COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:	**)**	
	)	
THE APPLICATION OF KENTUCKY-AMERICAN WATER COMPANY FOR AN ADJUSTMENT OF RATES ON AND AFTER NOVEMBER 30, 2008	**)**	**CASE NO. 2008-00427**

DIRECT TESTIMONY OF KEITH CARTIER

October 31, 2008

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1. Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Keith Cartier and my business address is 2300 Richmond Road, Lexington, Kentucky 40502.

2. Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?

A. I am employed by the Kentucky-American Water Company, Inc. (KAW) as the Vice President of Operations.

3. Q. HAVE YOU PREVIOUSLY FILED TESTIMONY BEFORE THIS COMMISSION?

A. No.

4. Q. PLEASE STATE YOUR EDUCATIONAL AND PROFESSIONAL BACKGROUND.

A. I earned a Bachelor of Science degree in Civil Engineering from the University of Pittsburgh in 1979 and a Masters in Business Administration from the University of Pittsburgh's Katz School of Business in 1980. I am registered as a Professional Engineer in Pennsylvania.

I have worked in the utility industry since 1982, beginning as an Engineer/Commercial Representative at Duquesne Light Company in Pittsburgh, Pennsylvania. I served in a number of positions during my seventeen years at Duquesne, the first seven years in customer service roles, and the last ten in a number of roles primarily focused on improving operational and business performance. During that latter span, I also served for one year as project manager for merger integration planning on the proposed merger of DQE (Duquesne's parent company) and Allegheny Energy. In 1999, I joined UMS Group, an international management consulting firm headquartered in Parsippany, New Jersey. I worked with UMS for nearly three years, providing operational and business performance consulting services to utility clients throughout the United States and Canada. I have been with the American Water family of companies since 2003, first joining Pennsylvania

American Water as Superintendent for the Pittsburgh operations, which provides water service to approximately 140,000 customers in the suburban Pittsburgh area. I moved to Contract Operations Manager with American Water Enterprises (AWE) in 2004 with responsibility for managing operations for a number of client water authorities. My responsibilities expanded in 2005 as I joined American Water Services' Southeast Region in the role of Director of Business Performance. In that role, I assumed responsibility for helping improve operations of the regulated businesses in American Water's Southeast Region, as well as expanding my responsibilities to include oversight for all water and wastewater O&M contract operations in American Water's Southeast Region. In February 2008, I joined KAW as Vice President, Operations.

5. Q. WHAT ARE YOUR RESPONSIBILITIES AS VICE PRESIDENT OF OPERATIONS?

A. My responsibilities encompass all activity related to water production and distribution. I also provide oversight of activities related to providing services for new development. I work closely with KAW's Engineering personnel to support their role in planning system improvements and managing capital investments.

6. Q. WHAT WILL YOUR TESTIMONY ADDRESS?

A. My testimony will describe the operations of KAW's production and distribution systems. I will address tap fees, fuel and power costs, chemical costs, and operational efforts including leak detection, water quality, and deferred maintenance.

7. Q. PLEASE DESCRIBE THE OPERATIONS OF KAW FACILITIES.

A. KAW operates three water treatment facilities, with two in its Central Division and one in its Northern Division. KAW's distribution system contains 1,921 miles of main, 25,015 valves, and 8,143 hydrants. A more detailed description of each division is given below.

CENTRAL DIVISION

The two Central Division water treatment plants operate independently, with both facilities pumping treated water into KAW's distribution system. They are referred to as the Kentucky River Station I (KRS I) and the Richmond Road Station (RRS). The KRS I and RRS have a combined design treatment capacity of 65 million gallons per day (mgd), with the KRS I at a 40 mgd capacity and the RRS at a 25 mgd capacity. The RRS at times, and for short durations, is able to operate at a slightly higher capacity and has demonstrated a temporary operational capacity of 30 mgd, raising the Central Division's total treatment capacity to 70 MGD.

KAW withdraws water from Pool 9 of the Kentucky River. An intake pumping facility at river level withdraws water and pumps the raw water up a 380-foot bluff. The raw water is then directed to the KRS I treatment plant and as necessary may also be directed via a pipeline to the RRS or to Jacobson Reservoir. The RRS may utilize the supply directly from the Kentucky River pipeline or withdraw water from Jacobson Reservoir on US 25 south of Lexington or from Lake Ellerslie located on Richmond Road next to the RRS.

KAW's treatment facilities utilize a chemical-mechanical process. The RRS utilizes a conventional coagulation and sedimentation process, followed by filtration through granular activated carbon and sand filters. The KRS I utilizes an up flow solid contact process followed by filtration through mixed media high rate filters. Both facilities utilize chloramination to maintain a residual disinfectant within the distribution system. Operations of the KAW treatment facilities meet or exceed all federal and state water quality regulations. Each facility is fully staffed by water treatment plant operators certified by the Kentucky Division of Water.

Water treated at these two treatment facilities is pumped into the integrated distribution system that serves the Central Division. This system covers all of Fayette County and parts of Scott, Jessamine, Bourbon, Woodford, Harrison, and Clark Counties. This system is comprised of 1,700 miles of pipeline mains of various

materials, ranging in size from 2 to 36 inches, and 15 storage tanks with a combined volume of 22.6 million gallons. KAW also sells treated water to eight other water utilities for resale. Those are Jessamine South Elkhorn Water District, the City of Nicholasville, the Georgetown Municipal Water and Sewer Service, the City of Versailles, the City of Midway, the City of North Middletown, East Clark County Water District and the Harrison County Water Association.

NORTHERN DIVISION

KAW's Northern Division is served primarily by water produced at KAW's Owenton water treatment plant. The remainder of the supply is purchased through connections with the Gallatin County Water District, the Carroll County Water District and through a connection with Georgetown Municipal Water and Sewer Service.

KAW withdraws water from Severn Creek, which flows into the Kentucky River between locks 2 and 3. From the Severn Creek intake, raw water is pumped through a pipeline to the Owenton treatment plant site. The raw water may be directed immediately into the plant or to Lower Thomas Lake. The Owenton plant is capable of accepting water directly from the river or withdrawing water from Lower Thomas Lake.

Like KRS I and RRS, the Owenton water treatment facility utilizes a chemical-mechanical process, with an up flow solid contact clarifier process followed by filtration through mixed media in two separate filters. The facility currently utilizes free chlorine to maintain a residual disinfectant within the distribution system but is able to switch to chloramination. The treatment facility operations meet or exceed all federal and state water quality regulations. Like its Central Division counterparts, the facility is fully staffed by certified water treatment plant operators. The facility pumps to an integrated distribution system that includes 220 miles of main and eleven storage tanks in Owen, Grant and Gallatin Counties.

8. Q. DOES KAW PROPOSE CHANGES TO ITS TAP FEES?

A. Yes. The proposed new tap fees are:

Meter Size	Proposed Tap Fee	Current Tap Fee
¾ x 5/8 " meter	$702	$660
1" meter	$1,287	$1,254
2" meter	$3,129	$2,945

9. Q. WHY DOES KAW PROPOSE TO CHANGE ITS TAP FEES?

A. The tap fees are based on costs KAW incurs to install the service lines and meters for new services. KAW procures the copper service line tubing and meters using American Water's national contracts, and competitively bids the service line installation work to local contractors. KAW workers install the meters. The competitive bidding and volume pricing position KAW to provide new taps efficiently. The proposed fees reflect increases in material, meters and labor-related costs over prior tap fees.

10. Q. KAW'S LEAK DETECTION HAS BEEN DISCUSSED IN PRIOR CASES. WHAT IS THE CURRENT STATUS OF KAW'S LEAK DETECTION EFFORTS?

A. KAW continues to focus on aggressive leak detection with a comprehensive program that utilizes cutting edge technology. KAW deploys some of the most advanced leak surveying and monitoring equipment the industry has to offer. We currently have 895 permalogs deployed throughout the distribution system. These small computerized devices, which listen for leak sounds, afford KAW the ability to monitor areas for leaks with limited manual intervention required. The permalogs are moveable and can be redeployed as survey plans change. In addition to the permalogs, KAW continues to employ manual leak sounding. KAW personnel have conducted over 100,000 manual soundings on services, hydrants, mains and valves over the past four years. KAW has also inspected 174 stream crossings and 151 right-of-ways for non-surfacing leaks.

KAW monitors non-revenue water (NRW) results monthly and periodically reviews its leak detection and non-revenue water program. KAW reports monthly NRW results to the Public Service Commission (PSC). The PSC categorizes NRW into two primary categories – Other Water Used and Water Loss. Other Water Used includes estimates for water used for system flushing and for fire fighting. NRW that falls into the Water Loss category includes water from leaks, theft of service, non-metered usage, main break losses and any other usage that may not otherwise be known.

NRW is calculated by subtracting sales for a period from the water pumped into the system for the period. Since billing meters are read throughout the month, the sales numbers reflect usage from the prior month, so system delivery and sales do not align perfectly date for date. This may provide skewed results on a monthly or short period basis. As of the September 2008 report to the PSC, KAW's Water Loss Percentage was 7.2%. KAW assesses NRW results using a 12-month rolling average, in addition to reviewing the specific monthly NRW results, to mitigate issues associated with the shorter period calculations. For the 12 month period ending September 30, 2008, KAW's Water Loss Percentage result was 13.5%. The overall NRW result, which includes both Water Loss and Other Water Used, was 15.1% for that same period.

The PSC in its order on Case No. 2007-00134 required KAW to hire an external consultant to review its non-revenue water programs. KAW recently engaged Gannett Fleming (GF) to assist in an objective evaluation of KAW strategy and practices and to develop recommendations for cost effectively improving the results from KAW activities. The scope of consulting services requested by KAW is categorized in six task areas:

<u>Task Number One - Main Break Analysis and Leak Monitoring</u>

GF is analyzing the existing main break database for the Central Division system to determine what correlations may exist between main breaks and location in the

distribution system, including considerations of pressure, main age, main size and customer usage. GF is also assessing KAW's existing leak monitoring methodology (approach, frequency, acoustic and manual equipment, etc.) and will provide recommendations to cost effectively enhance the ability to locate non-surfacing leaks. GF will provide all estimated costs for recommendations proposed.

Task Number Two - Sub-Meter Zones and Reduced Pressure Zones

GF is evaluating the distribution system to determine the practicality and economic feasibility of establishing sub-metered zones and/or reduced pressure zones in the Central Division. The static pressure in the existing Central Division distribution system currently ranges from about 30 to 120 psi. The intent of this task is to assess whether the existing distribution system might be reconfigured to reduce the volume of water lost during leak events by reducing pressure in certain areas of the system and whether certain areas might be metered to better identify potential leaks. GF will provide recommendations specifying locations and required work and equipment necessary for implementation of meter or pressure zones, and will identify any potential negative effects that the proposed sub-metering and/or reduced pressure zones may have on existing customers. GF will provide all estimated costs for recommendations proposed.

Task Number Three - Surge Analysis

GF is performing a preliminary evaluation to determine the degree to which pressure surges may contribute to main failures. KAW has identified only a few general areas where surge is suspected to have occurred. GF will assess available data, evaluate pump operations and discuss system operations practices, and will provide recommendations based on their evaluation. GF will provide all estimated costs for recommendations proposed.

Task Number Four - Large Meter Program

GF is evaluating the effectiveness of KAW's current methodology of specifying and testing large meters (i.e., 2 inches and larger). GF is assessing KAW's current criteria for specifying the type and size of large meters installed and will develop alternatives for enhancing that process and assess the impact of metering issues on NRW. GF is also evaluating KAW's large meter testing protocols, including intervals and testing procedures, and will provide recommendations to enhance that process. GF will provide all estimated costs for recommendations proposed.

Task Number Five - Special Connection, Private Property Loss Analysis

GF is analyzing potential losses on private properties served by special connections and is examining the feasibility of metering all such connections. GF will determine the category of meter best suited for each type application and develop a prioritization methodology for determining areas of initial focus by size of connection, pipe material, loss potential, etc. GF will provide all estimated costs for recommendations proposed.

Task Number Six - Tracking Water Loss - AWWA Audit Methodology

GF is evaluating KAW's current water loss tracking methodology and controls, and will make recommendations of how KAW can improve, consistent with American Water Works Association (AWWA) standards and methodologies. GF will provide estimated costs for all recommendations proposed.

KAW expects the GF work to further enhance the Company's ability to cost effectively manage NRW. The GF work began in October 2008 and is expected to conclude early in 2009. KAW will provide project status reports to the PSC as required.

11. Q. WATER QUALITY CONTINUES TO BE A TOPIC OF MAJOR EMPHASIS WITH ONGOING REGULATIONS. WHAT EFFORTS HAS KAW MADE IN RECENT YEARS REGARDING WATER QUALITY?

A. The United States Environmental Protection Agency (USEPA) first established drinking water regulations in the mid 1970s under the Safe Drinking Water Act (SDWA). The USEPA's National Primary Drinking Water Regulations (NPDWR) consist of complex monitoring and reporting requirements for contaminants such as total coliform bacteria, inorganic carbon, synthetic organic carbon, disinfectant residual, disinfection byproducts, radionuclides, and the corrosion byproducts lead and copper. Regulations continue to evolve and the 1996 SWDA Amendments set many new specific time deadlines for the regulation of various contaminants. KAW continues to evaluate treatment and distribution processes to stay ahead of regulatory requirements.

KAW has a long history of being an industry leader in water quality, and has been recognized in the Partnership for Safe Water initiative. The Partnership is a voluntary cooperative effort between the USEPA, AWWA and other drinking water organizations, encompassing more than 200 surface water utilities throughout the United States. The Partnership encourages water suppliers to continually improve their treatment plant performance, though enhanced monitoring and stringent contaminant targets, to better assure the quality of water delivered to customers. KAW was recently honored by the Partnership, with both KRS I and RRS plants earning the prestigious Ten-Year Directors Award for ongoing commitment to excellence in water quality, consumer safety and regulatory compliance. Only sixteen water treatment plants from across the country have earned that distinction, out of the 14,000 surface water treatment plants governed by USEPA regulations. KAW has enrolled the Owenton treatment plant in the program.

12. Q. ARE THERE NEW REGULATIONS THAT KAW IS REQUIRED TO MEET?

A. Yes. There are four new regulations that KAW is required to meet. The regulations are the Stage 2 Disinfection Byproduct Rule ("Stage 2 DBPs"), the Long-Term Enhanced Surface Water Treatment Rule ("LT2"), the Groundwater Rule and the Unregulated Contaminant Monitoring Rule 2 ("UCMR 2"). The new regulations

require detailed evaluations of the treatment and distribution processes, and also require additional water sampling, analysis and reporting.

The new Stage 2 DBP regulations require an evaluation of water sample sites, incorporating extensive review of DBP occurrences at multiple sites throughout the distribution systems. This Initial Distribution System Evaluation (IDSE) requires one year of testing or, as an alternative, construction of an approved hydraulic system model. KAW had completed a distribution system hydraulic/water quality model to help identify worst-case scenario sites for the Central Division in 2006, and completed monitoring in 2008. KAW will begin performing a system specific study of locations in the Northern Division for one year beginning in 2009, and anticipates completing that IDSE in 2010. Results of the IDSE will determine future water sample sites for Stage 2 DBP monitoring. This new rule will require compliance with the trihalomethane (THM) and haloacetic acid (HAA) standards at each individual sampling location (a location running annual average) compared to Stage 1's requirements that permitted a combined running annual system average across all sites.

KAW has been evaluating processes in the Central and Northern Divisions to prepare for meeting the Stage 2 rule. Compliance with new Stage 2 DBP regulations for location running annual average requirements begin in 2012 for the Central Division and in 2013 for the Northern Division. KAW anticipates that process modifications may be necessary in the Central division and is evaluating a change in the disinfection points at each facility and chemical feed improvements. KAW does not anticipate that additional process changes, beyond the ammonia feed capability already completed, will be required for Northern Division compliance.

The LT2 regulation requires systems to monitor their raw water sources for cryptosporidium and make process improvements based upon the detections of this organism in their raw water source. KAW's Central Division completed testing prior

to the rule being released and found no cryptosporidium in any of its samples. KAW completed testing for its new plant on Pool 3 of the Kentucky River in 2008 and found that the design of the plant was sufficient to meet LT 2 rule requirements. KAW continues to test source water for the Owenton plant, and, to date, results suggest that no modifications will be necessary to meet this rule.

The Groundwater Rule is designed to reduce the risk of illness caused by microbial contamination in groundwater systems. KAW purchases treated groundwater from Gallatin County Water District and from Carroll County Water District to serve a small number of customers in the Northern Division. KAW is required to report detections of microbial contamination (e.g., total coliforms) in areas supplied by a groundwater system within 24-hours of a positive sample result. KAW is prepared to meet the reporting requirements associated with the new Groundwater Rule beginning December 1, 2009.

The Unregulated Contaminant Monitoring Rule 2 (UCMR 2) increases the monitoring and reporting requirements associated with contaminants suspected to be present in drinking water, but that may not have health-based standards established under the SDWA. UCMR 2 requires reporting of test results for four consecutive quarters. KAW completed the sampling for the first of those four consecutive quarters in October 2008 and expects to meet the requirements for the next three quarters.

13. Q. PLEASE EXPLAIN HOW YOUR FUEL & POWER AND CHEMICALS ARE DETERMINED FOR THE FORECASTED TEST-YEAR.

A. These expenses are directly related to how much water is forecast to be treated and delivered (i.e., system delivery). System delivery volume is based on projections for water sales determined from the bill analysis for the forecasted test-year as adjusted for the weather normalization factor. The Company increases the water sales for historical percentages of NRW to arrive at the system delivery used to calculate fuel

and power expense for the forecasted test-year. This method matches the system delivery to the water sales developed for the forecasted test-year. Total system delivery for the forecast period is 15.8 billion gallons.

Once the production volume is established, fuel and power costs are projected using historical information to determine projected power consumption (kwh consumed per million gallons produced) and current tariff prices to determine the price ($ per kwh). The total fuel and power expense for the forecast period is $3.6 million.

KAW uses 18 different chemicals in the water treatment process. Chemical expenses are projected based on the most recent three-year average consumption for each chemical (in pounds per million gallons treated), adjusted if warranted based on operating experience. The pounds per million gallons treated is then applied to the forecasted test-year system delivery to determine the pounds of each chemical to be used in the forecasted test-year. The pounds of each chemical are then multiplied by the most current contract price (plus expected price increases through the forecasted test-year) to determine the total chemical expense. All chemicals are purchased by KAW through a national competitive bidding process conducted by American Water's supply chain function. Prices on certain chemicals have risen substantially. For example, the 2009 price for zinc ortho phosphate (ZOP), which KAW uses as a corrosion inhibitor, has risen from $0.273 to $1.29 per pound, resulting in a four fold increase in annual costs for ZOP to approximately $600,000. Contract pricing is in place through December 2009, and KAW has projected an increase in overall chemical expenses based on those contracts. The chemical expense for the forecast period is approximately $2.7 million.

14. Q. DOES THE WATER TREATEMENT PROCESS GENERATE WASTE MATERIAL?

A. Yes**.** Source water always contains some amount of solid matter in very small in-suspension particles that must be removed during the treatment process. The process to remove that suspended matter varies across KAW treatment plants. For example,

the RRS process uses a coagulation and flocculation process, which helps the solid matter form particles large enough, and heavy enough, to settle out of the water. A chemical coagulant is rapidly mixed into the water to help bind the solid matter together. The water continues though chambers at slowing mix speeds into sedimentation processes that allow these larger particles to fall to the bottom of the chambers. As these particles build up, a pneumatic suction hose is slowly dragged along the bottom of the chambers to extract this solid waste material. The waste is pumped to a separate holding tank where further settling occurs, and the wet sludge that results is run through a filter belt press to squeeze the water from the sludge, resulting in a dryer sludge material. At KRS I, by use of a system of up-flow clarifiers the chemical process is much the same, but the final waste product is dewatered in a series of dewatering lagoons as opposed to the use of the filter belt press as described for the RRS. KAW incurs costs in disposing of this residual material.

15. Q. PLEASE EXPLAIN HOW KAW'S WASTE DISPOSAL EXPENSE IS DETERMINED FOR THE FORECASTED TEST-YEAR.

A. Waste disposal costs are projected based on anticipated routine expenses to operate the waste treatment processes, typical source water conditions and periodic expenses related to sludge removal. KAW has mitigated typical disposal costs with its beneficial use permit-by-rule from the Division of Waste Management that allows the beneficial reuse of residuals on site at both KRS I and RRS.

16. Q. HOW HAS THE PROCESS OF BENEFICIAL REUSE OF RESIDUALS ON SITE BENEFITED KAW?

A. Many water facilities around the country experience significant costs associated with transporting residuals and paying to dispose of the material in a permitted landfill. KAW has avoided the costs associated with trucking and landfilling by beneficially reusing these residuals on its property.

17. Q. PLEASE EXPLAIN HOW MAINTENACE EXPENSES ARE DETERMINED FOR THE FORECASTED TEST-YEAR.

A. Maintenance expense is projected based on historic trends and anticipated activity. These programs include items such as valve operation, hydrant inspections, hydrant flow testing, flushing dead end mains, maintenance of equipment at treatment plants, and maintenance of building and grounds. KAW projects maintenance related expenses to be $1.4 million for the forecast period.

18. Q. HOW ARE DEFERRED MAINTENANCE COSTS DETERMINED FOR THE FORECASTED TEST-YEAR?

A. Deferred maintenance costs are determined annually during the planning and budgeting process. The production and distribution functions identify which of their anticipated projects may appropriately qualify for deferral treatment. The Engineering group is responsible for developing tank maintenance schedules and cost estimates which are amortized over the fifteen years prescribed by the PSC. The forecast includes $3.0 million of deferred maintenance expenses.

19. Q. ARE THERE OTHER DEFERRED ITEMS INCLUDED IN THE COMPANY'S FILING?

A. Yes. KAW has requested rate recovery of two new items related to the NRW and conservation studies required by the PSC in Case Number 2007-00134 to be amortized over five years. All other deferred items are discussed by Ms. Sheila Miller in her discussion of the rate base elements.

20. Q. HYDRANT INSPECTION WAS REFERENCED EARLIER, AND HYDRANT MAINTENANCE HAS BEEN A TOPIC IN PRIOR PROCEEDINGS. WHAT TYPE OF MAINTENANCE IS ASSOCIATED WITH FIRE HYDRANTS?

A. Each fire hydrant is inspected annually with maintenance performed at that time. Hydrants are tested to ensure that each is operational and to confirm flow rates projected at each hydrant. A KAW technician opens the valve and flows water through the hydrant, as would a fire fighter. The technician visually inspects all parts,

checks for leakage, and confirms that the control valve is fully open and operational. The technician also lubricates threads and moving parts and addresses any minor maintenance issue identified during the inspection. Any additional repair not addressed as part of the inspection is reported for follow up and resolution. Any vegetation growing around the hydrant is removed and the hydrant is cleaned. The results from the flow test (measured in gallons per minute) are then documented. KAW has been providing results from these flow tests to Lexington Fayette Urban County Government officials monthly.

21. Q. HYDRANT PAINTING WAS REFERENCED AS A DEFERRAL PROJECT. PLEASE DESCRIBE WHAT THAT PROJECT ENTAILS.

A. KAW is currently in the process of painting the hydrants in Lexington according to National Fire Protection Association Standard 291. The standard calls for hydrants to be color coded to correspond with the hydrant flow rating. The color coding is intended to aid a fire commander's decision-making process in determining how to best fight a particular fire based on how much water is available at each hydrant near the fire event. The hydrant painting project is expected to be completed before the end of 2008.

22. Q. HOW DOES KAW DETERMINE STAFF REQUIREMENTS?

A. There are several factors considered in determining staffing requirements, foremost being the amount of work that must be accomplished. KAW has continued to experience growth in the number of customers we serve and in facilities installed to serve them, both factors which tend to increase workload. KAW assesses whether the work can be absorbed by existing staff through productivity gains or whether the work load has grown to the degree that requires additional resources. For example, KAW now uses mobile computers installed in vehicles, enabling work to be dispatched electronically and in real time to field technicians. Field technicians begin working immediately from their homes each day, rather than coming into an office to get their daily work, saving time. Various types of field service work orders and

customer appointments are scheduled along the most efficient travel routes, resulting in technicians working more orders per day now than had been the case before mobile computing was in place. The real time capability enables emergency work to be prioritized and reduces rework by ensuring the technician has the most recent information available at the time an order is performed. KAW also assesses whether work might be most effectively performed by KAW staff or by contract vendors. Staff adjustments are made accordingly.

23. Q. DOES KAW PROPOSE ANY STAFF CHANGES FROM PRIOR CASES?

A. Yes. KAW has adjusted staffing levels to address work requirements and currently has 141 employees. KAW anticipates water related staffing requirements will be 144 employees by the end of the forecast period.

24. Q. WHAT HAS KAW DONE TO CONTROL COSTS OF OPERATIONS?

A. KAW routinely reviews expenses as a normal course of business, reviewing expenditures at least monthly, and more often as may be necessary, to ensure that the company is controlling expenses as planned. For example, KAW revisited the issue of uncollectable accounts and implemented a program to reduce the uncollectible amounts that are ultimately spread to all customers. KAW began taking a more active role earlier in the delinquency process. The additional work effort has been successful in reducing uncollectible accounts, reducing the percentage of uncollectable revenue to 0.76% in this rate case from the level of 0.88% approved in the prior case. Technology often plays a role in enabling work to be completed in a more efficient fashion. Examples of technology that help mitigate costs include KAW's use of permalogs for leak monitoring and Automated Meter Reading (AMR) meters, both of which enable an individual to obtain electronic readings while driving by a location. Other efficiency improvement initiatives being considered include expanding the mobile computing capability to include more field operations functions.

25. Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.