Exhibit No.: 107
Issues: Cedar Hill Treatment Plant, City of Riverside, City of St. Joseph Issues
Witness: Kevin H. Dunn
Exhibit Type: Rebuttal
Sponsoring Party: Missouri-American Water Company
Case No.: WR-2010-0131
SR-2010-0135
Date: April 15, 2010

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. WR-2010-0131
CASE NO. SR-2010-0135

REBUTTAL TESTIMONY

OF

KEVIN H. DUNN

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-2010-0131** **CASE NO. SR-2010-0135**

AFFIDAVIT OF KEVIN H. DUNN

Kevin H. Dunn, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Rebuttal Testimony of Kevin H. Dunn"; that said testimony and schedules were prepared by him and/or under his direction and supervision; that if inquires were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge.

Kevin H. Dunn

State of Missouri
County of St. Louis
SUBSCRIBED and sworn to
Before me this 14th **day of** April **2010.**

Doris K. Adams

Notary Public

My commission expires:

Doris K. Adams
Cole County
Commission # 06433658
My Commission Expires
May 20, 2010

DIRECT TESTIMONY
KEVIN H. DUNN
MISSOURI-AMERICAN WATER COMPANY
CASE NO. WR.2010.0131
SR.2010.0135

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REBUTTAL TESTIMONY

KEVIN H. DUNN

WITNESS INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.

A. My name is Kevin H. Dunn, my title is Director Engineering for American Water, and my business address is 727 Craig Road, St. Louis, Missouri 63141.

Q. HAVE YOU PREVIOUSLY SUBMITTED TESTIMONY IN THIS PROCEEDING?

A. Yes, I have submitted direct testimony in this proceeding.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A. The purpose of my rebuttal testimony is to discuss on behalf of Missouri-American Water Company (MAWC or Company) the issue of the Cedar Hill Plant Capacity Adjustment, as presented in the Staff Report – Cost of Service (p. 38 and 39), and Cedar Hill Sewer Excess Capacity as presented in the Office of the Public Counsel's Direct Testimony of Ted Robertson. I will also discuss issues as presented by the City of Riverside's Direct Testimony of Michael Duffy and Fire Chief Gordon Fowlston and respond to the Direct Testimony of St. Joseph witness J. Bruce Woody as it pertains to the proposed main extension tariff (and proposed sharing of the cost of main extensions), Company's investment in infrastructure when opportunities are

available, and Company's proposed tariff treatment of "standards and contractual requirements".

CEDAR HILL TREATMENT PLANT

Q. WHEN DID MAWC ACQUIRE THE CEDAR HILL SEWER SYSTEM?

A. MAWC purchased this system in 2004. The transaction was approved by the Commission in Case No. SM-2004-0275.

Q. WHAT WAS THE CONDITION OF THE CEDAR HILL SYSTEM AT THE TIME OF ACQUISITION?

A. The plant, while sufficient for existing customers, did not have any capacity for growth and an expansion of the plant was contemplated at the time of the transaction. As the need for expansion of the system presented itself, MAWC was able to invest the dollars necessary to expand the Cedar Hill waste treatment facility so that it would continue to have sufficient capacity. This expansion increased the treatment facility capacity from 75,000 GPD to 150,000 GPD.

Q. COULD YOU FURTHER EXPLAIN HOW THE EXPANSION OF THE ORIGINAL 75,000 GPD TREATMENT PLANT CAME ABOUT?

A. MAWC has an obligation to meet the service requirements of customers in its certificated service territory. The plant was expanded to satisfy a commitment to serve a new development that is located within MAWC's certificated territory. Prior to entering into a contractual commitment to build

this facility, MAWC personnel reviewed schematic designs, development plans, financial records, and required a significant contribution from the developer. Construction of the plant expansion occurred only after an agreement with the developer was executed. In addition to the need to expand the plant, there was also a need to replace/upgrade the existing treatment facilities

Q. HAVE YOU REVIEWED THE STAFF'S RECOMMENDATION IN REGARD TO THE CEDAR HILL TREATMENT PLANT?

A. Yes, I have.

Q. WHAT DOES THE STAFF RECOMMEND?

A. The Staff Report – Cost of Service proposes a disallowance of $2,179,908 that it believes is associated with the expansion project. The recommendation is based on Staff's view that "it is unreasonable for current customers to pay for the entire capital cost of this plant expansion project." Thus, Staff recommends that the cost of what it believes to be "additional capacity" only be recovered when new customers are connected to the system through the Contribution-in-aid-of-Construction (CIAC) charge created in Case No. WR-2007-0216. Public Counsel witness Ted Robertson's Direct Testimony supports the Staff's recommendation for a reduction, but he has yet to make a specific rate base disallowance. For this Rebuttal Testimony I am assuming that Mr. Robertson is proposing the same total disallowance as Staff and, thus, I will respond directly to the Staff's testimony. However, until more is known about the Public Counsel's adjustment, it should be noted the same response would apply to Public Counsel's testimony.

Q. DO YOU AGREE WITH THE STAFF RECOMMENDATION?

A. No. MAWC not only prudently planned and constructed this Wastewater Treatment Facility, but it also required and accepted CIAC from new developers that will use the plant as required by its approved tariffs. Staff witness James A. Merciel, Jr. previously stated in his Surrebuttal Testimony in the Company's last rate case (Case No. WR-2008-0311) that the project was prudently undertaken and necessary for the future growth that was imminent at that time.

Also, the Staff's recommended $2,179,908 disallowance not only represents the cost of expanding the Wastewater Treatment Facility from 75,000 gallons per day facility to 150,000 gallons per day, but also includes items that are unrelated to the expansion but still necessary to provide safe and adequate sewer service.

The Staff's approach is unusual, at best. By suggesting that the Company recover its costs in small increments only as additional customers are added to the system one by one, its approach would penalize the Company for necessary and efficient construction. It is neither cost effective nor technically feasible to build a facility in the small increments that Staff's position is, in effect, suggesting.

Q. DOES THE STAFF'S RECOMMENDED DISALLOWANCE REPRESENT ONLY THOSE COSTS OF INCREASING THE TREATMENT FACILITY FROM THE EXISTING 75,000 GPD TO THE NOW 150,000 GPD?

A. No. The costs associated with the total expansion project include items that are not just for treatment of the collected waste. The total proposed disallowance includes costs for construction of an office and storage building on the site, installation of the HVAC system for the office, installation of roadway and fencing, and the cost associated with an Inflow and Infiltration study. These costs represent $469,405 of the total project cost of $2,022,005. (See attached **Schedule KHD-1**).

In addition, the total treatment cost represents the addition of a 75,000 gpd plant and a replacement of the original 75,000 gpd treatment plant.

Q. WERE CONTRIBUTIONS RECEIVED ASSOCIATED WITH SERVICE COMMITMENTS?

A. Yes. As the new plant was built in conjunction with a developer request for service, the developer paid the standard contribution in aid of construction for the treatment plant expansion cost. Also, prior to MAWC ownership, an agreement had been made with Northwest High School, whereby it paid a contribution for the addition of a new treatment facility. These two contributions total $491,820.

Q. WHAT PLANNING HORIZON DID MAWC CONSIDER WHEN CONSTRUCTING THIS SEWER PLANT?

A. The Company considered a 10 to 15 year planning horizon when sizing the plant expansion. Historical growth trends and knowledge of potential growth from discussions with developers and local planning agencies help form the basis for projected future needs.

Q. DOES THE MISSOURI DEPARTMENT OF NATURAL RESOURCES (DNR) HAVE GUIDELINES THAT YOU MUST FOLLOW IN REGARD TO PLANT CAPACITY?

A. Yes. Plant capacity for system needs are designed using hydraulic, organic, and peak loadings as presented in the DNR, Clean Water Commission, Design Guide 10 CSR 20-8.

Q. IN APPLYING THOSE CAPACITY GUIDELINES, MUST MAWC TAKE INTO ACCOUNT MORE THAN JUST THE CUSTOMERS THAT ARE CURRENTLY CONNECTED TO THE SYSTEM?

A. Yes. When MAWC requests the addition of customer(s) or capacity increase, the Engineering Report requires an existing facility evaluation that includes a tabulation of current and committed loads. These committed loads include existing lots or lots of subdivisions that do not have laterals connected to the sewer main and that have been previously listed as future connections to the existing capacity of the treatment facilities. These are primarily lots that have either paid a tap on fee or have a contractual agreement for capacity. The number of connections and the design usage per connection are added to the current usage to determine if the new projected customers can be added to the existing facility.

Q. WHAT COMMITMENTS DOES MAWC HAVE IN PLACE AT THIS TIME FOR THE CEDAR HILL TREATMENT PLANT?

A. Attached as **Schedule KHD-2** is a listing of MAWC's current commitments. This schedule agrees with the last request MAWC sent to the Department of Natural Resources to request the addition of new customers to the Cedar Hill Treatment Plant (which is also known as the Sand Creek Treatment Facility). This request occurred with the addition of the lots associated with the Lake Tamarackk Subdivision.

Q. WHAT IS THE LAKE TAMARACKK SUBDIVISION?

A. Lake Tamarackk is a developer (Medley Hill Terrace Realty and Development Company) owned subdivision wastewater system within the certificated area of MAWC's Cedar Hill District. This system consists of collection lines and a lagoon treatment facility for the wastewater from the fifty-one homes in the subdivision. The system has been cited by DNR for various violations of the Missouri Clean Water Law. DNR has gone as far as issuing an Abatement Order whereby the subdivision was to submit to DNR a contract with MAWC, (a system of higher Continuing Authority as established in 10 CSR 20-6.010(3)(B)3), to provide collection and treatment from the homes that were connected to the lagoon. The owner of the Lake Tamarackk Subdivision has signed a Contract with MAWC for MAWC to acquire substantially all of the assets that constitute the wastewater collection of the Lake Tamarackk system. This collection system will be connected to the existing Cedar Hill District, by April 30, 2010, and the waste flow will be treated at the Sand Creek Wastewater Treatment Facility. The trunk line connecting the two systems is currently under construction. Once

complete the Tamarackk system will send its waste supply to the Sand Creek Wastewater Treatment Facility.

Q. WHAT IS THE CONSEQUENCE OF THE EXISTING COMMITMENTS?

A. **Schedule KHD-2** shows that the 150,000 gpd treatment facility capacity has already been exceeded for purposes of the DNRs' analysis. Ironically, while the Staff is discussing an "excess capacity" disallowance associated with the plant that is now providing service, DNR's methodology is pushing MAWC to begin planning the next expansion. MAWC will need to discuss options with DNR to avoid a building moratorium from being placed on Cedar Hill home construction.

Q. IS THE OLD TREATMENT PLANT STILL IN SERVICE?

A. Yes, but in different form. As I noted, portions of the old plant are utilized in the new facility. Rather than retire the remainder of the old treatment plant, MAWC was able to use it to provide required redundant clarification for the new system. During the design phase, a review of DNR standards was performed. These standards required a redundant clarification for all treatment facilities totaling 100,000 gpd or greater, and thus the new treatment plant required redundant clarification.

MAWC, along with its design consultants, reviewed the existing plant clarification zone and determined that this type of zone was not appropriate for the settling required and would require two additional clarifiers to meet the total redundancy. MAWC also reviewed the existing extended aeration zone and determined that it would require additional height in order to meet the

future ammonia removal that would possibly be required at the next renewal of the NPDES permit. Therefore, the practical and lowest cost solution was to install a 150,000 gpd extended aeration and clarification plant and to use the existing 75,000 gpd plant's aeration zone for the redundant clarifier and other sections of the existing plant for a sludge holding tank.

Q. DOES THAT MEAN THAT CUSTOMERS SERVED BY THE OLD TREATMENT FACILITY ARE CURRENTLY BEING SERVED BY THE NEW CEDAR HILL TREATMENT PLANT?

A. Yes, the old and new treatment facilities have been combined into one and now serve the entire area. Therefore, the total cost of the treatment facility is $1,552,600 and the cost of one-half of the plant replacing the original 75,000 gallons per day facility would be $776,300. The revenue requirement for these necessary and prudently incurred costs should be covered by all the existing customers in Cedar Hill and not wait for additional customers to come onto the system.

Q. PLEASE SUMMARIZE THE COMPANY'S POSITION IN REGARD TO THE CEDAR HILL TREATMENT PLANT EXPANSION.

A. The Company believes that it prudently designed and built a 150,000 gpd waste water treatment facility of which 75,000 gpd replaced an existing facility. Of the total project cost of $2,022,005, the total non-treatment cost of the plant is $469,405, which is not part of the capacity expansion or subject to the reasons for Staff's additional capacity adjustment. Contributions in aid of construction have been received in the amount of $491,820. Considering

the non-treatment portion of the original cost and the half of the cost for the replacement of the original plant, which under any circumstance should be shared by all users of the system, a further reduction for the CIAC already paid for the plant to be expanded and the capacity charge paid by the 51 Lake Tamarack customers, the remaining cost of the capacity of the plant not in service would be only $206,428 (See attached **Schedule KHD-1**). This portion of the construction costs represents approximately 19,943 gallons of capacity, an amount which is less than the 15% that Staff would recommend as reasonable plant for "planning and constructing expansions." Further, if you consider the committed loads that have paid a tap on fee or have a contractual agreement for capacity, the new plant is fully utilized and the Company needs to begin to consider planning for additional plant. Staff, however, has reduced the Company's rate base by $2,179,908 and recommends that additional plant only be added to rate base when the customers connect and pay the existing capacity charge. However, with the addition of Lake Tamarack to the treatment facility and the contractual commitment from the O'Brien Subdivision, contributions have already been received for most of the available plant capacity.

MAWC expects that prudent facilities, constructed in accordance with the Company's obligation to serve and which are currently in use and useful, should be included in MAWC's rate base. The Staff agrees that this plant was prudently built so some other measure of allowing the Company to earn on its investment should be considered if charging these costs directly to the Cedar Hill customers is not acceptable because of the possible rate shock.

CITY OF RIVERSIDE

Q. HAVE YOU REVIEWED THE TESTIMONY OF THE CITY OF RIVERSIDE'S MICHAEL DUFFY AND GORDON FOWLSTON?

A. Yes, I have.

Q. WHAT ARE THEIR RECOMMENDATIONS IN REGARDS TO THE PLATTE COUNTY DISTRICT RATES?

A. They request relief in rates based on what they perceive to be an inadequacy of MAWC service and they object to certain charges.

Q. WHAT ISSUES DO THE RIVERSIDE WITNESSES POINT TO IN SUPPORT OF THEIR ALLEGATIONS?

A. Riverside witness Fowlston describes the following issues : 1) low water pressure and low gallons per minute produced by the City's fire hydrants; 2) MAWC's performance of annual maintenance of fire hydrants and water flow tests; 3) fire hydrants are not color coded for flows (multiple colors are used for fire hydrants and some have not been painted and are rusting); 4) fire hydrants are not painted with reflective paint; and, 5) MAWC has been slow to respond or has not covered the hydrants to show they are out-of-service.

Q. PLEASE DESCRIBE THE SERVICE THAT MAWC HAS PROVIDED TO THE PLATTE COUNTY DISTRICT.

A. Over the last 3 years, MAWC has annually, on average, invested $4.2M and delivered 665 MG of water that meets or exceeds all state and federal standards, at an average pressure of 91 psi, serving over 5,500 customers

24 hours a day every day. MAWC is providing safe and adequate service to its Platte County customers.

Q. DOES MAWC AGREE THAT THERE IS AN INADEQUATE SERVICE IN THE CITY OF RIVERSIDE'S DISTRIBUTION SYSTEM?

A. No. MAWC believes its distribution system and its maintenance of such are providing a safe and adequate service.

Q. HOW DO YOU RESPOND TO THE ALLEGATION THAT THE FIRE HYDRANTS PRODUCE LOW WATER PRESSURE AND LOW GALLONS PER MINUTE?

A, Riverside witness Fowlston describes four major fires that occurred in the City since 2007 where fire hydrant flow was estimated to be as low as 125 gallons per minute. He also refers to the MAWC "Riverside Fire Flow Modeling Report" that describes areas within the City of Riverside fire protection that are below the local Ordinance 2005-05 fire flow requirements. He concludes that the low flows are inadequate, as the Company must provide the fire flow as per a Riverside Ordinance. MAWC does not agree that it must rebuild portions of its system when a new fire flow Ordinance(s) comes into existence. The Company designs proper fire flow through water mains at the time the new mains are to be installed. Any one fire hydrant on these mains will meet fire flow requirements at the time of the main design. Therefore, the distribution system as installed in the Riverside fire protection

area is adequate to meet the fire flows based at the time each water main was installed.

Q. IS THERE A CONSISTENT STANDARD FOR FIRE FLOWS?

A. No. Fire flow as determined by the International Fire Code or ISO has changed significantly over the years. In1984, the fire flow requirements were 250 - 500 gallons per minute for residential areas. However, today some recommendations are as high as 1500 gallons per minute.

It is neither feasible nor prudent to rebuild a water distribution system to meet changing fire flow design parameters. MAWC believes the distribution system should be built to current standards as it is expanded or replaced.

Q. DOES MAWC TAKE FIRE FLOW INTO ACCOUNT AS IT EXPANDS ITS SYSTEM?

A. Yes. The Company regularly performs hydraulic modeling of its systems as part of its period planning studies. One factor that is reviewed in these studies is a comparison of current hydraulic capacity against the fire flow of current design requirements. These models help to define areas that should be considered for future main replacements. Projects are considered in the Platte County system for the capital budget each year and mains are reviewed that would have service issues such as multiple main break history, insufficient pressure or flow, etc. Lower fire flow is one of the considerations that help to increase the prioritization for replacement of sections of main.

Q. WHAT IS THE "RIVERSIDE FIRE FLOW MODELING REPORT"?

A. Contrary to Riverside's assertions, this report does not describe deficiencies of the system serving the City of Riverside, but rather describes a fire flow analysis of the system in comparison to the current City of Riverside criteria and describes areas that would have problems meeting this current criterion at adequate pressure. As discussed in this report, MAWC has completed the installation of the 16" and 24" mains labeled as Phase IA and IV as well as Phase 1B (the connection to Kansas City Water at Briarcliff). These mains have allowed for an increase in fire flow into the City of Riverside as detailed in the report. The one area that fire flow will not increase due to the installation of these mains is the City of Houston Lake area.

Q. HOW DO YOU RESPOND TO RIVERSIDE WITNESS FOWLSTON'S ASSERTION THAT MAWC'S ANNUAL FIRE HYDRANT MAINTENANCE OF WATER FLOW TESTING IS INADEQUATE?

A. I disagree with his characterization of the Company's maintenance procedures. MAWC annually inspects and operates each fire hydrant. Repairs or replacements then take place as needed. Fire flow tests are performed upon requests by developers for design of flow to their developments or by the Company as it calibrates its hydraulic model. Each test is recorded and filed at the Company's local office. MAWC does not believe there is any deficiency in this regard.

Q. ON PAGE 2, LINES 7-9, OF RIVERSIDE WITNESS FOWLSTON'S DIRECT TESTIMONY HE STATES THAT "FIRE HYDRANTS ARE NOT COLOR CODED FOR FLOWS PER NATIONAL FIRE PROTECTION

ASSOCIATION STANDARDS (MULTIPLE COLORS ARE USED FOR FIRE HYDRANTS AND SOME HAVE NOT BEEN PAINTED AND ARE RUSTING)." HOW DO RESPOND TO THIS ALLEGATION?

A. Currently, not all fire hydrants in the Platte County District have been painted to meet National Fire Protection Association Standards. However, MAWC follows Missouri Public Service Commission and Department of Natural Resources guidelines in regard to the service it provides and it is not currently required to follow National Fire Protection Association Standards. MAWC has, nevertheless, generally agreed to work with local fire authorities and, within reason, to paint hydrants to address this issue. MAWC has an annual hydrant painting program where a percentage of fire hydrants in a district are painted each year. MAWC will attempt to coordinate color coding with the Riverside Fire Department.

Q. PAGE 2 LINES 9 AND 10 OF GORDON FOWLSTON'S DIRECT TESTIMONY STATES "FIRE HYDRANTS ARE NOT PAINTED WITH REFLECTIVE PAINT PER NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS." DO THE NATIONAL FIRE PROTECTION ASSOCIATION STANDARDS APPLY TO MAWC?

A. No. MAWC is not required to follow National Fire Protection Standards, so hydrants are not currently painted with reflective paint.

Q. WHY HAS MAWC NOT PREVIOUSLY USED REFLECTIVE PAINT?

A. MAWC has decided not to use reflective paint because of the added cost and the lack of interest in this type paint system by nearly all of the fire authorities

in the MAWC operating areas. MAWC can begin to paint hydrants in Riverside utilizing reflective paint, if this is desired by the City of Riverside and its local fire authority. However, it should be noted that doing so will create some additional cost for Platte County customers.

Q. HAVE SOME MAWC DISTRICTS ADDRESSED THIS ISSUE IN ANOTHER MANNER?

A. Yes. As an alternative, reflective tape bands have been installed by other fire authorities.

Q. ON PAGE 2 (LINES 10 THROUGH 14) OF RIVERSIDE WITNESS FOWLSTON'S DIRECT TESTIMONY, HE STATES THAT MAWC IS SLOW TO RESPOND TO MAINTAIN FIRE HYDRANTS AND/OR COVER FIRE HYDRANTS THAT ARE OUT-OF-SERVICE. HOW DO YOU RESPOND?

A. MAWC does notify local fire authorities when fire hydrants are out-of-service. Hydrants that are going to be out-of-service for any length of time are covered and marked as such. MAWC's practice is to timely schedule resources to respond to notification of damaged hydrants and will normally perform work within two business days.

Q. ARE THERE OTHER CONCERNS THAT THE FIRE DEPARTMENT HAS EXPRESSED IN REGARD TO THE RIVERSIDE WATER DISTRIBUTION SYSTEM?

A. Yes. Riverside witness Fowlston's Direct Testimony discusses an issue concerning MAWC's possible requirement of a second service line for

residential fire suppression when not required by fire code and an issue with the distance and location of fire hydrants. He, with Riverside witness Duffy, also has a concern that MAWC may be inappropriately charging fire hydrant and standby fees.

Q. WHAT IS THE CONCERN WITH THE COMPANY'S REQUIREMENT FOR A SECOND SERVICE LINE FOR RESIDENTIAL FIRE SUPPRESSION?

A. MAWC is unsure as to the concern caused by the requirement for a separate line into the residential home for fire suppression. MAWC has been directly involved with various groups in regard to the proposed requirements for installing fire suppression systems into residential homes. MAWC has reviewed current plumbing and cross connection codes in its service areas and has proposed a tariff whereby MAWC will allow fire suppression lines to be provided either through: 1) a split service where the fire line and domestic service have one line from the water main but splits into two distinctive lines into the building for each function; 2) two separate lines from the tap at the water main into the house which isolates both completely from each other; or, 3) a single line that has a full flow meter installed that will allow the fire suppression flow requirement. MAWC plans to review the building design requirements as well as local codes in determining and approving the proper service into the residential home. This issue is further addressed in the Rebuttal Testimony of MAWC witness Greg Weeks.

Q. WHAT IS THE ISSUE WITH LOCATION AND DISTANCE OF EXISTING FIRE HYDRANTS?

A. The Direct Testimony of Riverside witness Fowlston details four fires and in regard to each fire describes the location of the next closest fire hydrant to the fire hydrant that was in use. These distances ranged from 500 – 2,000 feet.

Q. HOW WAS THE LOCATION OF THESE FIRE HYDRANTS INITIALLY DETERMINED?

A. These fire hydrants were either installed with the mains at the time of original installation or when an Ordinance or fire authority made a request to install a fire hydrant. MAWC installs fire hydrants on mains with sufficient capacity at no cost to the City of Riverside or local fire authority, if required by an Ordinance or requested in writing. Currently, all hydrants requested by Ordinance or in writing have been installed.

Q. DOES THE CITY OF RIVERSIDE DESCRIBE WHAT IT BELIEVES TO BE AN INAPPROPRIATE CHARGE IN REGARD TO FIRE SERVICE?

A. Yes. Both Mr. Fowlston's and Mr. Duffy's describe the lawfulness of MAWC charging a "hydrant fee" and a "standby fee" for certain fire hydrants and sprinkler systems, rather than including the cost of placement and maintenance of such fire hydrants in its cost basis in determining a fair and reasonable rate to be charged for water. MAWC is unsure of what fees are being charged directly to the City of Riverside that would be unlawful. Fire hydrants that the City determines are necessary and have the required diameter main to meet the required fire flow are installed by the Company at no charge to the City and the costs associated with such installation are

recovered in the rates of all customers. Private fire service that is a requirement of a building's fire suppression only, and not for the protection of the public, are installed at the cost of the building owner. Appropriate customer charges for private fire service are applied in accordance with MAWC's tariff.

Q. RIVERSIDE WITNESS DUFFY DISCUSSES A CONTRIBUTION RIVERSIDE HAS MADE CONCERNING MAWC'S WATER DISTRIBUTION SYSTEM. WHY IS THE CITY CONTRIBUTING FUNDS?

A. As stated by Mr. Duffy, the City of Riverside has approved funds of up to $500,000 for each of five years beginning in 2008. These funds were allocated after meeting with MAWC and discussing areas in the City where fire hydrant flow was not as prescribed in Ordinance 2005-05 and where the City wanted to see fire flow improvement. MAWC does not now believe, nor has it stated, that the mains in the City of Riverside are insufficient, as alleged on page 2, line 4 of Michael Duffy's Direct Testimony. MAWC has worked with the City in regard to the replacement of these mains, as the City wanted to secure an earlier replacement of certain mains than otherwise may have occurred. The mains originally planned by the City are more for providing water to a new or unserved area, situations where the Company would normally require a developer to pay for the mains.

Q. WHAT IS THE NATURE OF THE SERVICE PROVIDED IN THE AREAS WHERE THE CITY WILL BE CONTRIBUTING MAINS?

A. The meetings with the City discussed providing flow to areas within the City that were available for new development and replacing existing fire hydrants that are below the Ordinance 2005-05 recommendations. Two areas of future development were of primary concern: the development of Hidden Acres and Gatewoods Third Plat. These developments were presented for review to MAWC in 2006 and desired fire flows, as specified by the local fire authority, changed several times. The fire flow ultimately required by the fire authority was 1,000 gpm. The Company had stated that the existing main available for connection could not provide this level of flow and that an offsite piping arrangement would be needed. The City decided that its first project would be to install a 12"main along Gower Rd from High Dr to NW 50th, this 12" also replaces a stretch of 6" main on Gower from High St to Cerrito Lane. This main not only provides an additional source of water to the developer's area but also provides additional fire flow within the City of Riverside. The cost of this project was approx. $218,000. The only other project the City has decided to fund is the installation of 12" main from the end of the last extension north through the Gatewoods Third Plat Subdivision. The City has taken over the contract from the developer to have this main installed. A portion of this main has just been installed but the remaining portion must wait on the roadways of the development to be at grade. This main will provide the fire flow in this new subdivision. The City has not provided MAWC with a plan that describes whether it intends to utilize the remaining expenditures for general fire flow improvements or to offset costs of new development.

Q. DOES THE COMPANY PROPOSE TO COMPENSATE THE CITY OF RIVERSIDE FOR THE CONTRIBUTIONS IT HAS MADE IN THESE WATER MAINS?

A. MAWC is treating the installation of these mains as contributions in aid of construction as provided in its existing tariffs, just as it would a developer of the property. Refunds could be made available for the mains installed within the subdivision but all cost not within the Gatewoods Third Plat Subdivision would not have a refund. All mains installed at the expense of the City are treated as contributed property and the costs associated with this contributed plant (e.g. depreciation and a return on investment) are excluded from the Company's cost of service for ratemaking purposes.

CITY OF ST. JOSEPH ISSUES

Q. HAVE YOU REVIEWED THE TESTIMONY OF ST. JOSEPH WITNESS J. BRUCE WOODY?

A. Yes, I have.

Q. WHAT ISSUES WILL YOU RESPOND TO AS PERTAINS TO HIS TESTIMONY?

A. I will discuss St. Joseph's witness Woody's issues that pertain to proposed main extension rules, the Company's investments in infrastructure, and Company's "standards and contractual requirements" that are not in the tariff.

Q. WHAT ARE THE ISSUES THAT ST. JOSEPH WITNESS WOODY HAS WITH THE PROPOSED MAIN EXTENSIONS TARIFF?

A. Witness Woody states that the proposed tariff for Main Extensions is an impediment to development as it no longer allows for the Company to invest in free extensions where the cost of the free extension installation is less than four (4) times revenues of the estimated normal annual usage of the prospective group of customers that will connect to the main. Also, he states that the provisions will further discourage development because the new tariff will no longer provide developer refunds for customers that connect to the main extension within a ten year period. Witness Woody also asserts that the investment required for main extensions often discourages developers from proceeding with construction.

Q. DOES MAWC AGREE THAT FUTURE DEVELOPMENT WILL BE IMPEDED DUE TO THE PROPOSED NEW MAIN EXTENSION TARIFF?

A. No. Free extensions are not currently allowed in all of MAWC's districts and refunds are not as significant in all districts as what the existing St. Joseph tariff allows, yet growth in those other areas did not halt. The St. Louis Metro District has the smallest available refund amount and has continued to grow over many years. MAWC believes that the cost causer (normally the developer) should be responsible for the cost associated with the main extension. It does not seem reasonable that all ratepayers in the district should support the developer by subsidizing the cost of the main extension. The Company believes it is better to use its limited funds for the replacement of mains. This will allow the Company to continue to support investment into

the system serving all customers and replacing mains that have a history of breaks or pressure problems.

MAWC questions the notion that development would be discouraged based on the fact that the water company no longer gives free extensions or refunds, while, at the same time, the sewer system, which has equally costly infrastructure for new systems, does not normally provide for either free extensions or refunds and yet development continues to occur.

Q. HOW DO YOU RESPOND TO THE ASSERTION THAT SEVERAL INSTANCES OF THE CURRENT MAIN EXTENSION POLICY HAVE HURT ST. JOSEPH'S RESIDENTS AND INSTITUTIONS?

A. St. Joseph witness Woody gives several examples where the Company should have invested in main extensions or upgrades instead of putting these costs on the developer. The first example describes a large church that was required to spend approximately $100,000 to replace a 4" main with a 12" main between two 8" mains to accommodate the fire flows. MAWC has not been able to fully investigate this project but, based on information available to date, believes that this church, while adding to its structure, was required by the local fire authority to meet a higher fire flow than what was previously required. The cost for such an upgrade should be borne by the cost causer and not by all ratepayers of the district. MAWC has been diligent in providing sufficient transmission piping throughout the St. Joseph distribution to provide adequate service. In cases such as this where the increase in fire flow main size is required, Commission Rule 4 CSR 240-10.030(35) states: "no utility shall be required to install larger mains or fire hydrants or otherwise

supply fire service, unless proper contractual arrangements shall have been made with the utility by the individual desiring such service.". This policy requires that this customer pay the cost for his requirement and not have the cost unilaterally borne by all of the districts' ratepayers.

Q. WHAT IS THE RESPONSE TO THE ASSERTION THAT THE COMPANY DOES NOT PROPERLY INVEST, BY UPGRADE OR EXTENSION, WHEN OPPORTUNITIES ARE AVAILABLE?

A. MAWC seeks to prudently invest in mains and main replacements as budgeting constraints allow. Over the last two years MAWC has expended over $162 million ($106m in 2008 & $62m in 2009) in all of its districts. Projects are reviewed annually and are then prioritized on a needs basis. Many projects come about after the budgeting stage and have to be reviewed as to the need to replace projects already budgeted and prioritized. One of these projects was the East Towne Business Park which required a 12" main for the Business Park and the Company was considering the main as an option for possible upgrade. However, at the time this project was sent in for review by engineering, the Company could not substantiate the possible growth beyond this subdivision nor justify the proposed upsizing of the main.

Q. WHAT IS YOUR RESPONSE TO THE TIMBER CREEK SUBDIVISION HAVING TO INSTALL OFF-SITE VALVE IMPROVEMENTS TO IMPROVE MAWC'S INADEQUATE INFRASTRUCTURE?

A. This project is not unlike the church issue in that, in accordance with the fire authority's requirement, Timber Creek Subdivision fire flow was 1500 gpm. To obtain this amount of fire flow in the area will require substantial main upgrade. These costs would again be expected to be paid by the cost causer as the benefit was for their subdivision. However, upon further review of the hydraulic model for the area it was determined that this area could be placed in a higher pressure zone which would not require the expensive main replacement. However, to place this subdivision into the higher zone would require the installation of two pressure reducing valves to keep from having too high of pressure in a low lying area. When these valves are installed it will be at a substantial savings in cost to the developer over the proposed main extension to provide the required fire flow.

Q. ARE THE COMPANY'S "STANDARDS AND CONTRACTUAL REQUIREMENTS", WHICH APPEAR BINDING ON THE APPLICANTS, IN THE PROPOSED TARIFF FOR MAIN EXTENSIONS?

A. No, like the existing St. Joseph main extension tariff, the Company standards and contractual requirements are not a part of the tariff. The standards and contractual requirements could change from time to time and MAWC believes it is not appropriate to have items that could change based on industry needs be a part of a tariff that is rather inflexible. If these items were included in the tariff, MAWC would be required to revise the tariff or obtain a variance/waiver each time a modification is necessary to address project-specific issues. MAWC provides such documentation to customers and developers when main extensions are proposed.

Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A. Yes, it does.

Missouri-American Water
Cedar Hill Plant Improvement Project UPIS and CIAC

subacct	naruc acc	description	3/31/2008 accum_cost	non-treatment related plant	treatment related plant	in service date
351100	352.100	Pipe and Fittings - PVC 8"	51,910	51,910		5/31/2007 0:00
351100	352.200	Structure - Manhole/Catch Basin	51,910	51,910		5/31/2007 0:00
358200	356.000	Electrical - Generator (Alternator - AC, DC)	20,928		20,928	4/23/2007 0:00
371200	365.000	Electrical - Motor Starter/Motor Control Center (Oil, Adjustable Speed, Vacuum, Star Delta, Soft Start, Resistance, Air, Auto Transformer, Direct On Line, Variable HV Air)	49,304		49,304	4/23/2007 0:00
371200	365.000	Electrical - Power Supply Equipment (DC Supply, Fuel Cells, Hydroelectric, Phase Converter, Portable Light Plant, Power Inverter, Solar Panel, Uninterruptible Power Supply, Voltage Regulator, Wind Generator)	3,990		3,990	4/23/2007 0:00
371200	365.000	Process Pumping Equipment - Submersible Centrifugal Pump	39,900		39,900	4/23/2007 0:00
354400	371.000	HVAC/Plumbing - HVAC Equipment (Air Condition Unit/Air Chiller, Heat Pump)	17,100	17,100		4/23/2007 0:00
354400	371.000	Structure - Manhole/Catch Basin	22,800		22,800	4/23/2007 0:00
354400	371.000	Structure - Paving (Parking Lot, Sidewalk, Driveway, Road)	45,600	45,600		4/23/2007 0:00
354400	371.000	Structure - Vault/Chamber/Pit (Concrete, Fiberglass, Plastic, Steel)	155,040		155,040	4/23/2007 0:00
354400	371.000	Structure - Wood Building	228,001	228,001		4/23/2007 0:00
354400	371.000	Structure - Fence (Barrier, Gate, Masonry, Palisade,Wire Mesh, Wooden)	33,028	33,028		4/23/2007 0:00
354400	371.000	Structure - Vault/Chamber/Pit (Concrete, Fiberglass, Plastic, Steel)	52,320		52,320	4/23/2007 0:00
354400	371.000	Structure - Wood Building	41,856	41,856		4/23/2007 0:00
380000	372.000	Electrical - Generator (Alternator - AC, DC)	45,600		45,600	4/23/2007 0:00
380000	372.200	INSTALL TREATMENT EQUIPMENT sand creek WWTP	43,172		43,172	4/23/2007 0:00
380000	372.300	INSTALL TREATMENT EQUIPMENT sand creek WWTP	776,852		776,852	4/23/2007 0:00
380000	372.400	Meters - Process (Closed Pipe Time of Flight, Magnetic, Multi-jet, Porgrammable, Open Channel, Ultrasonic, Paddle, Propeller, Thermal Mass Flow, Ultrasonic, Vortex, Rotameter)	19,380		19,380	4/23/2007 0:00
380000	372.400	INSTALL TREATMENT EQUIPMENT sand creek WWTP	43,051		43,051	4/23/2007 0:00
380000	372.600	Pipe and Fittings - Ductile Iron 6"	5,292		5,292	4/23/2007 0:00
380000	372.500	Treatment - Clarification - Clarification Tank (Steel, Concrete)	52,320		52,320	4/23/2007 0:00
381000	373.000	Pipe and Fittings - Ductile Iron 8"	43,949		43,949	4/23/2007 0:00
381000	373.000	Flow Control - Other Valve (Air, Altitude, Backflow Preventor, Ball, Check, Cone, Diaphragm, Flap (Outfall), Float, Foot, Globe, Knife, Needle, Open Chanel Gate, Pinch, Piston, Plug, Presure/Vacuum Release, Pressure Relief, Solenoid, Telescopic	40,795		40,795	4/23/2007 0:00
381000	373.000	Pipe and Fittings - Ductile Iron 4"	24,110		24,110	4/23/2007 0:00
381000	373.000	Pipe and Fittings - Ductile Iron 6"	15,289		15,289	4/23/2007 0:00
381000	373.000	Pipe and Fittings - Ductile Iron 8"	52,630		52,630	4/23/2007 0:00
381000	373.000	Pipe and Fittings - Ductile Iron 10"	12,937		12,937	4/23/2007 0:00
382000	374.100	Structure - Vault/Chamber/Pit (Concrete, Fiberglass, Plastic, Steel)	14,701		14,701	4/23/2007 0:00
396000	396.000	Instrumentation - Control System - Modem	7,410		7,410	4/23/2007 0:00
396000	396.000	Instrumentation - Control System - Programmable Logic Controller	10,830		10,830	4/23/2007 0:00
		Total UPIS	**$2,022,005**	**$469,406**	**$1,552,600**	

CIAC		CIAC Amount	non-treatment related ciac	treatment related ciac	CIAC GL Date
271160	O'Brien	106,823		106,823	1/3/2007 0:00
271160	O'Brien	100,000		100,000	6/22/2006 0:00
271160	O'Brien	118,885		118,885	7/6/2007 0:00
271160	O'Brien	6,820		6,820	9/12/2006 0:00
271160	Northwest HS *	159,312		159,312	12/2/2004 0:00
	Total CIAC	**491,820**		**491,820**	

* Northwest HS CIAC was transferred to the Company's books at the time of acquisition.

Plant less CIAC	$1,060,780
New Plant Cost/Gal	$10
2009 Existing Avg Daily Usage	75,150
Existing Usage Cost of Plant	$777,853
Remaining Plant not Contributed	$282,928
Lake Tamarac Capacity Charge Paid	$76,500
Remaining Plant less CIAC less Capacity Charge	$206,428
Capacity not yet Paid or Used	19,943 gallons
% Capacity Remaining	13.30%

Sand Creek Committed Loads **2/10/2010**

Committed flows	future gpd	Permitted	# of committed lots	DNR flow 370 gpd/home	Historical Sand Creek flows 305 gpd/home
Clover Lake	16,280	Yes	44	16,280	13,420
Osage Trails	5,180	Yes	14	5,180	4,270
Lammert Lane	1,110	Yes	3	1,110	915
Moto Mart	1,110	Yes	3	1,110	915
Craig Drive	1,850	Yes	5	1,850	1,525
O'Brien Place	42,180	No, but contributed to plant expansion	114	42,180	34,770
Pete O'Brien Road	2,220	Yes	6	2,220	1,830
Cedar Hill Road	3,700	Yes	10	3,700	3,050
Matterhorn Drive	1,110	Yes	3	1,110	915
Brookside & Honeysuckle	2,960	Yes	8	2,960	2,440
Lake Tamarack	18,870	Yes	51	18,870	15,555
	96,570			96,570	79,605

current Sand Creek load	75,150	updated with 2009 data
design Sand Creek load	150,000	
	74,850	
uncommitted remaining capacity		
# of lots remaining		

	-21,720	-4,755
	-59	-16