MAWC 11

Exhibit No.:	
Issues:	Overview of Relief Requested, Reasons for Request, Public Communications, Community Involvement, Value of Water Service and Water Efficiency
Witness:	Frank L. Kartmann
Exhibit Type:	Corrected Direct
Sponsoring Party:	Missouri-American Water Company
Case No.:	WR-2015-0301 SR-2015-0302
Date:	August 6, 2015

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2015-0301
CASE NO. SR-2015-0302

CORRECTED DIRECT TESTIMONY

OF

FRANK L. KARTMANN

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

IN THE MATTER OF MISSOURI-AMERICAN WATER COMPANY FOR AUTHORITY TO FILE TARIFFS REFLECTING INCREASED RATES FOR WATER AND SEWER SERVICE	)))))	CASE NO. WR-2015-0301 CASE NO. SR-2015-0302

AFFIDAVIT OF FRANK L. KARTMANN

Frank L. Kartmann, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Corrected Direct Testimony of Frank L. Kartmann"; that said testimony was prepared by him and/or under his direction and supervision; that if inquiries were made as to the facts in said testimony, he would respond as therein set forth; and that the aforesaid testimony is true and correct to the best of his knowledge.

Frank L. Kartmann

State of Missouri
County of St. Louis
SUBSCRIBED and sworn to
Before me this 6th **day of** August **2015.**

Donna S. Singler
Notary Public

DONNA S. SINGLER
Notary Public, Notary Seal
State of Missouri
St. Louis County
Commission # 12368409
My Commission Expires July 17, 2016

My commission expires: July 17, 2016

CORRECTED DIRECT TESTIMONY
FRANK L. KARTMANN
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2015-0301
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TABLE OF CONTENTS

CORRECTED DIRECT TESTIMONY
OF
FRANK L. KARTMANN

I. WITNESS INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Frank L. Kartmann, and my business address is 727 Craig Road, St. Louis, Missouri 63141.

Q. WHAT IS YOUR POSITION?

A. I am the President of Missouri-American Water Company ("Missouri-American," the "Company," or "MAWC").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. There are several reasons why I am offering testimony in this case. First, and foremost, as the President of the Company, I will provide an overview of why we are seeking rate relief and will introduce the witnesses who will testify on behalf of the Company. Second, I want to discuss the value of water service – the service that we provide – and the contribution that Missouri-American makes to the State of Missouri in providing these critical services that are vital to our customers' health, welfare and economic well-being. Third, and critically, it is equally important that the Missouri Public Service Commission ("Commission") understand the ways that Missouri-American is improving the efficiency of the services it provides to its customers in this State and how our ratemaking proposals in this case are intended to incentivize the more efficient use of

water and investment in our system.

Q. WHAT WITNESSES WILL TESTIFY ON BEHALF OF THE COMPANY AND WHAT SUBJECTS WILL THEY ADDRESS?

A. In addition to my testimony, our witnesses are:

Philip C. Wood: will testify on Missouri-American's operations, staffing levels, and compensation program; the Company's efforts and investments to improve water efficiency and performance measurements.

Kevin H. Dunn: will testify about the Company's overall approach to capital management and the Company's capital investments since the last rate case, upcoming capital needs, the retirement of the Platte County Water Treatment facility prior to the end of its book life, and the request to establish an Environmental Cost Adjustment Mechanism (ECAM). Finally, Mr. Dunn will also testify to the declining water usage trend we have been experiencing for at least the past two decades as well as residential demand forecasting.

Gregory P. Roach: will testify about the general decline in water usage per customer, explain why that trend has occurred and is expected to continue, and propose a solution for the annualization of customer usage in the determination of rates.

Jeanne M. Tinsley: will testify about the Minimum Filing Requirements ("MFRs"), proposed rate schedules and tariffs, , the Company's proposed revenue stabilization mechanism (RSM), Revenues at Present

		Rates, Revenue Adjustments, various adjustments to our pro forma results of operations.
	Gary M. VerDouw:	will testify on Service Company fees and Business Transformation cost recovery.
	Todd P. Wright:	will testify on rate base items, including utility plant, accumulated depreciation and amortization, contributions and advances, working capital, materials and supplies, prepayments, and deferrals.
	Nikole L. Bowen:	will testify about fuel, power, chemicals, purchased water, rents, and transportation.
	Carl R. Meyers:	will testify about income tax expense and deferred income taxes.
	Scott W. Rungren:	will testify on the recommended capital structure, overall cost of capital, and business and financial risk.
	Dr. Roger A. Morin:	will testify about the Company's recommended cost of equity.
	Karl A. McDermott:	will testify about the benefits of consolidated water and wastewater rate structures.
	Paul R. Herbert:	will testify to a class Cost of Service Study and tariff design, including incorporation of the consolidated tariff pricing concept,
	John J. Spanos:	will testify on our depreciation study and depreciation rates, and
	Robert C. Mustich:	will testify on Missouri-American compensation and benefits program.

Q. WHAT ARE YOUR DUTIES AS PRESIDENT OF MISSOURI-AMERICAN?

A. As President of Missouri-American, I am responsible for all aspects of the Company's

business including financial, operations (production, distribution, customer service, engineering and capital investment planning), employee relations, environmental, and regulatory affairs. In this role, I am ultimately responsible for assuring that the Company is delivering high-quality water and wastewater services to about 1.5 million people throughout Missouri. This responsibility includes ensuring that all activities of the Company are carried out in compliance with local, state and federal laws and regulations, and standards of good business practice.

Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE.

A. From 1989 to 1999, I was employed by St. Louis County Water Company holding a variety of engineering and production operations positions of increasing responsibility. In 1999, I accepted the position of Director-Engineering with Missouri-American upon its acquisition of St. Louis County Water Company and was promoted to the position of Vice President-Engineering in 2000. In 2002, I was promoted to the position of Vice President of Missouri-American. In 2004, I was promoted to American Water Works Service Company, Inc. ("Service Company" or "AWWSC"), Central Region Director-Network. In 2008, I resumed the position of Vice President of Missouri-American. In 2009, I was promoted to President of Missouri-American.

Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL ASSOCIATIONS.

A. I received a Bachelor of Science degree in Secondary Education from the University of Illinois, Urbana-Champaign in 1986, a Bachelor of Science degree in Civil Engineering from the University of Missouri, Rolla in 1989 and a Master of Business Administration

degree from Washington University, St. Louis, Missouri in 1999. I am an active member of the American Water Works Association, National Association of Water Companies, Chairman of the Missouri Energy Development Association and President of the Metro Water Infrastructure Partnership.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. Yes, I testified before this Commission in Case No. WR-2000-281, WO-2002-273, and WR-2003-0500.

Q. PLEASE DESCRIBE THE COMPANY'S OPERATIONS AND THE AREAS IT SERVES.

A. The Company's operations are widely dispersed throughout the State – the Company operates 25 distinct public water systems and 56 distinct public wastewater systems in 24 separate counties and has 18 distinct water and 12 distinct wastewater rate tariffs. From the Company's 11 water treatment plants and 29 well sites, we provide service to approximately 460,000 water customers. Through the Company's 46 mechanical wastewater treatment plants and 10 wastewater lagoons it serves approximately 4,900 wastewater customers. Through its wastewater collection only systems, the Company serves about 8,800 customers in Arnold, Missouri and in its Platte County operation. All these water and wastewater customers are served across more than 156 communities throughout Missouri. Within these distinct systems, the Company operates a total of 119 water storage tanks, 432 pump stations, and over 6,700 miles of water mains, 40 wastewater lift stations, 1,647 wastewater manholes, and 76 miles of wastewater collection system piping.

Q. PLEASE DISCUSS HOW THE COMPANY STAFFS ITS BUSINESS OPERATIONS.

A. We recognize our duty to staff our business in a manner consistent with the provision of safe and adequate utility service. This requires a constant evaluation of the right mix of internal and contract labor, straight time versus overtime, training programs and investment in technology. In this vein, we continue to evaluate costs and expenses going forward, always looking for the best solution for the unique and changing challenges we face. A large portion of our costs is labor. We routinely review the need for positions in our organization and consider whether employees in them should be transferred to other positions or areas, positions should be modified, or positions should be eliminated. Cost control and improved business performance are the goals of these efforts.

Q. PLEASE DISCUSS THE SUPPORT THAT MISSOURI-AMERICAN'S AFFILIATES PROVIDE THE COMPANY.

A. American Water Works Service Company ("AWWSC") provides a wide spectrum of cost-effective, value-added services that enable Missouri-American to fulfill its public utility responsibilities in a more cost effective manner. These services include customer service, water quality testing, innovation and environmental stewardship, human resources, communications, information technology, finance, accounting, tax, legal, engineering, supply chain, and risk management services. AWWSC operates customer service centers in Alton, Illinois and Pensacola, Florida that handle customer calls, billing, and collection activities for Missouri-American and its public utility affiliates. The customer service centers handle customer inquiries and correspondence and process

service order requests. In addition, AWWSC operates two Field Resource Coordination Centers responsible for tracking and dispatching service orders for our field representatives and distribution crews. AWWSC employees have expertise in water quality, testing, compliance and treatment. AWWSC facilitates compliance with environmental laws and regulations, and effective use of natural resources. AWWSC's Information Technology Services provides effective information technology support and solutions that are innovative, flexible, scalable, and secure to meet Missouri-American's business needs through standardized technology and processes. AWWSC also provides a variety of financial and accounting services for the Company, including payroll, human resources data management, utility plant accounting, cash management, general accounting and reporting, accounts payable, tax, and risk management services.

Q. WHAT VALUE DO AWWSC AND OTHER AFFILIATES PROVIDE TO MISSOURI-AMERICAN'S CUSTOMERS.

A. In addition to the reasonably priced services discussed above, there are several other benefits AWWSC provides. One notable example is the AWWSC Innovation Development Program, which consists of an interdisciplinary team of 40 people, including engineers, chemists, microbiologist, and environmental scientists, who evaluate and recommend new technology to enhance operations, support operations with technical, functional expertise and leverage our nationwide physical assets to test and develop new opportunities.

American Water Capital Corp. ("AWCC") provides the Company with short-term loans, long-term borrowings, and cash management services. The Company and its customers

have benefited from interest savings resulting from pooling the capital requirements of the American system subsidiaries through AWCC, through long-term debt issues from AWCC that have been less costly than those available on the private placement market, and through daily cash management capabilities. In addition, the pooling and bidding of the credit lines has lowered the cost for short-term debt, and AWCC's access to commercial paper market has generated additional savings.

II. REASONS FOR RATE RELIEF REQUESTED

Q. WHEN WERE MISSOURI-AMERICAN'S CURRENT RATES APPROVED?

A. The Commission approved Missouri-American's current base rates in its Order issued March 7, 2012, in Case No. WR-2011-0337. Those rates were based on a test year ending December 31, 2010. In contrast, the test year in this case is the 12 months ended December 31, 2014 –four years distant from the test year used to set the current rates.

Q. WHAT AMOUNT OF RATE RELIEF IS THE COMPANY SEEKING IN THIS CASE?

A. Missouri-American is seeking a rate increase to produce additional base rate revenues (including ISRS revenues) of $51,028,321 per year, or a 19.6% increase. Stated differently, we are seeking a rate increase to produce additional revenues (excluding ISRS revenues) of $25,135,659 per year, or a 9.7% increase

Q. HOW WILL MISSOURI-AMERICAN NOTIFY ITS CUSTOMERS OF ITS PROPOSED INCREASE IN RATES?

A. Missouri American Water will notify media outlets of the filing of this petition and post

information on its website.

Q. WHY DOES THE COMPANY NEED TO FILE THIS RATE CASE?

A. We have provided service to our customers for well over 100 years. Our customers rely on the Company to provide them with safe and reliable water and wastewater services. We at Missouri-American take very seriously our obligation to meet our customers' needs and expectations, but these services are not without cost. Providing these services requires us to incur a substantial amount of operational and maintenance (O&M) expense, as well as make ongoing, significant capital investments. This filing reflects that our investments are the main driver of this rate case and that we have effectively reduced O&M expenses over the last four years. It is not possible, however, to meet these requirements without recovery of the costs associated with these necessary expenditures. It is important for a regulated utility to file for rate relief when its ability to earn a fair rate of return is compromised. If the Company's ability to earn a fair return is compromised, then its ability to invest in maintaining and improving the water system is impaired.

In order to continue providing improved water and wastewater services, it is essential for the Company to invest in new technology and to ensure that our existing plant is replaced in a timely manner. These costs will be described in the various testimony provided in this filing. That said, the rate increase requested in this cause is fairly modest considering the substantial investments that we have made over the last four years and are continuing to make in the system.

Q. WHAT ARE THE MAJOR DRIVERS OF THE NEED FOR RATE RELIEF?

A. In her direct testimony, Jeanne Tinsley, the Company's Manager of Rates and Regulation, describes the major drivers of the Company's need for rate relief. Of these drivers, two are by far the most significant from a rate impact perspective in this case - ongoing capital investment and revenue loss arising from declining usage.

The Company's levels of ongoing capital investment are significant. We anticipate that by January 31, 2016, the Company will invest more than $436 million in capital improvements since the last rate case without realizing any capital cost recovery or depreciation expense on $215 million in capital investment, which represents the non ISRS qualified investments during this time. Ongoing capital investment, together with the erosive impact of past and projected declines in customer usage, accounts for approximately 4% of the Company's requested increase. Ms. Tinsley's testimony shows that the current ratemaking structure is not well adapted to a declining usage, no growth, high investment utility environment. If the Company is to have a fair and reasonable opportunity to earn its authorized revenue requirement, that structure must be adapted to the Company's circumstances.

Q. ARE YOU SAYING THAT THIS CASE IS FUNDAMENTALLY ABOUT INVESTMENT IN INFRASTRUCTURE?

A. Yes, that is exactly what I'm saying - with the corollary that this case is not about increased O&M expense. Rate increases are generally driven by O&M expense increases, increases in investment, and changes in revenue, both positive and negative. Here, the evidence will show that our efforts to slow and mitigate cost increases have been very

successful. We have been able to do so, in part, by prudent investments in ways that permit us to work smarter and more efficiently. At the same time, we need to upgrade and replace our systems and infrastructure that are at the end of their useful life - which also requires significant capital expenditures. This rate case reflects an increase of $436 million in utility plant investments made since the last general rate case.

Over the same period of time, Missouri-American's O&M expenses actually have *decreased* as compared to the amounts recognized in the last general rate case. I cannot over-emphasize this point. Total O&M expenses in the test year ending December 31, 2014 are about $7.1 million *less* than they were in 2010 (offset by $3.6M of new O&M costs related to acquisitions since the last rate case), which was the last general rate case test year. This savings in O&M costs offsets some of the revenue requirement requested for capital additions in this cause. The CPI adjusted expense reduction over this time was more than $12 million.

Phil Wood's testimony shows that the Company's focus on cost reduction has been paying off for customers. In the Company's 2009 Rate Case, (Case No. WR-2010-0131), the increase in revenue requirement associated with operating expenses stood at 20.9%, while in the 2011 Rate Case (Case No.WR-2011-0337), the comparable number was 25.9%. In our current rate filing, the equivalent is now 1%, with fully 99% of the proposed increase being driven by the revenue requirement associated with needed capital expenditures to improve our system reliability, safety, water and wastewater quality, meet environmental regulatory compliance requirements and system resiliency.

Reducing the Company's operating expense, which mitigates the rate impact of our capital additions, has been accomplished despite increasing our investment in our water and wastewater systems. We are putting more Missourians to work and still finding ways to control costs. What this means is that our employees have been able to "do more with less" by working smarter. These are very significant accomplishments. We are justifiably proud of the fact that we have contained and reduced costs and hope the Commission will recognize that achievement when setting rates.

We believe that efficient utilities should receive rates of return at the higher end of the range of reasonableness, and we think that a $7.1 million *decline* in O&M expenses is proof-positive of our efficiency at MAWC. As I said, capital investment and declining consumption are the primary drives for the Company's increased revenue requirement in this case. Here too, however, the Company has played a role in the conservation that produced some of that declining revenue through its customer education to promote the efficient use of water. It would be inequitable if the Company were to be penalized for its conservation and public awareness efforts by a failure to recognize the lost revenue due to conservation.

Q. HOW DOES THE RESPONSIBILITY TO PROVIDE SAFE AND RELIABLE WATER AND WASTEWATER SERVICE AFFECT THE NEED TO INCREASE RATES?

A. It is important to sustain an appropriate level of investment to maintain and improve our water and wastewater systems. Compared with other utilities, water and wastewater utilities are the most capital intensive utilities in the industry. According to AUS Utility

Reports (May 2010), the water industry is three times more capital intensive than the gas industry and nearly twice as capital intensive as electric utilities. While revenues per customer are decreasing, the nature of water utility investment has shifted from plant needed to serve new customers to non-revenue producing investments - improved leak detection, infrastructure replacement and repair, and environmental compliance. The best way to ensure that the appropriate levels of expenditures and capital investment are consistently funded is through predictable and timely recovery of expenses and the return on the capital devoted to serving our customers' needs. The timely cost recovery of these expenditures in turn provides an incentive for continued capital infusion by the investors who are called upon to put their capital at risk for our customers. While timely cost recovery remains a challenging proposition in Missouri's historic test year regulatory environment, ISRS has helped to reduce some of the regulatory lag that is otherwise present. Investors' willingness to commit their capital to our company results in stronger and more reliable water and wastewater systems for both current and future customers. In spite of Missouri's status as a historic test year state, the willingness on the part of investors has been strengthened and enhanced and recognizes the recovery of prudent costs for investments through a predictable regulatory environment in which regulatory lag has been reduced at least on ISRS qualified investments.

Q. DESPITE THESE CHALLENGES, IS THE COMPANY WELL POSITIONED TO ADDRESS THE STATE'S WATER INFRASTRUCTURE NEEDS?

A. Yes, it is. There are all types of infrastructure needs in Missouri. The state's aging infrastructure needs to be replaced and upgraded - roads, bridges, airports, water, and

sewer infrastructure to name a few, but we cannot depend on the government to supply all of the needed capital. Water and wastewater utilities are an integral part of the state's infrastructure investment challenges.

Attracting private capital is essential to help finance water and sewer infrastructure projects. Moreover, attracting private capital depends upon predictability. A project that is completed and put into service, and is supported by thoughtful and prudent consideration and study, needs to be included in rate base so the Company can recover its capital costs in a timely fashion from the time the project begins to serve the customer.

Q. IF THE COMPANY'S RATES DO NOT PROVIDE FOR TIMELY RECOVERY OF ITS APPROPRIATE COSTS, WOULD THERE BE AN ADVERSE IMPACT ON THE SYSTEM?

A. Yes. The inability of a utility to recover expenses and capital investment in a timely manner will erode the utility's ability to properly serve its customers over time. There are, however, additional methods of rate recovery, as proposed in this filing, that can benefit the customer and provide timely recovery of some expenses and investments.

Q. IS THAT ONE OF THE REASONS WHY THE COMPANY HAS ASKED THE COMMISSION TO APPROVE A REVENUE STABALIZATION MECHANISM?

A. Yes, it is. The best way to ensure that appropriate levels of capital investment are consistently and appropriately funded is through predictable and timely recovery of investments, meaningful recognition of revenue trends, and the return on the capital devoted to serving our customers' needs.

Most of a water utility's costs are fixed, recovering investments in pipes, treatment plants and other equipment, while most water revenue is variable, collected through volumetric rates charged on a per-gallon basis. Traditional utility regulation was developed in the growth years in the United States following World War II. This was a time when very few rate cases were filed because revenue growth outstripped the growth of expenses and the required return on investment. Furthermore, economies of scale permitted investments to be made relatively inexpensively to accommodate the expected growth at little extra cost. As a result, conventional regulation helped to finance investment and cover inflation-driven expense increase where the utility's revenue growth exceeded increases in its costs.

With the advent of the energy shortages of the 1970s, a new economic calculus began to emerge. Today, with static or declining per customer consumption and revenue declining due to conservation largely driven by nationwide efficiency standards, the economic and environmental policy landscape is driving the need for adjustments to the traditional regulation that was developed in a growth environment. People still buy new appliances and fixtures, but due to federal mandates, those new appliances now use less energy and water than those they replace.

While a historic test year relying on volumetric sales might have been appropriate when the growth in usage and customers counter-balanced the growth in investment, this situation no longer exists. Today, we see increasing investment amid falling revenue. Missouri-American's revenue for the test year ended December 31, 2014, was $17.6 million less than the $262.0 million of revenue that was authorized in March 2012, by the

Missouri Public Service Commission in the Company's most recent general rate proceeding.[1]

We have a multi-decade-long investment need that is funded up front by shareholders and lenders and recovered from customers over decades; yet most of our revenues are from variable, volumetric sales in a declining use, no growth business environment.[2] Unfortunately, the need to fund these significant, non-revenue producing investments does not decline when customer usage declines. The adoption of an RSM supports more consistent planning and efficient deployment of resources.

III. VALUE OF WATER SERVICE

Q. MR. KARTMANN, IS IT YOUR TESTIMONY THAT THE COMPANY'S CUSTOMERS ARE RECEIVING VALUE FOR THE WATER SERVICE THEY RECEIVE FROM MISSOURI-AMERICAN?

A. Yes, without question, I believe that is the case. I offer the following observations about the value of water:

- Americans have been largely unaware of the true cost of treating and delivering clean, safe potable water to their taps and wastewater to the receiving streams of Missouri. Americans pay less for water – about a penny per gallon on average – than do residents of most other developed nations. Most Missourians served by

[1] Less ISRS surcharge revenue

[2] Because the water and wastewater industry is more capital-intensive than the electric, combination electric and gas, or natural gas utilities, the investment required to produce a dollar of revenue is greater. The water utility industry also experiences lower relative depreciation rates. Given that depreciation rates are one of the principal sources of internal cash flows for all utilities, lower depreciation rates mean that water utility depreciation as a source of internally-generated cash is far less than for electric, combination electric and gas, or natural gas utilities. Water utility assets typically have longer lives and, hence, longer capital recovery periods.

Missouri-American pay about a half penny per gallon. Water is also typically the lowest percentage utility cost per household - less than gas/oil, telephone and electricity.

- The historic under-pricing of water is largely due to a perception that water is "free" – a fundamental human need supplied by the earth itself. No one is charged for taking a bucket of water from a stream or other natural source of supply. At the same time, very few people would drink the water from that bucket or expend the effort to deliver it in sufficient quantity to a desired location. The vast infrastructure required to treat and deliver water that is both safe and reliable, however, is far from free.

- An historic lack of investment in infrastructure has left the nation's vast network of water and wastewater systems in serious disrepair, warranting a D grade from the American Society of Civil Engineers.[3] This is not simply a matter of slowly leaking distribution mains in older neighborhoods -- every two minutes a large water line ruptures in the U.S., resulting in trillions of gallons of water wasted annually and severe economic losses and disruption to businesses.[4]

- The price tag to bring water and wastewater systems up to date in Missouri is projected to be $8.4 billion in drinking water infrastructure needs (based on 2013 data) and $5.2 billion in wastewater infrastructure needs (based on 2008 data), over the next 20 years.[5] Because the majority of infrastructure funding comes from revenues generated by pricing, it will take a significant shift, then, in the way water and wastewater service is priced if the U.S. is to continue to meet its infrastructure needs.

[3] American Society of Civil Engineers 2013 Report Card on Infrastructure. http://www.infrastructurereportcard.org/fact-sheet/drinking-water

[4] Duhigg, Charles. "Saving U.S. Water and Sewer Systems Would be Costly," The New York Times. 14 March 2010. http://www.nytimes.com/2010/03/15/us/15water.html

[5] EPA Drinking Water Infrastructure Needs Survey and Assessment

- There are signs of increasing public acceptance of this new water reality. Recent surveys point to changing perceptions of water's worth among consumers and industry alike, as both grow increasingly aware of its critical role in every aspect of life. In 2012, a survey was conducted by Xylem, an affiliate of the water related businesses of ITT Corporation. The survey found that 61 percent of Americans are willing to pay a little more each month to upgrade U.S. water infrastructure. Americans are willing to pay an average of $7.70 more per month, up from $6.20 more per month in 2010.[6] A 2011 survey of water consumers in the St. Louis region, conducted by the ETC institute, at the request of the Metro Water Infrastructure Partnership indicated that 62% of survey respondents thought they "got a good value" for the rates they pay for water and wastewater service.[7]

- When customers appreciate the true value of water, this not only helps water utilities continue to provide customers with safe and clean water, but has the added benefit of encouraging more conservative use and ensuring a sustainable supply for future generations. American Water has joined other water resource companies and organizations in an industry-wide initiative to enhance customer awareness of what is involved in providing quality, reliable water service, and the relative value of that service as part of the Value of Water Coalition.[8] The Coalition's aim is to educate the public on the importance of clean, safe, and reliable water to and from every home and community and to ensure quality water service for future generations. Missouri-American has also undertaken efforts within the state to raise customer awareness of the need to invest in local infrastructure and the fact that a portion of the water bill pays for service reliability. These efforts include developing project signage, educational videos, printed materials, website and social media content, and using both earned and

[6] ITT Value of Water Survey, www.itt.com/valueofwater
[7] *Our Aging Water Infrastructure - The Attributes and Needs of the Water and Wastewater Infrastructure in the Bi-State St. Louis Region , Metro Water Infrastructure Partnership. August, 2014* MWIPartnership.org.
[8] www.thevalueofwater.org

paid media to enhance customer awareness and understanding of the value of water and the need to regularly invest in water infrastructure. In our service territories in the St. Louis region we are also a founding member and active participant in the Metro Water Infrastructure Partnership (MWIP). I am currently the president of this organization. MWIP is a not for profit organization of municipal, water district and investor owned water and wastewater utilities in the St. Louis region dedicated to advancing public conversations about the importance of investing in our region's water and wastewater infrastructure to preserve and protect our environment, public health and safety, local economic vitality and reliable water and wastewater service for future generations.

- The value of water and wastewater service, broadly speaking, is an inextricable part of these conversations and informational and interactive events.

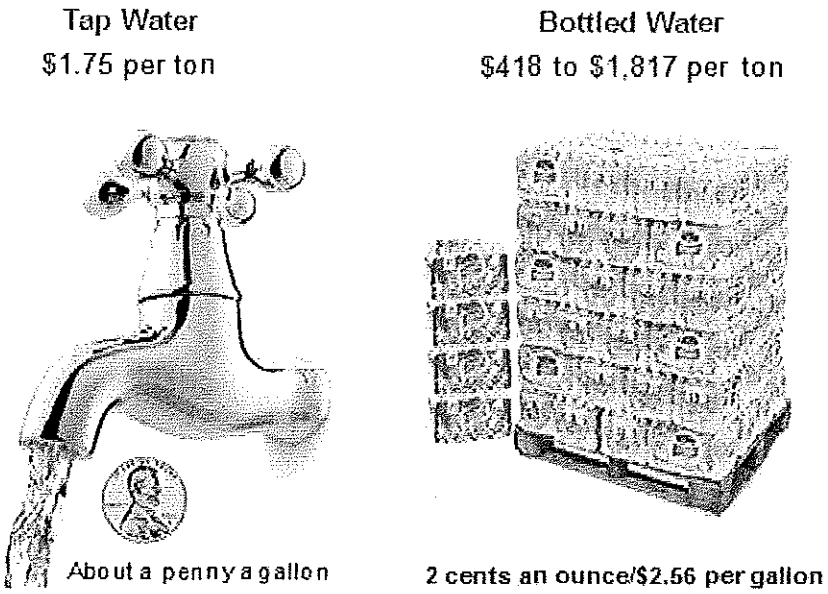
Q. HOW DOES THE PRICE OF WATER COMPARE TO THOSE OF OTHER COMMODITIES?

A. Only three percent of the drinking-quality water that is delivered to American homes is used for drinking on a typical day, while the overwhelming majority of it goes to washing clothes and dishes, bathing, flushing, watering lawns and gardens and other uses.[9] Yet, the average household pays only about $523 for a year's worth of water service – covering all of these uses – compared to $707 just for the soft drinks and other beverages they consume.[10]

For many Americans, bottled water is perceived to have a greater value than tap – a result of successful marketing strategies and a price tag that, depending on the brand, is 250 to

[9] "Only Tap Water Delivers," American Water Works Association. http://drinktap.org/consumerdnn/Portals/0/pdf/ConsumerSheet%20-%20Quality%20of%20Life.pdf
[10] http://water.epa.gov/infrastructure/sustain/Water-and-Wastewater-Pricing-Introduction.cfm

10,000 times more expensive than tap water.[11] Sales of bottled water tripled from the 1990s to the 2000s, despite the reality that the source of 25 to 40 percent of bottled water sold in the U.S. is tap water. What's more, the 60 to 75 percent of bottled water that is not sourced from tap has a potentially bigger downside: FDA standards regulating bottled water are far less rigorous than those set by the EPA, which governs tap water. Moreover, because bottled water is typically packaged in plastic containers, it has a deleterious effect on the environment; an effect that we do not create.



Water utilities deliver up to a ton (240 gallons) of water to a family of four each day. Put another way, an annual residential bill of $523 equates to just $1.43 per day. Therefore, for just $1.43, an average residential customer has all the water he or she and their family choose to drink, cook with, wash with, garden with, etc. This is about the price of a cup

[11] Standage, Tom. "Bad to the Last Drop." The New York Times. 1 August 2005.

of coffee. It is hard to imagine a better bargain.

When one considers the average amount that Americans spend on just soft drinks and other beverages, the value of our water service – for all the water a family needs to drink, cook with, wash with, and for many other purposes – is an outstanding bargain. In addition, water and wastewater service is typically the lowest percentage utility cost per household; of the total utility charges, water and wastewater together are, on average, only 12 percent of a household's utility budget, compared to gas/oil at 18 percent, telephone at 33 percent and electricity at 37 percent.[12]

The previously mentioned 2012 survey of American voters by Xylem Corporation, also found that 69 percent admit that they take access to clean water for granted. A 2011 survey of water consumers in the St. Louis region, conducted by the ETC institute, at the request of the Metro Water Infrastructure Partnership indicated that 65% of survey respondents thought that aging water and wastewater infrastructure in the bi-state St. Louis region will become a problem over the next five to ten years. 79% of the respondents felt it was either very important or important that investments are made to improve water mains and sewer pipes in the region.[13]

Q. YOU MENTIONED THAT CUSTOMERS MAY NOT BE AWARE OF THE THINGS THAT MUST BE DONE TO PROVIDE THEM WITH HIGH QUALITY, ABUNDANT SUPPLIES OF WATER. PLEASE DESCRIBE THOSE THINGS.

[12] 2011 Bureau of Labor Statistics; assumes four person household.
[13] ITT Value of Water Survey, www.itt.com/valueofwater

A. The water infrastructure system is deceptively straightforward. From source to tap, water travels through three main channels: the source of supply pumping station, the treatment facility, and the distribution system. After raw water is pumped from its source, it is sent to a treatment facility. As I mentioned earlier in my testimony, Missouri-American operates 11 water treatment plants. These plants are where water is tested for quality and contaminants and treated to meet or surpass the quality standards set by the EPA and subsequently enforced by the Missouri Department of Natural Resources. Impurities, and excess minerals are removed or treated through a combination of chemicals, a progression of filtration materials, with filtered water being disinfected as a final protection for consumers. Treatment facilities must keep pace with increasingly stringent EPA regulations, and the introduction of new contaminants into the water supply, in order to meet the specific consumption and quality needs of the communities they serve. Each pumping station serves one of two primary purposes. The first is to extract raw (untreated) water from a source – whether an underground aquifer, stream, river or reservoir – and deliver it through the use of pressure to a treatment facility. The second is to transport the water from the treatment facility to the distribution system that ultimately delivers the water to the customer's home or business. Usually situated above ground, the pumping station moves water 24 hours a day using appropriately sized pumps, pipes and a power source to drive the pumps. This sophisticated equipment requires regular maintenance and upgrades.

The treated water then enters the distribution system – the network of pipes that delivers water across vast expanses to homes, businesses, industrial plants and a multitude of

other destinations. Missouri-American has over 6,700 miles of transmission and distribution mains. In order to ensure that adequate water is delivered where it needs to go, engineers run computer simulations of the hydraulic activity of the water to determine proper pressure, pipe sizing and other factors (a fire hydrant, for example, will require different flow and pressure characteristics and larger piping than will water for residential use).

Q. IS MISSOURI-AMERICAN'S RATE OF INFRASTRUCTURE REPLACEMENT A CONCERN FOR THE COMPANY'S ABILITY TO CONTINUE TO PROVIDE A HIGH VALUE WATER SERVICE?

A. Yes, it is, but we are not alone -- the state of infrastructure in America's water supply systems is less than satisfactory.[14] In many cases, pipes intended to provide effective service for 50 to 75 years have been in service for more than 100 years. To bring the country's water and wastewater systems up to date will require a projected $1 trillion investment over the next 20 years, a price tag that will necessarily be shared by the consumer.

Q. HOW DO THESE NATIONAL CIRCUMSTANCES COMPARE TO THE REST OF THE WORLD?

A. As a percentage of household income, the U.S. Environmental Protection Agency reports that U.S. residents pay less for water and wastewater services than do residents of most

[14] The American Society of Civil Engineers has rated the state of U.S. water and wastewater systems a D in its 2013 Report Card on Infrastructure. Source: American Society of Civil Engineers 2013 Report Card on Infrastructure. http://www.infrastructurereportcard.org/fact-sheet/drinking-water

other developed countries. The Executive Summary of the World Water Development Report made a similar finding in 2001, ranking the U.S. fourth lowest in water pricing per cubic meter (264 gallons) among developed nations.[15]

Because the majority of water funding comes from revenues generated by pricing, it will take a significant change, then, in the way water is priced if the U.S. is to continue to meet its infrastructure needs. Water pricing must cover the full costs of treatment and delivery to consumers, including costs related to building, operating and maintaining and replacing water systems – in other words, the true value of the service we provide. The need for full-cost pricing was also underscored in The Johnson Foundation at Wingspread's "Charting New Waters: A Call to Action to Address U.S. Freshwater Challenges"[16] – the result of a two-year collaboration of U.S. businesses, farmers, environmental not-for-profits, and government agencies to explore solutions to an impending freshwater crisis. "For too long, our society has treated water as a cheap, non-strategic and infinitely available resource. Not anymore," said S. Curtis Johnson, chairman of Diversey, Inc. and a co-signer of the call to action. "Threats to water quality and access are putting our businesses, communities and way of life in jeopardy. The time to act is now." Stressing that reliable freshwater supplies are essential to U.S. economic security, the report called for, among other actions, a better accounting of the full cost of services delivered by municipally owned water and wastewater utilities and the sharing of

[15] "Executive Summary of the World Water Development Report," Watertech online, 2001. http://unesdoc.unesco.org/images/0012/001295/129556e.pdf

[16] "Charting New Waters: A Call to Action to Address U.S. Freshwater Challenges," The Johnson Foundation at Wingspread. http://www.johnsonfdn.org/chartingnewwaters

that information with consumers. "Revised pricing structures that more accurately reflect the full cost of services could be one step toward financing badly needed upgrades to U.S. water and wastewater systems." Along these lines, it is critical to ensure that the price of water reflects the cost of providing that water.

Q. ARE INVESTOR OWNED WATER UTILITIES POSITIONED TO ADDRESS THE NEEDS OF THE WATER UTILITY INDUSTRY?

A. Yes. We have all sorts of infrastructure needs in this country - things that have been around for years that need to be replaced and upgraded - roads, bridges, levees, water and wastewater infrastructure. States and municipalities typically fund a significant portion of infrastructure spending, but we cannot depend on the government to supply all of the capital that will be needed. We need to attract as much private capital as possible to support our infrastructure investment needs so that government capital can concentrate on those areas where there is very little direct private investment - such as roads, bridges, schools, etc. Water and wastewater utilities are an integral part of our country's infrastructure investment solutions. Attracting private capital is essential to help finance water and wastewater infrastructure projects. Moreover, private capital depends upon predictability. If we put a project in service, and it is supported by thoughtful and prudent consideration and study, then it needs to be included in our rate base where it can earn a return in a timely fashion.

Q. IS THE VALUE OF WATER SERVICE A SUBJECT THAT THE COMMISSION SHOULD CONSIDER WHEN EVALUATING THE VARIOUS ELEMENTS OF THE COMPANY'S RATE FILING?

A. Yes, it should be a critical element of the Commission's evaluation of our request. The choice throughout history to under-price the treatment and delivery of clean, safe water to American households has resulted in a perception that this vital resource is both plentiful and cheap. At the same time, illustrating the real-life consequences of ignoring the adage "an ounce of prevention is worth a pound of cure," an historic lack of infrastructure investment across all levels of government has left the nation's water systems in a serious state of disrepair.

There are encouraging signs that the tide is turning, evidenced by a recent wave of infrastructure stories in the national media, the introduction of bipartisan legislation (the Sustainable Water Infrastructure Investment Act of 2011) that would free up billions of private capital dollars for investment in the nation's water infrastructure; and a call for water infrastructure investment by the U.S. Conference of Mayors. Full-cost recovery and appropriately designed pricing will not only help water utilities continue to provide customers with safe and clean water but will have the added benefit of encouraging more conservative use, ensuring a sustainable supply for future generations.

IV. WATER EFFICIENCY

Q. PLEASE EXPLAIN THE CONCEPT OF WATER EFFICIENCY.

A. Water efficiency means using improved practices and technologies to deliver water service more efficiently. For example, improved metering results in more accurate usage information and increases employee efficiency. Leak detection programs can reduce the amount of water, pressure, and energy required to deliver the same amount of water to

consumers' taps. Improving water efficiency reduces operating costs (e.g., pumping and treatment) and reduces the need to develop new supplies and expand our water infrastructure. It also reduces withdrawals from limited freshwater supplies, leaving more water for future use and improving the ambient water quality and aquatic habitat. Missouri-American's water efficiency efforts include supply-side practices, such as more accurate meter reading and leak detection, leak surveys, main replacement and repair programs, as well as demand-side strategies, such as rate design and public education programs to encourage the wise use of water. Water efficiency saves customers money in the long run, protects the environment, supports integrated resource planning, and enhances the economy.

Q. HOW IS THE CONCEPT OF WATER EFFICIENCY RELEVANT TO THIS CASE?

A. Water efficiency is the thread that runs throughout the entire fabric of this case. At its core, this case is about investments that Missouri-American Water is making to better serve our customers. Those investments include main and service replacements to provide a better, more reliable system. They include the foundational technology investments in the Business Transformation program ("BT") that will enable us to fundamentally change the way we are doing business. They include investments in new metering and innovative data collection technologies that will help us work smarter and more efficiently.

This case reflects the changes to the way we do business to improve water efficiency. Missouri-American continually strives to develop and implement water efficiency

measures that deliver steady or improved levels of service to consumers while mitigating cost increases. By reducing the layers of the organization and increasing the spans of control, we have reduced costs and improved internal communication. We leverage the size and scale of American Water to improve transactional efficiencies through increased automation, the adoption of more effective business processes, and a continuous improvement mindset.

Finally, our rate design proposals are intended to provide incentives for the more efficient use of water and investment in our system. Their purpose is to identify the appropriate price of water service and provide a rate structure that is consistent with that goal. In summary, the entirety of our case is driven by the efficient provision and use of our water service.

Q. WHAT IS THE COMPANY'S ULTIMATE GOAL?

A. Our goal is to provide quality water and wastewater services as efficiently as possible, and by doing so, to increase the value of the services that we provide our customers. We challenge ourselves to build a culture of continuous improvement and excellence as a way of providing a path for sustainability. As the President of Missouri-American, I derive great satisfaction from seeing this commitment across the business to continuous improvement to benefit our customers and shareholders.

Operational Efficiency

Q. PLEASE DESCRIBE SOME OF MISSOURI-AMERICAN'S EFFORTS TO IMPROVE MANAGEMENT EFFICIENCY.

A. The Company continually strives to find more efficient and cost effective ways to operate and maintain its business. As part of that effort, we strive to manage our cost structure as efficiently as possible. Missouri-American uses various operational and efficiency reviews to further focus on improving customer service and efficiency of production and field operations. Through the size and breadth of American Water, Missouri-American has continued to increase its purchasing power and obtain significant discounts on the necessary equipment needed to manage and maintain our system – including pipes, meters, fittings, and water treatment chemicals - that we otherwise would be unable to obtain were we a separately owned water system. Over the last few years Missouri-American has reduced the number of employee positions in its organization by 94 (or more than 12%) as a result of process improvements, technology deployment, job consolidation, selective outsourcing and organizational streamlining. These changes were made almost completely through attrition, minimizing impact to employees. It is important to recognize as well that efficiencies such as these position reductions have been accomplished over the same period we have been growing our operations through the acquisition of 5 water and 5 wastewater systems. Our intense focus on expenses produces direct benefits to our customers. MAWC is continually evaluating the cost of doing business. These efforts will provide future efficiencies for the Company and its customers, which mitigates cost increases and results, over time, in less frequent rate cases. Phil Wood, Missouri-American's Vice President of Operations, provides some details of these cost control measures in his Direct Testimony.

Q. WILL YOUR ON-GOING REVIEW OF EXPENSES RESULT IN A DECREASE

IN EMPLOYEE HEADCOUNT FOR MISSOURI-AMERICAN?

A. Not necessarily. The purpose of an ongoing review is not specifically to reduce headcount. The intention is to improve efficiencies and customer service, and to control cost to our customers. The Company continues to evaluate the total number of employees needed to properly manage its operations in the most efficient manner practicable.

Q. DOES THE COMPANY INVEST IN ITS EMPLOYEES, AND DO THOSE INVESTMENTS YIELD EFFICIENCIES?

A. Yes. The Company emphasizes continuing employee development, and our Continuous Improvement training program has created ascertainable benefits for our customers. When practiced as a management system, the principles of Six Sigma and Lean are a high performance system for executing business strategy. We have trained 154 employees on the principles of LEAN and Six Sigma, and they have earned their yellow belts. We have found that the results of applying Six Sigma principles- added value, efficiency, elimination of errors and waste have led to many examples of reduced expense, capital avoidance, improved process efficiency, and error reduction in the Company's operations. These improvements can be expected to help control costs, now and in the future. The Six Sigma management system drives clarity around the business strategy and the metrics that most reflect success with that strategy. It provides the framework to prioritize resources for projects that will improve the metrics, and it leverages leaders who will manage the efforts for sustainable and improved business results.

Q. HOW HAS MISSOURI-AMERICAN'S CUSTOMER SERVICE BEEN

AFFECTED BY THESE EFFORTS?

A. There is thoughtful consideration of how customer service may be affected by any decisions or actions taken in altering the manner in which our utility is operated. Our customer call volume and quarterly customer survey satisfaction results are closely monitored to detect any negative trends in service and general satisfaction quality.

Capital Investment

Q. PLEASE DESCRIBE THE COMPANY'S ONGOING MAIN REPLACEMENT PROGRAM.

A. Missouri-American, through comprehensive capital planning, continues to make the necessary investments in developing and maintaining adequate sources of supply, treatment, pumping, transmission and distribution facilities, as well as to comply with applicable environmental laws and regulations. "Adequate," however, may not be "optimal." For example, it may be "adequate" to replace our distribution system infrastructure as it breaks, but "optimal" is needed to accelerate our infrastructure replacement rate to more closely match the estimated useful life of the respective assets.

As explained in Mr. Dunn's testimony, our current capital investment on main replacement is approximately $73 million annually. In the last 3 years ending December 31, 2014, we will have replaced, on average, 57 miles of water main per year or approximately 0.85% of the entire system annually. At this funding level, we have been able to provide direct employment to approximately 200 contractor employees in addition

to approximately 100 employees of our own workforce. Prior to the Infrastructure System Replacement Surcharge (ISRS) mechanism, water main replacement investment was about $7 million per year. As explained in Mr. Dunn's testimony, for Missouri-American to achieve the 100-year main replacement schedule or 1% annually, capital expenditures must increase by approximately $13 million annually.

Q. ARE UNDERGROUND TRANSMISSION AND DISTRIBUTION INFRASTRUCTURE THE ONLY SYSTEM COMPONENTS FOR WHICH CAPITAL INVESTMENT CAN PRODUCE COST SAVINGS?

A. No. The Company also considers the nexus between the electric and water sectors as it thinks about efficiencies, reducing water loss is only part of those considerations. The electric and water sectors are closely aligned: energy extraction and production require a significant amount of water, while the treatment and delivery of water and wastewater services requires a significant amount of energy, representing about four percent of all U.S. energy consumption each year.[17]

In his testimony, Mr. Wood also highlights areas in addition to "pipe in the ground" in which Company investments will pay dividends for customers. MAWC has undertaken efforts to enhance water and energy efficiency by replacing outdated water pumps, installing solar panels at pumping stations and streamlining other processes.

The benefits of MAWC improving energy efficiency programs are three-fold. They

[17] As evaluated by the American Society of Civil Engineers in its 2013 Report Card on U.S. Infrastructure, that share could rise significantly as a result of the antiquated and inefficient nature of U.S. water and wastewater infrastructure.

benefit water companies by providing us with an opportunity to expand our energy efficiency efforts. They reduce operating costs through reduced energy consumption so we can deliver water at lower prices to our customers while at the same time reducing carbon emissions.

Q. PLEASE DISCUSS SOME OF MISSOURI-AMERICAN'S OTHER KEY INVESTMENT IN IMPROVED TECHNOLOGIES AND PRACTICES.

A. American Water's Business Transformation ("BT") program and Fathom are critically important investments. As Mr. Wood explains in his Direct Testimony, our new integrated information technology systems provide a platform for connecting people, processes, assets, and industry-based knowledge, and encompass more than technology replacements — they enable us to change how we manage our business.

Q. PLEASE PROVIDE A BRIEF OVERVIEW OF MISSOURI-AMERICAN'S BUSINESS TRANSFORMATION PROGRAM.

A. American Water undertook the Business Transformation program to update and modernize its business processes and information technology systems. The scope of the BT program includes a range of the Company's core functional areas, including: human resources, finance and accounting, purchasing and inventory management, capital planning, cash management, and customer and field services. Although the BT investment was absolutely needed to replace legacy systems near the end of useful lives, the program also promotes operating excellence, efficiency, and economies of scale as it enhances the customer experience. Investing in the BT program and its enterprise management capabilities is exactly what other responsible, forward-looking companies

and governments in America are doing to work smarter and better.

Customer Efficiency

Q. IN SPITE OF NOT PRESENTLY HAVING AN RSM ARE THERE ANY MEASURES YOU TAKE TODAY TO ENCOURAGE CUSTOMERS TO USE WATER EFFICIENTLY?

A. Yes, MAWC offers several programs that encourage customers to use water efficiently. Our website home page has a link to water saving information and we provide information on social media, particularly in the summer months.

Q. DO YOU PARTNER WITH OTHER ORGANIZATIONS IN PROMOTING WATER EFFICIENCY?

A. In the St. Louis area, we work with the local Community Action Agency at several community events each year, providing help to their clients in managing their water bills. We promote water conservation at several community events, such as Earth Day celebrations, with materials and interactive activities.

Every year we work with the EPA in promoting "Fix A Leak Week" in February. Our customers receive bill inserts that direct them to additional information on our website. We also promote leak detection and awareness to local media.

In many of our operations, summer water usage increases significantly as a result of lawn irrigation activities. In collaboration with the Soil and Water Conservation District and

the University of Missouri Extension Office, Missouri American Water developed a brochure that promotes water-wise lawn watering. We use this information at community events and as a resource for media and customer inquiries.

Q. ARE THERE ANY OTHER MAWC PROGRAMS THAT PROMOTE WATER EFFICIENCY?

A. Yes, our annual environmental grants program frequently includes funding for programs that promote wise water usage -- from rain gardens to rain barrels. Volunteers at our school outreach program bring interactive activities that engage children in discussions of watershed protection and wise water usage.

Alternative Ratemaking Proposal

Q. WHY ARE YOU PROPOSING A REVENUE STABILIZATION MECHANISM (RSM)?

A. We believe that this alternative regulatory mechanism will both advance the Commission's goals and moderate future rate increases on customers. Currently, the way rates are set, if our water customers use less water, our earnings will decline because our revenues will drop. The idea behind the revenue stability mechanism is that it is inappropriate to "penalize" MAWC for improving water efficiency. Implementation of this alternative regulatory mechanism will remove a disincentive to promote water efficiency and will support earnings that permit continued water efficiency investments. Ms. Tinsley provides further details on this alternative cost recovery mechanism in her Direct Testimony.

Q. PLEASE BRIEFLY EXPLAIN HOW THIS PROPOSED COST RECOVERY MECHANISM AFFECTS CUSTOMERS AND FULFILLS REGULATORY GOALS.

A. As discussed further in Ms. Tinsley's Direct Testimony, declining usage per customer and the resulting reductions in water sales has been a source of fiscal stress for Missouri-American and is a potential disincentive to further investment in efficiency. This problem is exacerbated by the fact that water supply in general is a rising-cost industry. The way regulation can support appropriate levels of expenditures so that necessary capital investments are consistently funded is through predictable and timely rate recovery. That means removing the disincentives to capital investment from the ratemaking process (e.g., via alternative rate mechanisms) and providing regulatory incentives to capital investment (e.g., ISRS). In fact, at its 2013 annual meeting, the National Association of Regulatory Utility Commissioners ("NARUC") adopted a resolution that supports consideration of alternative recovery mechanisms for water and wastewater utilities and identifies the following benefits:

> Alternative regulatory mechanisms can enhance the efficiency and effectiveness of water and wastewater utility regulation by reducing regulatory costs, increasing rates for customers, when necessary, on a more gradual basis; and providing the predictability and regulatory certainty that supports the attraction of debt and equity capital at reasonable costs and maintains that access at all times.[18]

[18] *Resolution Endorsing Consideration of Alternative Regulation that Supports Capital Investment in the 21st Century for Water and Wastewater Utilities* - Sponsored by the Committee on Water, Recommended by the NARUC Board of Directors November 19, 2013, Adopted by the NARUC Committee of the Whole November 20, 2013. (Attached as Petitioner's Exhibit AJD-3)

Ultimately, it is customers who benefit because it allows investor-owned utilities to anticipate a consistency of regulatory oversight necessary to attract capital at lower prices than their unregulated industrial counterparts. With very little variation, the Company's costs do not vary significantly with usage, so a RSM would properly match cost incurrence with cost recovery. For utilities and customers, a price that reflects true costs is a more efficient price, and the proposed RSM would fulfill this goal.

V. AFFORDABILITY

Q. WHAT TARGETED CUSTOMER ASSISTANCE PROGRAMS DOES MISSOURI-AMERICAN CURRENTLY OFFER TO ADDRESS AFFORDABILITY CONCERNS?

A. Missouri-American offers its customers flexible payment arrangements through installment agreements if they are financially able to pay a past due water service bill. A payment arrangement allows Missouri-American customers the opportunity to pay off a past due bill balance to keep utility accounts in good standing. A past due amount is spread out over a specified period of time (monthly or quarterly installments, as the billing frequency dictates), and customers are required to pay the agreed upon monthly or quarterly installment in addition to paying their monthly or quarterly utility charges in full by the bill due date each month or quarter. Paying both the monthly or quarterly installment and current utility charges gives customers extra time to bring their utility account up to date. The length of a payment arrangement can vary and there is no limit to the number of installment agreements available to our customers provided that prior installment agreements terms have been fully met. Missouri-American also has a

customer assistance program, known as H2O Help, funded by company donations and contributions from our customers. The program is administered by local Community Action Agencies.

Q. ARE THERE OTHER OPPORTUNITIES AVAILABLE TO ADDRESS AFFORDABILITY CONCERNS NOT CURRENTLY UTILIZED BY MISSOURI-AMERICAN?

A. Yes, further consolidation of rates of Missouri-American's multiple rate districts (18 water and 12 wastewater) would allow Missouri-American to spread the revenue requirement resulting from capital investment and operating cost equally on a per gallon basis by customer class across all its districts in a common rate tariff group. We have filed our rate case using a consolidated rate structure in which multiple districts are consolidated into common rate tariff groups. Dr. McDermott describes the benefits of consolidated pricing in more detail in his Direct Testimony.

VI. COMMUNITY INVOLVEMENT

Q. PLEASE DESCRIBE MISSOURI-AMERICAN'S OUTREACH EFFORTS IN THE COMMUNITIES THAT IT SERVES.

A. Throughout its 25 county service territory, Missouri-American is considered a responsible corporate citizen, and is known for its community involvement and volunteerism. Our management team encourages and supports our employees and their families in serving as community volunteers. The Company even has goals for its management to ensure that volunteerism is encouraged through regular Company activities. We focus our community investments in four key areas: water and the

environment, water and healthy living, environmental education and community sustainability. We give back to the community by supporting innovative, environmental grant programs that improve, protect or restore drinking water supplies and surrounding watersheds. Firefighter grants support our partnerships with fire service agencies in our communities. We believe in investing in innovative programs that align with our core business of water and wastewater service, and are committed to working with community partners to develop sustainable solutions to local environmental issues. Community outreach activities organized by the Company include: providing free water with a mobile hydration station at community events around the state, participating in and donating to local civic, economic and philanthropic organizations, providing water treatment plant tours and other educational opportunities in partnership with local schools and universities, participating in Earth Day activities, recycling drives and pharmaceutical drop-off programs, to name a few. At numerous community events throughout the year Missouri-American provides instruction on watershed stewardship through its interactive watershed demonstration site that visually shows how proper management practices at home, in a rural environment and in business can protect soil and water resources.

Q. IN WHAT OTHER ACTIVITIES HAS MISSOURI-AMERICAN PARTNERED LOCALLY?

A. Being a good neighbor is part of our mission at Missouri-American. The employees of Missouri-American play an active role in the communities we serve by getting involved in a variety of environmental and educational activities related to water – everything from watershed and river clean-up efforts to school programs focused on drinking water and source water protection. We work with a number of community-based partners

throughout our service areas to positively impact the overall quality of life where our employees and neighbors live and work. It takes more than a one-time grant or volunteer effort to make a lasting difference, so we seek out and support organizations that understand how to best meet the needs of the community. Our participation in activities sponsored by outside organizations include local Chambers of Commerce, local environmental groups, the schools and local United Way organizations in the communities we serve.

Q. WHAT IS THE LEVEL OF EMPLOYEE ENGAGEMENT IN THESE COMMUNITY ACTIVITIES?

We began measuring the number of employees involved in community activities sponsored by the Company several years ago and are very proud to report that in 2007 the number of employees involved was 7 and in 2014 that number had grown to 336 employees. We find that these activities not only support the communities we serve, but also help develop the leadership skills of our employees that will benefit them and the Company as they step into roles of increasing responsibility throughout their careers.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.

Exhibit No.:	
Issues:	Overview of Relief Requested, Reasons for Request, Public Communications, Community Involvement, Value of Water Service and Water Efficiency
Witness:	Frank L. Kartmann
Exhibit Type:	Direct
Sponsoring Party:	Missouri-American Water Company
Case No.:	WR-2015-0301 SR-2015-0302
Date:	July 31, 2015

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2015-0301
CASE NO. SR-2015-0302

DIRECT TESTIMONY

OF

FRANK L. KARTMANN

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

IN THE MATTER OF MISSOURI-AMERICAN WATER COMPANY FOR AUTHORITY TO FILE TARIFFS REFLECTING INCREASED RATES FOR WATER AND SEWER SERVICE	)))))	CASE NO. WR-2015-0301 CASE NO. SR-2015-0302

AFFIDAVIT OF FRANK L. KARTMANN

Frank L. Kartmann, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Direct Testimony of Frank L. Kartmann"; that said testimony was prepared by him and/or under his direction and supervision; that if inquiries were made as to the facts in said testimony, he would respond as therein set forth; and that the aforesaid testimony is true and correct to the best of his knowledge.

Frank L. Kartmann

State of Missouri
County of St. Louis
SUBSCRIBED and sworn to
Before me this 14th day of July 2015.

Donna S. Singler
Notary Public

My commission expires: July 17, 2016

DONNA S. SINGLER
Notary Public, Notary Seal
State of Missouri
St. Louis County
Commission # 12368409
My Commission Expires July 17, 2016

DIRECT TESTIMONY
FRANK L. KARTMANN
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR-2015-0301
CASE NO. SR-2015-0302

TABLE OF CONTENTS

DIRECT TESTIMONY
OF
FRANK L. KARTMANN

I. WITNESS INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Frank L. Kartmann, and my business address is 727 Craig Road, St. Louis, Missouri 63141.

Q. WHAT IS YOUR POSITION?

A. I am the President of Missouri-American Water Company ("Missouri-American," the "Company," or "MAWC").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. There are several reasons why I am offering testimony in this case. First, and foremost, as the President of the Company, I will provide an overview of why we are seeking rate relief and will introduce the witnesses who will testify on behalf of the Company. Second, I want to discuss the value of water service – the service that we provide – and the contribution that Missouri-American makes to the State of Missouri in providing these critical services that are vital to our customers' health, welfare and economic well-being. Third, and critically, it is equally important that the Missouri Public Service Commission ("Commission") understand the ways that Missouri-American is improving the efficiency of the services it provides to its customers in this State and how our ratemaking proposals in this case are intended to incentivize the more efficient use of

water and investment in our system.

Q. WHAT WITNESSES WILL TESTIFY ON BEHALF OF THE COMPANY AND WHAT SUBJECTS WILL THEY ADDRESS?

A. In addition to my testimony, our witnesses are:

Philip C. Wood: will testify on Missouri-American's operations, staffing levels, and compensation program; the Company's efforts and investments to improve water efficiency and performance measurements.

Kevin H. Dunn: will testify about the Company's overall approach to capital management and the Company's capital investments since the last rate case, upcoming capital needs, the retirement of the Platte County Water Treatment facility prior to the end of its book life, and the request to establish an Environmental Cost Adjustment Mechanism (ECAM). Finally, Mr. Dunn will also testify to the declining water usage trend we have been experiencing for at least the past two decades as well as residential demand forecasting.

Gregory P. Roach: will testify about the general decline in water usage per customer, explain why that trend has occurred and is expected to continue, and propose a solution for the annualization of customer usage in the determination of rates.

Jeanne M. Tinsley: will testify about the Minimum Filing Requirements ("MFRs"), proposed rate schedules and tariffs, , the Company's proposed revenue stabilization mechanism (RSM), Revenues at Present

		Rates, Revenue Adjustments, various adjustments to our pro forma results of operations.
	Gary M. VerDouw:	will testify on Service Company fees and Business Transformation cost recovery.
	Todd P. Wright:	will testify on rate base items, including utility plant, accumulated depreciation and amortization, contributions and advances, working capital, materials and supplies, prepayments, and deferrals.
	Nikole L. Bowen:	will testify about fuel, power, chemicals, purchased water, rents, and transportation.
	Carl R. Meyers:	will testify about income tax expense and deferred income taxes.
	Scott W. Rungren:	will testify on the recommended capital structure, overall cost of capital, and business and financial risk.
	Dr. Roger A. Morin:	will testify about the Company's recommended cost of equity.
	Karl A. McDermott:	will testify about the benefits of consolidated water and wastewater rate structures.
	Paul R. Herbert:	will testify to a class Cost of Service Study and tariff design, including incorporation of the consolidated tariff pricing concept,
	John J. Spanos:	will testify on our depreciation study and depreciation rates, and
	Robert C. Mustich:	will testify on Missouri-American compensation and benefits program.

Q. WHAT ARE YOUR DUTIES AS PRESIDENT OF MISSOURI-AMERICAN?

A. As President of Missouri-American, I am responsible for all aspects of the Company's

business including financial, operations (production, distribution, customer service, engineering and capital investment planning), employee relations, environmental, and regulatory affairs. In this role, I am ultimately responsible for assuring that the Company is delivering high-quality water and wastewater services to about 1.5 million people throughout Missouri. This responsibility includes ensuring that all activities of the Company are carried out in compliance with local, state and federal laws and regulations, and standards of good business practice.

Q. PLEASE DESCRIBE YOUR BUSINESS EXPERIENCE.

A. From 1989 to 1999, I was employed by St. Louis County Water Company holding a variety of engineering and production operations positions of increasing responsibility. In 1999, I accepted the position of Director-Engineering with Missouri-American upon its acquisition of St. Louis County Water Company and was promoted to the position of Vice President-Engineering in 2000. In 2002, I was promoted to the position of Vice President of Missouri-American. In 2004, I was promoted to American Water Works Service Company, Inc. ("Service Company" or "AWWSC"), Central Region Director-Network. In 2008, I resumed the position of Vice President of Missouri-American. In 2009, I was promoted to President of Missouri-American.

Q. PLEASE DESCRIBE YOUR EDUCATION AND PROFESSIONAL ASSOCIATIONS.

A. I received a Bachelor of Science degree in Secondary Education from the University of Illinois, Urbana-Champaign in 1986, a Bachelor of Science degree in Civil Engineering from the University of Missouri, Rolla in 1989 and a Master of Business Administration

degree from Washington University, St. Louis, Missouri in 1999. I am an active member of the American Water Works Association, National Association of Water Companies, Chairman of the Missouri Energy Development Association and President of the Metro Water Infrastructure Partnership.

Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?

A. Yes, I testified before this Commission in Case No. WR-2000-281, WO-2002-273, and WR-2003-0500.

Q. PLEASE DESCRIBE THE COMPANY'S OPERATIONS AND THE AREAS IT SERVES.

A. The Company's operations are widely dispersed throughout the State – the Company operates 25 distinct public water systems and 56 distinct public wastewater systems in 24 separate counties and has 18 distinct water and 12 distinct wastewater rate tariffs. From the Company's 11 water treatment plants and 29 well sites, we provide service to approximately 460,000 water customers. Through the Company's 46 mechanical wastewater treatment plants and 10 wastewater lagoons it serves approximately 4,900 wastewater customers. Through its wastewater collection only systems, the Company serves about 8,800 customers in Arnold, Missouri and in its Platte County operation. All these water and wastewater customers are served across more than 156 communities throughout Missouri. Within these distinct systems, the Company operates a total of 119 water storage tanks, 432 pump stations, and over 6,700 miles of water mains, 40 wastewater lift stations, 1,647 wastewater manholes, and 76 miles of wastewater collection system piping.

Q. PLEASE DISCUSS HOW THE COMPANY STAFFS ITS BUSINESS OPERATIONS.

A. We recognize our duty to staff our business in a manner consistent with the provision of safe and adequate utility service. This requires a constant evaluation of the right mix of internal and contract labor, straight time versus overtime, training programs and investment in technology. In this vein, we continue to evaluate costs and expenses going forward, always looking for the best solution for the unique and changing challenges we face. A large portion of our costs is labor. We routinely review the need for positions in our organization and consider whether employees in them should be transferred to other positions or areas, positions should be modified, or positions should be eliminated. Cost control and improved business performance are the goals of these efforts.

Q. PLEASE DISCUSS THE SUPPORT THAT MISSOURI-AMERICAN'S AFFILIATES PROVIDE THE COMPANY.

A. American Water Works Service Company ("AWWSC") provides a wide spectrum of cost-effective, value-added services that enable Missouri-American to fulfill its public utility responsibilities in a more cost effective manner. These services include customer service, water quality testing, innovation and environmental stewardship, human resources, communications, information technology, finance, accounting, tax, legal, engineering, supply chain, and risk management services. AWWSC operates customer service centers in Alton, Illinois and Pensacola, Florida that handle customer calls, billing, and collection activities for Missouri-American and its public utility affiliates. The customer service centers handle customer inquiries and correspondence and process

service order requests. In addition, AWWSC operates two Field Resource Coordination Centers responsible for tracking and dispatching service orders for our field representatives and distribution crews. AWWSC employees have expertise in water quality, testing, compliance and treatment. AWWSC facilitates compliance with environmental laws and regulations, and effective use of natural resources. AWWSC's Information Technology Services provides effective information technology support and solutions that are innovative, flexible, scalable, and secure to meet Missouri-American's business needs through standardized technology and processes. AWWSC also provides a variety of financial and accounting services for the Company, including payroll, human resources data management, utility plant accounting, cash management, general accounting and reporting, accounts payable, tax, and risk management services.

Q. WHAT VALUE DO AWWSC AND OTHER AFFILIATES PROVIDE TO MISSOURI-AMERICAN'S CUSTOMERS.

A. In addition to the reasonably priced services discussed above, there are several other benefits AWWSC provides. One notable example is the AWWSC Innovation Development Program, which consists of an interdisciplinary team of 40 people, including engineers, chemists, microbiologist, and environmental scientists, who evaluate and recommend new technology to enhance operations, support operations with technical, functional expertise and leverage our nationwide physical assets to test and develop new opportunities.

American Water Capital Corp. ("AWCC") provides the Company with short-term loans, long-term borrowings, and cash management services. The Company and its customers

have benefited from interest savings resulting from pooling the capital requirements of the American system subsidiaries through AWCC, through long-term debt issues from AWCC that have been less costly than those available on the private placement market, and through daily cash management capabilities. In addition, the pooling and bidding of the credit lines has lowered the cost for short-term debt, and AWCC's access to commercial paper market has generated additional savings.

II. REASONS FOR RATE RELIEF REQUESTED

Q. WHEN WERE MISSOURI-AMERICAN'S CURRENT RATES APPROVED?

A. The Commission approved Missouri-American's current base rates in its Order issued March 7, 2012, in Case No. WR-2011-0337. Those rates were based on a test year ending December 31, 2010. In contrast, the test year in this case is the 12 months ended December 31, 2014 –four years distant from the test year used to set the current rates.

Q. WHAT AMOUNT OF RATE RELIEF IS THE COMPANY SEEKING IN THIS CASE?

A. Missouri-American is seeking a rate increase to produce additional base rate revenues (including ISRS revenues) of $51,028,321 per year, or a 19.6% increase. Stated differently, we are seeking a rate increase to produce additional revenues (excluding ISRS revenues) of $25,135,659 per year, or a 9.7% increase

Q. HOW WILL MISSOURI-AMERICAN NOTIFY ITS CUSTOMERS OF ITS PROPOSED INCREASE IN RATES?

A. Missouri American Water will notify media outlets of the filing of this petition and post

information on its website.

Q. WHY DOES THE COMPANY NEED TO FILE THIS RATE CASE?

A. We have provided service to our customers for well over 100 years. Our customers rely on the Company to provide them with safe and reliable water and wastewater services. We at Missouri-American take very seriously our obligation to meet our customers' needs and expectations, but these services are not without cost. Providing these services requires us to incur a substantial amount of operational and maintenance (O&M) expense, as well as make ongoing, significant capital investments. This filing reflects that our investments are the main driver of this rate case and that we have effectively reduced O&M expenses over the last four years. It is not possible, however, to meet these requirements without recovery of the costs associated with these necessary expenditures. It is important for a regulated utility to file for rate relief when its ability to earn a fair rate of return is compromised. If the Company's ability to earn a fair return is compromised, then its ability to invest in maintaining and improving the water system is impaired.

In order to continue providing improved water and wastewater services, it is essential for the Company to invest in new technology and to ensure that our existing plant is replaced in a timely manner. These costs will be described in the various testimony provided in this filing. That said, the rate increase requested in this cause is fairly modest considering the substantial investments that we have made over the last four years and are continuing to make in the system.

Q. WHAT ARE THE MAJOR DRIVERS OF THE NEED FOR RATE RELIEF?

A. In her direct testimony, Jeanne Tinsley, the Company's Manager of Rates and Regulation, describes the major drivers of the Company's need for rate relief. Of these drivers, two are by far the most significant from a rate impact perspective in this case - ongoing capital investment and revenue loss arising from declining usage.

The Company's levels of ongoing capital investment are significant. We anticipate that by January 31, 2016, the Company will invest more than $436 million in capital improvements since the last rate case without realizing any capital cost recovery or depreciation expense on $215 million in capital investment, which represents the non ISRS qualified investments during this time. Ongoing capital investment, together with the erosive impact of past and projected declines in customer usage, accounts for approximately 4% of the Company's requested increase. Ms. Tinsley's testimony shows that the current ratemaking structure is not well adapted to a declining usage, no growth, high investment utility environment. If the Company is to have a fair and reasonable opportunity to earn its authorized revenue requirement, that structure must be adapted to the Company's circumstances.

Q. ARE YOU SAYING THAT THIS CASE IS FUNDAMENTALLY ABOUT INVESTMENT IN INFRASTRUCTURE?

A. Yes, that is exactly what I'm saying - with the corollary that this case is not about increased O&M expense. Rate increases are generally driven by O&M expense increases, increases in investment, and changes in revenue, both positive and negative. Here, the evidence will show that our efforts to slow and mitigate cost increases have been very

successful. We have been able to do so, in part, by prudent investments in ways that permit us to work smarter and more efficiently. At the same time, we need to upgrade and replace our systems and infrastructure that are at the end of their useful life - which also requires significant capital expenditures. This rate case reflects an increase of $436 million in utility plant investments made since the last general rate case.

Over the same period of time, Missouri-American's O&M expenses actually have *decreased* as compared to the amounts recognized in the last general rate case. I cannot over-emphasize this point. Total O&M expenses in the test year ending December 31, 2014 are about $7.1 million *less* than they were in 2010 (offset by $3.6M of new O&M costs related to acquisitions since the last rate case), which was the last general rate case test year. This savings in O&M costs offsets some of the revenue requirement requested for capital additions in this cause. The CPI adjusted expense reduction over this time was more than $12 million.

Phil Wood's testimony shows that the Company's focus on cost reduction has been paying off for customers. In the Company's 2009 Rate Case, (Case No. WR-2010-0131), the increase in revenue requirement associated with operating expenses stood at 20.9%, while in the 2011 Rate Case (Case No.WR-2011-0337), the comparable number was 25.9%. In our current rate filing, the equivalent is now 1%, with fully 99% of the proposed increase being driven by the revenue requirement associated with needed capital expenditures to improve our system reliability, safety, water and wastewater quality, meet environmental regulatory compliance requirements and system resiliency.

Reducing the Company's operating expense, which mitigates the rate impact of our capital additions, has been accomplished despite increasing our investment in our water and wastewater systems. We are putting more Missourians to work and still finding ways to control costs. What this means is that our employees have been able to "do more with less" by working smarter. These are very significant accomplishments. We are justifiably proud of the fact that we have contained and reduced costs and hope the Commission will recognize that achievement when setting rates.

We believe that efficient utilities should receive rates of return at the higher end of the range of reasonableness, and we think that a $7.1 million *decline* in O&M expenses is proof-positive of our efficiency at MAWC. As I said, capital investment and declining consumption are the primary drives for the Company's increased revenue requirement in this case. Here too, however, the Company has played a role in the conservation that produced some of that declining revenue through its customer education to promote the efficient use of water. It would be inequitable if the Company were to be penalized for its conservation and public awareness efforts by a failure to recognize the lost revenue due to conservation.

Q. HOW DOES THE RESPONSIBILITY TO PROVIDE SAFE AND RELIABLE WATER AND WASTEWATER SERVICE AFFECT THE NEED TO INCREASE RATES?

A. It is important to sustain an appropriate level of investment to maintain and improve our water and wastewater systems. Compared with other utilities, water and wastewater utilities are the most capital intensive utilities in the industry. According to AUS Utility

Reports (May 2010), the water industry is three times more capital intensive than the gas industry and nearly twice as capital intensive as electric utilities. While revenues per customer are decreasing, the nature of water utility investment has shifted from plant needed to serve new customers to non-revenue producing investments - improved leak detection, infrastructure replacement and repair, and environmental compliance. The best way to ensure that the appropriate levels of expenditures and capital investment are consistently funded is through predictable and timely recovery of expenses and the return on the capital devoted to serving our customers' needs. The timely cost recovery of these expenditures in turn provides an incentive for continued capital infusion by the investors who are called upon to put their capital at risk for our customers. While timely cost recovery remains a challenging proposition in Missouri's historic test year regulatory environment, ISRS has helped to reduce some of the regulatory lag that is otherwise present. Investors' willingness to commit their capital to our company results in stronger and more reliable water and wastewater systems for both current and future customers. In spite of Missouri's status as a historic test year state, the willingness on the part of investors has been strengthened and enhanced and recognizes the recovery of prudent costs for investments through a predictable regulatory environment in which regulatory lag has been reduced at least on ISRS qualified investments.

Q. DESPITE THESE CHALLENGES, IS THE COMPANY WELL POSITIONED TO ADDRESS THE STATE'S WATER INFRASTRUCTURE NEEDS?

A. Yes, it is. There are all types of infrastructure needs in Missouri. The state's aging infrastructure needs to be replaced and upgraded - roads, bridges, airports, water, and

sewer infrastructure to name a few, but we cannot depend on the government to supply all of the needed capital. Water and wastewater utilities are an integral part of the state's infrastructure investment challenges.

Attracting private capital is essential to help finance water and sewer infrastructure projects. Moreover, attracting private capital depends upon predictability. A project that is completed and put into service, and is supported by thoughtful and prudent consideration and study, needs to be included in rate base so the Company can recover its capital costs in a timely fashion from the time the project begins to serve the customer.

Q. IF THE COMPANY'S RATES DO NOT PROVIDE FOR TIMELY RECOVERY OF ITS APPROPRIATE COSTS, WOULD THERE BE AN ADVERSE IMPACT ON THE SYSTEM?

A. Yes. The inability of a utility to recover expenses and capital investment in a timely manner will erode the utility's ability to properly serve its customers over time. There are, however, additional methods of rate recovery, as proposed in this filing, that can benefit the customer and provide timely recovery of some expenses and investments.

Q. IS THAT ONE OF THE REASONS WHY THE COMPANY HAS ASKED THE COMMISSION TO APPROVE A REVENUE STABALIZATION MECHANISM?

A. Yes, it is. The best way to ensure that appropriate levels of capital investment are consistently and appropriately funded is through predictable and timely recovery of investments, meaningful recognition of revenue trends, and the return on the capital devoted to serving our customers' needs.

Most of a water utility's costs are fixed, recovering investments in pipes, treatment plants and other equipment, while most water revenue is variable, collected through volumetric rates charged on a per-gallon basis. Traditional utility regulation was developed in the growth years in the United States following World War II. This was a time when very few rate cases were filed because revenue growth outstripped the growth of expenses and the required return on investment. Furthermore, economies of scale permitted investments to be made relatively inexpensively to accommodate the expected growth at little extra cost. As a result, conventional regulation helped to finance investment and cover inflation-driven expense increase where the utility's revenue growth exceeded increases in its costs.

With the advent of the energy shortages of the 1970s, a new economic calculus began to emerge. Today, with static or declining per customer consumption and revenue declining due to conservation largely driven by nationwide efficiency standards, the economic and environmental policy landscape is driving the need for adjustments to the traditional regulation that was developed in a growth environment. People still buy new appliances and fixtures, but due to federal mandates, those new appliances now use less energy and water than those they replace.

While a historic test year relying on volumetric sales might have been appropriate when the growth in usage and customers counter-balanced the growth in investment, this situation no longer exists. Today, we see increasing investment amid falling revenue. Missouri-American's revenue for the test year ended December 31, 2014, was $17.6 million less than the $262.0 million of revenue that was authorized in March 2012, by the

Missouri Public Service Commission in the Company's most recent general rate proceeding.[1]

We have a multi-decade-long investment need that is funded up front by shareholders and lenders and recovered from customers over decades; yet most of our revenues are from variable, volumetric sales in a declining use, no growth business environment.[2] Unfortunately, the need to fund these significant, non-revenue producing investments does not decline when customer usage declines. The adoption of an RSM supports more consistent planning and efficient deployment of resources.

III. VALUE OF WATER SERVICE

Q. MR. KARTMANN, IS IT YOUR TESTIMONY THAT THE COMPANY'S CUSTOMERS ARE RECEIVING VALUE FOR THE WATER SERVICE THEY RECEIVE FROM MISSOURI-AMERICAN?

A. Yes, without question, I believe that is the case. I offer the following observations about the value of water:

- Americans have been largely unaware of the true cost of treating and delivering clean, safe potable water to their taps and wastewater to the receiving streams of Missouri. Americans pay less for water – about a penny per gallon on average – than do residents of most other developed nations. Most Missourians served by

[1] Less ISRS surcharge revenue

[2] Because the water and wastewater industry is more capital-intensive than the electric, combination electric and gas, or natural gas utilities, the investment required to produce a dollar of revenue is greater. The water utility industry also experiences lower relative depreciation rates. Given that depreciation rates are one of the principal sources of internal cash flows for all utilities, lower depreciation rates mean that water utility depreciation as a source of internally-generated cash is far less than for electric, combination electric and gas, or natural gas utilities. Water utility assets typically have longer lives and, hence, longer capital recovery periods.

Missouri-American pay about a half penny per gallon. Water is also typically the lowest percentage utility cost per household - less than gas/oil, telephone and electricity.

- The historic under-pricing of water is largely due to a perception that water is "free" – a fundamental human need supplied by the earth itself. No one is charged for taking a bucket of water from a stream or other natural source of supply. At the same time, very few people would drink the water from that bucket or expend the effort to deliver it in sufficient quantity to a desired location. The vast infrastructure required to treat and deliver water that is both safe and reliable, however, is far from free.

- An historic lack of investment in infrastructure has left the nation's vast network of water and wastewater systems in serious disrepair, warranting a D grade from the American Society of Civil Engineers.[3] This is not simply a matter of slowly leaking distribution mains in older neighborhoods -- every two minutes a large water line ruptures in the U.S., resulting in trillions of gallons of water wasted annually and severe economic losses and disruption to businesses.[4]

- The price tag to bring water and wastewater systems up to date in Missouri is projected to be $8.4 billion in drinking water infrastructure needs (based on 2013 data) and $5.2 billion in wastewater infrastructure needs (based on 2008 data), over the next 20 years.[5] Because the majority of infrastructure funding comes from revenues generated by pricing, it will take a significant shift, then, in the way water and wastewater service is priced if the U.S. is to continue to meet its infrastructure needs.

[3] American Society of Civil Engineers 2013 Report Card on Infrastructure. http://www.infrastructurereportcard.org/fact-sheet/drinking-water

[4] Duhigg, Charles. "Saving U.S. Water and Sewer Systems Would be Costly," The New York Times. 14 March 2010. http://www.nytimes.com/2010/03/15/us/15water.html

[5] EPA Drinking Water Infrastructure Needs Survey and Assessment

- There are signs of increasing public acceptance of this new water reality. Recent surveys point to changing perceptions of water's worth among consumers and industry alike, as both grow increasingly aware of its critical role in every aspect of life. In 2012, a survey was conducted by Xylem, an affiliate of the water related businesses of ITT Corporation. The survey found that 61 percent of Americans are willing to pay a little more each month to upgrade U.S. water infrastructure. Americans are willing to pay an average of $7.70 more per month, up from $6.20 more per month in 2010.[4] A 2011 survey of water consumers in the St. Louis region, conducted by the ETC institute, at the request of the Metro Water Infrastructure Partnership indicated that 62% of survey respondents thought they "got a good value" for the rates they pay for water and wastewater service.[5]

- When customers appreciate the true value of water, this not only helps water utilities continue to provide customers with safe and clean water, but has the added benefit of encouraging more conservative use and ensuring a sustainable supply for future generations. American Water has joined other water resource companies and organizations in an industry-wide initiative to enhance customer awareness of what is involved in providing quality, reliable water service, and the relative value of that service as part of the Value of Water Coalition.[6] The Coalition's aim is to educate the public on the importance of clean, safe, and reliable water to and from every home and community and to ensure quality water service for future generations. Missouri-American has also undertaken efforts within the state to raise customer awareness of the need to invest in local infrastructure and the fact that a portion of the water bill pays for service reliability. These efforts include developing project signage, educational videos, printed materials, website and social media content, and using both earned and paid media to enhance customer awareness and understanding of the value of water and the need to regularly invest in water infrastructure. In our service

[6] www.thevalueofwater.org

territories in the St. Louis region we are also a founding member and active participant in the Metro Water Infrastructure Partnership (MWIP). I am currently the president of this organization. MWIP is a not for profit organization of municipal, water district and investor owned water and wastewater utilities in the St. Louis region dedicated to advancing public conversations about the importance of investing in our region's water and wastewater infrastructure to preserve and protect our environment, public health and safety, local economic vitality and reliable water and wastewater service for future generations.

- The value of water and wastewater service, broadly speaking, is an inextricable part of these conversations and informational and interactive events.

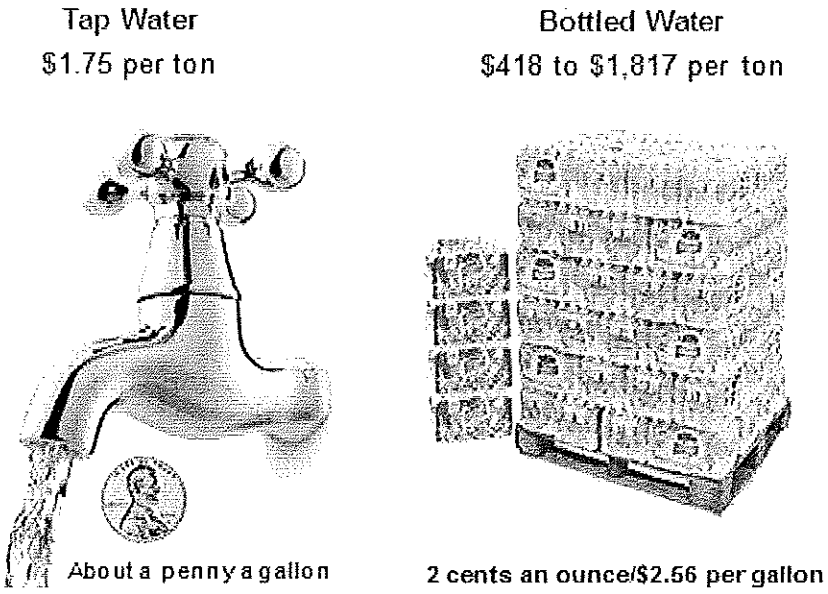
Q. HOW DOES THE PRICE OF WATER COMPARE TO THOSE OF OTHER COMMODITIES?

A. Only three percent of the drinking-quality water that is delivered to American homes is used for drinking on a typical day, while the overwhelming majority of it goes to washing clothes and dishes, bathing, flushing, watering lawns and gardens and other uses.[7] Yet, the average household pays only about $523 for a year's worth of water service – covering all of these uses – compared to $707 just for the soft drinks and other beverages they consume.[8]

For many Americans, bottled water is perceived to have a greater value than tap – a result of successful marketing strategies and a price tag that, depending on the brand, is 250 to

[7] "Only Tap Water Delivers," American Water Works Association. http://drinktap.org/consumerdnn/Portals/0/pdf/ConsumerSheet%20-%20Quality%20of%20Life.pdf
[8] http://water.epa.gov/infrastructure/sustain/Water-and-Wastewater-Pricing-Introduction.cfm

10,000 times more expensive than tap water.[9] Sales of bottled water tripled from the 1990s to the 2000s, despite the reality that the source of 25 to 40 percent of bottled water sold in the U.S. is tap water. What's more, the 60 to 75 percent of bottled water that is not sourced from tap has a potentially bigger downside: FDA standards regulating bottled water are far less rigorous than those set by the EPA, which governs tap water. Moreover, because bottled water is typically packaged in plastic containers, it has a deleterious effect on the environment; an effect that we do not create.



Water utilities deliver up to a ton (240 gallons) of water to a family of four each day. Put another way, an annual residential bill of $523 equates to just $1.43 per day. Therefore, for just $1.43, an average residential customer has all the water he or she and their family choose to drink, cook with, wash with, garden with, etc. This is about the price of a cup

[9] Standage, Tom. "Bad to the Last Drop." The New York Times. 1 August 2005.

of coffee. It is hard to imagine a better bargain.

When one considers the average amount that Americans spend on just soft drinks and other beverages, the value of our water service – for all the water a family needs to drink, cook with, wash with, and for many other purposes – is an outstanding bargain. In addition, water and wastewater service is typically the lowest percentage utility cost per household; of the total utility charges, water and wastewater together are, on average, only 12 percent of a household's utility budget, compared to gas/oil at 18 percent, telephone at 33 percent and electricity at 37 percent.[10]

The previously mentioned 2012 survey of American voters by Xylem Corporation, also found that 69 percent admit that they take access to clean water for granted. A 2011 survey of water consumers in the St. Louis region, conducted by the ETC institute, at the request of the Metro Water Infrastructure Partnership indicated that 65% of survey respondents thought that aging water and wastewater infrastructure in the bi-state St. Louis region will become a problem over the next five to ten years. 79% of the respondents felt it was either very important or important that investments are made to improve water mains and sewer pipes in the region.[10]

Q. YOU MENTIONED THAT CUSTOMERS MAY NOT BE AWARE OF THE THINGS THAT MUST BE DONE TO PROVIDE THEM WITH HIGH QUALITY, ABUNDANT SUPPLIES OF WATER. PLEASE DESCRIBE THOSE THINGS.

A. The water infrastructure system is deceptively straightforward. From source to tap, water

[10] 2011 Bureau of Labor Statistics; assumes four person household.

travels through three main channels: the source of supply pumping station, the treatment facility, and the distribution system. After raw water is pumped from its source, it is sent to a treatment facility. As I mentioned earlier in my testimony, Missouri-American operates 11 water treatment plants. These plants are where water is tested for quality and contaminants and treated to meet or surpass the quality standards set by the EPA and subsequently enforced by the Missouri Department of Natural Resources. Impurities, and excess minerals are removed or treated through a combination of chemicals, a progression of filtration materials, with filtered water being disinfected as a final protection for consumers. Treatment facilities must keep pace with increasingly stringent EPA regulations, and the introduction of new contaminants into the water supply, in order to meet the specific consumption and quality needs of the communities they serve. Each pumping station serves one of two primary purposes. The first is to extract raw (untreated) water from a source – whether an underground aquifer, stream, river or reservoir – and deliver it through the use of pressure to a treatment facility. The second is to transport the water from the treatment facility to the distribution system that ultimately delivers the water to the customer's home or business. Usually situated above ground, the pumping station moves water 24 hours a day using appropriately sized pumps, pipes and a power source to drive the pumps. This sophisticated equipment requires regular maintenance and upgrades.

The treated water then enters the distribution system – the network of pipes that delivers water across vast expanses to homes, businesses, industrial plants and a multitude of other destinations. Missouri-American has over 6,700 miles of transmission and

distribution mains. In order to ensure that adequate water is delivered where it needs to go, engineers run computer simulations of the hydraulic activity of the water to determine proper pressure, pipe sizing and other factors (a fire hydrant, for example, will require different flow and pressure characteristics and larger piping than will water for residential use).

Q. IS MISSOURI-AMERICAN'S RATE OF INFRASTRUCTURE REPLACEMENT A CONCERN FOR THE COMPANY'S ABILITY TO CONTINUE TO PROVIDE A HIGH VALUE WATER SERVICE?

A. Yes, it is, but we are not alone -- the state of infrastructure in America's water supply systems is less than satisfactory.[11] In many cases, pipes intended to provide effective service for 50 to 75 years have been in service for more than 100 years. To bring the country's water and wastewater systems up to date will require a projected $1 trillion investment over the next 20 years, a price tag that will necessarily be shared by the consumer.

Q. HOW DO THESE NATIONAL CIRCUMSTANCES COMPARE TO THE REST OF THE WORLD?

A. As a percentage of household income, the U.S. Environmental Protection Agency reports that U.S. residents pay less for water and wastewater services than do residents of most other developed countries. The Executive Summary of the World Water Development

[12] The American Society of Civil Engineers has rated the state of U.S. water and wastewater systems a D in its 2013 Report Card on Infrastructure. Source: American Society of Civil Engineers 2013 Report Card on Infrastructure. http://www.infrastructurereportcard.org/fact-sheet/drinking-water

Report made a similar finding in 2001, ranking the U.S. fourth lowest in water pricing per cubic meter (264 gallons) among developed nations.[12]

Because the majority of water funding comes from revenues generated by pricing, it will take a significant change, then, in the way water is priced if the U.S. is to continue to meet its infrastructure needs. Water pricing must cover the full costs of treatment and delivery to consumers, including costs related to building, operating and maintaining and replacing water systems – in other words, the true value of the service we provide. The need for full-cost pricing was also underscored in The Johnson Foundation at Wingspread's "Charting New Waters: A Call to Action to Address U.S. Freshwater Challenges"[13] – the result of a two-year collaboration of U.S. businesses, farmers, environmental not-for-profits, and government agencies to explore solutions to an impending freshwater crisis. "For too long, our society has treated water as a cheap, non-strategic and infinitely available resource. Not anymore," said S. Curtis Johnson, chairman of Diversey, Inc. and a co-signer of the call to action. "Threats to water quality and access are putting our businesses, communities and way of life in jeopardy. The time to act is now." Stressing that reliable freshwater supplies are essential to U.S. economic security, the report called for, among other actions, a better accounting of the full cost of services delivered by municipally owned water and wastewater utilities and the sharing of that information with consumers. "Revised pricing structures that more accurately reflect

[14] "Executive Summary of the World Water Development Report," Watertech online, 2001. http://unesdoc.unesco.org/images/0012/001295/129556e.pdf

[15] "Charting New Waters: A Call to Action to Address U.S. Freshwater Challenges," The Johnson Foundation at Wingspread. http://www.johnsonfdn.org/chartingnewwaters

the full cost of services could be one step toward financing badly needed upgrades to U.S. water and wastewater systems." Along these lines, it is critical to ensure that the price of water reflects the cost of providing that water.

Q. ARE INVESTOR OWNED WATER UTILITIES POSITIONED TO ADDRESS THE NEEDS OF THE WATER UTILITY INDUSTRY?

A. Yes. We have all sorts of infrastructure needs in this country - things that have been around for years that need to be replaced and upgraded - roads, bridges, levees, water and wastewater infrastructure. States and municipalities typically fund a significant portion of infrastructure spending, but we cannot depend on the government to supply all of the capital that will be needed. We need to attract as much private capital as possible to support our infrastructure investment needs so that government capital can concentrate on those areas where there is very little direct private investment - such as roads, bridges, schools, etc. Water and wastewater utilities are an integral part of our country's infrastructure investment solutions. Attracting private capital is essential to help finance water and wastewater infrastructure projects. Moreover, private capital depends upon predictability. If we put a project in service, and it is supported by thoughtful and prudent consideration and study, then it needs to be included in our rate base where it can earn a return in a timely fashion.

Q. IS THE VALUE OF WATER SERVICE A SUBJECT THAT THE COMMISSION SHOULD CONSIDER WHEN EVALUATING THE VARIOUS ELEMENTS OF THE COMPANY'S RATE FILING?

A. Yes, it should be a critical element of the Commission's evaluation of our request. The

choice throughout history to under-price the treatment and delivery of clean, safe water to American households has resulted in a perception that this vital resource is both plentiful and cheap. At the same time, illustrating the real-life consequences of ignoring the adage "an ounce of prevention is worth a pound of cure," an historic lack of infrastructure investment across all levels of government has left the nation's water systems in a serious state of disrepair.

There are encouraging signs that the tide is turning, evidenced by a recent wave of infrastructure stories in the national media, the introduction of bipartisan legislation (the Sustainable Water Infrastructure Investment Act of 2011) that would free up billions of private capital dollars for investment in the nation's water infrastructure; and a call for water infrastructure investment by the U.S. Conference of Mayors. Full-cost recovery and appropriately designed pricing will not only help water utilities continue to provide customers with safe and clean water but will have the added benefit of encouraging more conservative use, ensuring a sustainable supply for future generations.

IV. WATER EFFICIENCY

Q. PLEASE EXPLAIN THE CONCEPT OF WATER EFFICIENCY.

A. Water efficiency means using improved practices and technologies to deliver water service more efficiently. For example, improved metering results in more accurate usage information and increases employee efficiency. Leak detection programs can reduce the amount of water, pressure, and energy required to deliver the same amount of water to consumers' taps. Improving water efficiency reduces operating costs (e.g., pumping and

treatment) and reduces the need to develop new supplies and expand our water infrastructure. It also reduces withdrawals from limited freshwater supplies, leaving more water for future use and improving the ambient water quality and aquatic habitat. Missouri-American's water efficiency efforts include supply-side practices, such as more accurate meter reading and leak detection, leak surveys, main replacement and repair programs, as well as demand-side strategies, such as rate design and public education programs to encourage the wise use of water. Water efficiency saves customers money in the long run, protects the environment, supports integrated resource planning, and enhances the economy.

Q. HOW IS THE CONCEPT OF WATER EFFICIENCY RELEVANT TO THIS CASE?

A. Water efficiency is the thread that runs throughout the entire fabric of this case. At its core, this case is about investments that Missouri-American Water is making to better serve our customers. Those investments include main and service replacements to provide a better, more reliable system. They include the foundational technology investments in the Business Transformation program ("BT") that will enable us to fundamentally change the way we are doing business. They include investments in new metering and innovative data collection technologies that will help us work smarter and more efficiently.

This case reflects the changes to the way we do business to improve water efficiency. Missouri-American continually strives to develop and implement water efficiency measures that deliver steady or improved levels of service to consumers while mitigating

cost increases. By reducing the layers of the organization and increasing the spans of control, we have reduced costs and improved internal communication. We leverage the size and scale of American Water to improve transactional efficiencies through increased automation, the adoption of more effective business processes, and a continuous improvement mindset.

Finally, our rate design proposals are intended to provide incentives for the more efficient use of water and investment in our system. Their purpose is to identify the appropriate price of water service and provide a rate structure that is consistent with that goal. In summary, the entirety of our case is driven by the efficient provision and use of our water service.

Q. WHAT IS THE COMPANY'S ULTIMATE GOAL?

A. Our goal is to provide quality water and wastewater services as efficiently as possible, and by doing so, to increase the value of the services that we provide our customers. We challenge ourselves to build a culture of continuous improvement and excellence as a way of providing a path for sustainability. As the President of Missouri-American, I derive great satisfaction from seeing this commitment across the business to continuous improvement to benefit our customers and shareholders.

Operational Efficiency

Q. PLEASE DESCRIBE SOME OF MISSOURI-AMERICAN'S EFFORTS TO IMPROVE MANAGEMENT EFFICIENCY.

A. The Company continually strives to find more efficient and cost effective ways to operate

and maintain its business. As part of that effort, we strive to manage our cost structure as efficiently as possible. Missouri-American uses various operational and efficiency reviews to further focus on improving customer service and efficiency of production and field operations. Through the size and breadth of American Water, Missouri-American has continued to increase its purchasing power and obtain significant discounts on the necessary equipment needed to manage and maintain our system – including pipes, meters, fittings, and water treatment chemicals - that we otherwise would be unable to obtain were we a separately owned water system. Over the last few years Missouri-American has reduced the number of employee positions in its organization by 94 (or more than 12%) as a result of process improvements, technology deployment, job consolidation, selective outsourcing and organizational streamlining. These changes were made almost completely through attrition, minimizing impact to employees. It is important to recognize as well that efficiencies such as these position reductions have been accomplished over the same period we have been growing our operations through the acquisition of 5 water and 5 wastewater systems. Our intense focus on expenses produces direct benefits to our customers. MAWC is continually evaluating the cost of doing business. These efforts will provide future efficiencies for the Company and its customers, which mitigates cost increases and results, over time, in less frequent rate cases. Phil Wood, Missouri-American's Vice President of Operations, provides some details of these cost control measures in his Direct Testimony.

Q. WILL YOUR ON-GOING REVIEW OF EXPENSES RESULT IN A DECREASE IN EMPLOYEE HEADCOUNT FOR MISSOURI-AMERICAN?

A. Not necessarily. The purpose of an ongoing review is not specifically to reduce headcount. The intention is to improve efficiencies and customer service, and to control cost to our customers. The Company continues to evaluate the total number of employees needed to properly manage its operations in the most efficient manner practicable.

Q. DOES THE COMPANY INVEST IN ITS EMPLOYEES, AND DO THOSE INVESTMENTS YIELD EFFICIENCIES?

A. Yes. The Company emphasizes continuing employee development, and our Continuous Improvement training program has created ascertainable benefits for our customers. When practiced as a management system, the principles of Six Sigma and Lean are a high performance system for executing business strategy. We have trained 154 employees on the principles of LEAN and Six Sigma, and they have earned their yellow belts. We have found that the results of applying Six Sigma principles- added value, efficiency, elimination of errors and waste have led to many examples of reduced expense, capital avoidance, improved process efficiency, and error reduction in the Company's operations. These improvements can be expected to help control costs, now and in the future. The Six Sigma management system drives clarity around the business strategy and the metrics that most reflect success with that strategy. It provides the framework to prioritize resources for projects that will improve the metrics, and it leverages leaders who will manage the efforts for sustainable and improved business results.

Q. HOW HAS MISSOURI-AMERICAN'S CUSTOMER SERVICE BEEN AFFECTED BY THESE EFFORTS?

A. There is thoughtful consideration of how customer service may be affected by any decisions or actions taken in altering the manner in which our utility is operated. Our customer call volume and quarterly customer survey satisfaction results are closely monitored to detect any negative trends in service and general satisfaction quality.

Capital Investment

Q. PLEASE DESCRIBE THE COMPANY'S ONGOING MAIN REPLACEMENT PROGRAM.

A. Missouri-American, through comprehensive capital planning, continues to make the necessary investments in developing and maintaining adequate sources of supply, treatment, pumping, transmission and distribution facilities, as well as to comply with applicable environmental laws and regulations. "Adequate," however, may not be "optimal." For example, it may be "adequate" to replace our distribution system infrastructure as it breaks, but "optimal" is needed to accelerate our infrastructure replacement rate to more closely match the estimated useful life of the respective assets.

As explained in Mr. Dunn's testimony, our current capital investment on main replacement is approximately $73 million annually. In the last 3 years ending December 31, 2014, we will have replaced, on average, 57 miles of water main per year or approximately 0.85% of the entire system annually. At this funding level, we have been able to provide direct employment to approximately 200 contractor employees in addition to approximately 100 employees of our own workforce. Prior to the Infrastructure

System Replacement Surcharge (ISRS) mechanism, water main replacement investment was about $7 million per year. As explained in Mr. Dunn's testimony, for Missouri-American to achieve the 100-year main replacement schedule or 1% annually, capital expenditures must increase by approximately $13 million annually.

Q. ARE UNDERGROUND TRANSMISSION AND DISTRIBUTION INFRASTRUCTURE THE ONLY SYSTEM COMPONENTS FOR WHICH CAPITAL INVESTMENT CAN PRODUCE COST SAVINGS?

A. No. The Company also considers the nexus between the electric and water sectors as it thinks about efficiencies, reducing water loss is only part of those considerations. The electric and water sectors are closely aligned: energy extraction and production require a significant amount of water, while the treatment and delivery of water and wastewater services requires a significant amount of energy, representing about four percent of all U.S. energy consumption each year.[14]

In his testimony, Mr. Wood also highlights areas in addition to "pipe in the ground" in which Company investments will pay dividends for customers. MAWC has undertaken efforts to enhance water and energy efficiency by replacing outdated water pumps, installing solar panels at pumping stations and streamlining other processes.

The benefits of MAWC improving energy efficiency programs are three-fold. They benefit water companies by providing us with an opportunity to expand our energy

[14] As evaluated by the American Society of Civil Engineers in its 2013 Report Card on U.S. Infrastructure, that share could rise significantly as a result of the antiquated and inefficient nature of U.S. water and wastewater infrastructure.

efficiency efforts. They reduce operating costs through reduced energy consumption so we can deliver water at lower prices to our customers while at the same time reducing carbon emissions.

Q. PLEASE DISCUSS SOME OF MISSOURI-AMERICAN'S OTHER KEY INVESTMENT IN IMPROVED TECHNOLOGIES AND PRACTICES.

A. American Water's Business Transformation ("BT") program and Fathom are critically important investments. As Mr. Wood explains in his Direct Testimony, our new integrated information technology systems provide a platform for connecting people, processes, assets, and industry-based knowledge, and encompass more than technology replacements — they enable us to change how we manage our business.

Q. PLEASE PROVIDE A BRIEF OVERVIEW OF MISSOURI-AMERICAN'S BUSINESS TRANSFORMATION PROGRAM.

A. American Water undertook the Business Transformation program to update and modernize its business processes and information technology systems. The scope of the BT program includes a range of the Company's core functional areas, including: human resources, finance and accounting, purchasing and inventory management, capital planning, cash management, and customer and field services. Although the BT investment was absolutely needed to replace legacy systems near the end of useful lives, the program also promotes operating excellence, efficiency, and economies of scale as it enhances the customer experience. Investing in the BT program and its enterprise management capabilities is exactly what other responsible, forward-looking companies and governments in America are doing to work smarter and better.

Customer Efficiency

Q. IN SPITE OF NOT PRESENTLY HAVING AN RSM ARE THERE ANY MEASURES YOU TAKE TODAY TO ENCOURAGE CUSTOMERS TO USE WATER EFFICIENTLY?

A. Yes, MAWC offers several programs that encourage customers to use water efficiently. Our website home page has a link to water saving information and we provide information on social media, particularly in the summer months.

Q. DO YOU PARTNER WITH OTHER ORGANIZATIONS IN PROMOTING WATER EFFICIENCY?

A. In the St. Louis area, we work with the local Community Action Agency at several community events each year, providing help to their clients in managing their water bills. We promote water conservation at several community events, such as Earth Day celebrations, with materials and interactive activities.

Every year we work with the EPA in promoting "Fix A Leak Week" in February. Our customers receive bill inserts that direct them to additional information on our website. We also promote leak detection and awareness to local media.

In many of our operations, summer water usage increases significantly as a result of lawn irrigation activities. In collaboration with the Soil and Water Conservation District and the University of Missouri Extension Office, Missouri American Water developed a

brochure that promotes water-wise lawn watering. We use this information at community events and as a resource for media and customer inquiries.

Q. ARE THERE ANY OTHER MAWC PROGRAMS THAT PROMOTE WATER EFFICIENCY?

A. Yes, our annual environmental grants program frequently includes funding for programs that promote wise water usage -- from rain gardens to rain barrels. Volunteers at our school outreach program bring interactive activities that engage children in discussions of watershed protection and wise water usage.

Alternative Ratemaking Proposal

Q. WHY ARE YOU PROPOSING A REVENUE STABILIZATION MECHANISM (RSM)?

A. We believe that this alternative regulatory mechanism will both advance the Commission's goals and moderate future rate increases on customers. Currently, the way rates are set, if our water customers use less water, our earnings will decline because our revenues will drop. The idea behind the revenue stability mechanism is that it is inappropriate to "penalize" MAWC for improving water efficiency. Implementation of this alternative regulatory mechanism will remove a disincentive to promote water efficiency and will support earnings that permit continued water efficiency investments. Ms. Tinsley provides further details on this alternative cost recovery mechanism in her Direct Testimony.

Q. PLEASE BRIEFLY EXPLAIN HOW THIS PROPOSED COST RECOVERY

MECHANISM AFFECTS CUSTOMERS AND FULFILLS REGULATORY GOALS.

A. As discussed further in Ms. Tinsley's Direct Testimony, declining usage per customer and the resulting reductions in water sales has been a source of fiscal stress for Missouri-American and is a potential disincentive to further investment in efficiency. This problem is exacerbated by the fact that water supply in general is a rising-cost industry. The way regulation can support appropriate levels of expenditures so that necessary capital investments are consistently funded is through predictable and timely rate recovery. That means removing the disincentives to capital investment from the ratemaking process (e.g., via alternative rate mechanisms) and providing regulatory incentives to capital investment (e.g., ISRS). In fact, at its 2013 annual meeting, the National Association of Regulatory Utility Commissioners ("NARUC") adopted a resolution that supports consideration of alternative recovery mechanisms for water and wastewater utilities and identifies the following benefits:

> Alternative regulatory mechanisms can enhance the efficiency and effectiveness of water and wastewater utility regulation by reducing regulatory costs, increasing rates for customers, when necessary, on a more gradual basis; and providing the predictability and regulatory certainty that supports the attraction of debt and equity capital at reasonable costs and maintains that access at all times.[15]

Ultimately, it is customers who benefit because it allows investor-owned utilities to

[16] *Resolution Endorsing Consideration of Alternative Regulation that Supports Capital Investment in the 21st Century for Water and Wastewater Utilities* - Sponsored by the Committee on Water, Recommended by the NARUC Board of Directors November 19, 2013, Adopted by the NARUC Committee of the Whole November 20, 2013. (Attached as Petitioner's Exhibit AJD-3)

anticipate a consistency of regulatory oversight necessary to attract capital at lower prices than their unregulated industrial counterparts. With very little variation, the Company's costs do not vary significantly with usage, so a RSM would properly match cost incurrence with cost recovery. For utilities and customers, a price that reflects true costs is a more efficient price, and the proposed RSM would fulfill this goal.

V. AFFORDABILITY

Q. WHAT TARGETED CUSTOMER ASSISTANCE PROGRAMS DOES MISSOURI-AMERICAN CURRENTLY OFFER TO ADDRESS AFFORDABILITY CONCERNS?

A. Missouri-American offers its customers flexible payment arrangements through installment agreements if they are financially able to pay a past due water service bill. A payment arrangement allows Missouri-American customers the opportunity to pay off a past due bill balance to keep utility accounts in good standing. A past due amount is spread out over a specified period of time (monthly or quarterly installments, as the billing frequency dictates), and customers are required to pay the agreed upon monthly or quarterly installment in addition to paying their monthly or quarterly utility charges in full by the bill due date each month or quarter. Paying both the monthly or quarterly installment and current utility charges gives customers extra time to bring their utility account up to date. The length of a payment arrangement can vary and there is no limit to the number of installment agreements available to our customers provided that prior installment agreements terms have been fully met. Missouri-American also has a customer assistance program, known as H2O Help, funded by company donations and

contributions from our customers. The program is administered by local Community Action Agencies.

Q. ARE THERE OTHER OPPORTUNITIES AVAILABLE TO ADDRESS AFFORDABILITY CONCERNS NOT CURRENTLY UTILIZED BY MISSOURI-AMERICAN?

A. Yes, further consolidation of rates of Missouri-American's multiple rate districts (18 water and 12 wastewater) would allow Missouri-American to spread the revenue requirement resulting from capital investment and operating cost equally on a per gallon basis by customer class across all its districts in a common rate tariff group. We have filed our rate case using a consolidated rate structure in which multiple districts are consolidated into common rate tariff groups. Dr. McDermott describes the benefits of consolidated pricing in more detail in his Direct Testimony.

VI. COMMUNITY INVOLVEMENT

Q. PLEASE DESCRIBE MISSOURI-AMERICAN'S OUTREACH EFFORTS IN THE COMMUNITIES THAT IT SERVES.

A. Throughout its 25 county service territory, Missouri-American is considered a responsible corporate citizen, and is known for its community involvement and volunteerism. Our management team encourages and supports our employees and their families in serving as community volunteers. The Company even has goals for its management to ensure that volunteerism is encouraged through regular Company activities. We focus our community investments in four key areas: water and the environment, water and healthy living, environmental education and community

sustainability. We give back to the community by supporting innovative, environmental grant programs that improve, protect or restore drinking water supplies and surrounding watersheds. Firefighter grants support our partnerships with fire service agencies in our communities. We believe in investing in innovative programs that align with our core business of water and wastewater service, and are committed to working with community partners to develop sustainable solutions to local environmental issues. Community outreach activities organized by the Company include: providing free water with a mobile hydration station at community events around the state, participating in and donating to local civic, economic and philanthropic organizations, providing water treatment plant tours and other educational opportunities in partnership with local schools and universities, participating in Earth Day activities, recycling drives and pharmaceutical drop-off programs, to name a few. At numerous community events throughout the year Missouri-American provides instruction on watershed stewardship through its interactive watershed demonstration site that visually shows how proper management practices at home, in a rural environment and in business can protect soil and water resources.

Q. IN WHAT OTHER ACTIVITIES HAS MISSOURI-AMERICAN PARTNERED LOCALLY?

A. Being a good neighbor is part of our mission at Missouri-American. The employees of Missouri-American play an active role in the communities we serve by getting involved in a variety of environmental and educational activities related to water – everything from watershed and river clean-up efforts to school programs focused on drinking water and source water protection. We work with a number of community-based partners throughout our service areas to positively impact the overall quality of life where our

employees and neighbors live and work. It takes more than a one-time grant or volunteer effort to make a lasting difference, so we seek out and support organizations that understand how to best meet the needs of the community. Our participation in activities sponsored by outside organizations include local Chambers of Commerce, local environmental groups, the schools and local United Way organizations in the communities we serve.

Q. WHAT IS THE LEVEL OF EMPLOYEE ENGAGEMENT IN THESE COMMUNITY ACTIVITIES?

We began measuring the number of employees involved in community activities sponsored by the Company several years ago and are very proud to report that in 2007 the number of employees involved was 7 and in 2014 that number had grown to 336 employees. We find that these activities not only support the communities we serve, but also help develop the leadership skills of our employees that will benefit them and the Company as they step into roles of increasing responsibility throughout their careers.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes, it does.