

# **COLUMBIA WATER COMPANY**

## **MANAGEMENT EFFICIENCY INVESTIGATION**

### **Evaluating the Implementation of Selected Recommendations from the 2011 focused Management and Operations Audit Report**

Prepared By The  
Pennsylvania Public Utility Commission  
Bureau of Audits

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**COLUMBIA WATER COMPANY  
MANAGEMENT EFFICIENCY INVESTIGATION**

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**COLUMBIA WATER COMPANY  
MANAGEMENT EFFICIENCY INVESTIGATION**

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## I. INTRODUCTION

### A. Background

On March 28, 2011, the Management Audit Division (Audit Staff) of the Pennsylvania Public Utility Commission's (PUC or Commission) Bureau of Audits initiated a Focused Management and Operations Audit (Management Audit) of Columbia Water Company (CWC or Company). The Audit Staff subsequently completed its work, and in August 2011, issued a final report containing seven recommendations for improvement. CWC submitted its Implementation Plan on August 29, 2011, indicating that it accepted or accepted in part all seven recommendations. On September 22, 2011, at D-2011-2218445, the Commission made both the audit report and Implementation Plan public and directed CWC to:

- Proceed with its August 2011 Implementation Plan.
- Submit implementation progress reports annually, by September 1st, for the next three years.

Since September 2011, CWC has submitted two Implementation Plan updates as requested by the Commission to ascertain the Company's progress in implementing the recommendations contained in the previous Management Audit report. Based on a review of these updates, the Audit Staff elected to conduct a Management Efficiency Investigation (MEI) of CWC's progress in implementing all seven of the original recommendations. Additionally, subsequent to the release of the audit report, CWC acquired Marietta Gravity Water Company (approved by Commission Order at Docket No. A-2012-2282219 et al., entered August 30, 2012). As of October 5, 2012 the former Marietta Gravity operations are owned by CWC and operated as its Marietta Division. Specific items of management effectiveness and operating efficiency are to be periodically investigated pursuant to Title 66 Pa.C.S. § 516(b).

### B. Objective and Scope

The objective of this MEI was to review and evaluate the effectiveness of CWC's efforts to implement certain recommendations contained in the Focused Management and Operations Audit report released in September 2011. The scope of this evaluation was limited to CWC's efforts in implementing the seven prior management audit recommendations in the functional areas of:

- Corporate Governance
- Financial Management
- Water Operations
- Emergency Preparedness
- Diversity

Additionally, the Audit Staff deemed it prudent to review Columbia Water Company's (including the Marietta Division) compliance with PUC regulations at 52 Pa. § 101 regarding its physical security, cyber security, emergency response, and business continuity plans.

### **C. Approach**

This MEI was performed by the Management Audit Staff of the PUC's Bureau of Audits (Audit Staff). Actual fieldwork began on March 17, 2014 and continued through April 22, 2014. The fact gathering process included:

- Interviews with CWC personnel.
- Analysis of selected CWC records, documents, reports, and other information for the period 2009 through April 2014.
- Visits to select Company facilities.

## **II. SUMMARY OF MANAGEMENT EFFECTIVENESS AND OPERATING EFFICIENCY**

The Audit Staff found that Columbia Water Company (CWC or Company) has effectively or substantially implemented three of the seven prior management audit recommendations reviewed and has taken some action on the four other recommendations. The Audit Staff identified five follow-up recommendations for CWC to implement. Among the more notable improvements achieved by the management of CWC are:

- Revised the Corporate Bylaws to reflect actual practices in appointment of Executive Committee members.
- Increased purchases with diverse vendors for the years 2012 and 2013.
- Updated the Emergency Response Plan and made minor improvements to Physical Security.

While these accomplishments are commendable, the Audit Staff has identified further improvement opportunities. In particular, CWC needs to:

- Ensure the audit partner and audit team for the external auditor is rotated on a periodic basis.
- Add an additional member to the Pension and Property Committee or modify the Charter to reflect current practices.
- Further reduce its billing lag by continuing to implement AMR especially in the Marietta division.
- Strive to complete the exercise and/or inspection of critical valves at least once every three years.
- Strive to increase utilization of minorities and women in its workforce.

Exhibit II-1 summarizes the seven prior recommendations reviewed and the Audit Staff's follow-up findings, conclusions, and recommendations.

**COLUMBIA WATER COMPANY MANAGEMENT EFFICIENCY INVESTIGATION  
SUMMARY OF AUGUST 2011 MANAGEMENT AUDIT RECOMMENDATIONS AND  
STAFF'S FOLLOW-UP FINDINGS AND RECOMMENDATIONS**

Prior MA Recommendations	MEI Follow-up Findings And Conclusions	MEI Follow-up Recommendations
<b>III. CORPORATE GOVERNANCE</b>		
Revise the Corporate Bylaws to reflect actual practices in appointment of Executive Committee members.	<b>III-1</b> – The Company’s Bylaws have been revised to reflect actual practices and the language stated in the Executive Committee Charter.	None.
Rotate the external audit firm.	<b>III-2</b> – The Company has not rotated its external audit firm.	Develop a policy to ensure the external audit firm rotates its engagement partner and audit team on a periodic basis.
	<b>III-3</b> - The Company is not operating in compliance with its Pension and Property Committee Charter.	Add an additional member to the Pension and Property Committee to comply with the Charter, or revise the Committee’s Charter to reflect current practices.
<b>IV. FINANCIAL MANAGEMENT</b>		
Reduce the billing lag to more appropriate levels as efficiencies are gained from full implementation of Automated Meter Reading (AMR) technology.	<b>IV-1</b> – CWC has reduced the billing lag in its Columbia Division to more reasonable levels; however, the newly acquired Marietta Division’s billing lag is excessive.	Prioritize implementation of AMR technology in the Marietta Division and continue to reduce overall billing lag.
<b>V. WATER OPERATIONS</b>		
Identify critical valves within the distribution system and establish valve inspection goals that adhere to industry standards.	<b>V-1</b> – Critical valves have been identified and are inspected on a five year cycle, but additional improvements should be made.	Strive to complete the exercise and/or inspection of critical valves at least once every three years.
<b>VI. PUBLIC UTILITY EMERGENCY PREPAREDNESS</b>		
Update the Emergency Response Plan (ERP) to include additional response information and eliminate minor physical security deficiencies.	<b>VI-1</b> – The Company has reviewed and updated its ERP to address the interconnection between Columbia and Marietta Division and has also addressed the minor physical security issues.	None.

**COLUMBIA WATER COMPANY MANAGEMENT EFFICIENCY INVESTIGATION  
SUMMARY OF AUGUST 2011 MANAGEMENT AUDIT RECOMMENDATIONS AND  
STAFF'S FOLLOW-UP FINDINGS AND RECOMMENDATIONS**

Prior MA Recommendations	MEI Follow-up Findings And Conclusions	MEI Follow-up Recommendations
<b>VII. DIVERSITY</b>		
Strive to increase the utilization of minorities and females in the Company's workforce.	<b>VII-1</b> – CWC has been unsuccessful in changing its workforce compliment to include the utilization of minorities or to increase its utilization of females.	Continue efforts to increase the utilization of minorities and women in the Company's workforce.
Strive to increase the amount of purchases from minority, women, and persons with disabilities owned business enterprises.	<b>VII-2</b> – The Company has significantly increased purchases with diverse vendors for the years 2012 and 2013.	None.

### III. CORPORATE GOVERNANCE

**Background** – The Focused Management and Operations Audit (Management Audit) of Columbia Water Company (CWC or Company), conducted by the Management Audit Division (Audit Staff) of the Pennsylvania Public Utility Commission’s (PUC or Commission) Bureau of Audits released in August of 2011 at D-2011-2218445, contained two recommendations within the Corporate Governance Chapter. The Audit Staff rated this functional area as needing minor improvement. In this chapter, the two prior recommendations and prior situations are reviewed and three follow-up findings and two recommendations are presented.

**Prior Recommendation** – Revise the Corporate Bylaws to reflect actual practices in appointment of Executive Committee members.

**Prior Situation** – The Company’s Executive Committee Charter stated that the Executive Committee is appointed by the Board of Directors. Whereas, the CWC Bylaws stated that the President is responsible for appointing members of the Executive Committee. However, according to the Company, the Board of Directors has always appointed the Executive Committee.

**Follow-up Finding and Conclusion No. III-1** – **The Company’s Bylaws have been revised to reflect actual practices and the language stated in the Executive Committee Charter.**

The composition of the CWC Board of Directors has remained unchanged at five directors since the 2011 Management Audit and the subsequent acquisition of Marietta Gravity Water Company in 2012. On January 24, 2012, the Company’s Bylaws were updated to reflect the language in the Executive Committee Charter in which the Executive Committee members are appointed by the Board of Directors. This revision adheres to the actual practice employed by the Company.

Bylaws provide the standard organizational structure, functional operability, and governance for a company. It is standard practice for the Board of Directors to appoint the Executive Committee. Therefore, the CWC Board of Directors is in compliance with both the Executive Committee Charter and the Company Bylaws by appointing members to the Executive Committee.

**Staff’s Follow-up Recommendation** – **None.**

**Prior Recommendation** – Rotate the external audit firm.

**Prior Situation** – The Company has utilized the same external audit firm to perform its annual independent financial audit for several decades. CWC has routinely obtained prices from other financial professionals and the current firm has consistently offered the lowest price. When the same external audit firm repeatedly performs the independent annual audit for an extended number of years, complacency can develop in the audit effort, thus lessening the objectivity of the audit.

**Follow-up Finding and Conclusion No. III-2** – The Company has not rotated its external audit firm.

While the Audit Bureau believes that it is a best practice for utilities to rotate external audit firms every five to ten years, due to the lack of a national firm rotation requirement the Audit Bureau recommends, at a minimum, that utilities periodically rotate the management overseeing the utilities' audits (i.e., audit partners and/or audit managers) as required for publicly traded companies.

CWC has retained its long standing external audit firm. During 2012, CWC informed the external audit firm that it intends to require a rotation of the engagement partner overseeing CWC's annual financial audit every five years. Reportedly, the external audit firm's current engagement partner, who has been in place since 2009, will be rotated prior to the Company's 2017 audit. CWC indicated that it intends to require subsequent engagement partner rotations every five years.

**Staff's Follow-up Recommendation** – Develop a policy to ensure the external audit firm rotates its engagement partner and audit team on a periodic basis.

**Follow-up Finding and Conclusion No. III-3** – The Company is not operating in compliance with its Pension and Property Committee Charter.

The Pension and Property Committee of CWC's Board of Directors currently has two members. The Committee's Charter states that the Committee "shall have not fewer than three members" and should be reviewed annually. Upon review of the Charter, Audit Staff could not determine when the Charter was last reviewed or updated. CWC has stated that there are no current plans to fill any vacancies within the Board of Directors or its committees. As a result the Pension and Property Committee is not in compliance with its Charter.

**Staff's Follow-up Recommendation** – Add an additional member to the Pension and Property Committee to comply with the Charter, or revise the Committee's Charter to reflect current practices.

## IV. FINANCIAL MANAGEMENT

**Background** – The Focused Management and Operations Audit of Columbia Water Company (CWC or Company) conducted by the Management Audit Division (Audit Staff) of the Pennsylvania Public Utilities Commission’s (PUC or Commission) Bureau of Audits released on August of 2011 at D-2011-2218445, contained one recommendation within the Financial Management Chapter. The Audit Staff rated this functional area as needing minor improvement. In this Chapter, the prior recommendation and prior situation are reviewed and one follow-up finding and one recommendation is presented.

**Prior Recommendation** – Reduce the billing lag to more appropriate levels as efficiencies are gained from full implementation of AMR technology.

**Prior Situation** – CWC’s meter reading to billing rendering process reflected a one to 15 day lag per billing cycle. CWC had implemented two monthly billing cycles and was in the process of integrating automated meter reading (AMR) into its existing system in order to reduce the amount of time required for its billing process. CWC’s conversion from touch-pad read meters to AMR was approximately 40% complete. The duration of each monthly meter reading cycle ranged from five to six days. Once complete, the data was uploaded to CWC’s customer information system which analyzed the data for meter reading errors. After all errors were addressed, a “verify apply” report was prepared that reflected the data was ready to be applied to customer accounts. Once usage data was applied, customer bills were generated and mailed out the following day. The Company estimated that with full implementation of AMR technology, the bill rendering process could be reduced to a one to five day window.

**Follow-up Finding and Conclusion No. IV-1** – CWC has reduced the billing lag in its Columbia Division to more reasonable levels; however, the newly acquired Marietta Division’s billing lag is excessive.

The Commission approved CWC’s acquisition of Marietta Gravity Water Company on August 30, 2012. More information regarding CWC’s merger with Marietta Gravity Water Company is included in Chapter I – Introduction. Meters located outside of Columbia Borough comprise billing cycle 1, while meters located within Columbia Borough are assigned to billing cycle 2. Billing cycle 1 and billing cycle 2 are approximately 4,300 customers in each cycle. A third billing cycle was initiated after CWC acquired Marietta Gravity Water Company and it includes all of the Marietta Division. The Marietta Division or billing cycle 3 is comprised of approximately 1,150 metered accounts which are billed on a quarterly basis. During a month with all three billing cycles, meter reading for the Marietta Division begins immediately following the completion of billing cycle 1. While CWC meter readers are able to complete the initial billing cycle 3 meter reading, follow-up readings typically overlap with billing cycle 2. Follow-up readings are necessary where reading errors have taken place (i.e., a zero

read would be flagged for follow-up which would require the meter reader to return for a second reading to verify the correct usage).

While the Company's billing process remains largely unchanged, the implementation of automatic meter reading (AMR) technology is the primary reason for CWC's improved billing lag. CWC employs two meter readers; each meter reader is assigned half of the billing cycle. It takes approximately 5 days to complete meter reading for each billing cycle. Once all accounts for the day have been read, the data is downloaded into CWC's customer information system each night. The customer information system will generate reports for missed reads and errors, in which case, CWC will dispatch meter readers to reread meters that registered an error. Once the meter reading data is verified, the bills are printed and mailed to customers the following day. Due to efficiencies gained from the implementation of AMR and the decreased number of meter reading errors for billing cycles 1 and 2, CWC has reduced its billing lag for billing cycle 1 and cycle 2 from 1-15 days in 2011 to 1-7 days in 2014. Approximately 49% of CWC's metered accounts (just over 10,000 meters) are equipped with AMR technology as of the first quarter 2014. While the Company has made significant billing lag improvements, greater reduction to the 1-18 day billing lag in its Marietta Division will occur after the ARM technology is in place.

Marietta Division's traditional read meters require the meter reader to key in usage data into the meter reading equipment. Further, due to the age of the equipment within the Marietta Division, CWC has experienced a high volume of error reads. A secondary challenge with the Marietta Division has been accessibility to meters. In some cases, a buildup of vegetation and/or excessive snow and ice accumulations on and around the meters has made it difficult for meter readers to locate the meters and obtain usage information. In response to these challenges, CWC's Marietta Division has become the Company's first priority for AMR meter replacements. By addressing these equipment issues, CWC plans to reduce meter reading errors and required re-reads for the Marietta Division. The Company's goal is to reduce the duration of the Marietta Division's billing cycle in order to avoid overlap with the Columbia's second billing cycle and reduce the billing lag to levels commensurate with those experienced in billing cycles 1 and 2.

CWC estimates that its billing lag could be improved further once full implementation of AMR technology has been achieved. AMR technology reduces the amount of time needed to collect data from meters. CWC's AMR meters remotely transmit usage data through radio frequencies as the meter reader walks by the unit, whereas, touchpad meters require the meter reader to contact the meter reading equipment with the meter unit. CWC's AMR meter replacements vary between 400 to 600 meters annually depending on labor and cost constraints. Due to CWC's limited staff and budgetary constraints, the Company estimates that full implementation of AMR technology is not likely to be fully achieved until the 2022 to 2026 timeframe.

**Staff's Follow-up Recommendation – Prioritize implementation of AMR technology in the Marietta Division and continue to reduce overall billing lag.**

## V. WATER OPERATIONS

**Background** – The Focused Management and Operations Audit (Management Audit) of Columbia Water Company (CWC or Company) conducted by the Management Audit Division (Audit Staff) of the Pennsylvania Public Utility Commission’s (PUC or Commission) Bureau of Audits released in August of 2011 at D-2011-2218445, contained one recommendation within the Water Operations functional area. The Audit Staff rated this functional area as needing minor improvement. In this chapter, one prior recommendation and prior situation is reviewed and one follow-up finding and recommendation is presented.

**Prior Recommendation** – Identify critical valves within the distribution system and establish valve inspection goals that adhere to industry standards.

**Prior Situation** – CWC had a three year valve inspection policy for its 1,440 distribution valves. From 2006 through 2010 the Company averaged 102 valve inspections which translated into a 14 year cycle. The Company had indicated that it did not have the man hours available to comply with its procedure to operate all of its valves on a three year cycle. In addition, CWC was operating certain valves more frequently than others but had not fully identified its critical valves.

**Follow-up Finding and Conclusion No. V-1 – Critical valves have been identified and are inspected on a five year cycle, but additional improvements should be made.**

On August 30, 2012, the Commission approved CWC’s acquisition of the Marietta Gravity Water Company. Consequently CWC’s distribution system valve maintenance requirements have increased since the time of the Management Audit. Prior to the acquisition, CWC revised its valve inspection program in early 2012 identifying 86 of the Company’s approximately 2,400 valves as critical.

As presented in Exhibit V-1, from 2011 through 2013, the Company inspected, on average, approximately 69 valves with the majority of them being non-critical. The entire distribution system goes through a leak survey annually, which is performed by an outside consultant. The Company views leak surveys as an unofficial valve inspection (i.e., visual inspection of the value and a check for leaks). A more thorough inspection is completed on a five year cycle for critical valves. As of early 2014, the Company was on pace to meet its five year inspection/exercising goal for its critical valves as presented in Exhibit V-1. However, the Company does not have any inspecting/exercising goals for non-critical valves, which are in effect being exercised on a 33 year cycle.

**Exhibit V-1  
Columbia Water Company  
Number of Valves Inspected/Exercised  
For the Years 2011 through 2013**

Valve Types and Inspection Frequency	Year		
	2011	2012	2013
Total Number of valves	2062	2404	2427
Number of In-line valves	1404	1632	1647
Number of FH Valves	572	686	694
Number of Critical Valves	80	86	86
Number of Valves inspected/Exercised	57	45	45
Number of Critical Valves Inspected/Exercised	7	37	17

Source: Data request WO-2

CWC has identified its critical valves within the Company’s distribution system. However, the Company has moved from a three year inspection goal for all valves to a five year inspection goal for critical valves. The Company feels that anything more frequent is not feasible due to its current equipment and manpower resources. In addition, CWC contends that due to the age of some of the valves, exercising them could cause the valves to leak or break. However, without routine valve operation, debris can accumulate around the valve and cause the valve to become inoperable. During emergencies, valves that do not operate properly tend to increase restoration time, and/or create additional problems.

The American Water Works Association (AWWA) recommends that, “Inspections should be made of each valve on a regularly scheduled basis (annually if possible) and at more frequent intervals for valves with diameters of at least 16 inches<sup>1</sup>.” AWWA recommends an annual inspection of all valves if possible; however, the Audit Staff understands the time and commitment needed to perform this level of inspection. Therefore, the Audit Staff can accept the position that an annual inspection would be onerous for CWC, but recommends that the Company strive to increase its critical valve inspection program to a three year cycle.

**Staff’s Follow-up Recommendation - Strive to complete the exercise and/or inspection of critical valves at least once every three years.**

<sup>1</sup> American Water Works Association, “Manual of Water Supply Practices-M44” Distribution Valves: Selection, Installation, Field Testing, and Maintenance. Denver: American Water Works Association, 1996

## VI. EMERGENCY PREPAREDNESS

**Background** – The Focused Management and Operations Audit of Columbia Water Company (CWC or Company), conducted by the Management Audit Division (Audit Staff) of the Pennsylvania Public Utility Commission (PUC or Commission) released in August of 2011 at D-2011-2218445, contained one recommendation within the Public Utility Emergency Preparedness functional area. The Audit Staff rated this functional area as needing minor improvement. In this chapter, the prior recommendation and prior situation was reviewed and one follow-up finding is presented. In addition, the Audit Staff deemed it prudent to perform an updated review of the Company's (including the newly acquired Marietta division) compliance with PUC regulations at 52 Pa. Code § 101 regarding physical security, cyber security, emergency response and business continuity plans as part of this audit.

In order to protect infrastructure within the Commonwealth of Pennsylvania and ensure safe, continuous and reliable utility service, effective June 2005, PUC regulations at 52 Pa. Code § 101 (Chapter 101) require all jurisdictional utilities to develop and maintain written physical security, cyber security, emergency response and business continuity plans. Furthermore, in accordance with 52 Pa. Code § 101.1, all jurisdictional utilities are to annually submit a Self-Certification Form to the Commission documenting compliance with Chapter 101. This form, available on the PUC website, is comprised of 13 questions as shown in Exhibit VI-1.

The Audit Staff reviewed the most recent (2012) Self Certification form submitted by Columbia Water Company (CWC or Company) to determine the status of its responses. Our examination of the Company's emergency preparedness included a review of the physical security plan, cyber security plan, emergency response plan, business continuity plan, as well as its most recent Vulnerability Assessment (VA). In addition, the Audit Staff performed inspections at a sampling of the Company's facilities. Due to the sensitive nature of the information reviewed, specific information is not revealed in this report but rather the generalities of the information reviewed are summarized.

The General Manager oversees the Emergency Preparedness function at the Company. CWC focuses its security efforts on providing a safe working environment for its employees, proactively identifying potential security matters, and encouraging continuous improvement of facilities. CWC is in the process of upgrading its water treatment plant and the associated security measures. The upgrade is scheduled to be completed by the end of 2014. In addition, the company conducted a VA in 2013 and anticipates it will implement all of the upgrades/recommendations by 2016.

**Exhibit VI-1**  
**Pennsylvania Public Utility Commission**  
**Public Utility Security Planning and Readiness Self-Certification Form**

Item No.	Classification	Response		
		Yes	No	N/A*
1	Does your company have a physical security plan?			
2	Has your physical security plan been reviewed in the last year and updated as needed?			
3	Is your physical security plan tested annually?			
4	Does your company have a cyber-security plan?			
5	Has your cyber-security plan been reviewed and tested in the last year and updated as needed?			
6	Is your cyber-security plan tested annually?			
7	Does your company have an emergency response plan?			
8	Has your emergency response plan been reviewed in the last year and updated as needed?			
9	Is your emergency response plan tested annually?			
10	Does your company have a business continuity plan?			
11	Does your business continuity plan have a section or annex addressing pandemics?			
12	Has your business continuity plan been reviewed in the last year and updated as needed?			
13	Is your business continuity plan tested annually?			

\* Attach a sheet with a brief explanation if N/A is supplied as a response to a question.

Source: Public Utility Security Planning and Readiness Self-Certification Form, as available on the PUC website at [http://www.puc.state.pa.us/general/onlineforms/pdf/Physical\\_Cyber\\_Security\\_Form.pdf](http://www.puc.state.pa.us/general/onlineforms/pdf/Physical_Cyber_Security_Form.pdf).

**Prior Recommendation** – Update the Emergency Response Plan to include additional response information and eliminate minor physical security deficiencies.

**Prior Situation** – One minor deficiency was found within the Company’s Emergency Response Plan (ERP). The ERP did not reflect an emergency interconnection with an adjacent water utility. The absence of this information in CWC’s ERP could have resulted in it being overlooked, misused, or ultimately prolonging and/or exacerbating an emergency. In addition, a few minor physical security issues were found while inspecting the Company facilities, such as, vegetation growing on and around the fence line. If these situations had gone uncorrected they could have caused wear and tear issues leading to more costly repairs and possible security breaches.

**Follow-up Finding and Conclusion No. VI-1** – The Company has reviewed and updated its ERP to address the interconnection between Columbia and Marietta Division and has also addressed the minor physical security issues.

The review of CWC’s Emergency Preparedness included a review of its physical security plan, cyber security plan, emergency response plan, business continuity plan, and vulnerability assessment. Each plan is reviewed annually and revised as needed.

The Company tests aspects of each plan when it is feasible for them to do so. Therefore, the Audit Staff did not find any deficiencies with CWC's emergency preparedness plans. In addition, during random inspections of the Company's facilities, the Audit Staff did not identify any physical security issues.

**Staff's Follow-up Recommendation – None.**

## VII. DIVERSITY

**Background** – The Focused Management and Operations Audit of Columbia Water Company (CWC or Company) conducted by the Management Audit Division (Audit Staff) of the Pennsylvania Public Utility Commission's (PUC or Commission) Bureau of Audits released in August of 2011 at D-2011-2218445, contained two recommendations within the Diversity Chapter. The Audit Staff rated this functional area as needing minor improvement. In this Chapter, the two prior recommendations and prior situations are reviewed and two follow-up findings and two recommendations are presented.

**Prior Recommendation** – Strive to increase the utilization of minorities and females in the Company's workforce.

**Prior Situation** – From 2008 through 2010, CWC's employee complement included a total of 17 full time employees, comprised of 14 white males and 3 white females. The Company did advertise itself as an Equal Opportunity Employer; however, it had very low turnover limiting its ability to improve diversity within its workforce. Lancaster and York County Labor Force Statistics for the year 2000 suggested that successful diversity for CWC should include employment of at least one minority (rather than none) and approximately 8 female (rather than 3) out of its 17 staff members.

**Follow-up Finding and Conclusion No. VII-1** – CWC has been unsuccessful in changing its workforce compliment to include the utilization of minorities or to increase its utilization of females.

CWC asserts that it strives to increase the utilization of minorities and females within its workforce composition. However, CWC indicated that it is restricted by its small size and low employee turnover to quickly enact changes to its employee mix. As of December 31, 2013, CWC's average length of service per employee was 14 years. CWC employs 17 full time positions, comprised of 14 white male and 3 white female employees. From 2009 through 2013, CWC experienced four separations and hires, where one of the four separations and hires was a temporary position. The remaining three permanent position openings occurred within CWC's Distribution Department. CWC posts job openings for its distribution workforce with water associations and trade groups, as these positions require specialized skills. While the Company continues to advertise itself as an Equal Opportunity Employer, CWC was unsuccessful in its efforts to increase the utilization of minorities or females within its workforce from 2009 through 2013.

The PUC Policy Statement on Diversity at Major Jurisdictional Utility Companies encourages Pennsylvania utilities (such as Columbia Water), to incorporate diversity into their business strategy. As such, the Company should strive to achieve a workforce composition reflective of the diversity of its service territory. CWC's service territory is located in Lancaster and York Counties. Demographic data from the United States

Census Bureau for 2012 reflects 15% minority and 50% female population for CWC's service area. Therefore, a representative CWC workforce of 17 full time employees should include the minimum utilization of two minority employees and eight female employees. From 2009 through 2013, CWC has employed 3 females and has not employed a minority. Traditionally, it has been difficult for water utilities to attract female applicants for operational positions. CWC is further challenged by its small and stable workforce, which limits opportunities for impacting diversity within its organization. Nevertheless, CWC should continue to strive to increase the number of minority and female employees within its workforce as opportunities arise.

**Staff's Follow-up Recommendation – Continue efforts to increase the utilization of minorities and women in the Company's workforce.**

**Prior Recommendation** – Strive to increase the amount of purchases from minority, women, and persons with disabilities owned business enterprises.

**Prior Situation** – CWC's purchases from minority owned business enterprises were minimal with 0.4% and 0.2% being procured in 2007 and 2010, respectively. Moreover, CWC did not have any purchases from women or persons with disabilities owned business enterprises. The Company purported that there were minimal minority, women and persons with disabilities owned business enterprises (MWDBEs) that could compete in price for its size and location.

**Follow-up Finding and Conclusion No. VII-2 – The Company has significantly increased purchases with diverse vendors for the years 2012 and 2013.**

For more than 20 years, the PUC has urged utilities to proactively improve diversity within their workforces and purchasing efforts. More specifically, in February 1995, the Commission adopted a "Policy Statement Regarding Diversity at Major Jurisdictional Utility Companies" (entered into the regulations at 52 Pa. Code § 69.801-69.809), which encourages the utilities to include diversity efforts as part of their business strategy. As such, the Commission has prompted major jurisdictional utility companies to develop a diversity program that is designed to provide a fair portion of products and service contracts offered to MWDBEs. Accordingly, CWC encourages its employees and contractors to obtain goods and services from diverse vendors.

CWC has successfully increased its purchases with women owned business enterprises (WBEs). CWC engaged a WBE firm to make a portion of the improvements to its water treatment facility in Columbia. As a result, CWC has increased the percentage of diverse spending from less than 1% of total purchases in 2010 to 8-12% of overall spending in 2012. The project is slated to run from 2012 through 2014, as such, a significant increase in total spending, as well as WBE spending will be reflected over the three year time frame. Exhibit VII-1 illustrates CWC's overall MWDBE spending from 2010 through 2013. As reflected in Exhibit VII-1, CWC has successfully

engaged both WBEs and minority owned business enterprises (MBEs) within its procurement function. However, while the temporary increase in purchases from WBEs has positively impacted the overall diverse supplier expenditures for CWC, the Company's expenditures with persons with disabilities owned business enterprises (DBEs) have remained at zero. Historically, the lack of MWDBEs within CWC's service territory has made it challenging for the Company to engage diverse vendors. Nonetheless, CWC should continue efforts to increase its ongoing procurement (i.e., services and purchases) from minority, women and persons with disabilities owned business enterprises.

**Exhibit VII-1  
Columbia Water Company  
Total Utility Purchases<sup>1</sup> from Minority, Women, and Persons with Disabilities-  
Owned Business Enterprises  
For the Years 2010 through 2013**

Year	Total Company Procurement	Minority Owned MBE	MBE % of Total	Women Owned WBE	WBE % of Total	Persons with Disabilities Owned DBE	DBE % of Total	Total MWDBE	MWDBE % of Total
2010	\$ 1,571,278	\$ 3,912	0.25%	\$ -	0.00%	\$ -	0.00%	\$ 3,912	0.25%
2011	\$ 1,855,789	\$ 16,930	0.91%	\$ -	0.00%	\$ -	0.00%	\$ 16,930	0.91%
2012	\$ 1,294,835	\$ 1,168	0.09%	\$ 162,406	12.54%	\$ -	0.00%	\$ 163,574	12.63%
2013	\$ 6,109,361	\$ 18,146	0.30%	\$ 475,184	7.78%	\$ -	0.00%	\$ 493,330	8.07%

<sup>1</sup> Total Purchases exclude utility costs  
Source: Data Requests DV-1 and DV-4

**Staff's Follow-up Recommendation – None.**

## **VIII. ACKNOWLEDGEMENTS**

We wish to express our appreciation for the cooperation and assistance given to us during the course of this Management Efficiency Investigation by the officers and staff of Columbia Water Company.

This audit was conducted by Krystle Daugherty, Jennie Banzhof, Porus Irani, and Jeffery Butters of the Management Audit Staff of the PUC's Bureau of Audits.

