equivalent services; and,
- Recommend, if needed, sufficient and proper controls so that charges for services under the agreement result in reasonable costs and are the best alternative for provision of the service such that the UW-NY utility can independently compare the cost of obtaining the service through the M&S Company to that of non-related parties or having the utility performing the service itself.

## A.2 Approach

To assess the effectiveness and efficiency of the needed services, PA compared the total cost of each of the ten services described below to the normalized peer panel median value of these same services for the companies participating in PA's Corporate and Shared Services benchmarking study.

Comparing costs for these ten services in the aggregate to the benchmarking peer panel is critical to assessing the effectiveness and efficiency of these services. An analysis at this level avoids issues associated with differing capitalization and cost allocation practices which impact service costs at the individual operating company (e.g., UW-NY) level.

Additionally, for each service provided by M&S to the UW-NY utility, PA performed the following:

- Obtained copies of the monthly M&S invoices for services billed to UW-NY in 2014;
- Obtained financial reports detailing costs direct charged to UW-NY related to the Shared Services;

- Provided the Company with an initial data request (IDR), including a request for cost data for approximately 190 sub-processes typically included in Shared Services provided to affiliate companies;
- Reviewed responses to IDR and submitted follow-up request to M&S;
- Met with M&S and UW-NY employees for each Shared Service; and,
- Completed the benchmarking model and analysed results.

### A.3 Determination of Total M&S Costs for Benchmarking

In order to meet the Commissions requirement to “...examine and benchmark the most recent cost of the services UW-NY utilities receive from M&S”, it was necessary to determine the total costs of each of the Shared Services provided by M&S to the business units. Typically, Company internal and external financial and managerial reports do not capture the true total cost for each Service. Initially, we requested detailed financial and cost data for 2014 from UW. Among the data we received is a report called the “M&S Cost & Fee Summary by Department” or the “700 Report”.

The 700 Report details costs that are included in approximately one hundred “Departments” which are then sub-totaled into fourteen cost pools as shown below:

1. *Corporate Administration*, which includes:
  - a. Executive Management Team;
  - b. Internal Audit; and,
  - c. Environmental Health & Safety.
2. *Finance*, which includes:
  - a. General Accounting;
  - b. Utility Accounting;
  - c. Payroll;
  - d. Taxes;
  - e. Financial Planning;
  - f. Internal Control & Enterprise Risk Management;
  - g. Treasury; and,
  - h. Procurement.
3. *Legal*
4. *Information Technology*
5. *Customer Services*
6. *Technical Services*, which includes:
  - a. Engineering;
  - b. Quality; and,
  - c. Technical Services.
7. *Human Resources*
8. *Corporate Communications*
9. *Suez Environment*
10. *Regulatory Business*
11. *Business Development*

- 12. *General & Administrative*
- 13. *External Affairs*
- 14. *Other Operations*, which includes:
  - a. Revenue Management.

Each of the above is detailed into the following cost categories:

- Personnel Costs;
- Travel Expenses;
- Outside Services;
- Other Expenses; and,
- Capitalized Time

In the Table below, we have replicated the Total Cost line for the 2014 700 Report.

**2014 - M&S Cost & Fee Summary by Department**

	Personnel Costs	Travel Expenses	Outside Services	Other Expenses	Total Gross Expenses	Capitalized Time	M&S YTD Billed Fees
Total	\$51,265,244	\$2,194,861	\$5,374,909	\$7,000,366	\$65,835,379	\$12,798,366	\$53,037,014

We determined that the 700 Report, while useful for the purposes of determining the M&S fees billed to business units, did not identify the total cost for each Department in a way that could be used for Shared Service benchmarking purposes for several reasons. Among them:

- Personnel Costs were not pure labor costs but included some benefits;
- Embedded employees were not included;
- Outside Services included an allocation from the IT department and did not include some costs which were separately charged to the business units – called “Corporate Assumptions”; and,
- Capital costs were not included, which is an important element in total cost determination;

As a result, we were required to develop the total cost for each Department using various other responses to data requests and other Company provided data. These included:

- Detailed cost reports for each Department prior to summarization in the 700 Report;<sup>28</sup>
- For each Department, details of outside services utilized. This impacts all Departments, but IT, Legal, and HR typically are the biggest users of outside services;
- Other expenses were provided for each Department;
- Labor costs were loaded at 31.2% for G&A cost and fringe benefits.<sup>29</sup>
- Reports of Capital Expenditures for each Department.

Having determined the total cost for each Department, for benchmarking purposes, we determined which Shared Services to include in our Review and which to exclude.

<sup>28</sup> Referred to internally as “the CUBE”

<sup>29</sup> The Company provided PA with supporting documentation regarding the 31.2% loading factor.

## A.4 Services Included

For the purposes of our Review, we have organized the Departments and underlying costs into Shared Services categories that are typical of Shared Services Companies and are aligned with the data included in our peer panel data. These are:

1. *Financial Planning*, including:
  - a. Corporate Strategy
  - b. Financial Planning
  - c. Budgeting & Analysis
  - d. Management Reporting
  - e. Internal Control & Enterprise Risk Management
2. *Accounting*, including:
  - a. General Accounting
  - b. Accounting Policy
  - c. Taxes
  - d. External Reporting
3. *Treasury*, including:
  - a. Cash Management
  - b. Corporate Finance
  - c. Accounts Payable
4. *Internal Audit*
5. *Procurement*
6. *Legal*
7. *Information Technology*
8. *Human Resources*, including:
  - a. Payroll
9. *Corporate Communications*, including:
  - a. Media Relations
  - b. Stakeholder Communications
  - c. Employee Communications
10. *Regulatory Business*

The remainder of this Appendix will be organized around these ten Shared Services.

## A.5 Mapping Departments to Shared Services

The next step was to map the costs for each UW Department to one of the ten Shared Services above. The table below shows where each Department's costs were accounted for in this Report.

**M&S Departments Mapped to Shared Services<sup>30</sup>**

Department Number	Department	Mapped to Shared Service:
500	General Accounting	Accounting Services
520	Taxes	
525	Systems Accounting	
405	Corporate Communications	Corporate Communications
725	Creative Services	
440	Risk Management	Financial Planning
504	Expat Accounting	
505	Utility Accounting	
530	Financial Planning	
540	IC and Enterprise Risk Management	
570	Corporate Finance	
415	Human Resources	Human Resources
416	HR - Shared Services	
417	Diversity	
515	UWM&S Payroll	
420	IT- Program Management	Information Technology
425	IT - Service Delivery	
426	IT Service Development	
432	IT - Infrastructure	

<sup>30</sup> A number of the departments listed here were not active in 2014 as a result of a reorganization occurring at the start of 2014; however, some costs were charged or credited to these departments in 2014 which is why they are included here. Examples include Expat Accounting, Systems Accounting, Creative Services, Diversity, Contract & Admin Support, and Corporate Office Support. In addition, the five IT departments were combined into a single department in 2014.

433	IT Infrastructure Helpdesk	
535	Internal Audit	Internal Audit
610	Legal	Legal
445	Procurement	Procurement
580	Contract & Admin Support	
800	Regulatory Business	Regulatory Business
410	Corporate Office Support	Treasury
501	Accounts Payable	
605	Treasury	

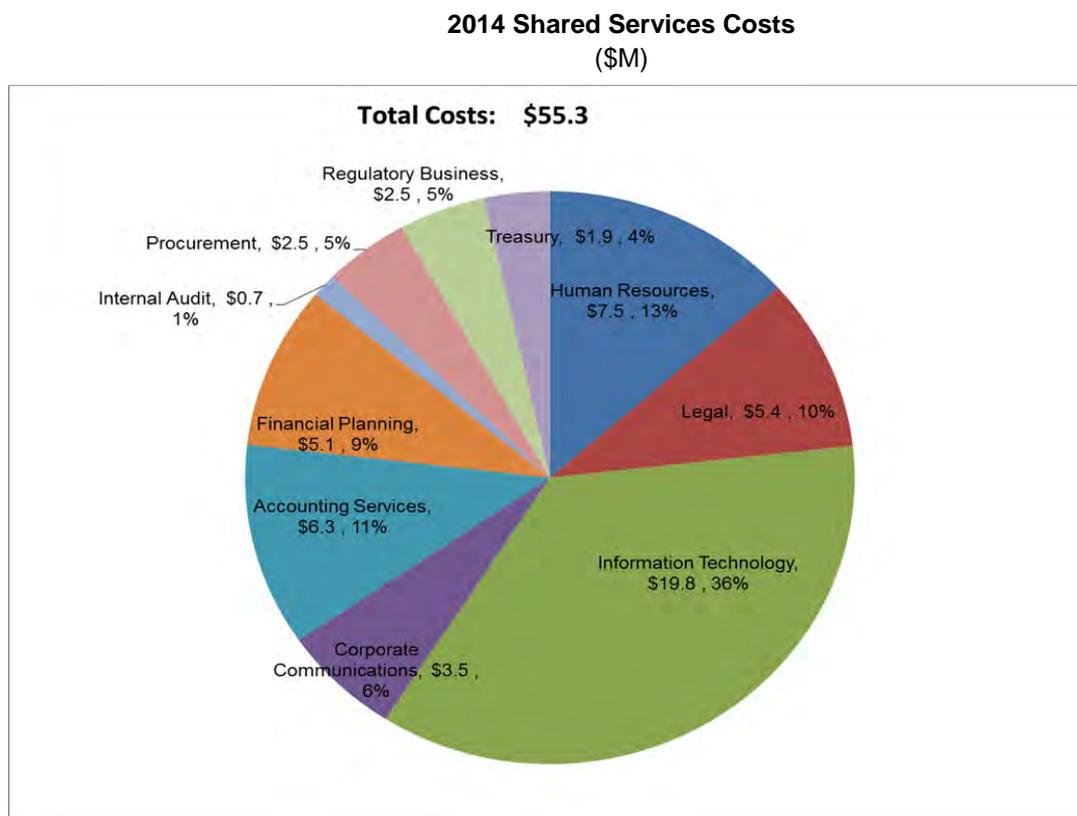
## A.6 Total Cost of M&S Services

The Table below shows the total costs of Shared Services to be **\$55.3M**

### TOTAL COST OF SHARED SERVICES

Service	2014 Total M&S Cost (\$000)
Financial Planning	\$5,086
Accounting	6,324
Treasury	1,926
Internal Audit	739
Procurement	2,422
Legal	5,393
Information Technology	19,828
Human Resources	7,455
Corporate Communications	3,507
Regulated Business	2,545
<b>Total</b>	<b>\$55,319</b>

Looking at it another way, the following chart shows the relative size of each Shared Service.



## A.7 Costs Not Reviewed

Office of the CEO: We have not attributed the CEO costs (Dept.400) to specific Services since the peer panel does not have them included.

Office of the COO: Includes the costs associated with certain members of Executive Management (the COO and the SVP, Operations); this is Department 401. These costs are predominately related to utility operations and not included in our peer panel. Also, the SVP includes External Affairs that is mostly embedded in the business units with only one employee centralized at M&S.

Customer Care: includes operational functions that are mostly managed by the business units. In this case UW-NY. M&S does have a “Customer Care” group (Dept. 455) of ten employees managed by the Vice President, Customer Service who reports to the President, Regulated Segment. This group provides guidance, training, control and, management reporting for the Customer Service process. A key objective of this group is to standardize customer service practices throughout the United Water regulated business units. This will lead to the possible consolidation of operational activities in the future. PA does not have comparable data for this group in its peer panel therefore we have not included it in our benchmarking review.

Environmental Health and Safety (Dept. 210) are mostly performed by employees embedded in the utility business units with only two employees providing oversight at M&S.

Engineering & Technical Services is comprised mainly of Engineering (Department 205) and Quality (Department 255). The PA peer panel does not collect data for Engineering. Quality is specific to water utilities and peer panel data would not be comparable.

Business Development's sole purpose is to develop and grow the non-regulated segment, i.e. Environmental Services. The costs associated with Business Development are charged to the non-regulated segment and are not in the M&S fees allocated to the regulated business units and were excluded from our Review. Business Development also has responsibility United Water's strategic planning process.

Revenue Management is an embedded operations function managing non-revenue water issues and automatic meter deployment.

Facilities services (Dept. 410) are mostly performed by employees embedded in the utility business units and by subcontractors with only two employees providing oversight at M&S. Many of this department's time and expenses in 2014 were associated with planning for and facilitating the move to Paramus.

Other Miscellaneous departments are ones that have insignificant charges that do not map well to a specific Shared Service.

## A.8 Cost of M&S Shared Services - Summary

We have benchmarked the ten services we identified, including the cost of employees embedded in the business units.

As shown in the table below, the aggregate cost for these Services is **\$55.3M or 15.0% lower than the peer panel median** on a normalized basis.

M&S Shared Service	Peer Median Cost (\$000)	M&S Cost (\$000)	Difference (\$000)
Financial Planning	\$2,934	\$5,086	\$2,151
Accounting Services	2,544	6,324	3,780
Treasury	3,007	1,926	(1,082)
Internal Audit	1,111	739	(372)
Information Technology	35,820	19,828	(15,992)
Human Resources	5,295	7,455	2,160
Legal	5,189	5,394	204
Procurement	2,942	2,517	(425)
Corporate Communications	3,849	3,507	(343)
Regulatory Business	2,403	2,545	141
<b>Total</b>	<b>\$65,096</b>	<b>\$55,319</b>	<b>\$(9,777)</b>

## A.9 Financial Planning Services

### A.9.1 Description of Financial Planning Services

Financial Planning Services include:

- Assessing the business environment; identification of key issues; developing business unit strategies and objectives, and examination of alternatives; developing multi-year earnings, margin, cash, O&M, and capital plan; modeling the financial impact of new capital investments and balance sheet restructuring; forecasting for regulatory filings; performing analytic support for external stakeholders, and governing corporate capital expenditures;
- Develops business unit and department financial business plans for the next year including earnings, margin, cash, O&M and capital plans;
- Performs analysis of results and prepares variance commentary for earnings, margin, O&M, and Capital within the Company and business unit;
- Prepares and revises forecasts for earnings, margin, cash, O&M, and Capital within the business units; and,
- Review's actual information and projects the remainder of the current year future years. This function performs “what-if” analysis for various scenarios for business unit decision-making.

Financial Planning Services are the responsibility of the Senior Director, Financial Control & Corporate Finance within the Senior Vice President & Chief Financial Officer’s organization. There are a total of fifteen employees providing Financial Planning Services.

In addition, there are *twelve* embedded employees of which *three* are in UW-NY. These embedded employees provide support to the UW-NY President for planning and budget related matters as well as support to the M&S Financial Planning organization. Costs for these employees have been included in the M&S costs for benchmarking purposes.

### A.9.2 Results of Financial Planning Services Benchmarking

In order to benchmark M&S costs on a comparable basis, we normalized each of the peer panel companies’ costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW. The table below shows the actual M&S costs for Financial Planning Services with the median of our panel.

M&S Cost (\$000)	Peer Panel Normalized Median Cost (\$000)
\$5,086	\$2,934

The chart below shows the total Financial Planning Services costs compared to our panel. As can be seen, the total M&S costs for this service are well above the median.



### A.9.3 PA Comment On These Results

Analysis of the results of this benchmarking result is hampered by the fact that Financial Planning could not complete the sub-process cost template that PA provided with our initial data request. This template breaks cost down into *sixteen* sub-process cost pools for Financial Planning that would identify which sub-processes are driving the cost above the median. These templates take a significant amount of time and effort to complete. Unfortunately, the schedule for the completion of the report and the required filing date with the PSC did not allow sufficient time to complete the process.

However, we are able to make the following observations regarding Financial Planning that likely contribute to its higher costs.

As shown on the following page Suez Environment North America (SENA) has a complex organization structure. SENA operates in approximately *twenty* States as well as in Canada. The other members of the peer panel will have various numbers of affiliates or business unit but SENA is well above the number of business units supported by the panel members.

As we will discuss later in this Appendix, the much lower than peer panel median spend for Information Technology is an indication that the upgrading and modernization of UW’s financial and operating systems has not been a priority. While UW is in the process of upgrading its financial systems to the latest version of the PeopleSoft ERP, with implementation later this year, there need to be a thorough examination of UW’s IT processes and systems resulting in a long term IT Strategic Plan.

As noted above, there are *twelve* embedded employees included in Financial Planning costs. Three of them are in UW-NY. As we noted earlier, one of the benefits of the shared services structure is the

increase in "economies of scale" whereby the cost of centralized services are allocated over a large (and growing) universe of service users. The matrix style of structure adopted by M&S for Financial Planning can defeat that benefit when large numbers of employees remain embedded in the operating company.

The total number of employees providing Financial Planning service is therefore *twenty-seven* (fifteen at M&S + twelve embedded). The normalized median of employees staffing for Financial Planning in our peer panel is *nineteen*. Thus, M&S Financial Planning has *eight* more employees than the peer panel median. The complexity of SENA structure and the number of affiliates requiring services is a likely driver for these higher staffing levels and costs.

Financial Planning is comprised of mostly more senior employees than the other services at M&S and in our experience, in the peer panel. This results in higher employee related costs for Financial Planning.

Finally, the cost allocation factor for allocating Financial Planning costs to affiliates is total Capitalization. Business units with fewer assets would likely receive a lower allocation of costs if a more appropriate factor were used.

#### **A.9.4 Market information for Financial Planning Services**

##### Currently Outsourced Services

There are no outsourced Financial Planning Services.

##### Appropriateness for Third Party Provisioning

Financial Planning is an integral part of M&S's strategic and business planning. Many of the functions performed have a direct impact on UW-NY ratepayers by developing financial plans supporting capital expenditures that effect service and reliability.

For this reason in our opinion, it would not be prudent to outsource Financial Planning Services from a third party.

##### Available Market Information

PA has not examined market information for Financial Planning Services.





## A.10 Accounting and Tax Services

### A.10.1 Description of Accounting and Tax Services

Accounting and Tax Services includes the following:

- Managing the monthly closing process including account reconciliations, accounting issue resolution, and process improvement; preparing standard monthly journal entries and analysis to support accounting;
- Managing the accounting for fixed assets including: work order creation and set-up, analysis and monitoring of capital projects; creating and managing fixed asset records including asset addition, retirements, transfers or adjustments and the preparation of any related journal entries and account reconciliations; reporting of plant asset information for financial, audits, regulatory reporting, rate cases or other internal needs; process associated with the development, analysis, and accounting for depreciation;
- Managing accounting policies, GAAP research, and implementation of new accounting pronouncements; providing guidance on accounting issues; communicating any new accounting guidelines and procedures and their impact to appropriate organizations organization;
- Determining technical accounting details for specific transactions; performs research, consultations with external audit and guidance provided to the Company;
- Preparing and filing standard regulatory reports, and other mandated reports as well as with preparing the accounting information needed to complete the annual report;
- Ensures accurate accounting in all accounts;
- Performs tax services including audit of assessed property taxes, payment of property taxes, and the accounting for property taxes;
- Develops long-range tax planning to optimize tax positions for the Company; this also involves analysis of laws and regulations as they impact the company's interest;
- Files federal state and local tax returns and defends all related income tax audits as well as all applicable sales, use, and gross receipts tax returns; and,
- Ensures proper accounting in all tax accounts.

Accounting Services responsibility is with the Corporate Controller, within the Senior Vice President, & Chief Financial Officer's organization. There are thirty M&S employees that provide these services to UW-NY and other M&S affiliates.

The Corporate Tax related services above, are performed in the Director, Tax Compliance, which is part of the Senior Vice President, & Chief Financial Officer's organization. There are *seven* employees providing these services.

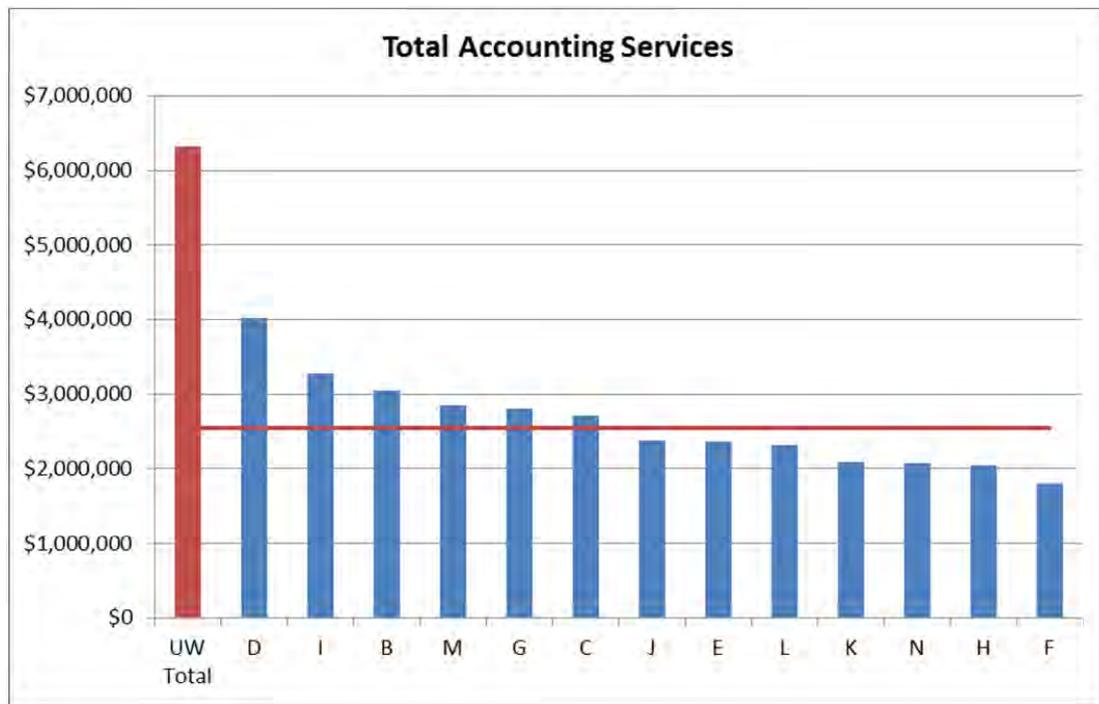
M&S provides all the Accounting and Tax Services required by UW affiliates and there are no embedded employees.

### A.10.2 Results of Accounting Services Benchmarking

In order to benchmark M&S costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW. The table below shows the actual M&S costs for Accounting Services with the median of our panel.

Total Cost of Accounting and Tax Services (\$000)	Peer Panel Normalized Median Cost (\$000)
\$6,324	\$2,544

The chart below shows the normalized Accounting Services costs compared to our panel of utilities. As can be seen, the total M&S cost for this service is well above the median



### A.10.3 PA Comment On These Results

Analysis of the results of this benchmarking result is hampered by the fact that Accounting & Tax Services could not complete the sub-process cost template that PA provided with our initial data request. This template breaks cost down into *fourteen* sub-process cost pools for Accounting & Tax Services that would identify which sub-processes are driving the cost above the median. These templates take a significant amount of time and effort to complete and, unfortunately, the schedule for the completion of the report and the required filing date with the PSC did not allow sufficient time to complete the process.

However, we are able to make the following observations regarding Accounting & Tax Services that likely contribute to its higher costs.

As shown in the legal entity organization chart above, SENA has a complex organization structure. SENA operates in approximately *twenty* States as well as in Canada. The other members of the peer panel will have various numbers of affiliates or business unit but SENA is well above the number of business units supported by the panel members.

The total number of employees providing Accounting & Tax Services is *thirty-seven* (*thirty* for Accounting and *seven* for Tax). The normalized median of employees staffing for Accounting & Tax Services in our peer panel is *thirty-four*. Thus, UW Financial Planning has *three* fewer employees than the peer panel median.

Accounting Services management have told us that their processes continue to be highly manual including the reconciliation of 44 bank accounts. Management also indicates that they continue to rework/revise accounting issues from past years

As we will discuss later in this Chapter, the much lower than peer panel median spend for Information Technology is an indication that the upgrading and modernization of UW's financial and operating systems has not been a priority. While UW is in the process of upgrading its financial systems to the latest version of the PeopleSoft ERP, with implementation later this year, there need to be a thorough examination of UW's IT processes and systems resulting in a long term IT Strategic Plan.

Finally, the cost allocation factor for allocating Accounting & Tax Services costs to affiliates is Total Capitalization. Business units with fewer assets would likely receive a lower allocation of costs if a more appropriate factor were used.

#### **A.10.4 Market information for Accounting Services**

##### Appropriateness for Third Party Provisioning

Accounting and Tax Services in the utility industry require specific knowledge of regulatory and tax accounting as well as the various technologies used in the industry. In addition, detailed knowledge of departmental budgets and IT systems would make outsourcing inadvisable. For these reasons and those discussed previously, in our opinion, it would not be prudent to source Accounting Services from third parties.

#### **A.10.5 Market information for Accounting Services**

##### Appropriateness for Third Party Provisioning

Accounting and Tax Services in the utility industry require specific knowledge of regulatory and tax accounting as well as the various technologies used in the industry. In addition, detailed knowledge of departmental budgets and IT systems would make outsourcing inadvisable. For these reasons and those discussed previously, in our opinion, it would not be prudent to source Accounting Services from third parties.

##### Currently Outsourced Services

Local expertise is engaged to investigate and challenge property and gross receipts tax assessments. Forensic audit firms have been utilized for independent review of accounting issues.

Available Market Information

PA did not review any market data for Accounting Services.

## A.11 Treasury Services

We have included the following cost pools in Treasury Services:

1. Treasury Services (Cash Management; Corporate Finance)
2. Accounts Payable

### A.11.1 Description of Treasury Services

Treasury Services include:

- Short term borrowing and investing, including activities such as, commercial paper issuance and associated activity or issuance fees, rating agency activity or issuance fees, money, cash pooling, EFT originations, tax payments, intercompany loans administration of transactions and daily settlement, determining daily cash position, and costs for issuing and paying agents;
- Daily cash account reconciliations, treasury workstation administration; bank or third-party fees, such as service charges, positive pay fees, and security related fees for both utility and non-utility account; all bank credit facility costs (e.g. bank lines, credit lines, revolvers) including any upfront fees and on-going fees;
- Develops a long-range financing and dividend strategy consistent with the targeted credit profile, setting balance sheet targets, developing and recommending hurdle rates for the company's business lines; and,
- Rating agency relations includes managing communications with the three agencies. It also includes annual rating maintenance fees and commercial paper surveillance fees.

There are three M&S employees who provide these and other Treasury Services. They report to the Vice President, Treasurer.

#### Accounts Payable

The Accounts Payable Services performed for UW-NY by M&S include:

- Processing and payment of vendor invoices, including special payments, for goods and services purchased through a purchase order;
- Special payments meant to capture payments to vendors and other service providers that are made on an expedited basis, or are processed without all of the normal elements of an invoice, a purchase order, and a notice of receipt; and,
- Managing and monitoring the use of the M&S Procurement Card process

There are six M&S employees providing Accounts Payable Services. They report to the Vice President, Treasurer.

### A.11.2 Results of Treasury Services Benchmarking

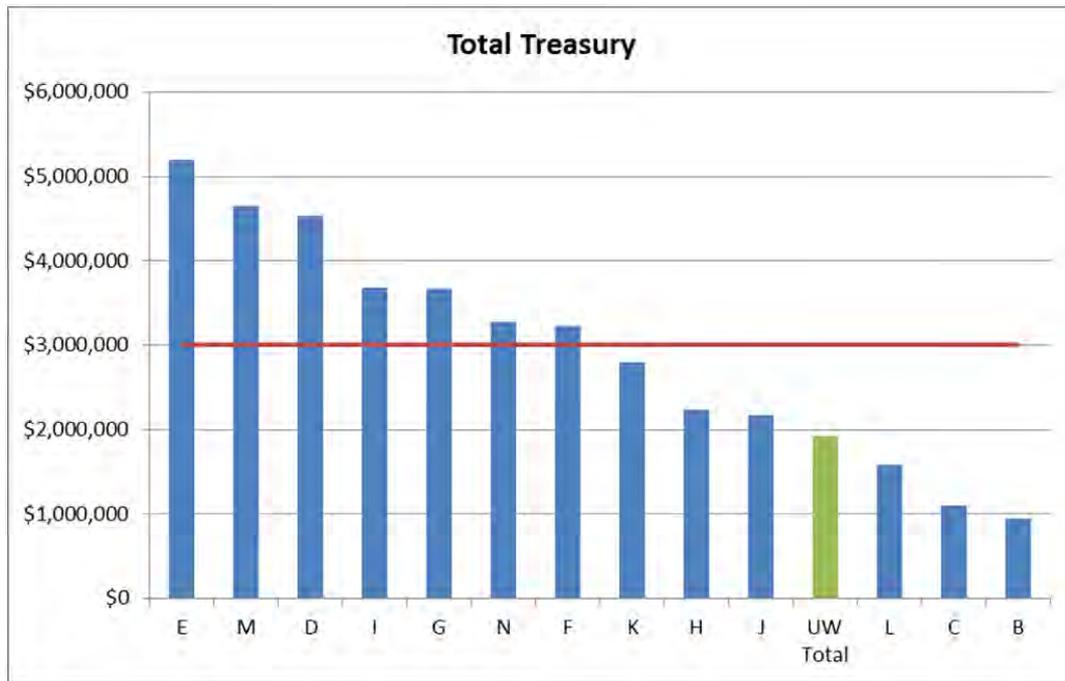
In order to benchmark M&S costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the

panel to the same size as UW. The table below shows the actual M&S costs for Treasury Services with the median of our panel.

M&S Cost (\$000)	Peer Panel Normalized Median Cost (\$000)
\$1,926	\$3,007

The chart below shows the normalized Treasury Services costs compared to our panel of utilities.

As can be seen, the total M&S cost for this service is below the panel median.



### A.11.3 PA Comment On These Results

M&S does not perform some sub-processes such as Investor Relations, which contributes to its lower costs. There are a total of *forty-four* banks that the Treasury Services organization interfaces with. The median employee staffing for Treasury Services in our peer panel is *fifteen*. This compares to the *ten* for M&S.

### A.11.4 Market Information for Treasury Services

#### Currently Outsourced Services

Treasury has outsourced Payroll Services to ADT. The latest contract was effective January 13, 2013 for five years. Payroll has been aligned with Human Resources for the purposes of this report.

#### Appropriateness for Third Party Provisioning

Treasury Services is an integral part of UW's financial processes. Many of the functions performed have a direct impact on UW-NY ratepayers by developing financing plans that reduce revenue requirements

while obtaining capital required for expenditures that effect service and reliability. This requires not only keen finance skills but also solid knowledge of the financing markets available to the utility industry. For these reasons and those discussed previously, in our opinion, it would not be prudent to outsource Treasury Services.

Accounts Payable Services processed 132,800 invoices in 2014. These invoices totaled approximately \$432.7M from 8,677 active suppliers. To process this volume in an efficient manner requires that Accounts Payable staff have a sound familiarity with the products and services provided, the M&S organizations that benefited from them, and to be tightly integrated with these organizations technologically. For these reasons and those discussed previously, in our opinion, it would not be prudent to outsource Accounts Payable Services to a third party.

Also, as noted above, these services do not appear to be over-staffed and are operating below the peer panel cost line. We do not see a cost advantage to outsourcing these services.

#### Available Market Information

PA has not examined market information for Treasury Services.

## A.12 Internal Audit Services

We have included the following cost pools in Internal Audit Services:

1. Internal Audit
2. Corporate Ethics Compliance

### A.12.1 Description of Internal Audit Services

M&S Internal Audit Services is established as an independent area primarily responsible for the analysis, assessment and supervision of the relevant internal control and risk management systems for the Company. Services include:

- Performs independent, objective assurance and control advisory services. This includes all audits as well as development of forward looking audit plans that are independent and reviewed with the Company's Audit Committee; and,
- Manages and administers corporate ethics compliance programs. This includes various codes of conduct requirements, whistleblower cases, ombudsmen services, and associated compliance reporting.

Internal Audit Services are the responsibility of four M&S employees including the Director of Internal Audit who reports to the CEO.

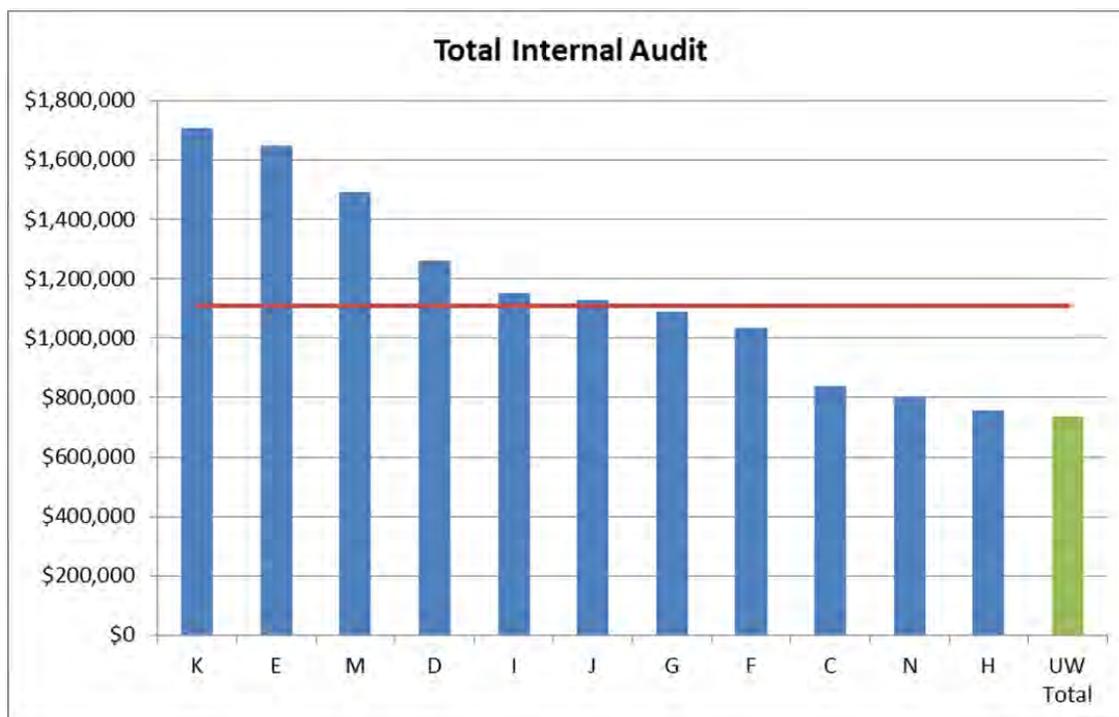
There are no embedded employees at UW-NY or other affiliates. All costs are at the M&S level and are directly charged or allocated to affiliates.

### A.12.2 Results of Internal Audit Services Benchmarking

In order to benchmark M&S costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW. The table below shows the actual M&S costs for Internal Audit Services with the median of our panel.

<b>Total Internal Audit Cost (\$000)</b>	<b>Peer Panel Internal Audit Normalized Median Cost (\$000)</b>
\$739	\$1,111

The chart below shows the normalized Internal Audit Services costs compared to our panel of utilities. As can be seen, the total M&S cost for this service is below the peer panel median.



### A.12.3 PA Comment On These Results

None.

### A.12.4 Market Information for Internal Audit Services

#### Currently Outsourced Services

External Audit Services are currently sourced to Mazars. The use of an independent external auditor is consistent with best practice. Internal Audit Services are not currently outsourced.

#### Appropriateness for Third Party Provisioning

In 2014, Internal Audit completed 25 audits consuming 6,460 hours. 22 audits are planned for 2015.

Utility Internal Audit Services organizations are typically staffed with versatile, multi-disciplinary, professionals with an in-depth knowledge of the utility industry. Team members typically bring to bear their in-house experience within the utility business units and they generally have prior experience in public accounting.

While Internal Audit Services has the potential to be outsourced, in our experience at investor-owned utilities, the service is not typically outsourced. Only one of the utilities in a prior peer panel used an outsourced service provider for Internal Audit and we have observed that this approach has resulted in higher than average costs for that utility.

On the other hand, Internal Audit Services will, on occasion, outsource specific one-time audits that either required specific expertise not found in the organization or other workload requires temporary staff augmentation. Internal Audit informs us that they had no such instances during 2014.

In our opinion, Internal Audit Services is not a service where UW-NY could reasonably expect cost savings to be achieved through outsourcing.

Available Market Information

PA did not investigate market information for Internal Audit Services. In our experience, pricing for these services reflect many factors, which combine to make pricing difficult to assess. Given that the overall cost of Audit Services is equal to the peer panel median, we did not analyze the market further for these services.

## A.13 Procurement Services

### A.13.1 Description of Procurement Services

Procurement Services includes procurement planning and scheduling; RFP, RFQ, RFI creation; and management of the bidding process which consists of bidder selection, invitation, bid package preparation and distribution, bid evaluations, vendor selection, and contract award, including master agreements.

There are fourteen M&S employees who provide Procurement Services to the UW affiliates. They report to the Vice President Treasury & Chief Procurement Officer.

There are no embedded employees in UW-NY providing Procurement Services.

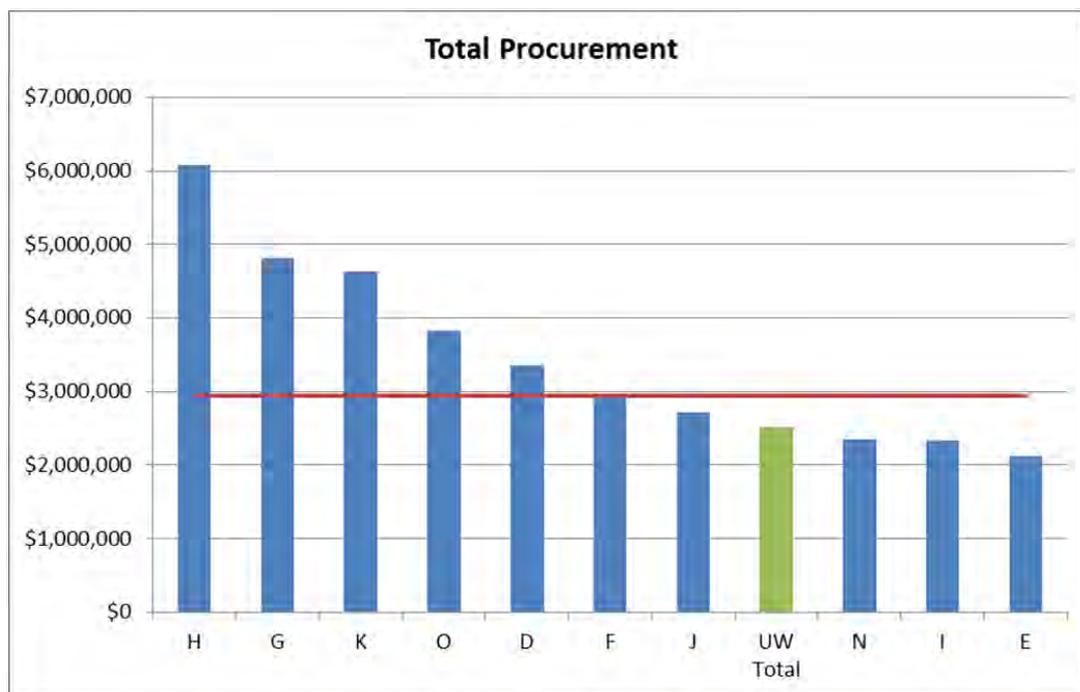
Procurement Services issued 84 RFPs, RFIs, and RFQs for professional services in 2014.

### A.13.2 Results of Procurement Services Benchmarking

In order to benchmark M&S costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW. The table below shows the actual M&S costs for Procurement Services with the median of our panel.

<b>Total Cost of Services</b> <b>(\$000)</b>	<b>Peer Panel</b> <b>Normalized Median Cost</b> <b>(\$000)</b>
\$2,517	\$2,942

The chart below shows the Procurement Services costs compared to our normalized panel of utilities. As can be seen, the total M&S cost for this service are below the median of the peer group.



### A.13.3 PA Comment On These Results

None.

### A.13.4 Market Information for Procurement Services

#### Currently Outsourced Services

There are no Procurement Services outsourced to third parties.

#### Appropriateness for Third Party Provisioning

Procurement Services requires specific and detailed knowledge of the water utility business, and contributes the most value to the business when it is tightly integrated with utility operations. PA does not consider this service as a candidate for third party sourcing.

#### Available Market Information

PA did not review market information for this service.

## A.14 Legal Services

### A.14.1 Description of Legal Services

Legal Services provides the following services:

- Legal Services handles all matters related to general litigation involving the corporation;
- Performs legal services for securities and corporate financial transactions, financial reporting and disclosures, business organizations, mergers, acquisitions and business development, corporate governance, internal controls and risk management, insurance, executive compensation;
- Manages legal services for commercial and contract law matters for the corporation, including real estate matters and land use permits;
- Serves as board secretary and support corporate governance functions, board of directors meetings, legal opinion letters, assists audit and compliance functions, performs and attests internal controls, and ensures compliance with corporate registration and regulation;
- Retains and manages external counsel to provide legal representation in specialized areas of law and to manage variable level legal work;
- Legal work supporting the negotiation of water purchase agreements and other procurement contracts as well as legal work related to franchise renewals, water rights;
- Provides legal advice and representation with regard to intellectual property matters;
- Performs legal services for matters involving environmental law for the corporation including environmental permitting activities, due diligence, defense in enforcement actions, compliance advice, representation in environmental clean-up and environmental litigation costs;
- Provides legal advice, representation and counselling in matters arising under federal and state water regulatory laws, regulations and policies as they relate to the Company's utility related assets for water and waste water;
- Provides risk management services including management of the insurance and surety bond programs; and,
- Manages and administers corporate legal and regulatory compliance programs, other than Ethics Compliance.

Legal Services are the responsibility of the Vice President, General Counsel. There are *twenty-one* M&S employees providing Legal Services at M&S, including two employees providing risk management services.

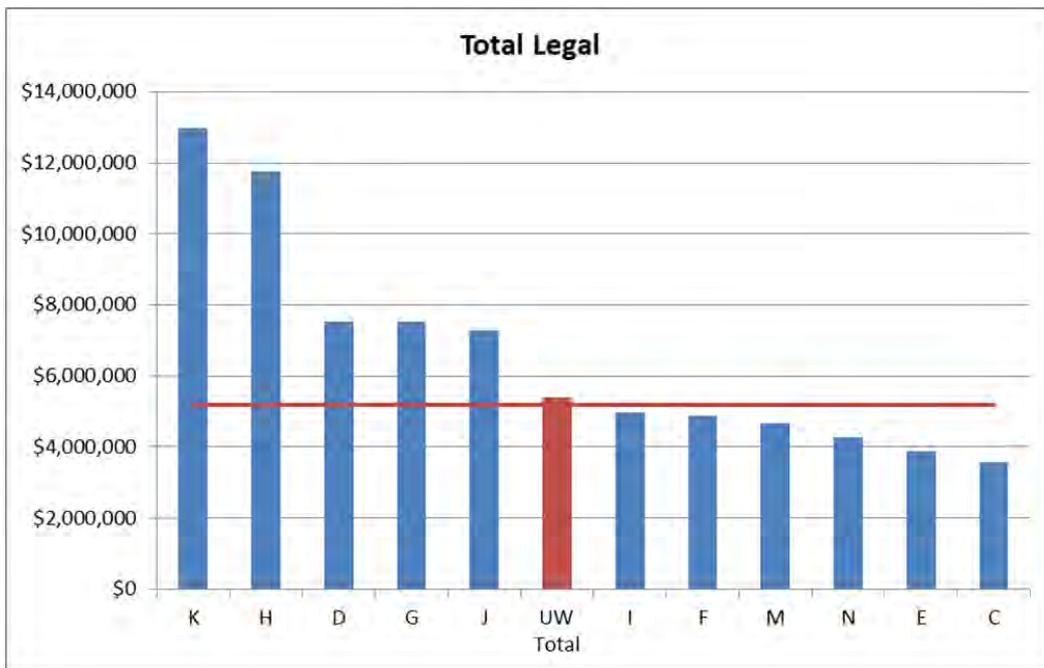
### A.14.2 Results of Legal Services Benchmarking

In order to benchmark M&S costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the

panel to the same size as UW. The table below shows the actual M&S costs for Legal Services with the median of our panel.

M&S Legal Services Cost (\$000)	Peer Panel Normalized Median Cost (\$000)
\$5,394	\$5,189

The chart below shows the Legal Services costs compared to our panel of utilities described in. As can be seen, the total M&S cost for this service are slightly above the median cost in the peer panel.



**A.14.3 PA Comment On These Results**

None.

**A.14.4 Market Information for Legal Services**

Currently Outsourced Services

Legal Services does outsource a significant amount of work totaling \$3.1M, or 58.2% of total legal spend.

Appropriateness for Third Party Provisioning

There are certain Legal Services that can be prudently outsourced, at least in part, given that the governance remains at M&S. As discussed above, Legal Services at M&S utilizes third-party legal services frequently.

Available Market Information

The legal work routinely outsourced is usually of a complicated, specialized nature where the company is seeking to obtain specialized knowledge and expertise. Senior-level legal resources are typically selected for these assignments based on the possession of these specialized, unique skills.

PA did not review market information for legal services.

## A.15 Information Technology

### A.15.1 Description of Information Technology Services

Information and Operations Technology Services include:

- Operates and monitors data center infrastructure and applications, backup & restore services, change management administration, batch job management, hardware and software installation and decommissioning;
- Technical support, problem resolution, and the application of minor enhancements, upgrades and patches to applications;
- Develops, supports and manages methodologies and measurements for effective delivery of business solutions;
- Designs, develops, tests and implements new information technology and new information technology standards and tools for computing environments.
- Services provide support center user interface as well as Tier 1 and Tier 2 support for End User support requests;
- Installs, maintains and resolves service problems for end user computing devices, software, LANs and peripherals;
- Manages the installation, operation, and on-going network security administration including: identity and access management, user provisioning, access control, monitoring and managing security systems including firewalls, IDS/IPS, and event management systems, vulnerability management (patching and antivirus administration), etc.;
- Architecture, design, implementation, technical support, problem resolution, application of minor enhancements, upgrades and patches for operating and financial systems;
- Implements the cyber security policies and controls development and architecture evaluation of security solutions and it monitors alignment with best practices, incident response planning, and;
- Manage equipment, service and usage expenses paid to telecom providers for phone, data circuits, Internet, etc. This includes WAN costs such as fiber backbone or microwave, whether those WAN costs are external service provider costs or are provided by internal resources.

There are *thirty-nine* M&S employees included in this analysis who report to the Senior Director, Information Technology. There are no embedded employees.

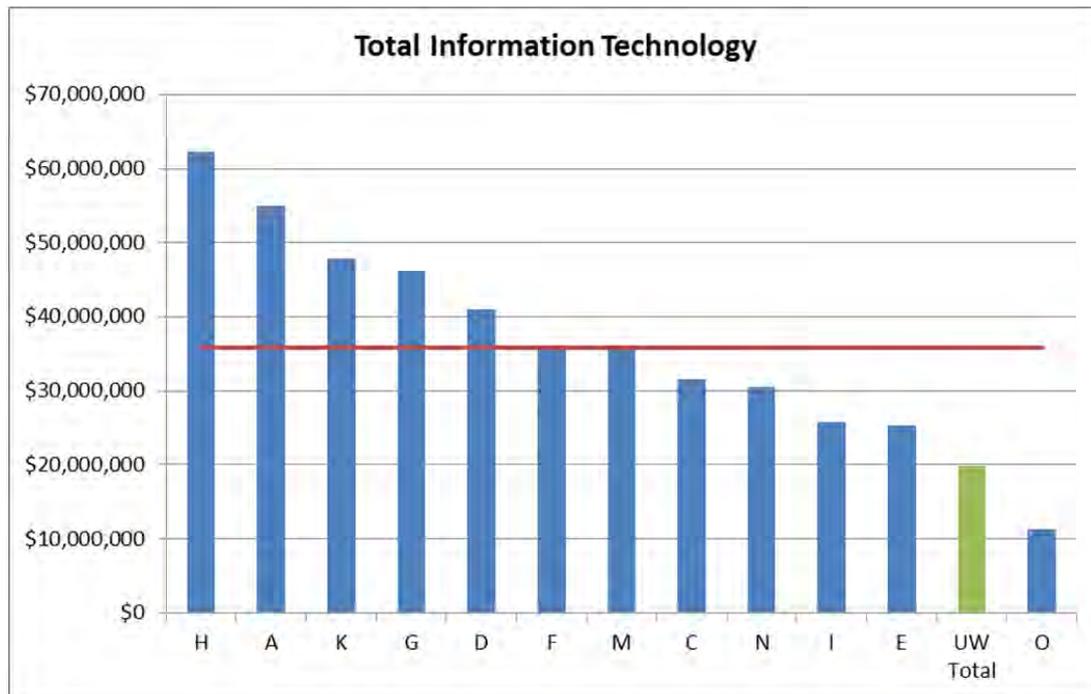
### A.15.2 Results of Information Technology Services Benchmarking

In order to benchmark M&S costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW. The table below shows the actual M&S costs for IT Services with the median of our panel

M&S IT Cost (\$000)	Peer Panel - IT Normalized Median Cost (\$000)
\$19,827	\$35,820

Note that total IT spend is below the peer panel median by **44.6%**

The chart below shows the normalized IT Services costs compared to our panel of utilities. As can be seen, the total cost for this service is well below the median in the peer panel.



### A.15.3 PA Comment On These Results

Information Technology (IT) costs to UW-NY is below the peer panel median spending by 44.6%. In our view, this indicates that M&S has not made financial and operational system modernization a priority. As we discussed in the Financial Planning and Accounting Services Chapters above, the complexity of the SENA structure require significant manual effort to provide those services. While the upgrade to PeopleSoft scheduled for later this year will provide some relief, it is not clear that M&S has long term strategy to modernize all financial and operating systems.

IT Services play a critical role in implementing systems that support the growth of the utility and enable efficient management of the complex organizational structure that follows. It appears that UW is somewhat behind in developing IT systems and services to address system needs. We believe this has contributed to the higher than median cost for both Financial Planning and Accounting Services.

The use of outside services is a common method for modernizing or upgrading IT system. M&S spend for IT outside services is less than half the average for our normalized peer panel.

Another indication of the lack of focus on IT is that there are *thirty-nine* employees in M&S IT. The peer panel median number of employees is *ninety-three*. This is a significant gap in resources vs. the peer panel benchmark.

#### **A.15.4 Market Information for Information Technology**

##### Currently Outsourced Services

Information Technology typically sources a significant number of services to third-party suppliers. Data provided to PA shows that Information Technology spent \$1.980M for outside services in 2014. This is 10.0% of the 2014 IT spend. Members of our peer panel average 21.3% of total spend to outside services.

##### Appropriateness for Third Party Provisioning

Many IT services are suitable for sourcing to third parties. These include: data center operations & production control; computing engineering; process and project management; development of solutions; help desk; desktop, laptop & LAN services; business engagement; network and infrastructure security administration; utility operational technology systems; telecom infrastructure; telephony services; and cyber security.

The Company has not provided us with a detailed list of outsourced functions.

##### Available Market Information

PA did not review market information for Information Technology.

## A.16 Human Resource Services

Human Resource Services includes Payroll Services.

### A.16.1 Description of Human Resource Services

#### Human Resource Services

- The recruitment, screening, and selection of internal and external candidates;
- Establishing relocation programs and management of employee relocations, including all administration and execution costs of the relocation program;
- Designs and administers compensation processes including job evaluations, annual salary planning, incentive programs, executive compensation, deferred compensation, long term incentive programs;
- Design, management and implementation of health, prescription, life insurance, pension and retirement, reimbursement accounts, employee assistance programs, and other benefits for all employees;
- Manages strategy, negotiations, and contract interpretation. This includes arbitration resolution, mutual gains bargaining, local management support on grievances, discipline, adherence to the contract and training;
- Identification, development, and delivery of training programs to enhance the skills and capabilities of the workforce;
- Provides support on Human Resources technology and processes, technology strategy and solutions, portfolio management, corporate and ad hoc reporting, data analysis, data integrity and oversight, and system testing; and, process and release management;
- Succession planning, performance management, career development, mentoring, executive coaching, career planning & development, and employee/organizational assessments;
- Management and administration of all short and long term disability programs and FMLA, whether done internally or by a third party; disability insurance premiums, if any, and the cost of claims for self-insured programs and insured programs with a deductible; medical services required by the Company for disability cases, such as second opinions, consultations, etc.; disability case management and return to work programs; investigations of short term disability claims; legal services, whether internal or external, related to disability cases;
- Provides safety training requirements and communication tools, needs assessments and training program development, and compliance reporting, including investigation leadership and support; and,
- Labor Relations including contract negotiations and grievance management.

There are twenty M&S employees providing Human Resource Services in the Vice President, Human Resources organization.

Payroll Services

- Payroll Services have been outsourced to ADT. These Services include: the issuance of employee payroll checks as well as processing employee withholding information, tax withholding deposits, quarterly payroll tax returns, payroll calculations, annual W-2s and 1099Rs and government reporting; processes pay adjustments; special pays and garnishments; preparing payroll tax filings; printing, stuffing, and distributing pay checks and electronic deposit statements;
- M&S provides call center support for employee calls concerning time and attendance issues, as well as pay & recognition related issues (i.e. paycheck, final paycheck, sick time, vacation time, floating holidays, etc.); and,
- M&S also provides guidance to timekeeping system users to troubleshoot time entry issues, determine how business processes impact time entry rules, answer time entry questions, create reports on time entry data, training to employees on time entry and issue communications about time entry/work rules and deadlines.

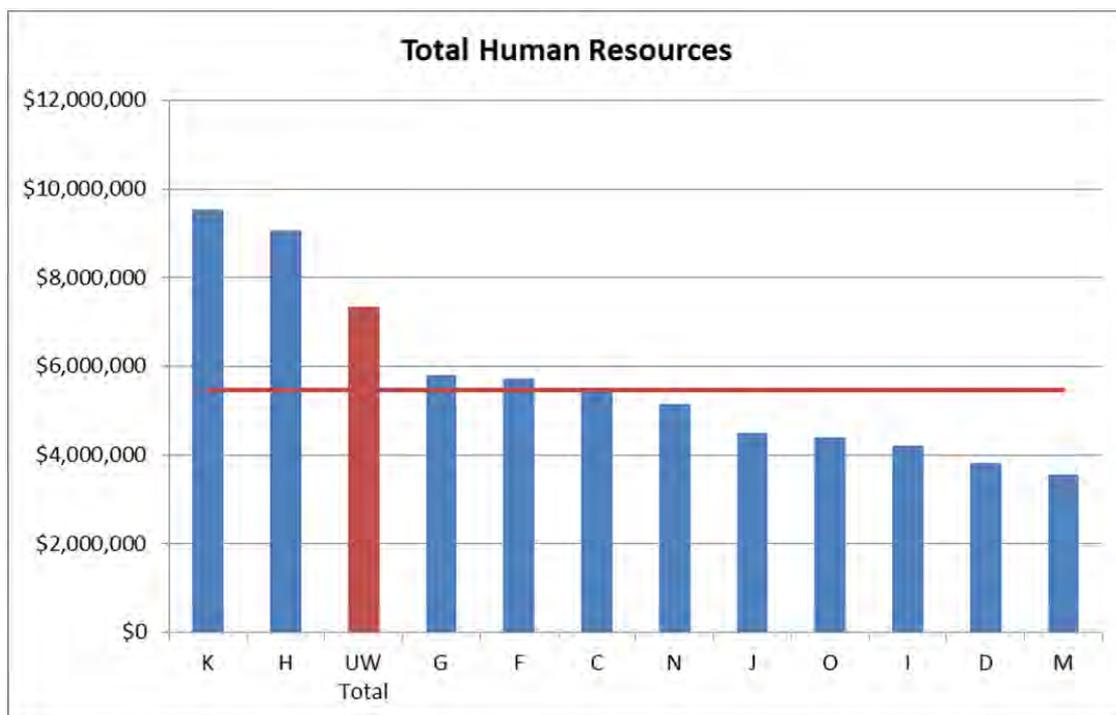
There are six employees providing these services at M&S. These employees report to the Vice President, Treasury.

**A.16.2 Results of Human Resource Services Benchmarking**

In order to benchmark M&S costs on a comparable basis, we normalized each of the peer panel companies’ costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW. The table below shows the actual M&S costs for Human Resources Services with the median of our panel.

<b>M&amp;S HR Cost (\$000)</b>	<b>Peer Panel HR Normalized Median Cost (\$000)</b>
\$7,455	\$5,295

The chart below shows the total Human Resource Services costs compared to our panel of utilities. As can be seen, the total M&S costs for this service are above the median.



### A.16.3 PA Comment On These Results

Human Resources total M&S costs are higher than the peer panel median by \$2.2M or 29.0%. We attribute this, in part, to their higher than peer median headcount. The peer panel median headcount is *thirty* employees, while M&S HR has *thirty-eight* (40% additional) employees. This is due, we believe, to the nature of the non-regulated services provided by SENA, which are more labor intensive than traditional regulated and infrastructure-driven utility services. HR costs are allocated based on number of employees.

This opinion is supported when looking at the comparison of the cost to UW-NY to the peer panel median. As shown in the public version of this Report, HR costs to UW-NY are 30.5% below the peer panel median.

### A.16.4 Market Information for Human Resource Services

#### Currently Outsourced Services

We did not receive data from the Company regarding HR market information.

#### Appropriateness for Third Party Provisioning

As discussed earlier, certain services can be prudently outsourced, at least in part, given that the governance and strategic aspects of the service are maintained in-house. HR services that are typically considered for outsourcing include: relocation services; temporary staffing managed services program; HR services center; Medicare coordinator; health and welfare annual enrollment support; retiree drug subsidy reconciliation support; wellness program administration; financial basics training program; HR

survey services; HR coaching; health and welfare plan management; and active and retiree annual enrollment.

The Company has not provided a detailed list of outsourced services. However, we were informed during a meeting with HR that most of the above services, if provided, have been outsourced.

Available Market Information

PA did not review any market information for Human Resources Services.

## A.17 Corporate Communication Services

### A.17.1 Description of Corporate Communication Services

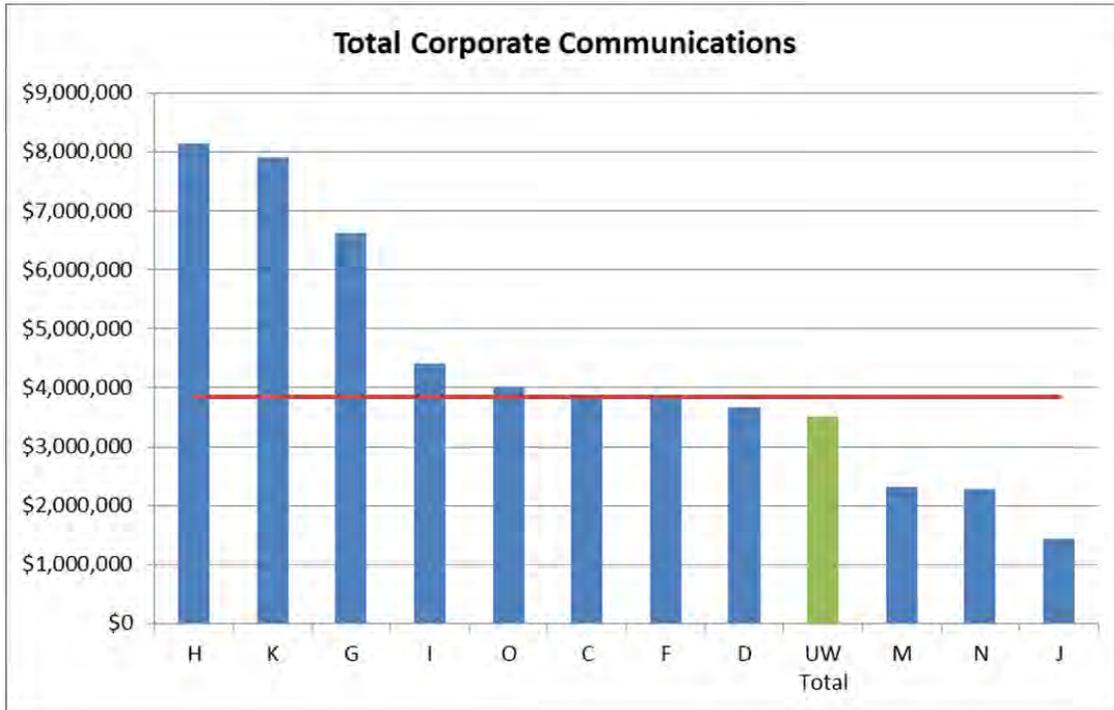
- Media Relations: Research and develop media response, positioning, and strategy to respond to media inquiries or place stories in the media. Develop press releases, arrange interviews, and maintain 24/7 media relations availability. Act as company spokesperson. Also includes communications resources with respect to corporate responsibility, etc.
- Corporate Awareness Communications or Advertising: General corporate awareness and brand image purposes, including "issue advertising". Spend includes agency/vendor fees to create and execute advertising.
- External Informational, Safety, and Educational Communications: Communications or advertising spend that provides information and educational messaging on topics such as: billing and payment options, such as e-billing, budget billing, and direct debit; rate options; low-income programs, consumer protection and privacy rights notices; general water efficiency information; public safety, including "'call before you dig'" programs; school education programs; special educational programs such as environmental programs.
- Product/Service Promotion: Communications or advertising spend that promotes products or/or services from which the utility will benefit.
- Internal and Intranet Communications: Internal Communications included Company communications between employees or departments across all levels, or divisions, of an organization. Intranet Communications includes posting of content to the internal intranet, managing intranet user experience, interfacing with IT for intranet administration, measurement and analysis of intranet traffic and other data
- External Publication and Communications: Communication targeted for non-employee audiences (public, media).
- Annual Report: Design, production, printing and distribution of the Annual report, including postage.
- Internet Website Content Development and Maintenance: Development and/or curation of content for all externally facing company websites.
- Social Media Communications: Management and administration of established corporate social media accounts, such as Facebook, Twitter, Instagram, and others, and the delivery of content through those social media channels.

### A.17.2 Results of Corporate Communication Services Benchmarking

In order to benchmark M&S costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW. The table below shows the actual M&S costs for Corporate Communications Services with the median of our panel.

<b>M&amp;S -Corporate Communications Cost (\$000)</b>	<b>Peer Panel - Normalized Median Cost (\$000)</b>
\$3,507	\$3,849

The chart below shows the total Corporate Communications Services costs compared to our panel of utilities. As can be seen, the total M&S costs for this service are below the median.



**A.17.3 PA Comment On These Results**

None.

**A.17.4 Third Party Sourcing**

Corporate Communications outsources a significant portion of its work. In 2014, \$791k, or 22.5%, of its total cost of \$3.5M was paid to third party providers for services such as: printing, web support; community relations; and employee surveys.

## A.18 Regulatory Business Services

### A.18.1 Description of Regulatory Business Services

The Regulatory Business Services provided by M&S include:

- Translation of financial data into a State and regulated revenue requirements, including the preparation of supporting work papers;
- Internal and external costs for cost of capital and cost of equity testimony;<sup>31</sup> calculations of formula rates and filings associated with these calculations;
- Oversight and policy guidance on regulatory proceedings;
- Management and maintenance of routine State economic regulatory relationships and contacts;
- Management and maintenance of routine regulatory contacts, with stakeholders;
- Monitors issues and advocates positions in federal regulatory proceedings as they pertain to the Company's businesses;
- Rate design and tariff administration activities. This also includes tariff interpretation activities, marginal cost analyses, and the pricing and tariff-related aspects of special contracts requiring regulatory approval;
- Participation in technical conferences, monitoring regulatory activities, and discussing issues with PUC staff; and,
- Prepare required State and Federal regulatory reporting for initiatives including service quality indicator quarterly reports.

There are *eleven* providing M&S Regulatory Business Services including the Vice President, Regulatory Business.

### A.18.2 Results of Regulatory Business Services Benchmarking

In order to benchmark M&S costs on a comparable basis, we normalized each of the peer panel companies' costs for the same service. The purpose of the normalization is to bring all utilities in the panel to the same size as UW. The table below shows the actual M&S costs for Regulatory Business Services with the median of our panel.

M&S Cost (\$000)	Peer Panel Normalized Median Cost (\$000)
\$2,545	\$2,403

The chart below shows the total Regulatory Business Services costs compared to our panel of utilities. As can be seen, the total M&S costs for this service are just above the median.

<sup>31</sup> Mostly outsourced



### A.18.3 PA Comment On These Results

The cost of Regulatory Business function at any utility is typically related to the regulatory activity in the jurisdictions it serves. M&S Regulatory Business supports approximately a dozen regulated affiliates in several States. The peer panel median staffing for this service is *eleven*, which is the number of employees providing Regulatory Business Service at M&S.

These results indicate an efficiently run Regulatory Business Services.

### A.18.4 Market Information for Regulatory Business Services

#### Currently Outsourced Services

The Regulatory Business at M&S regularly engages third parties for expert analysis and testimony during regulatory proceedings. No other regulatory services are outsourced.

#### Appropriateness for Third Party Provisioning

Regulatory Management Services are an integral part of M&S’s financial and regulatory compliance processes. Many of the functions performed have a direct impact on UW-NY ratepayers by developing plans that support the revenue requirements to obtain capital required for expenditures that effect service and reliability. This requires not only keen finance and regulatory skills but also solid knowledge of regulatory compliance requirements and how they have evolved over time. For this reason, in our opinion, it would not be prudent to outsource Regulatory Management Services to a third party.

#### Available Market Information

PA did not investigate market information for this service.

## **B M&S ALLOCATIONS PROCESSING CONTROLS FLOWCHART**

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Following is the M&S Allocations Processing Controls Flowchart referenced in Task 2: Internal Controls.

Accounting Process

Senior Accountant

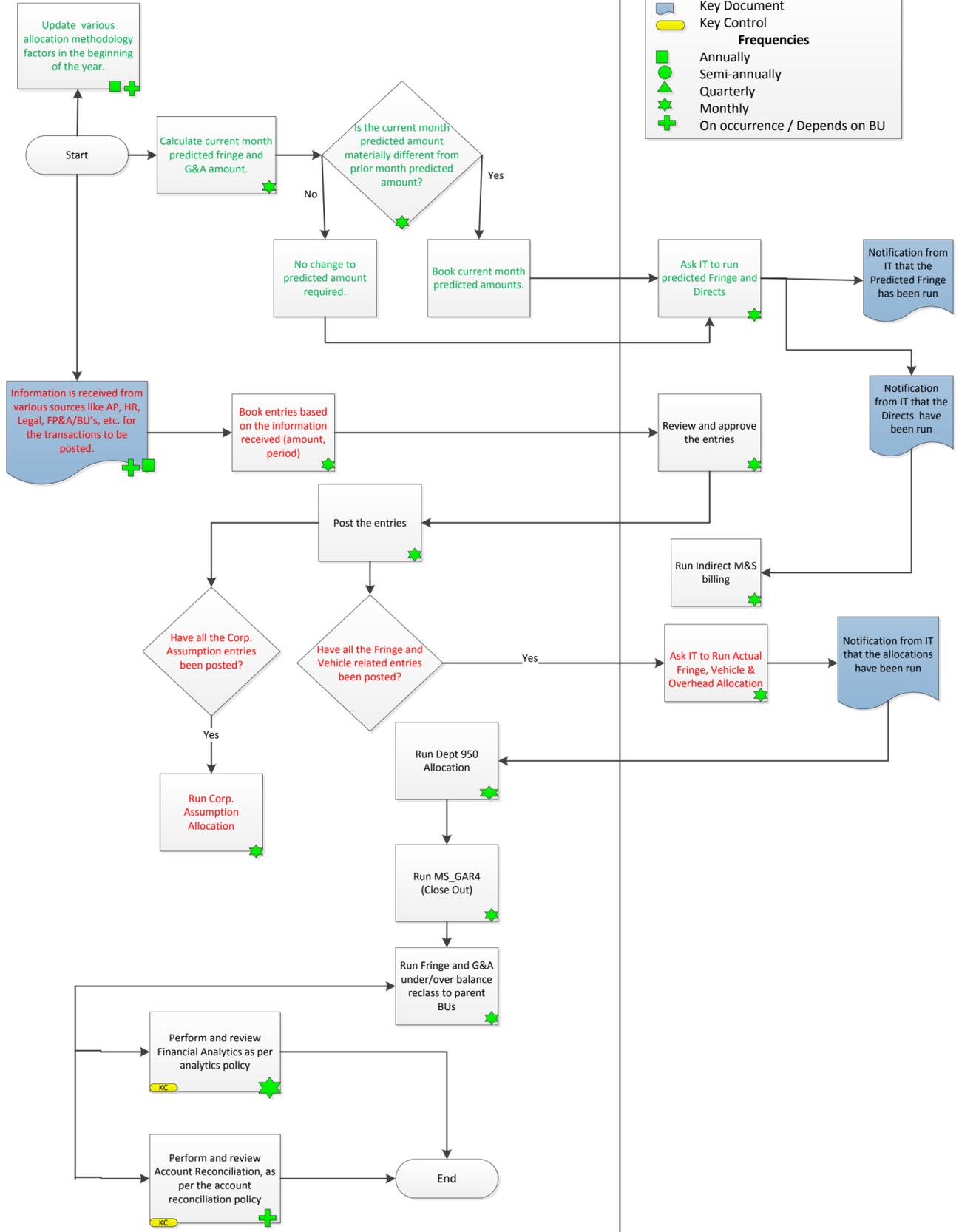
Accounting Manager

**Legend**

- Key Document
- Key Control

**Frequencies**

- Annually
- Semi-annually
- Quarterly
- Monthly
- On occurrence / Depends on BU





We are an employee-owned firm of over 2,500 people, operating globally from offices across North America, Europe, the Nordics, the Gulf and Asia Pacific.

We are experts in energy, financial services, life sciences and healthcare, manufacturing, government and public services, defense and security, telecommunications, transport and logistics.

Our deep industry knowledge together with skills in management consulting, technology and innovation allows us to challenge conventional thinking and deliver exceptional results with lasting impact.

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Affiliated Interest Agreement of SUEZ Water Pennsylvania Inc.  
(water and wastewater divisions)  
and SUEZ Water Management & Services Inc. at  
Docket Nos. G-2016-2546454 and G-2016-2557846

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**G-4**  
**(Cagle)**

**G-4** Please provide a schedule of rates that SUEZ Water Pennsylvania Inc. (SWP) and SWPWD will have to pay for the services listed in the AIA's Appendix B if a non-affiliated company provides these services. Please provide separate schedule of rates for both divisions.

**Response:** A list of hourly rates for identical services is not available. Please see the PA Consulting benchmarking study attachment to the response to item G-3.

Affiliated Interest Agreement of SUEZ Water Pennsylvania Inc.  
(water and wastewater divisions)  
and SUEZ Water Management & Services Inc. at  
Docket Nos. G-2016-2546454 and G-2016-2557846

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**G-5  
(Cagle)**

**G-5** Please state why the AIA between SWP and SWM&S is in the best interest of SWP's water and wastewater ratepayers.

**Response:** SWM&S is set up to provide common services to each of the SUEZ NA's 15 utility service provider affiliates as well as to other affiliates including the Environmental Services and Treatment Solutions divisions. SWM&S provides Executive, Customer Care, Engineering and Technical Services, Facilities, Environmental Health and Safety, Financial Planning, Management Reporting, Internal Control & Enterprise Risk Management, Accounting, Revenue Management, Accounts Payable, Taxes, External Reporting, Treasury, Internal Audit, Procurement, Legal, Insurance, Information Technology, Human Resources, Communications, and Regulatory Business (Rates) services. This enables significant specialization and provides the scale to enable investment in sophisticated information systems (billing and accounting amongst others) to support all processes. Such services are provided at cost. The study performed by PA Consulting included attached to request G-3 indicates such services as a whole are provided at a lower cost than those incurred by the Entities benchmarked in the study.

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**G-6  
(Cagle)**

**G-6** Please provide a breakdown of the estimated annual cost that SWP and SWP-  
WD will have to pay for the services provided by SWM&S.

**Response:** The wastewater portion of SWP is not separately accounted for within the books  
and records of SWP. Shared services costs are allocated to SWP. Further  
allocation to the wastewater portion of SWP is not specifically recorded. If costs  
were to be further allocated based upon number of customers, the wastewater  
portion of SWP would receive approximately .02% of the costs allocated to SWP.

Sewer – 11 customers	.02%
Water – 58,450 customers	

Please see G-6 Attachment for details of the M&S costs under the old agreement  
and the new agreement. Under the new agreement it is expected that SWPA will  
save approximately \$279,630 per year.

**Corporate Assumptions rolled into Shared Services**

	SubAccount	Description	<b>Pennsylvania  Test Year  10/1/14-9/30/15  Actuals</b>	<b>New M&amp;S Allocation  Methodology  Pro Forma 2016</b>
				0
CCB IT Support	50405	CC&B support costs - Not including CCB Printing Costs	\$230,515	0
Other IT Corporate Assumptions	91250	Outside Services - IS	295,645	
	91350	Outside service - other		0
R+I Alliance	91310	Outside Serv - Mgt Fees Other	59,823	0
Audit Fees	91100	Outside service - acctg & audg	44,303	0
WorkCare	91350	Outside service - other		0
				0
Actuarial Services	91350	Outside service - other	21,767	
				0
<b>In Subcontractors Costs</b>			<u>652,053</u>	
				0
General Casualty	91450	General corporate insurance	290,211	0
Property	91400	Property insurance	23,148	
				0
WIKTI	92150	Staff mtgs, conf's & seminars	5,987	
AWWARF	90500	Club and professional dues	9,505	0
				0
Training & Recruiting	92150	Staff mtgs, conf's & seminars	1,013	
				0
Vanguard Admin Fees				0
				0
PureSafety	92150	Staff mtgs, conf's & seminars	4,672	
<b>In Other Costs</b>			<u>334,536</u>	
				0
		<b>Total corporate allocations</b>	<u>986,589</u>	
				0
M&S expenses	90850		2,046,441	
	90851		595,555	
	90852		0	
			<u>2,641,996</u>	
		<b>Total M&amp;S and Corporate assumptions</b>	<u>\$3,628,585</u>	\$3,348,946
			2016 salary increase	71,622
			Shared assets	335,028
			<b>Total</b>	<u>3,755,596</u> ✓

Decrease  
Compared to  
Test Year  
(\$279,639) ✓

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**G-7  
(Cagle)**

**G-7** Please provide a calculation of the profit margin that SWM&S will charge to SWP and SWP-WD for providing the services listed in AIA's Appendix B. If no profit margin will be charged, please provide a detailed explanation separately for both divisions.

**Response:** M&S shared services expenses are allocated at cost and include no profit margin.

Affiliates to whom SWM&S provides services may use shared assets related to the services provided, which consists of primarily computer hardware and software. Additionally, certain assets are utilized for the provision of shared services, such as leasehold improvements. Historically, the cost of these assets was not recorded at SWM&S; instead, a portion of the fully loaded cost of such assets was recorded on the books of each of the affiliates utilizing those assets at the time the assets were placed in service.

Beginning December 2015, shared assets that have not yet been allocated to the affiliates will remain assets of SWM&S. In lieu of allocating asset balances among affiliates, the cost allocation process will include a component representing the return on and of the asset, that is, depreciation, a return on the net investment in such assets and applicable federal and state income taxes. The allocation only applies to those affiliates utilizing the services provided by those assets. The return component of the allocation shall be calculated based upon the last regulated rate of return authorized by the respective regulatory jurisdiction for the specific business unit. In the case of SWPA, the rate of return utilized for its DSIC surcharge would be utilized as, in the Company's last rate case, no rate of return was stated.

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**G-8**  
**(Cagle)**

**G-8** Please state if the allocation method used to calculate the rates that SWM&S will charge to SWP and SWP-WD and the other affiliates served by SWM&S will remain the same over the course of the AIA. If not, what method would be used to calculate the new rates and calculation basis? Please provide information separately for both divisions.

**Response:** The allocation methodology will remain the same throughout the course of the agreement. The allocation factors calculated utilizing the methodology will be updated at least annually. Please see the cost allocation manual attached to the AIA for a description of the methodology.

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**G-9**  
**(Cagle)**

**G-9** Article II of the AIA states that the Client Company shall pay the lower of cost or market price for a particular service. Please describe the methodology SWM&S will use to determine market price for services provided to SWP and SWP-WD. Please provide information separately for both divisions. Please state if the allocation method used to calculate the rates that SWM&S will charge to SWP and SWP-WD and the other affiliates served by SWM&S will remain the same over the course of the AIA. If not, what method would be used to calculate the new rates and calculation basis? Please provide information separately for both divisions.

**Response:** The Company intends to periodically update the analysis or a similar analysis as that provided in response to item G-3. The allocation methodology, as stated in the AIA will remain in effect over the course of the AIA.

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**G-10**  
**(Cagle)**

**G-10** Page 14 of the Cost Allocation Manual states that to the extent practicable, the cost of shared service functions are aligned with the business segments to which services are provided. Please describe any shared services whose costs are not distributed according to the three-factor formula.

**Response:** Certain costs are first allocated to the Company's Treatment Solutions Division based upon their utilization of only portions of M&S services. For example, Treatment Solutions does not utilize the Company's accounting system and retains an separate accounting system. Therefore, the costs of IT support is partially allocated to them based upon utilization.

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**G-11  
(Cagle)**

**G-11** Please explain how the cost allocation method currently used by SWP and SWP-WD is changed from the past cost allocation method for shared costs between both divisions and the other affiliates served by SWM&S.

**Response:** The Company has allocated Shared Services costs to SWP inclusive of the wastewater portion of SWP. As a result, there is no distinction between them. The most significant difference between the current and previous cost allocation methodologies is in the selection of the allocation factor. The previous methodology utilized 6 allocation factors applied to the major services provided to its affiliates. The current methodology utilizes a single universally developed factor.

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**G-12**  
**(Cagle)**

**G-12** Please identify the services which are exclusively provided to regulated affiliates by SWM&S.

**Response:** Office of the Chief Operating Officer (President of the Regulated Segment)  
Legal – Regulated  
EH&S – Regulated  
Revenue Management  
Customer Care  
Human Resources – Regulated  
Financial Planning – Regulated  
Regulatory Business (Rates)

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**G-13**  
**(Cagle)**

**G-13** Please identify the services which will be provided to both regulated and non-regulated affiliates by SWM&S.

**Response:**

Executive Costs, (including that of the Chief Executive Officer and Executive Vice President)  
Procurement  
Legal – Corporate  
Facilities  
Engineering  
EH&S – Corporate  
Technical Services  
Operations Support – Quality  
Corporate Communications  
Human Resources – Corporate  
Human Resources – Shared Services  
Payroll  
IT Accounting – Corporate  
Accounting – Corporate  
Accounts Payable  
Taxes  
Financial Planning – Corporate  
Internal Audit, and  
Treasury

The costs of External Affairs and Commercial Development departments are not allocated.

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**G-14**  
**(Cagle)**

**G-14** Please identify the service charge for services provided by SWM&S that is included in the Cost Allocation Manual but not applied to SWP and SWP-WD.

**Response:** Similar to the departments identified in the Response to G-12, certain SWM&S departments provide services only to portions of the business other than the regulated utility segment.

Engineering  
EH&S  
SCADA  
Operational Services  
Division and Area Managers  
Meter Reading  
Office of the COO  
Human Resources  
IT- Service Delivery  
Commercial Development  
Customer Care  
General Accounting  
Financial Planning  
Contract and Administrative Support  
Legal