

**MISSOURI-AMERICAN WATER COMPANY**  
**ST. LOUIS, MISSOURI**

**COST OF SERVICE**  
**ALLOCATION STUDY**  
**FOR THE TEST YEAR ENDED DECEMBER 31, 2002**  
**AND**  
**PROPOSED CUSTOMER RATES**



**Gannett Fleming**  
**Valuation and Rate Division**

MISSOURI-AMERICAN WATER COMPANY

St. Louis, Missouri

COST OF SERVICE

ALLOCATION STUDY

FOR THE TEST YEAR ENDED DECEMBER 31, 2002

AND

PROPOSED CUSTOMER RATES

GANNETT FLEMING, INC. - VALUATION AND RATE DIVISION

Harrisburg, Pennsylvania

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May 15, 2003

Missouri-American Water Company  
535 North New Ballas Road  
St. Louis, MO 63141

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Attention Mr. Eric W. Thornburg, President

Gentlemen:

Pursuant to your request, we have conducted cost of service allocation studies based on the district specific revenue requirements estimated for the test year ended December 31, 2002 and have prepared proposed rate schedules designed to produce pro forma revenues more commensurate with the allocated costs.

The attached report presents the results of the allocation studies, as well as supporting schedules which set forth the detailed cost allocation calculations and the proposed schedule of rates. Schedule A, for each district, presents a comparison of the cost of service by customer classification with the pro forma revenues produced by each classification under present and proposed rates.

Respectfully submitted,

GANNETT FLEMING, INC.

PAUL R. HERBERT  
Vice President  
Valuation and Rate Division

PRH:krm

Attachment

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## PART I. INTRODUCTION

**MISSOURI-AMERICAN WATER COMPANY**  
**COST OF SERVICE ALLOCATION STUDY**  
**FOR THE TEST YEAR ENDED DECEMBER 31, 2002**  
**AND**  
**PROPOSED CUSTOMER RATES**

**PART I. INTRODUCTION**

**PLAN OF REPORT**

The report sets forth the results of the cost of service allocation studies based on district specific revenue requirements as of December 31, 2002, for Missouri-American Water Company. Part I, Introduction, contains statements with respect to the basis of the study, the procedures employed, and a summary of the results of the study. Part II, Cost of Service by Customer Classification, presents detailed schedules of the allocation of costs to district specific customer classifications, as well as the bases for the allocations. Schedule A in Part II summarizes the cost allocation and the revenues produced under present and proposed rates for each district. Part III, Proposed Customer Rates, sets forth the proposed rate schedules for water service for each district.

**BASIS OF STUDY**

The purpose of the cost allocation studies was to determine the relative cost of service responsibilities of the several customer classifications within each operating district, based on considerations of quantity of water consumed, variability of rate of consumption, and costs associated with customer metering, billing and accounting. The allocation studies incorporated generally-accepted principles and procedures for allocating the several

categories of cost to customer classifications in proportion to each classification's use of facilities, commodities and services required in providing water service.

## ALLOCATION PROCEDURES

The allocation studies were based on the Base-Extra Capacity Method for allocating costs to customer classifications. The method is described in the 2000 and prior editions of the Water Rates Manual published by the American Water Works Association. The four basic categories of cost responsibility are base, extra capacity, customer, and fire protection costs. The following discussion presents a brief description of these costs and the manner in which they were allocated.

Base Costs are costs that tend to vary with the quantity of water used, plus costs associated with supplying, treating, pumping, and distributing water to customers under average load conditions, without the elements necessary to meet peak demands. Base costs were allocated to customer classifications on the basis of average daily usage.

Extra Capacity Costs are costs associated with meeting usage requirements in excess of the average. They include operating and capital costs for additional plant and system capacity beyond that required for average use. The extra capacity costs in this study are subdivided into costs necessary to meet maximum day extra demand and costs to meet maximum hour extra demand. The extra capacity costs were allocated to customer classifications on the bases of each classification's maximum day and hour usage in excess of average usage.

Customer Costs are costs associated with serving customers regardless of their usage or demand characteristics. Customer costs include the operating and capital costs

related to meters and services, meter reading costs, and billing and collecting costs. The customer costs were allocated on the bases of the capital cost of meters and services, and the number of customers.

Fire Protection Costs are costs associated with providing the facilities to meet the potential peak demand of fire protection service. Fire Protection costs are subdivided into costs to meet Public Fire Protection and Private Fire Protection demands. The extra capacity costs assigned to fire protection service were allocated to Public and Private Fire Protection on the basis of the total relative demands of the hydrants and fire service lines, sized to provide fire protection.

## RESULTS OF STUDY

The results of the cost of service allocation study are set forth in Part II. The data summarized for each district in Schedule A, Comparison of Pro Forma Cost of Service with Revenues Under Present and Proposed Rates for the Test Year Ended December 31, 2002, constitute the principal results of the cost allocation studies and subsequent rate designs.

The cost of service by customer classification shown in column 2 of Schedule A is developed in Schedule B, Cost of Service for the Twelve Months Ended December 31, 2002, Allocated to Customer Classifications. The allocation of the total cost of service to the several customer classifications was performed by applying the allocation factors referenced in column 2 of Schedule B to the cost of service set forth in column 3. The bases for the allocation factors are presented in Schedule C.

Schedule D sets forth the experienced average day and maximum day system sendout and the maximum day ratios from 1990 through 2002. Schedule E presents the basis for allocating demand related costs of fire service to private and public fire protection classifications.

Schedule F in Part III of the report, presents the proposed rate schedules for each district. The rate schedules show the proposed minimum and volumetric rates as well as the rates for private and public fire protection.

## BRUNSWICK DISTRICT

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## PART II. COST OF SERVICE BY CUSTOMER CLASSIFICATION

II-1

## PART II. COST OF SERVICE BY CUSTOMER CLASSIFICATION

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES  
FOR THE TEST YEAR ENDED DECEMBER 31, 2002

| Customer<br>Classification<br>(1) | Cost of Service               |                | Revenues, Present Rates |                | Revenues, Proposed Rates |                | Proposed Increase |                            |
|-----------------------------------|-------------------------------|----------------|-------------------------|----------------|--------------------------|----------------|-------------------|----------------------------|
|                                   | Amount<br>(Schedule B)<br>(2) | Percent<br>(3) | Amount<br>(4)           | Percent<br>(5) | Amount<br>(6)            | Percent<br>(7) | Amount<br>(8)     | Percent<br>Increase<br>(9) |
| Residential                       | \$ 95,505                     | 48.9%          | \$ 97,163               | 49.7%          | \$ 94,582                | 48.4%          | \$ (2,581)        | -2.7%                      |
| Commercial                        | 24,155                        | 12.4%          | 24,126                  | 12.4%          | 24,571                   | 12.6%          | 445               | 1.8%                       |
| Industrial                        | 393                           | 0.2%           | 741                     | 0.4%           | 577                      | 0.3%           | (164)             | -22.1%                     |
| Public Authority                  | 2,951                         | 1.5%           | 3,544                   | 1.8%           | 3,143                    | 1.6%           | (401)             | -11.3%                     |
| Sales for Resale                  | 54,926                        | 28.1%          | 64,770                  | 33.1%          | 52,236                   | 26.7%          | (12,534)          | -19.4%                     |
| Private Fire Service              | 2,208                         | 1.1%           | 5,071                   | 2.6%           | 5,071                    | 2.6%           | -                 | 0.0%                       |
| Public Fire Service               | 15,264                        | 7.8%           | -                       | 0.0%           | 15,264                   | 7.8%           | 15,264            | 0.0%                       |
| Total Sales                       | 195,401                       | 100.0%         | 195,415                 | 100.0%         | 195,444                  | 100.0%         | 29                | 0.0%                       |
| Other Revenues                    | 9,574                         |                | 9,574                   |                | 9,574                    |                | -                 | 0.0%                       |
| Total                             | \$ 204,975                    |                | \$ 204,989              |                | \$ 205,018               |                | \$ 29             | 0.0%                       |

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT  
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                            | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Fire Protection<br>Public<br>(10) |
|-------------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|-----------------------------------|
| <b>OPERATION AND MAINTENANCE EXPENSES</b> |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| <b>SOURCE OF SUPPLY EXPENSES</b>          |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper SS                       | 2                     | \$ 4,370                  | \$ 2,106           | \$ 561            | \$ 7              | \$ 73                        | \$ 1,598                   | \$ 5           | \$ 20                             |
| Labor & Exp Oper SS                       | 2                     | 0                         |                    |                   |                   |                              |                            |                |                                   |
| Labor & Exp Oper SS                       | 2                     | (2)                       | (1)                | (0)               | (0)               | (0)                          | (1)                        | (0)            | (0)                               |
| Purchased Water                           | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| <b>TOTAL SS EXPENSE - OPERATION</b>       |                       | <b>4,368</b>              | <b>2,105</b>       | <b>561</b>        | <b>7</b>          | <b>73</b>                    | <b>1,597</b>               | <b>5</b>       | <b>20</b>                         |
| Misc Exp Oper SS                          | 2                     | 3,616                     | 1,743              | 464               | 6                 | 60                           | 1,322                      | 4              | 17                                |
| Misc Exp Oper SS                          | 2                     | 107                       | 52                 | 14                | 0                 | 2                            | 39                         | 0              | 0                                 |
| Rents Oper SS                             | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Super & Eng Maint SS                      | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint SS                 | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint SS                 | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Collect & Impound Maint SS                | 2                     | 3                         | 1                  | 0                 | 0                 | 0                            | 1                          | 0              | 0                                 |
| Lake, River & Oth Maint SS                | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Lake, River & Oth Maint SS                | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Wells & Springs Maint SS                  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Wells & Springs Maint SS                  | 2                     | 121                       | 58                 | 16                | 0                 | 2                            | 44                         | 0              | 1                                 |
| Inflit Gall & Tunnels Maint SS            | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Supply Mains Maint SS                     | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Plant Maint SS                       | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Plant Maint SS                       | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| <b>TOTAL SS EXPENSE - MAINTENANCE</b>     |                       | <b>12,322</b>             | <b>5,938</b>       | <b>1,582</b>      | <b>21</b>         | <b>205</b>                   | <b>4,505</b>               | <b>15</b>      | <b>57</b>                         |
|                                           |                       | <b>16,169</b>             | <b>7,792</b>       | <b>2,076</b>      | <b>27</b>         | <b>268</b>                   | <b>5,911</b>               | <b>19</b>      | <b>74</b>                         |
| <b>TOTAL SS EXPENSE</b>                   |                       | <b>20,537</b>             | <b>9,897</b>       | <b>2,637</b>      | <b>35</b>         | <b>341</b>                   | <b>7,508</b>               | <b>25</b>      | <b>94</b>                         |
| <b>POWER AND PUMPING EXPENSES</b>         |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper P                        | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Fuel for Power Prod                       | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Labor & Exp Oper Pwr Prod                 | 6                     | 994                       | 465                | 124               | 2                 | 16                           | 353                        | 6              | 29                                |
| Labor & Exp Oper Pwr Prod                 | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Purch Fuel/Power for Pump                 | 1                     | 5,778                     | 2,544              | 742               | 11                | 97                           | 2,330                      | 11             | 43                                |
| Labor & Exp Oper Pump                     | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Labor & Exp Oper Pump                     | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Expenses Transferred                      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Exp Oper P                           | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Rents Oper P                              | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| <b>TOTAL PUMPING EXPENSE - OPERATION</b>  |                       | <b>6,772</b>              | <b>3,009</b>       | <b>866</b>        | <b>13</b>         | <b>113</b>                   | <b>2,682</b>               | <b>17</b>      | <b>72</b>                         |

**MISSOURI-AMERICAN WATER COMPANY**  
**BRUNSWICK DISTRICT**  
**COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS**

| Account<br>(1)                                | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Fire Protection<br>Public<br>(10) |
|-----------------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|-----------------------------------|
| Super & Eng Maint P                           | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint P                      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Power Prod Equip Maint P                      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Maint P                            | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Maint P                            | 6                     | 19                        | 9                  | 2                 | 0                 | 0                            | 7                          | 0              | 1                                 |
| <b>TOTAL PUMPING EXPENSES - MAINTENANCE</b>   |                       | <b>19</b>                 | <b>9</b>           | <b>2</b>          | <b>0</b>          | <b>0</b>                     | <b>7</b>                   | <b>0</b>       | <b>1</b>                          |
| <b>TOTAL PUMPING EXPENSES</b>                 |                       | <b>6,791</b>              | <b>3,018</b>       | <b>869</b>        | <b>13</b>         | <b>113</b>                   | <b>2,689</b>               | <b>17</b>      | <b>72</b>                         |
| <b>WATER TREATMENT</b>                        |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper WT                           | 2                     | 20,391                    | 9,826              | 2,618             | 35                | 338                          | 7,455                      | 24             | 94                                |
| Chemicals                                     | 1                     | 6,454                     | 2,842              | 829               | 12                | 108                          | 2,602                      | 12             | 48                                |
| Labor & Exp Oper WT                           | 2                     | 15,424                    | 7,433              | 1,980             | 26                | 256                          | 5,639                      | 19             | 71                                |
| Labor & Exp Oper WT                           | 2                     | 3,370                     | 1,624              | 433               | 6                 | 56                           | 1,232                      | 4              | 16                                |
| Misc Exp Oper WT                              | 2                     | 1,166                     | 562                | 150               | 2                 | 19                           | 426                        | 1              | 5                                 |
| Misc Exp Oper WT                              | 1                     | 3,050                     | 1,343              | 392               | 6                 | 51                           | 1,230                      | 6              | 23                                |
| Misc Exp Oper WT                              | 2                     | 2,624                     | 1,265              | 337               | 4                 | 44                           | 959                        | 3              | 12                                |
| Rents Oper WT                                 | 2                     | 3                         | 1                  | 0                 | 0                 | 0                            | 1                          | 0              | 0                                 |
| <b>TOTAL WT EXPENSE - OPERATION</b>           |                       | <b>52,482</b>             | <b>24,896</b>      | <b>6,740</b>      | <b>91</b>         | <b>873</b>                   | <b>19,545</b>              | <b>70</b>      | <b>268</b>                        |
| Super & Eng Maint WT                          | 2                     | 17,479                    | 8,423              | 2,244             | 30                | 290                          | 6,390                      | 21             | 80                                |
| Struct & Improve Maint WT                     | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint WT                     | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Maint WT                             | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Maint WT                             | 2                     | 6,287                     | 3,030              | 807               | 11                | 104                          | 2,299                      | 8              | 29                                |
| <b>TOTAL WT EXPENSE - MAINTENANCE</b>         |                       | <b>23,766</b>             | <b>11,453</b>      | <b>3,052</b>      | <b>40</b>         | <b>395</b>                   | <b>8,689</b>               | <b>29</b>      | <b>109</b>                        |
| <b>TOTAL WT EXPENSE</b>                       |                       | <b>76,248</b>             | <b>36,349</b>      | <b>9,791</b>      | <b>132</b>        | <b>1,268</b>                 | <b>28,234</b>              | <b>98</b>      | <b>377</b>                        |
| <b>TRANSMISSION AND DISTRIBUTION EXPENSES</b> |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper TD                           | 11                    | 1,482                     | 387                | 100               | 1                 | 13                           | 266                        | 112            | 603                               |
| Storage Facility Exp                          | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Storage Facility Exp                          | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Lines Exp                                  | 7                     | 12,368                    | 3,226              | 836               | 11                | 113                          | 2,221                      | 933            | 5,029                             |
| TD Lines Exp                                  | 7                     | 209                       | 55                 | 14                | 0                 | 2                            | 38                         | 16             | 85                                |
| Meter Expense                                 | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Meter Expense                                 | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Customer Install Exp                          | 10                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Customer Install Exp                          | 10                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Exp Oper TD                              | 11                    | 161                       | 42                 | 11                | 0                 | 1                            | 29                         | 12             | 65                                |

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT  
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                    | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Fire Protection<br>Private<br>(9) | Public<br>(10) |
|-----------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|-----------------------------------|----------------|
| Misc Exp Oper TD                  | 11                    | 282                       | 74                 | 19                | 0                 | 3                            | 51                         | 21                                | 115            |
| Misc Exp Oper TD                  | 11                    | 481                       | 125                | 33                | 0                 | 4                            | 86                         | 36                                | 196            |
| Rents Oper TD                     | 11                    | 37                        | 10                 | 3                 | 0                 | 0                            | 7                          | 3                                 | 15             |
| TOTAL T & D EXPENSE OPERATION     |                       | 15,020                    | 3,917              | 1,015             | 14                | 137                          | 2,698                      | 1,133                             | 6,107          |
| Super & Eng Maint TD              | 12                    | 1,496                     | 965                | 216               | 7                 | 23                           | 40                         | 0                                 | 244            |
| Struct & Improve Maint TD         | 12                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Struct & Improve Maint TD         | 12                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Dist Res Stand Maint TD           | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Main Maint TD                  | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Main Maint TD                  | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Fire Main Maint TD                | 8                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Services Maint TD                 | 10                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Services Maint TD                 | 10                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Meters Maint TD                   | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Meters Maint TD                   | 9                     | 41                        | 32                 | 7                 | 0                 | 1                            | 1                          | 0                                 | 0              |
| Hydrants Maint TD                 | 8                     | 8                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 8              |
| Hydrants Maint TD                 | 8                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Misc Plant Maint TD               | 12                    | 21                        | 14                 | 3                 | 0                 | 0                            | 1                          | 0                                 | 3              |
| Mat and Sup Maint TD              | 12                    | 2,742                     | 1,769              | 396               | 14                | 41                           | 74                         | 0                                 | 448            |
| Misc Maint TD                     | 12                    | 6,706                     | 4,327              | 969               | 34                | 101                          | 180                        | 0                                 | 1,095          |
| Amort Def Maint TD                | 5                     | 3,142                     | 1,031              | 265               | 2                 | 39                           | 673                        | 177                               | 955            |
| TOTAL T & D EXPENSE - MAINTENANCE |                       | 14,156                    | 8,137              | 1,857             | 57                | 206                          | 970                        | 177                               | 2,753          |
| TOTAL T & D EXPENSE               |                       | 29,176                    | 12,055             | 2,872             | 70                | 342                          | 3,667                      | 1,309                             | 8,860          |
| CUSTOMER ACCOUNTS                 |                       |                           |                    |                   |                   |                              |                            |                                   |                |
| Supervision CA                    | 13                    | 1,491                     | 1,197              | 240               | 6                 | 19                           | 16                         | 13                                | 0              |
| Meter Reading Exp CA              | 14                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Meter Reading Exp CA              | 14                    | 269                       | 218                | 44                | 1                 | 3                            | 3                          | 0                                 | 0              |
| Meter Reading Exp CA              | 14                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Cust Rec & Collection CA          | 13                    | 41                        | 33                 | 7                 | 0                 | 1                            | 0                          | 0                                 | 0              |
| Cust Rec & Collection CA          | 13                    | 3,633                     | 2,916              | 585               | 16                | 47                           | 39                         | 31                                | 0              |
| Uncollectible Accts               | 13                    | 3,901                     | 3,131              | 628               | 17                | 50                           | 42                         | 34                                | 0              |
| Misc Cust Accts Exp CA            | 13                    | 76                        | 61                 | 12                | 0                 | 1                            | 1                          | 1                                 | 0              |
| Misc Cust Accts Exp CA            | 13                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Misc Cust Accts Exp CA            | 13                    | 1,805                     | 1,449              | 290               | 8                 | 23                           | 19                         | 16                                | 0              |
| Cust Serv & Info Exp CA           | 13                    | 3                         | 2                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TOTAL CUSTOMER ACCOUNTING EXPENSE |                       | 11,219                    | 9,006              | 1,806             | 48                | 145                          | 120                        | 94                                | 0              |

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT  
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                                    | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Fire Protection<br>Private<br>(9) | Public<br>(10) |
|---------------------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|-----------------------------------|----------------|
| <b>ADMINISTRATIVE AND GENERAL EXPENSES</b>        |                       |                           |                    |                   |                   |                              |                            |                                   |                |
| Salaries AG                                       | 15                    | 7,966                     | 3,936              | 991               | 17                | 121                          | 2,232                      | 94                                | 575            |
| Other Supplies & Exp AG                           | 15                    | 1                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Other Supplies & Exp AG                           | 15                    | 4,480                     | 2,214              | 557               | 9                 | 68                           | 1,255                      | 53                                | 323            |
| Other Supplies & Exp AG                           | 15                    | 6,744                     | 3,332              | 839               | 14                | 103                          | 1,890                      | 80                                | 487            |
| Mgmt Fees-Corporate/Shared Service Center         | 15                    | 4,841                     | 2,392              | 602               | 10                | 74                           | 1,356                      | 57                                | 350            |
| Mgmt Fees-Call Center                             | 13                    | 3,992                     | 3,204              | 642               | 17                | 51                           | 43                         | 34                                | 0              |
| Mgmt Fees-Belleville Lab                          | 2                     | 724                       | 349                | 93                | 1                 | 12                           | 265                        | 1                                 | 3              |
| Mgmt Fees- Financial ITS                          | 15                    | 421                       | 208                | 52                | 1                 | 6                            | 118                        | 5                                 | 30             |
| Mgmt Fees- Customer Billings ITS                  | 13                    | 2,375                     | 1,906              | 382               | 10                | 31                           | 25                         | 20                                | 0              |
| Mgmt Fees-Other ITS                               | 15                    | 27                        | 13                 | 3                 | 0                 | 0                            | 8                          | 0                                 | 2              |
| Outside Services AG                               | 15                    | 1,046                     | 517                | 130               | 2                 | 16                           | 293                        | 12                                | 76             |
| Outside Services AG                               | 15                    | (4)                       | (2)                | (0)               | (0)               | (0)                          | (1)                        | (0)                               | (0)            |
| Property Insurance                                | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Ins Gen Liab Oper AG                              | 15                    | 848                       | 419                | 106               | 2                 | 13                           | 238                        | 10                                | 61             |
| Ins Work Comp AG                                  | 16                    | 1,908                     | 868                | 226               | 3                 | 29                           | 598                        | 28                                | 155            |
| Ins Other Oper AG                                 | 15                    | 800                       | 395                | 99                | 2                 | 12                           | 224                        | 9                                 | 58             |
| Property Insurance                                | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Injuries & Damages                                | 16                    | 16                        | 7                  | 2                 | 0                 | 0                            | 5                          | 0                                 | 1              |
| Employee Pension & Benefits                       | 16                    | 20,594                    | 9,370              | 2,445             | 35                | 311                          | 6,452                      | 305                               | 1,676          |
| Employee Pension & Benefits                       | 16                    | 11,925                    | 5,426              | 1,415             | 20                | 180                          | 3,736                      | 176                               | 971            |
| Employee Pension & Benefits                       | 16                    | 2,847                     | 1,295              | 338               | 5                 | 43                           | 892                        | 42                                | 232            |
| Reg Commission Exp                                | 15                    | 273                       | 135                | 34                | 1                 | 4                            | 76                         | 3                                 | 20             |
| Rents AG                                          | 15                    | 3,641                     | 1,799              | 453               | 8                 | 55                           | 1,020                      | 43                                | 263            |
| Goodwill Advertising Exp                          | 15                    | 32                        | 16                 | 4                 | 0                 | 0                            | 9                          | 0                                 | 2              |
| Misc Exp AG                                       | 15                    | 2,085                     | 1,030              | 259               | 4                 | 32                           | 584                        | 25                                | 151            |
| Research & Development                            | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TOTAL A & G OPERATIONS                            |                       | 77,581                    | 38,830             | 9,674             | 162               | 1,162                        | 21,319                     | 999                               | 5,436          |
| General Plant Maint AG                            | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| General Plant Maint AG                            | 15                    | 1,193                     | 589                | 148               | 3                 | 18                           | 334                        | 14                                | 86             |
| TOTAL A & G EXPENSE - MAINTENANCE                 |                       | 1,193                     | 589                | 148               | 3                 | 18                           | 334                        | 14                                | 86             |
| <b>TOTAL A &amp; G EXPENSE</b>                    |                       | 78,774                    | 39,420             | 9,822             | 164               | 1,180                        | 21,653                     | 1,013                             | 5,522          |
| <b>Total Operation &amp; Maintenance Expenses</b> |                       | 222,746                   | 109,744            | 27,797            | 462               | 3,389                        | 63,871                     | 2,556                             | 14,926         |

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT  
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                       | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Public<br>(10) |
|--------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|----------------|
| <b>DEPRECIATION EXPENSE</b>          |                       |                           |                    |                   |                   |                              |                            |                |                |
| Struct & Imp SS                      | 2                     | 525                       | 253                | 67                | 1                 | 9                            | 192                        | 1              | 2              |
| Struct & Imp P                       | 6                     | 1,131                     | 529                | 141               | 2                 | 18                           | 401                        | 7              | 33             |
| Struct & Imp WT                      | 2                     | 6,290                     | 3,031              | 808               | 11                | 104                          | 2,300                      | 8              | 29             |
| Struct & Imp TD                      | 7                     | 849                       | 221                | 57                | 1                 | 8                            | 152                        | 64             | 345            |
| Struct & Imp Offices                 | 15                    | 111                       | 55                 | 14                | 0                 | 2                            | 31                         | 1              | 8              |
| Struct & Imp Store, Shop, Gar        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Struct & Imp Misc                    | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Collect & Impounding                 | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Lake, River & Other Intakes          | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Wells & Springs                      | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Supply Mains                         | 2                     | 2,251                     | 1,085              | 289               | 4                 | 37                           | 823                        | 3              | 10             |
| Power Generation Equip Othe          | 2                     | 1,123                     | 541                | 144               | 2                 | 19                           | 411                        | 1              | 5              |
| Pump Equip Electric                  | 6                     | 33                        | 15                 | 4                 | 0                 | 1                            | 12                         | 0              | 1              |
| Pump Equip Other                     | 6                     | 3,556                     | 1,663              | 443               | 6                 | 57                           | 1,262                      | 21             | 103            |
| WT Equip Non-Media                   | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Dist Reservoirs & Standpipe          | 2                     | 6,654                     | 3,207              | 854               | 11                | 110                          | 2,433                      | 8              | 31             |
| Elevated Tanks & Standpipes          | 5                     | 1,282                     | 421                | 108               | 1                 | 16                           | 275                        | 72             | 389            |
| Ground Level Facilities              | 5                     | 389                       | 128                | 33                | 0                 | 5                            | 83                         | 22             | 118            |
| TD Mains Not Classified by           | 5                     | 140                       | 46                 | 12                | 0                 | 2                            | 30                         | 8              | 43             |
| TD Mains 4 & Less                    | 7                     | 562                       | 147                | 38                | 1                 | 5                            | 101                        | 42             | 229            |
| TD Mains 6 to 8"                     | 4                     | 446                       | 100                | 26                | 0                 | 3                            | 66                         | 39             | 212            |
| TD Mains 10 to 16"                   | 4                     | 449                       | 101                | 26                | 0                 | 4                            | 66                         | 39             | 213            |
| TD Mains 18 & Grtr                   | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Services                             | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Meters Bronze Case                   | 10                    | 2,052                     | 1,615              | 334               | 9                 | 30                           | 34                         | 30             | 0              |
| Meters Plastic Case                  | 9                     | 1,219                     | 940                | 211               | 7                 | 22                           | 39                         | 0              | 0              |
| Meters Other                         | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Meters Other-Rem Rdr Units           | 9                     | 907                       | 699                | 157               | 5                 | 16                           | 29                         | 0              | 0              |
| Meter Installations                  | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Meter Installation Other             | 9                     | 2,519                     | 1,942              | 435               | 15                | 46                           | 81                         | 0              | 0              |
| Hydrants                             | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Utility Plant Acquisition Adjustment | 8                     | 1,176                     | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Other P/E WT Res Hand Equip          | 17                    | 27                        | 13                 | 3                 | 0                 | 0                            | 0                          | 0              | 1,176          |
| Other P/E TD                         | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 3              |
| Other P/E CPS                        | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Office Furniture & Equip             | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Comp & Periph Equip                  | 15                    | 129                       | 64                 | 16                | 0                 | 2                            | 36                         | 2              | 9              |
| Computer Software                    | 15                    | 111                       | 55                 | 14                | 0                 | 2                            | 31                         | 1              | 8              |
| Comp Software Personal               | 15                    | 113                       | 56                 | 14                | 0                 | 2                            | 32                         | 1              | 8              |
| Data Handling Equipment              | 15                    | 28                        | 14                 | 3                 | 0                 | 0                            | 8                          | 0              | 2              |
|                                      | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |

**MISSOURI-AMERICAN WATER COMPANY**  
**BRUNSWICK DISTRICT**  
**COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS**

| Account<br>(1)                                         | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9)  | Fire Protection<br>Public<br>(10) |
|--------------------------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|-----------------|-----------------------------------|
| Other Office Equipment                                 | 15                    | 278                       | 137                | 35                | 1                 | 4                            | 78                         | 3               | 20                                |
| Trans Equip Lt Duty Trks                               | 15                    | 1,505                     | 744                | 187               | 3                 | 23                           | 422                        | 18              | 109                               |
| Trans Equip Hvy Duty Trks                              | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0                                 |
| Trans Equip Autos                                      | 15                    | 33                        | 16                 | 4                 | 0                 | 1                            | 9                          | 0               | 2                                 |
| Trans Equip Other                                      | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0                                 |
| Stores Equipment                                       | 15                    | 440                       | 217                | 55                | 1                 | 7                            | 123                        | 5               | 32                                |
| Tools, Shop, Garage Equip Oth                          | 15                    | 2,017                     | 997                | 251               | 4                 | 31                           | 565                        | 24              | 146                               |
| Tools, Shop, Garage Equip                              | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0                                 |
| Laboratory Equipment                                   | 2                     | 2,965                     | 1,429              | 381               | 5                 | 49                           | 1,084                      | 4               | 14                                |
| Laboratory Equip Other                                 | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0                                 |
| Power Operated Equipment                               | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0                                 |
| Comm Equip Non-Telephone                               | 15                    | 131                       | 65                 | 16                | 0                 | 2                            | 37                         | 2               | 9                                 |
| Comm Equip Telephone                                   | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0                                 |
| Misc Equipment                                         | 15                    | 1,288                     | 636                | 160               | 3                 | 20                           | 361                        | 15              | 93                                |
| Other Tangible Property                                | 15                    | 5,280                     | 2,609              | 657               | 11                | 80                           | 1,479                      | 62              | 381                               |
| <b>Total Depreciation Expense</b>                      |                       | <b>48,009</b>             | <b>23,790</b>      | <b>5,997</b>      | <b>105</b>        | <b>736</b>                   | <b>13,093</b>              | <b>504</b>      | <b>3,783</b>                      |
| Amort-Other UP                                         | 18                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0                                 |
| <b>Taxes Other Than Income</b>                         |                       |                           |                    |                   |                   |                              |                            |                 |                                   |
| Utility Reg Assessment Fee                             | 19                    | 898                       | 438                | 111               | 2                 | 14                           | 253                        | 10              | 70                                |
| Property Taxes                                         | 18                    | 13,031                    | 6,268              | 1,583             | 26                | 195                          | 3,567                      | 147             | 1,244                             |
| FUTA                                                   | 16                    | 121                       | 55                 | 14                | 0                 | 2                            | 38                         | 2               | 10                                |
| FICA                                                   | 16                    | 6,234                     | 2,836              | 740               | 11                | 94                           | 1,953                      | 92              | 507                               |
| SUTA                                                   | 16                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0                                 |
| Other Taxes & Licenses                                 | 15                    | 360                       | 178                | 45                | 1                 | 5                            | 101                        | 4               | 26                                |
| Gross Receipts Tax                                     | 19                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0                                 |
| <b>Total Taxes, Other Than Income</b>                  |                       | <b>20,644</b>             | <b>9,776</b>       | <b>2,493</b>      | <b>40</b>         | <b>311</b>                   | <b>5,911</b>               | <b>256</b>      | <b>1,858</b>                      |
| <b>Income Taxes</b>                                    | 18                    | <b>33,930</b>             | <b>16,320</b>      | <b>4,122</b>      | <b>68</b>         | <b>509</b>                   | <b>9,287</b>               | <b>383</b>      | <b>3,240</b>                      |
| <b>Utility Income Available for Return</b>             | 18                    | <b>93,426</b>             | <b>44,938</b>      | <b>11,351</b>     | <b>187</b>        | <b>1,401</b>                 | <b>25,571</b>              | <b>1,056</b>    | <b>8,922</b>                      |
| <b>Total Cost of Service</b>                           |                       | <b>418,754</b>            | <b>204,568</b>     | <b>51,761</b>     | <b>862</b>        | <b>6,346</b>                 | <b>117,733</b>             | <b>4,755</b>    | <b>32,730</b>                     |
| Less: Other Water Revenues                             | 19                    | (9,574)                   | (4,675)            | (1,183)           | (20)              | (146)                        | (2,692)                    | (109)           | (749)                             |
| Revenue Contribution                                   | 19                    | (213,779)                 | (104,388)          | (26,423)          | (449)             | (3,249)                      | (60,115)                   | (2,437)         | (16,718)                          |
| <b>Total Other Water Revenues</b>                      |                       | <b>(223,353)</b>          | <b>(109,063)</b>   | <b>(27,606)</b>   | <b>(469)</b>      | <b>(3,395)</b>               | <b>(62,807)</b>            | <b>(2,546)</b>  | <b>(17,466)</b>                   |
| <b>Total Cost of Service Related to Sales of Water</b> |                       | <b>\$ 195,401</b>         | <b>\$ 95,505</b>   | <b>\$ 24,155</b>  | <b>\$ 393</b>     | <b>\$ 2,951</b>              | <b>\$ 54,926</b>           | <b>\$ 2,208</b> | <b>\$ 15,264</b>                  |

**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS**

**FACTOR 1. ALLOCATION OF COSTS WHICH VARY WITH THE AMOUNT OF WATER CONSUMED.**

Factors are based on the pro forma test year average daily consumption for each customer classification.

| Customer<br>Classification<br>(1) | Average Daily<br>Consumption,<br>Thousand Gallons<br>(2) | Allocation<br>Factor<br>(3) |
|-----------------------------------|----------------------------------------------------------|-----------------------------|
| Residential                       | 47.3                                                     | 0.4403                      |
| Commercial                        | 13.8                                                     | 0.1285                      |
| Industrial                        | 0.2                                                      | 0.0019                      |
| Other Public Authority            | 1.8                                                      | 0.0168                      |
| Sales for Resale                  | 43.3                                                     | 0.4032                      |
| Private Fire Protection           | 0.2                                                      | 0.0019                      |
| Public Fire Protection            | 0.8                                                      | 0.0074                      |
| Total                             | <u>107.4</u>                                             | <u>1.0000</u>               |

**FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS.**

Factors are based on the weighting of the factors for average daily consumption (Factor 1) and the factors derived from maximum day extra capacity demand for each customer classification, as follows:

| Customer<br>Classification<br>(1) | Average Daily<br>Consumption  |                                          | Maximum Day<br>Extra Capacity |                                          | Allocation<br>Factor<br>(6)=(3)+(5) |
|-----------------------------------|-------------------------------|------------------------------------------|-------------------------------|------------------------------------------|-------------------------------------|
|                                   | Allocation<br>Factor 1<br>(2) | Weighted<br>Factor<br>(3)=(2)x<br>0.6250 | Allocation<br>Factor<br>(4)   | Weighted<br>Factor<br>(5)=(4)x<br>0.3750 |                                     |
| Residential                       | 0.4403                        | 0.2752                                   | 0.5513                        | 0.2067                                   | 0.4819                              |
| Commercial                        | 0.1285                        | 0.0803                                   | 0.1282                        | 0.0481                                   | 0.1284                              |
| Industrial                        | 0.0019                        | 0.0012                                   | 0.0012                        | 0.0005                                   | 0.0017                              |
| Other Public Authority            | 0.0168                        | 0.0105                                   | 0.0163                        | 0.0061                                   | 0.0166                              |
| Sales for Resale                  | 0.4032                        | 0.2520                                   | 0.3030                        | 0.1136                                   | 0.3656                              |
| Private Fire Protection           | 0.0019                        | 0.0012                                   |                               |                                          | 0.0012                              |
| Public Fire Protection            | 0.0074                        | 0.0046                                   |                               |                                          | 0.0046                              |
| Total                             | <u>1.0000</u>                 | <u>0.6250</u>                            | <u>1.0000</u>                 | <u>0.3750</u>                            | <u>1.0000</u>                       |

The derivation of the maximum day extra capacity factors in column 4 and the basis for the column 3 and 5 weightings are presented on the following page.

**MISSOURI-AMERICAN WATER COMPANY  
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND  
MAXIMUM DAY EXTRA CAPACITY FUNCTIONS, cont.

| Customer<br>Classification | Average Daily<br>Consumption,<br>Thousand Gal. | Maximum Day Extra Capacity |                                                          |                             |
|----------------------------|------------------------------------------------|----------------------------|----------------------------------------------------------|-----------------------------|
|                            |                                                | Factor*                    | Rate of Flow,<br>Thousand Gal.<br>Per Day<br>(4)=(2)x(3) | Allocation<br>Factor<br>(5) |
| (1)                        | (2)                                            | (3)                        | (4)                                                      | (5)                         |
| Residential                | 47.3                                           | 1.0                        | 47.3                                                     | 0.5513                      |
| Commercial                 | 13.8                                           | 0.8                        | 11.0                                                     | 0.1282                      |
| Industrial                 | 0.2                                            | 0.5                        | 0.1                                                      | 0.0012                      |
| Other Public Authority     | 1.8                                            | 0.8                        | 1.4                                                      | 0.0163                      |
| Sales for Resale           | 43.3                                           | 0.6                        | 26.0                                                     | 0.3030                      |
| Total                      | 106.4                                          |                            | 85.8                                                     | 1.0000                      |

The weighting of the factors is based on the maximum day ratio of 1.60, based on a review of maximum day ratios experienced during the period 1990 through 2002 (see Schedule D).

|                               | Maximum<br>Day<br>Ratio | Weight |
|-------------------------------|-------------------------|--------|
| Average Day                   | 1.00                    | 0.6250 |
| Maximum Day<br>Extra Capacity | 0.60                    | 0.3750 |
| Total                         | 1.60                    | 1.0000 |

\* Ratio of maximum day to average day minus 1.0.

MISSOURI-AMERICAN WATER COMPANY  
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY  
AND FIRE PROTECTION FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

| Customer<br>Classification<br>(1) | Average Daily<br>Consumption |                                           | Maximum Day<br>Extra Capacity |                                           | Fire Protection             |                                           | Allocation<br>Factor<br>(8)=(3)+(5)+(7) |
|-----------------------------------|------------------------------|-------------------------------------------|-------------------------------|-------------------------------------------|-----------------------------|-------------------------------------------|-----------------------------------------|
|                                   | Allocation<br>Factor<br>(2)  | Weighted<br>Factor<br>(3)=(2) X<br>0.5357 | Allocation<br>Factor<br>(4)   | Weighted<br>Factor<br>(5)=(4) X<br>0.3214 | Allocation<br>Factor<br>(6) | Weighted<br>Factor<br>(7)=(6) X<br>0.1429 |                                         |
| Residential                       | 0.4403                       | 0.2359                                    | 0.5513                        | 0.1772                                    |                             |                                           | 0.4131                                  |
| Commercial                        | 0.1285                       | 0.0688                                    | 0.1282                        | 0.0412                                    |                             |                                           | 0.1100                                  |
| Industrial                        | 0.0019                       | 0.0010                                    | 0.0012                        | 0.0004                                    |                             |                                           | 0.0014                                  |
| Other Public Authority            | 0.0168                       | 0.0090                                    | 0.0163                        | 0.0052                                    |                             |                                           | 0.0142                                  |
| Sales for Resale                  | 0.4032                       | 0.2160                                    | 0.3030                        | 0.0974                                    |                             |                                           | 0.3134                                  |
| Private Fire Protection           | 0.0019                       | 0.0010                                    |                               |                                           | 0.1560                      | 0.0223                                    | 0.0233                                  |
| Public Fire Protection            | 0.0074                       | 0.0040                                    |                               |                                           | 0.8440                      | 0.1206                                    | 0.1246                                  |
| Total                             | 1.0000                       | 0.5357                                    | 1.0000                        | 0.3214                                    | 1.0000                      | 0.1429                                    | 1.0000                                  |

**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS, cont.**

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum day ratio of 1.60 and the average daily system sendout for 2002 of 0.135 MGD. The system demand for fire protection is 300 Gallons per minute for 2 hours.

|                               | <u>Ratio</u> | <u>Rate of Flow,<br/>(GPD)</u> | <u>Weight</u> |
|-------------------------------|--------------|--------------------------------|---------------|
| Average Day                   | 1.00         | 135,000                        | 0.5357        |
| Maximum Day<br>Extra Capacity | <u>0.60</u>  | <u>81,000</u>                  | <u>0.3214</u> |
| Subtotal                      | <u>1.60</u>  | 216,000                        | 0.8571        |
| Fire Protection               |              | <u>36,000</u>                  | <u>0.1429</u> |
| Total                         |              | <u>252,000</u>                 | <u>1.0000</u> |

The public and private fire protection allocation factors in column 6 on the previous page are based on the relative potential demands (see Schedule E).

MISSOURI-AMERICAN WATER COMPANY  
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

| Customer<br>Classification | Average Hourly Consumption |                             |                                           | Maximum Hour<br>Extra Capacity |                                           |                             | Fire Protection                           |  | Allocation<br>Factor<br>(9)=(4)+(6)+(8) |
|----------------------------|----------------------------|-----------------------------|-------------------------------------------|--------------------------------|-------------------------------------------|-----------------------------|-------------------------------------------|--|-----------------------------------------|
|                            | Thousand<br>Gallons<br>(2) | Allocation<br>Factor<br>(3) | Weighted<br>Factor<br>(4)=(3) X<br>0.1757 | Allocation<br>Factor<br>(5)    | Weighted<br>Factor<br>(6)=(5) X<br>0.2636 | Allocation<br>Factor<br>(7) | Weighted<br>Factor<br>(8)=(7) X<br>0.5607 |  |                                         |
|                            |                            |                             |                                           |                                |                                           |                             |                                           |  |                                         |
| Residential                | 1.97                       | 0.4397                      | 0.0772                                    | 0.5582                         | 0.1471                                    |                             |                                           |  | 0.2243                                  |
| Commercial                 | 0.58                       | 0.1295                      | 0.0228                                    | 0.1311                         | 0.0346                                    |                             |                                           |  | 0.0574                                  |
| Industrial                 | 0.01                       | 0.0022                      | 0.0004                                    | 0.0016                         | 0.0004                                    |                             |                                           |  | 0.0008                                  |
| Other Public Authority     | 0.08                       | 0.0179                      | 0.0031                                    | 0.0178                         | 0.0047                                    |                             |                                           |  | 0.0078                                  |
| Sales for Resale           | 1.80                       | 0.4018                      | 0.0706                                    | 0.2913                         | 0.0768                                    |                             |                                           |  | 0.1474                                  |
| Private Fire Protection    | 0.01                       | 0.0022                      | 0.0004                                    |                                |                                           | 0.1560                      | 0.0875                                    |  | 0.0879                                  |
| Public Fire Protection     | 0.03                       | 0.0067                      | 0.0012                                    |                                |                                           | 0.8440                      | 0.4732                                    |  | 0.4744                                  |
| Total                      | 4.48                       | 1.0000                      | 0.1757                                    | 1.0000                         | 0.2636                                    | 1.0000                      | 0.5607                                    |  | 1.0000                                  |

The maximum hour extra capacity factors in column 5 are determined as follows:

**MISSOURI-AMERICAN WATER COMPANY  
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**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND  
MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.**

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 2.5 and the average daily system sendout for 2002 of 0.135 MGD. The system demand for fire protection is 300 gallons per minute.

|                                | <u>Ratio</u> | <u>Rate of Flow,<br/>(GPM)</u> | <u>Weight</u> |
|--------------------------------|--------------|--------------------------------|---------------|
| Average Hour                   | 1.00         | 94                             | 0.1757        |
| Maximum Hour<br>Extra Capacity | <u>1.50</u>  | <u>141</u>                     | <u>0.2636</u> |
| Subtotal                       | <u>2.50</u>  | 235                            | 0.4393        |
| Fire Protection                |              | <u>300</u>                     | <u>0.5607</u> |
| Total                          |              | <u>535</u>                     | <u>1.0000</u> |

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

| Customer<br>Classification | Average<br>Hourly<br>Consumption<br>Thousand Gal. | <u>Maximum Hour Extra Capacity</u> |                                   |                              |
|----------------------------|---------------------------------------------------|------------------------------------|-----------------------------------|------------------------------|
|                            |                                                   | <u>Factor*</u>                     | <u>1,000 Gallons<br/>Per Hour</u> | <u>Allocation<br/>Factor</u> |
| (1)                        | (2)                                               | (3)                                | (4)=(2)x(3)                       | (5)                          |
| Residential                | 1.97                                              | 3.5                                | 6.90                              | 0.5582                       |
| Commercial                 | 0.58                                              | 2.8                                | 1.62                              | 0.1311                       |
| Industrial                 | 0.01                                              | 1.5                                | 0.02                              | 0.0016                       |
| Other Public Authority     | 0.08                                              | 2.8                                | 0.22                              | 0.0178                       |
| Sales for Resale           | <u>1.80</u>                                       | 2.0                                | <u>3.60</u>                       | <u>0.2913</u>                |
| Total                      | <u>4.44</u>                                       |                                    | <u>12.36</u>                      | <u>1.0000</u>                |

\* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands (see Schedule E).

MISSOURI-AMERICAN WATER COMPANY  
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES.

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and the fire protection demand for each customer classification.

| Customer<br>Classification<br>(1) | Average Hourly Consumption |                             |                                           | Maximum Hour<br>Extra Capacity |                                           |                             | Fire Protection                           |                                         |  |
|-----------------------------------|----------------------------|-----------------------------|-------------------------------------------|--------------------------------|-------------------------------------------|-----------------------------|-------------------------------------------|-----------------------------------------|--|
|                                   | Thousand<br>Gallons<br>(2) | Allocation<br>Factor<br>(3) | Weighted<br>Factor<br>(4)=(3) X<br>0.2560 | Allocation<br>Factor<br>(5)    | Weighted<br>Factor<br>(6)=(5) X<br>0.3840 | Allocation<br>Factor<br>(7) | Weighted<br>Factor<br>(8)=(7) X<br>0.3600 | Allocation<br>Factor<br>(9)=(4)+(6)+(8) |  |
| Residential                       | 2.0                        | 0.4444                      | 0.1138                                    | 0.5582                         | 0.2144                                    |                             |                                           | 0.3282                                  |  |
| Commercial                        | 0.6                        | 0.1333                      | 0.0341                                    | 0.1311                         | 0.0503                                    |                             |                                           | 0.0844                                  |  |
| Industrial                        | 0.0                        | 0.0000                      | 0.0000                                    | 0.0016                         | 0.0006                                    |                             |                                           | 0.0006                                  |  |
| Other Public Authority            | 0.1                        | 0.0222                      | 0.0057                                    | 0.0178                         | 0.0068                                    |                             |                                           | 0.0125                                  |  |
| Sales for Resale                  | 1.8                        | 0.3999                      | 0.1024                                    | 0.2913                         | 0.1119                                    |                             |                                           | 0.2143                                  |  |
| Private Fire Protection           | 0.0                        | 0.0000                      | 0.0000                                    |                                |                                           | 0.1560                      | 0.0562                                    | 0.0562                                  |  |
| Public Fire Protection            | 0.0                        | 0.0000                      | 0.0000                                    |                                |                                           | 0.8440                      | 0.3038                                    | 0.3038                                  |  |
| Total                             | 4.5                        | 0.9998                      | 0.2560                                    | 1.0000                         | 0.3840                                    | 1.0000                      | 0.3600                                    | 1.0000                                  |  |

The weighting of the factors is based on the ratio of the capacity required for a 2 hour demand of fire flow, as related to total storage capacity. The calculation is shown on the following page.

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**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES, cont.**

The weighting of the factors is based on the ratio of the capacity required for a 2 hour demand of fire flow, as related to total storage capacity.

$$\text{Fire Protection Weight} = \frac{300 \text{ GPM} \times 60 \text{ Min.} \times 2 \text{ Hrs.}}{100,000 \text{ Gallons}} = 0.3600$$

$$\text{General Service Weight} = 1.0000 - 0.3600 = 0.6400$$

The weighting of the average hourly consumption and maximum hour extra demand for general service is based on the maximum hour ratio, as follows:

|                                | Maximum<br>Hour<br>Ratio | Percent              | Weight               |
|--------------------------------|--------------------------|----------------------|----------------------|
| Average Hour                   | 1.00                     | 40.00                | 0.2560               |
| Extra Capacity<br>Maximum Hour | <u>1.50</u>              | <u>60.00</u>         | <u>0.3840</u>        |
| Total                          | <u><u>2.50</u></u>       | <u><u>100.00</u></u> | <u><u>0.6400</u></u> |

**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH POWER AND PUMPING FACILITIES.**

Factors are based on the weighting of the maximum daily consumption, Factor 2, the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

| Customer<br>Classification | Maximum Daily<br>Consumption |                    | Maximum Daily<br>Consumption |                    | Maximum Hourly<br>Consumption |                    | Allocation<br>Factor |
|----------------------------|------------------------------|--------------------|------------------------------|--------------------|-------------------------------|--------------------|----------------------|
|                            | Allocation<br>Factor 2       | Weighted<br>Factor | Allocation<br>Factor 3       | Weighted<br>Factor | Allocation<br>Factor 4        | Weighted<br>Factor |                      |
| (1)                        | (2)                          | (3)=(2)X<br>0.8106 | (4)                          | (5)=(4)X<br>0.1841 | (6)                           | (7)=(6)X<br>0.0053 | (8)=(3)+<br>(5)+(7)  |
| Residential                | 0.4819                       | 0.3905             | 0.4131                       | 0.0760             | 0.2243                        | 0.0012             | 0.4677               |
| Commercial                 | 0.1284                       | 0.1041             | 0.1100                       | 0.0203             | 0.0574                        | 0.0003             | 0.1247               |
| Industrial                 | 0.0017                       | 0.0014             | 0.0014                       | 0.0003             | 0.0008                        | 0.0000             | 0.0017               |
| Other Public Authority     | 0.0166                       | 0.0135             | 0.0142                       | 0.0026             | 0.0078                        | 0.0000             | 0.0161               |
| Sales for Resale           | 0.3656                       | 0.2964             | 0.3134                       | 0.0577             | 0.1474                        | 0.0008             | 0.3549               |
| Private Fire Protection    | 0.0012                       | 0.0010             | 0.0233                       | 0.0043             | 0.0879                        | 0.0005             | 0.0058               |
| Public Fire Protection     | 0.0046                       | 0.0037             | 0.1246                       | 0.0229             | 0.4744                        | 0.0025             | 0.0291               |
| Total                      | <u>1.0000</u>                | <u>0.8106</u>      | <u>1.0000</u>                | <u>0.1841</u>      | <u>1.0000</u>                 | <u>0.0053</u>      | <u>1.0000</u>        |

The weighting of the factors is based on the horsepower of pumps associated with maximum day facilities, maximum day and fire facilities, and maximum hour facilities, as follows:

|                                      | <u>Horsepower<br/>of Pumps</u> | <u>Weight</u> |
|--------------------------------------|--------------------------------|---------------|
| Associated with Maximum Day          | 4,600                          | 0.8106        |
| Associated with Maximum Day and Fire | 1,045                          | 0.1841        |
| Associated with Maximum Hour         | <u>30</u>                      | <u>0.0053</u> |
| Total                                | <u>5,675</u>                   | <u>1.0000</u> |

Schedule C-BRU

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 7. ALLOCATION OF COSTS ASSOCIATED WITH TRANSMISSION AND DISTRIBUTION MAINS.

Factors are based on the weighting of the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

| Customer<br>Classification | Maximum Daily<br>Consumption |                    | Maximum Hourly<br>Consumption |                    | Allocation<br>Factor |
|----------------------------|------------------------------|--------------------|-------------------------------|--------------------|----------------------|
|                            | Allocation<br>Factor 3       | Weighted<br>Factor | Allocation<br>Factor 4        | Weighted<br>Factor |                      |
| (1)                        | (2)                          | (3)=(2)X<br>0.1937 | (4)                           | (5)=(4)X<br>0.8063 | (6)=(3)+(5)          |
| Residential                | 0.4131                       | 0.0800             | 0.2243                        | 0.1808             | 0.2608               |
| Commercial                 | 0.1100                       | 0.0213             | 0.0574                        | 0.0463             | 0.0676               |
| Industrial                 | 0.0014                       | 0.0003             | 0.0008                        | 0.0006             | 0.0009               |
| Other Public Authority     | 0.0142                       | 0.0028             | 0.0078                        | 0.0063             | 0.0091               |
| Sales for Resale           | 0.3134                       | 0.0607             | 0.1474                        | 0.1189             | 0.1796               |
| Private Fire Protection    | 0.0233                       | 0.0045             | 0.0879                        | 0.0709             | 0.0754               |
| Public Fire Protection     | 0.1246                       | 0.0241             | 0.4744                        | 0.3825             | 0.4066               |
| Total                      | 1.0000                       | 0.1937             | 1.0000                        | 0.8063             | 1.0000               |

The weighting of the factors is based on the total footage of mains, designated as either transmission mains or distribution mains, as follows:

|                    | Total Footage<br>of Mains | Weight |
|--------------------|---------------------------|--------|
| Transmission Mains | 630,263                   | 0.1937 |
| Distribution Mains | 2,624,076                 | 0.8063 |
| Total              | 3,254,339                 | 1.0000 |

**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH FIRE HYDRANTS.**

Costs are assigned directly to Public Fire Protection.

| Customer<br>Classification<br><u>(1)</u> | Allocation<br>Factor<br><u>(3)</u> |
|------------------------------------------|------------------------------------|
| Public Fire Protection                   | <u>1.0000</u>                      |
| Total                                    | <u><u>1.0000</u></u>               |

**FACTOR 9. ALLOCATION OF COSTS ASSOCIATED WITH METERS.**

Factors are based on the relative cost of meters by size and customer classification, as developed on the following page and summarized below.

| Customer<br>Classification<br><u>(1)</u> | 5/8" Dollar<br>Equivalents<br><u>(2)</u> | Allocation<br>Factor<br><u>(3)</u> |
|------------------------------------------|------------------------------------------|------------------------------------|
| Residential                              | 384                                      | 0.7711                             |
| Commercial                               | 86                                       | 0.1727                             |
| Industrial                               | 3                                        | 0.0060                             |
| Other Public Authority                   | 9                                        | 0.0181                             |
| Sales for Resale                         | 16                                       | 0.0321                             |
| Private Fire                             | <u>0</u>                                 | <u>0.0000</u>                      |
| Total                                    | <u><u>498</u></u>                        | <u><u>1.0000</u></u>               |

## Schedule C-BRU

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT

## BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

| Meter<br>Size<br>(1) | 5/8"<br>Dollar<br>Equivalent<br>(2) | Residential                |                          | Commercial                 |                          | Industrial                 |                          | Other Public Authority     |                           | Sales for Resale            |                            | Total                       |                   |
|----------------------|-------------------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|---------------------------|-----------------------------|----------------------------|-----------------------------|-------------------|
|                      |                                     | Number of<br>Meters<br>(3) | Weighting<br>(4)=(2)X(3) | Number of<br>Meters<br>(5) | Weighting<br>(6)=(2)X(5) | Number of<br>Meters<br>(7) | Weighting<br>(8)=(2)X(7) | Number of<br>Meters<br>(9) | Weighting<br>(10)=(2)X(9) | Number of<br>Meters<br>(11) | Weighting<br>(12)=(2)X(11) | Number of<br>Meters<br>(13) | Weighting<br>(14) |
| 5/8                  | 1.0                                 | 371                        | 371                      | 68                         | 68                       | 1                          | 1                        | 5                          | 5                         | 1                           | 1                          | 446                         | 446               |
| 3/4                  | 1.3                                 | 0                          | 0                        | 0                          | 0                        | 0                          | 0                        | 0                          | 0                         | 0                           | 0                          | 0                           | 0                 |
| 1                    | 1.7                                 | 0                          | 0                        | 5                          | 9                        | 1                          | 2                        | 0                          | 0                         | 1                           | 2                          | 7                           | 13                |
| 1-1/2                | 3.5                                 | 0                          | 0                        | 0                          | 0                        | 0                          | 0                        | 0                          | 0                         | 0                           | 0                          | 0                           | 0                 |
| 2                    | 4.3                                 | 3                          | 13                       | 2                          | 9                        | 0                          | 0                        | 1                          | 4                         | 3                           | 13                         | 9                           | 39                |
| 3                    | 19.0                                | 0                          | 0                        | 0                          | 0                        | 0                          | 0                        | 0                          | 0                         | 0                           | 0                          | 0                           | 0                 |
| 4                    | 29.3                                | 0                          | 0                        | 0                          | 0                        | 0                          | 0                        | 0                          | 0                         | 0                           | 0                          | 0                           | 0                 |
| 6                    | 48.4                                | 0                          | 0                        | 0                          | 0                        | 0                          | 0                        | 0                          | 0                         | 0                           | 0                          | 0                           | 0                 |
| 8                    | 112.9                               | 0                          | 0                        | 0                          | 0                        | 0                          | 0                        | 0                          | 0                         | 0                           | 0                          | 0                           | 0                 |
| Total                |                                     | 374                        | 384                      | 75                         | 86                       | 2                          | 3                        | 6                          | 9                         | 5                           | 16                         | 462                         | 498               |

**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 10. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.**

Factors are based on the relative cost of services by size and customer classification, as developed on the following page and summarized below.

| <u>Customer<br/>Classification</u><br>(1) | <u>3/4" Dollar<br/>Equivalents</u><br>(2) | <u>Allocation<br/>Factor</u><br>(3) |
|-------------------------------------------|-------------------------------------------|-------------------------------------|
| Residential                               | 377                                       | 0.7871                              |
| Commercial                                | 78                                        | 0.1628                              |
| Industrial                                | 2                                         | 0.0042                              |
| Other Public Authority                    | 7                                         | 0.0146                              |
| Sales for Resale                          | 8                                         | 0.0167                              |
| Private Fire Protection                   | <u>7</u>                                  | <u>0.0146</u>                       |
| <br>Total                                 | <br><u><u>479</u></u>                     | <br><u><u>1.0000</u></u>            |

## Schedule C-BRU

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT

## BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

| Service<br>Size<br>(1) | 3/4"<br>Dollar<br>Equivalent<br>(2) | Residential                  |                          | Commercial                   |                          | Industrial                   |                          | Other Public Authority       |                           | Sales for Resale              |                            | Private Fire Protection       |                            | Total                         |                   |
|------------------------|-------------------------------------|------------------------------|--------------------------|------------------------------|--------------------------|------------------------------|--------------------------|------------------------------|---------------------------|-------------------------------|----------------------------|-------------------------------|----------------------------|-------------------------------|-------------------|
|                        |                                     | Number of<br>Services<br>(3) | Weighting<br>(4)=(2)X(3) | Number of<br>Services<br>(5) | Weighting<br>(6)=(2)X(5) | Number of<br>Services<br>(7) | Weighting<br>(8)=(2)X(7) | Number of<br>Services<br>(9) | Weighting<br>(10)=(2)X(9) | Number of<br>Services<br>(11) | Weighting<br>(12)=(2)X(11) | Number of<br>Services<br>(13) | Weighting<br>(14)=(2)X(11) | Number of<br>Services<br>(15) | Weighting<br>(16) |
| 3/4                    | 1.00                                | 371                          | 371                      | 68                           | 68                       | 1                            | 1                        | 5                            | 5                         | 1                             | 1                          | 0                             | 0                          | 446                           | 446               |
| 1                      | 1.17                                | 0                            | 0                        | 5                            | 6                        | 1                            | 1                        | 0                            | 0                         | 1                             | 1                          | 0                             | 0                          | 7                             | 8                 |
| 1-1/2                  | 1.58                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 0                             | 0                          | 0                             | 0                 |
| 2                      | 2.04                                | 3                            | 6                        | 2                            | 4                        | 0                            | 0                        | 1                            | 2                         | 3                             | 6                          | 0                             | 0                          | 9                             | 18                |
| 3                      | 2.73                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 1                             | 3                          | 1                             | 3                 |
| 4                      | 2.88                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 0                             | 0                          | 0                             | 0                 |
| 6                      | 4.24                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 1                             | 4                          | 1                             | 4                 |
| 8                      | 6.98                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 0                             | 0                          | 0                             | 0                 |
| 10                     | 9.50                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 0                             | 0                          | 0                             | 0                 |
| 12                     | 12.16                               | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 0                             | 0                          | 0                             | 0                 |
| Total                  |                                     | 374                          | 377                      | 75                           | 78                       | 2                            | 2                        | 6                            | 7                         | 5                             | 8                          | 2                             | 7                          | 464                           | 479               |

**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 11. ALLOCATION OF TRANSMISSION AND DISTRIBUTION OPERATION SUPERVISION AND ENGINEERING AND MISCELLANEOUS EXPENSES.**

Factors are based on transmission and distribution operation expenses other than those being allocated, as follows:

| Customer<br>Classification | Transmission<br>& Distribution<br>Operating<br>Expenses | Allocation<br>Factor |
|----------------------------|---------------------------------------------------------|----------------------|
| (1)                        | (2)                                                     | (3)                  |
| Residential                | \$ 3,280                                                | 0.2608               |
| Commercial                 | 850                                                     | 0.0676               |
| Industrial                 | 11                                                      | 0.0009               |
| Other Public Authority     | 114                                                     | 0.0091               |
| Sales for Resale           | 2,259                                                   | 0.1796               |
| Private Fire Protection    | 948                                                     | 0.0754               |
| Public Fire Protection     | 5,114                                                   | 0.4066               |
|                            | <hr/>                                                   | <hr/>                |
| Total                      | 12,577                                                  | 1.0000               |
|                            | <hr/> <hr/>                                             | <hr/> <hr/>          |

**FACTOR 12. ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINTENANCE SUPERVISION AND ENGINEERING, STRUCTURES AND IMPROVEMENTS, AND OTHER EXPENSES.**

Factors are based on transmission and distribution maintenance expenses other than those being allocated, as follows:

| Customer<br>Classification | Transmission<br>& Distribution<br>Maintenance<br>Expenses | Allocation<br>Factor |
|----------------------------|-----------------------------------------------------------|----------------------|
| (1)                        | (2)                                                       | (3)                  |
| Residential                | \$ 32                                                     | 0.6452               |
| Commercial                 | 7                                                         | 0.1445               |
| Industrial                 | 0                                                         | 0.0050               |
| Other Public Authority     | 1                                                         | 0.0151               |
| Sales for Resale           | 1                                                         | 0.0269               |
| Private Fire Protection    | -                                                         | 0.0000               |
| Public Fire Protection     | 8                                                         | 0.1633               |
|                            | <hr/>                                                     | <hr/>                |
| Total                      | \$49                                                      | 1.0000               |
|                            | <hr/> <hr/>                                               | <hr/> <hr/>          |

**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 13. ALLOCATION OF BILLING AND COLLECTING COSTS.**

Factors are based on the total number of customers.

| Customer<br>Classification | Total<br>Customers | Allocation<br>Factor |
|----------------------------|--------------------|----------------------|
| (1)                        | (2)                | (3)                  |
| Residential                | 374                | 0.8026               |
| Commercial                 | 75                 | 0.1609               |
| Industrial                 | 2                  | 0.0043               |
| Other Public Authority     | 6                  | 0.0129               |
| Sales for Resale           | 5                  | 0.0107               |
| Private Fire Protection    | 4                  | 0.0086               |
| Public Fire Protection     | 0                  | 0.0000               |
|                            | <hr/>              | <hr/>                |
| Total                      | 466                | 1.0000               |
|                            | <hr/> <hr/>        | <hr/> <hr/>          |

**FACTOR 14. ALLOCATION OF METER READING COSTS.**

Factors are based on the number of metered customers.

| Customer<br>Classification | Total Metered<br>Customers | Allocation<br>Factor |
|----------------------------|----------------------------|----------------------|
| (1)                        | (2)                        | (3)                  |
| Residential                | 374                        | 0.8096               |
| Commercial                 | 75                         | 0.1623               |
| Industrial                 | 2                          | 0.0043               |
| Other Public Authority     | 6                          | 0.0130               |
| Sales for Resale           | 5                          | 0.0108               |
|                            | <hr/>                      | <hr/>                |
| Total                      | 462                        | 1.0000               |
|                            | <hr/> <hr/>                | <hr/> <hr/>          |

**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 15. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES AND CASH  
WORKING CAPITAL.**

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

| Customer<br>Classification | Operation &<br>Maintenance<br>Expenses | Allocation<br>Factor |
|----------------------------|----------------------------------------|----------------------|
| (1)                        | (2)                                    | (3)                  |
| Residential                | \$63,595                               | 0.4941               |
| Commercial                 | 16,011                                 | 0.1244               |
| Industrial                 | 269                                    | 0.0021               |
| Other Public Authority     | 1,952                                  | 0.0152               |
| Sales for Resale           | 36,057                                 | 0.2802               |
| Private Fire Protection    | 1,514                                  | 0.0118               |
| Public Fire Protection     | 9,291                                  | 0.0722               |
|                            | <hr/>                                  | <hr/>                |
| Total                      | \$128,689                              | 1.0000               |
|                            | <hr/> <hr/>                            | <hr/> <hr/>          |

**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 16. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.**

Factors are based on the allocation of direct labor expense.

| Customer<br>Classification | Direct Labor<br>Expense | Allocation<br>Factor |
|----------------------------|-------------------------|----------------------|
| (1)                        | (2)                     | (3)                  |
| Residential                | \$38,113                | 0.4550               |
| Commercial                 | 9,944                   | 0.1187               |
| Industrial                 | 144                     | 0.0017               |
| Other Public Authority     | 1,265                   | 0.0151               |
| Sales for Resale           | 26,241                  | 0.3133               |
| Private Fire Protection    | 1,239                   | 0.0148               |
| Public Fire Protection     | 6,822                   | 0.0814               |
|                            | <hr/>                   | <hr/>                |
| Total                      | <u>\$83,768</u>         | <u>1.0000</u>        |

**FACTOR 17. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS,  
MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.**

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

| Customer<br>Classification | Original<br>Cost Less<br>Depreciation | Allocation<br>Factor |
|----------------------------|---------------------------------------|----------------------|
| (1)                        | (2)                                   | (3)                  |
| Residential                | \$542,474                             | 0.4807               |
| Commercial                 | 137,032                               | 0.1215               |
| Industrial                 | 2,263                                 | 0.0020               |
| Other Public Authority     | 16,880                                | 0.0150               |
| Sales for Resale           | 308,885                               | 0.2738               |
| Private Fire Protection    | 12,717                                | 0.0113               |
| Public Fire Protection     | 107,976                               | 0.0957               |
|                            | <hr/>                                 | <hr/>                |
| Total                      | <u>\$1,128,227</u>                    | <u>1.0000</u>        |

**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 18. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.**

Factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below.

| Customer<br>Classification | Original<br>Cost Measure<br>of Value | Allocation<br>Factor |
|----------------------------|--------------------------------------|----------------------|
| (1)                        | (2)                                  | (3)                  |
| Residential                | \$541,520                            | 0.4810               |
| Commercial                 | 136,767                              | 0.1215               |
| Industrial                 | 2,261                                | 0.0020               |
| Other Public Authority     | 16,843                               | 0.0150               |
| Sales for Resale           | 308,079                              | 0.2737               |
| Private Fire Protection    | 12,679                               | 0.0113               |
| Public Fire Protection     | 107,467                              | 0.0955               |
| Total                      | <u>\$1,125,616</u>                   | <u>1.0000</u>        |

**FACTOR 19. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS AND OTHER WATER REVENUES.**

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

| Customer<br>Classification | Total Cost<br>of Service | Allocation<br>Factor |
|----------------------------|--------------------------|----------------------|
| (1)                        | (2)                      | (3)                  |
| Residential                | \$203,995                | 0.4883               |
| Commercial                 | 51,616                   | 0.1236               |
| Industrial                 | 859                      | 0.0021               |
| Other Public Authority     | 6,328                    | 0.0152               |
| Sales for Resale           | 117,404                  | 0.2812               |
| Private Fire Protection    | 4,741                    | 0.0114               |
| Public Fire Protection     | 32,640                   | 0.0782               |
| Total                      | <u>\$417,583</u>         | <u>1.0000</u>        |

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Fire Protection |        | (10)  |
|-------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|-----------------|--------|-------|
|                               |                       |                           |                    |                   |                   |                              |                            | Private<br>(9)  | Public |       |
| <b>RATE BASE</b>              |                       |                           |                    |                   |                   |                              |                            |                 |        |       |
| Organization                  | 17                    | \$                        | \$                 | \$                | \$                | \$                           | \$                         | \$              | \$     | 49    |
| Franchises                    | 17                    | 1,092                     | 525                | 133               | 2                 | 16                           | 299                        | 12              |        | 105   |
| Land & Ld Rights SS           | 2                     | 11,981                    | 5,774              | 1,538             | 20                | 199                          | 4,380                      | 14              |        | 55    |
| Land & Ld Rights P            | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Land & Ld Rights WT           | 2                     | 1,468                     | 707                | 188               | 2                 | 24                           | 537                        | 2               |        | 7     |
| Land & Ld Rights TD           | 7                     | 591                       | 154                | 40                | 1                 | 5                            | 106                        | 45              |        | 240   |
| Land & Land Rights AG         | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp SS               | 2                     | 29,922                    | 14,419             | 3,842             | 51                | 497                          | 10,939                     | 36              |        | 138   |
| Struct & Imp P                | 6                     | 50,899                    | 23,805             | 6,347             | 87                | 819                          | 18,064                     | 295             |        | 1,481 |
| Struct & Imp Pumps (STL)      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp Pump Boosters    | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp WT               | 2                     | 224,243                   | 108,063            | 28,793            | 381               | 3,722                        | 81,983                     | 269             |        | 1,032 |
| Struct & Imp WT Nth Plt (ST   | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp WT Ctrl Plt 1    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp WT Ctrl Plt 3    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp WT Sth Plt (ST   | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp WT Meramec (ST   | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp TD               | 7                     | 23,494                    | 6,127              | 1,588             | 21                | 214                          | 4,220                      | 1,771           |        | 9,553 |
| Struct & Imp TD Spec Cross    | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp Offices          | 15                    | 4,011                     | 1,982              | 499               | 8                 | 61                           | 1,124                      | 47              |        | 290   |
| Struct & Imp Leasehold        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp Leasehold        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp Store, Shop, Gar | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Struct & Imp Misc             | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Collect & Impounding          | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Lake, River & Other Intakes   | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Wells & Springs               | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Supply Mains                  | 2                     | 88,633                    | 42,712             | 11,380            | 151               | 1,471                        | 32,404                     | 106             |        | 408   |
| Supply Mains Nth Plt (STL)    | 2                     | 54,253                    | 26,145             | 6,966             | 92                | 901                          | 19,835                     | 65              |        | 250   |
| Supply Mains Ctrl Plt (STL)   | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Supply Mains Sth Plt (STL)    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Supply Mains Meramec Plt (S   | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Power Generation Equip Othe   | 6                     | 838                       | 392                | 104               | 1                 | 13                           | 297                        | 5               |        | 24    |
| Boiler Plant Equipment P      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Pump Equip Steam              | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Pump Equip Electric           | 6                     | 73,235                    | 34,252             | 9,132             | 124               | 1,179                        | 25,991                     | 425             |        | 2,131 |
| Pump Equip Elec Pre46 (STL)   | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Pump Equip Elec Post46 (STL   | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Pump Equip Elec Boosters Po   | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |
| Pump Equip Diesel             | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               |        | 0     |

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)               | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Fire Protection<br>Private<br>(9) | Public<br>(10) |
|------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|-----------------------------------|----------------|
| Pump Equip Diesel Stratman\  | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Pump Equip Diesel Ctrl Pit   | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Pump Equip Hydraulic         | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Pump Equip Other             | 6                     | 8,191                     | 3,831              | 1,021             | 14                | 132                          | 2,907                      | 48                                | 238            |
| WT Equip Non-Media           | 2                     | 111,583                   | 53,772             | 14,327            | 190               | 1,852                        | 40,795                     | 134                               | 513            |
| WT Equip Non-Med North (STL) | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| WT Equip Non Media Ctrl 1 &  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| WT Equip Non Media Ctrl 3 (  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| WT Equip Non Media Sth (STL) | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| WT Equip Non Media Mer (STL) | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| WT Equip Filter Media        | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Dist Reservoirs & Standpipe  | 5                     | 38,449                    | 12,619             | 3,245             | 23                | 481                          | 8,240                      | 2,161                             | 11,681         |
| Elevated Tanks & Standpipes  | 5                     | 17,446                    | 5,726              | 1,472             | 10                | 218                          | 3,739                      | 980                               | 5,300          |
| Ground Level Facilities      | 5                     | 7,089                     | 2,327              | 598               | 4                 | 89                           | 1,519                      | 398                               | 2,154          |
| TD Mains Not Classified by   | 7                     | 144,858                   | 37,779             | 9,792             | 130               | 1,318                        | 26,016                     | 10,922                            | 58,899         |
| TD Mains 4 & Less "          | 4                     | 31,629                    | 7,094              | 1,816             | 25                | 247                          | 4,662                      | 2,780                             | 15,005         |
| TD Mains 6 to 8" "           | 4                     | (116,848)                 | (26,209)           | (6,707)           | (93)              | (911)                        | (17,223)                   | (10,271)                          | (55,433)       |
| TD Mains 10 to 16" "         | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains 18 & Grtr "         | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains AC 4 (STL) "        | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains CI <10 1900-28 (S"  | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains CI <10 1929-56 (S"  | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains CI <10 1957-93 (S"  | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains CI 12 (STL) "       | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains CI 16 (STL) "       | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains DI 6-8 (STL) "      | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains DI 12 (STL) "       | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains DI 16 & >(STL)      | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains Galve 1 (STL) "     | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Mains LJ 20 (STL) "       | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Fire Mains                   | 8                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Services                     | 10                    | 92,850                    | 73,082             | 15,116            | 390               | 1,356                        | 1,551                      | 1,356                             | 0              |
| Meters Bronze Case           | 9                     | 21,574                    | 16,636             | 3,726             | 129               | 390                          | 693                        | 0                                 | 0              |
| Meters Plastic Case          | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Meters Other                 | 9                     | (188)                     | (145)              | (32)              | (1)               | (3)                          | (6)                        | 0                                 | 0              |
| Meters Other-Rem Rdr Unts    | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Meter Installations          | 9                     | 44,183                    | 34,070             | 7,630             | 265               | 800                          | 1,418                      | 0                                 | 0              |
| Meter Installation Other     | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Hydrants                     | 8                     | 47,173                    | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Other P/E Intangible         | 15                    | 2,294                     | 1,133              | 285               | 5                 | 35                           | 643                        | 27                                | 47,173         |
| Other P/E WT Res Hand Equip  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 166            |

**MISSOURI-AMERICAN WATER COMPANY**  
BRUNSWICK DISTRICT

**COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS**

| Account                                     | Factor Ref. | Cost of Service     | Residential       | Commercial        | Industrial      | Public Authorities | Sales for Resale  | Fire Protection Private | Fire Protection Public |
|---------------------------------------------|-------------|---------------------|-------------------|-------------------|-----------------|--------------------|-------------------|-------------------------|------------------------|
| (1)                                         | (2)         | (3)                 | (4)               | (5)               | (6)             | (7)                | (8)               | (9)                     | (10)                   |
| Other P/E TD                                | 7           | 0                   | 0                 | 0                 | 0               | 0                  | 0                 | 0                       | 0                      |
| Other P/E CPS                               | 15          | (1,294)             | (639)             | (161)             | (3)             | (20)               | (363)             | (15)                    | (93)                   |
| Office Furniture & Equip                    | 15          | 9,830               | 4,857             | 1,223             | 21              | 149                | 2,754             | 116                     | 710                    |
| Comp & Periph Equip                         | 15          | (1,048)             | (518)             | (130)             | (2)             | (16)               | (294)             | (12)                    | (76)                   |
| Computer Software                           | 15          | (813)               | (402)             | (101)             | (2)             | (12)               | (228)             | (10)                    | (59)                   |
| Comp Software Personal                      | 15          | (158)               | (78)              | (20)              | (0)             | (2)                | (44)              | (2)                     | (11)                   |
| Data Handling Equipment                     | 15          | 17,144              | 8,471             | 2,133             | 36              | 261                | 4,804             | 202                     | 1,238                  |
| Other Office Equipment                      | 15          | 2,773               | 1,370             | 345               | 6               | 42                 | 777               | 33                      | 200                    |
| Trans Equip Lt Duty Trks                    | 15          | 29,762              | 14,705            | 3,702             | 63              | 452                | 8,339             | 351                     | 2,149                  |
| Trans Equip Hvy Duty Trks                   | 15          | 0                   | 0                 | 0                 | 0               | 0                  | 0                 | 0                       | 0                      |
| Trans Equip Autos                           | 15          | (18)                | (9)               | (2)               | (0)             | (0)                | (5)               | (0)                     | (1)                    |
| Trans Equip Other                           | 15          | (12,484)            | (6,168)           | (1,553)           | (26)            | (190)              | (3,498)           | (147)                   | (901)                  |
| Stores Equipment                            | 15          | 10,375              | 5,126             | 1,291             | 22              | 158                | 2,907             | 122                     | 749                    |
| Tools, Shop, Garage Equip                   | 15          | 24,299              | 12,006            | 3,023             | 51              | 369                | 6,809             | 287                     | 1,754                  |
| Tools, Shop, Garage Equip Oth               | 15          | 0                   | 0                 | 0                 | 0               | 0                  | 0                 | 0                       | 0                      |
| Laboratory Equipment                        | 2           | 23,454              | 11,302            | 3,011             | 40              | 389                | 8,575             | 28                      | 108                    |
| Laboratory Equip Other                      | 2           | 0                   | 0                 | 0                 | 0               | 0                  | 0                 | 0                       | 0                      |
| Power Operated Equipment                    | 15          | 0                   | 0                 | 0                 | 0               | 0                  | 0                 | 0                       | 0                      |
| Comm Equip Non-Telephone                    | 15          | 2,289               | 1,131             | 285               | 5               | 35                 | 641               | 27                      | 165                    |
| Comm Equip Telephone                        | 15          | (3,067)             | (1,515)           | (382)             | (6)             | (47)               | (859)             | (36)                    | (221)                  |
| Misc Equipment                              | 15          | 13,332              | 6,587             | 1,659             | 28              | 203                | 3,736             | 157                     | 963                    |
| Other Tangible Property                     | 17          | 22,984              | 11,048            | 2,793             | 46              | 345                | 6,293             | 260                     | 2,200                  |
| Total Utility Plant in Service              |             | 1,152,813           | 554,293           | 140,019           | 2,312           | 17,249             | 315,616           | 12,995                  | 110,329                |
| <b>Other Rate Base Items</b>                |             |                     |                   |                   |                 |                    |                   |                         |                        |
| Add:                                        |             |                     |                   |                   |                 |                    |                   |                         |                        |
| Other Utility Plant Adjustments             | 17          | 1,063               | 511               | 129               | 2               | 16                 | 291               | 12                      | 102                    |
| Cash Working Capital                        | 15          | 8,000               | 3,953             | 995               | 17              | 122                | 2,242             | 94                      | 578                    |
| Materials and Supplies                      | 15          | 5,278               | 2,608             | 657               | 11              | 80                 | 1,479             | 62                      | 381                    |
| Prepayments                                 | 15          | 518                 | 256               | 64                | 1               | 8                  | 145               | 6                       | 37                     |
| OPEB's Contributed to External Fund         | 16          | 4,878               | 2,219             | 579               | 8               | 74                 | 1,528             | 72                      | 397                    |
| Premature Retirement                        | 17          | 0                   | 0                 | 0                 | 0               | 0                  | 0                 | 0                       | 0                      |
| Regulatory Deferrals                        | 17          | 43,315              | 20,821            | 5,263             | 87              | 650                | 11,860            | 489                     | 4,145                  |
| Less:                                       |             |                     |                   |                   |                 |                    |                   |                         |                        |
| Accumulated Deferred ITC (3%)               | 17          | 0                   | 0                 | 0                 | 0               | 0                  | 0                 | 0                       | 0                      |
| Deferred Income Taxes                       | 17          | (80,830)            | (38,855)          | (9,821)           | (162)           | (1,212)            | (22,131)          | (913)                   | (7,735)                |
| Pensions                                    | 16          | (9,419)             | (4,286)           | (1,118)           | (16)            | (142)              | (2,951)           | (139)                   | (767)                  |
| Total Other Rate Base Elements              |             | (27,197)            | (12,772)          | (3,252)           | (52)            | (406)              | (7,538)           | (316)                   | (2,862)                |
| <b>Total Original Cost Measure of Value</b> |             | <b>\$ 1,125,616</b> | <b>\$ 541,520</b> | <b>\$ 136,767</b> | <b>\$ 2,261</b> | <b>\$ 16,843</b>   | <b>\$ 308,079</b> | <b>\$ 12,679</b>        | <b>\$ 107,467</b>      |

MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT

SUMMARY OF AVERAGE DAILY SEND OUT AND MAXIMUM DAILY USAGE  
FOR THE YEARS 1990 - 2002

| Year<br>(1) | Average Daily<br>Send Out<br>(MGD)<br>(2) | Maximum Daily Use |                            |                           |
|-------------|-------------------------------------------|-------------------|----------------------------|---------------------------|
|             |                                           | MGD<br>(3)        | Ratio to<br>Average<br>(4) | Highest<br>Use Day<br>(5) |
| 1990        | 0.179                                     | 0.275             | 1.53                       | 12/28/1990                |
| 1991        | 0.208                                     | 0.315             | 1.51                       | 4/6/1991                  |
| 1992        | 0.180                                     | 0.266             | 1.47                       | 8/26/1992                 |
| 1993        | 0.154                                     | 0.299             | 1.94                       | 7/29/1993                 |
| 1994        | 0.154                                     | 0.225             | 1.46                       | 9/24/1994                 |
| 1995        | 0.151                                     | 0.204             | 1.35                       | 7/5/1995                  |
| 1996        | 0.151                                     | 0.242             | 1.60                       | 2/7/1996                  |
| 1997        | 0.149                                     | 0.236             | 1.58                       | 4/1/1997                  |
| 1998        | 0.140                                     | 0.200             | 1.43                       | 5/23/1998                 |
| 1999        | 0.145                                     | 0.238             | 1.64                       | 5/27/1999                 |
| 2000        | 0.147                                     | 0.228             | 1.55                       | 8/27/2000                 |
| 2001        | 0.134                                     | 0.207             | 1.54                       | 11/1/2001                 |
| 2002        | 0.135                                     | 0.192             | 1.42                       | 6/13/2002                 |



**MISSOURI-AMERICAN WATER COMPANY  
BRUNSWICK DISTRICT**

**BASIS FOR ALLOCATING DEMAND RELATED COSTS OF FIRE SERVICE  
TO PRIVATE AND PUBLIC FIRE PROTECTION CUSTOMER CLASSIFICATIONS**

| Description<br>(1)                    | Restrictive<br>Diameters<br>Squared<br>(2) | Quantity<br>(3) | Relative<br>Demand*<br>(4)=(2)x(3) | Allocation<br>Factor<br>(5) |
|---------------------------------------|--------------------------------------------|-----------------|------------------------------------|-----------------------------|
| <b><u>PRIVATE FIRE PROTECTION</u></b> |                                            |                 |                                    |                             |
| Fire Lines                            |                                            |                 |                                    |                             |
| 2 -inch                               | 4.00                                       | 0               | 0                                  |                             |
| 3 -inch                               | 9.00                                       | 0               | 0                                  |                             |
| 4 -inch                               | 16.00                                      | 0               | 0                                  |                             |
| 6 -inch                               | 36.00                                      | 1               | 36                                 |                             |
| 8 -inch                               | 64.00                                      | 0               | 0                                  |                             |
| 10 -inch                              | 100.00                                     | 0               | 0                                  |                             |
| 12 -inch                              | 144.00                                     | 0               | 0                                  |                             |
| Private Hydrants                      | 32.75                                      | 3               | 98                                 |                             |
| Total Private Fire Protection         |                                            | 4               | 134                                | 0.1560                      |
| <b><u>PUBLIC FIRE PROTECTION</u></b>  |                                            |                 |                                    |                             |
| Hydrant                               | Nozzle Sizes                               |                 |                                    |                             |
| 6" Valve                              | 2- 2-1/2" & 1 - 4.5"                       | 32.75           | 0                                  | 0                           |
| 6" Valve                              | 2- 2-1/2"                                  | 12.50           | 58                                 | 725                         |
| Total Public Fire Protection          |                                            | 58              | 725                                | 0.8440                      |
| Total Fire Protection                 |                                            | 62              | 859                                | 1.0000                      |

## JEFFERSON CITY DISTRICT

II-1

## PART II. COST OF SERVICE BY CUSTOMER CLASSIFICATION

MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES  
FOR THE TEST YEAR ENDED DECEMBER 31, 2002

| Customer<br>Classification<br>(1) | Cost of Service               |                | Revenues, Present Rates |                | Revenues, Proposed Rates |                | Proposed Increase |                            |
|-----------------------------------|-------------------------------|----------------|-------------------------|----------------|--------------------------|----------------|-------------------|----------------------------|
|                                   | Amount<br>(Schedule B)<br>(2) | Percent<br>(3) | Amount<br>(4)           | Percent<br>(5) | Amount<br>(6)            | Percent<br>(7) | Amount<br>(8)     | Percent<br>Increase<br>(9) |
| Residential                       | \$ 2,398,239                  | 53.6%          | \$ 2,120,708            | 52.5%          | \$ 2,239,489             | 50.1%          | \$ 118,781        | 5.6%                       |
| Commercial                        | 1,519,897                     | 34.0%          | 1,585,113               | 39.2%          | 1,644,132                | 36.8%          | 59,019            | 3.7%                       |
| Industrial                        | 205,196                       | 4.6%           | 183,612                 | 4.6%           | 198,780                  | 4.4%           | 15,168            | 8.3%                       |
| Public Authority                  | 38,722                        | 0.9%           | 40,271                  | 1.0%           | 43,576                   | 1.0%           | 3,305             | 8.2%                       |
| Sales for Resale                  | -                             | 0.0%           | -                       | 0.0%           | -                        | 0.0%           | -                 | -                          |
| Private Fire Service              | 45,195                        | 1.0%           | 81,357                  | 2.0%           | 81,357                   | 1.8%           | -                 | 0.0%                       |
| Public Fire Service               | 262,698                       | 5.9%           | 29,800                  | 0.7%           | 262,698                  | 5.9%           | 232,898           | 781.5%                     |
| Total Sales                       | 4,469,947                     | 100.0%         | 4,040,861               | 100.0%         | 4,470,032                | 100.0%         | 429,171           | 10.6%                      |
| Other Revenues                    | 24,150                        |                | 24,150                  |                | 24,150                   |                | -                 | 0.0%                       |
| Total                             | \$ 4,494,097                  |                | \$ 4,065,011            |                | \$ 4,494,182             |                | \$ 429,171        | 10.6%                      |



## MISSOURI-AMERICAN WATER COMPANY

## JEFFERSON CITY DISTRICT

## COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                            | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Fire Protection<br>Public<br>(10) |
|-------------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|-----------------------------------|
| <b>OPERATION AND MAINTENANCE EXPENSES</b> |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| <b>SOURCE OF SUPPLY EXPENSES</b>          |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper SS                       | 2                     | \$ -                      | \$ -               | \$ -              | \$ -              | \$ -                         | \$ -                       | \$ -           | \$ -                              |
| Labor & Exp Oper SS                       | 2                     | 122                       | 58                 | 54                | 8                 | 1                            | 0                          | 0              | 0                                 |
| Labor & Exp Oper SS                       | 2                     | 31,827                    | 15,159             | 14,033            | 2,187             | 337                          | 0                          | 13             | 99                                |
| Purchased Water                           | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| <b>TOTAL SS EXPENSE - OPERATION</b>       |                       | <b>31,949</b>             | <b>15,217</b>      | <b>14,086</b>     | <b>2,195</b>      | <b>339</b>                   | <b>0</b>                   | <b>13</b>      | <b>99</b>                         |
| Misc Exp Oper SS                          | 2                     | 22,897                    | 10,906             | 10,095            | 1,573             | 243                          | 0                          | 9              | 71                                |
| Misc Exp Oper SS                          | 2                     | 2,299                     | 1,095              | 1,014             | 158               | 24                           | 0                          | 1              | 7                                 |
| Rents Oper SS                             | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Super & Eng Maint SS                      | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint SS                 | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint SS                 | 2                     | 60                        | 29                 | 26                | 4                 | 1                            | 0                          | 0              | 0                                 |
| Collect & Impound Maint SS                | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Lake, River & Oth Maint SS                | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Lake, River & Oth Maint SS                | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Wells & Springs Maint SS                  | 2                     | 1,486                     | 708                | 655               | 102               | 16                           | 0                          | 0              | 5                                 |
| Wells & Springs Maint SS                  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Infillt Gall & Tunnels Maint SS           | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Supply Mains Maint SS                     | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Plant Maint SS                       | 2                     | 1,557                     | 742                | 686               | 107               | 17                           | 0                          | 1              | 5                                 |
| Misc Plant Maint SS                       | 2                     | 2,328                     | 1,109              | 1,026             | 160               | 25                           | 0                          | 1              | 7                                 |
| <b>TOTAL SS EXPENSE - MAINTENANCE</b>     |                       | <b>30,627</b>             | <b>14,588</b>      | <b>13,503</b>     | <b>2,104</b>      | <b>325</b>                   | <b>0</b>                   | <b>12</b>      | <b>95</b>                         |
| <b>TOTAL SS EXPENSE</b>                   |                       | <b>62,576</b>             | <b>29,805</b>      | <b>27,590</b>     | <b>4,299</b>      | <b>663</b>                   | <b>0</b>                   | <b>25</b>      | <b>194</b>                        |
| <b>POWER AND PUMPING EXPENSES</b>         |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper P                        | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Fuel for Power Prod                       | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Labor & Exp Oper Pwr Prod                 | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Labor & Exp Oper Pwr Prod                 | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Purch Fuel/Power for Pump                 | 1                     | 209,421                   | 93,150             | 95,454            | 17,319            | 2,283                        | 0                          | 126            | 1,089                             |
| Labor & Exp Oper Pump                     | 6                     | 19,224                    | 9,024              | 8,349             | 1,300             | 200                          | 0                          | 40             | 311                               |
| Labor & Exp Oper Pump                     | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Expenses Transferred                      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Exp Oper P                           | 6                     | 20                        | 9                  | 9                 | 1                 | 0                            | 0                          | 0              | 0                                 |
| Rents Oper P                              | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| <b>TOTAL PUMPING EXPENSE - OPERATION</b>  |                       | <b>228,665</b>            | <b>102,184</b>     | <b>103,812</b>    | <b>18,620</b>     | <b>2,483</b>                 | <b>0</b>                   | <b>166</b>     | <b>1,401</b>                      |

**MISSOURI-AMERICAN WATER COMPANY**  
JEFFERSON CITY DISTRICT

**COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS**

| Account<br>(1)                                | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Fire Protection<br>Public<br>(10) |
|-----------------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|-----------------------------------|
| Super & Eng Maint P                           | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint P                      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Power Prod Equip Maint P                      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Maint P                            | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Maint P                            | 6                     | 11                        | 5                  | 5                 | 1                 | 0                            | 0                          | 0              | 0                                 |
| TOTAL PUMPING EXPENSES - MAINTENANCE          |                       | 11                        | 5                  | 5                 | 1                 | 0                            | 0                          | 0              | 0                                 |
| <b>TOTAL PUMPING EXPENSES</b>                 |                       | 228,676                   | 102,189            | 103,817           | 18,621            | 2,483                        | 0                          | 166            | 1,401                             |
| <b>WATER TREATMENT</b>                        |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper WT                           | 2                     | 12,194                    | 5,808              | 5,376             | 838               | 129                          | 0                          | 5              | 38                                |
| Chemicals                                     | 1                     | 172,202                   | 76,595             | 78,490            | 14,241            | 1,877                        | 0                          | 103            | 895                               |
| Labor & Exp Oper WT                           | 2                     | 212,317                   | 101,127            | 93,611            | 14,586            | 2,251                        | 0                          | 85             | 658                               |
| Labor & Exp Oper WT                           | 2                     | 848                       | 404                | 374               | 58                | 9                            | 0                          | 0              | 3                                 |
| Misc Exp Oper WT                              | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Exp Oper WT                              | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Exp Oper WT                              | 2                     | 17,628                    | 8,396              | 7,772             | 1,211             | 187                          | 0                          | 7              | 55                                |
| Rents Oper WT                                 | 2                     | 30                        | 14                 | 13                | 2                 | 0                            | 0                          | 0              | 0                                 |
| TOTAL WT EXPENSE - OPERATION                  |                       | 415,219                   | 192,344            | 185,636           | 30,936            | 4,453                        | 0                          | 201            | 1,649                             |
| Super & Eng Maint WT                          | 2                     | 39,103                    | 18,625             | 17,241            | 2,686             | 414                          | 0                          | 16             | 121                               |
| Struct & Improve Maint WT                     | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint WT                     | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Maint WT                             | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Maint WT                             | 2                     | 37,751                    | 17,981             | 16,644            | 2,593             | 400                          | 0                          | 15             | 117                               |
| TOTAL WT EXPENSE - MAINTENANCE                |                       | 76,854                    | 36,606             | 33,885            | 5,280             | 815                          | 0                          | 31             | 238                               |
| <b>TOTAL WT EXPENSE</b>                       |                       | 492,073                   | 228,950            | 219,521           | 36,216            | 5,268                        | 0                          | 231            | 1,887                             |
| <b>TRANSMISSION AND DISTRIBUTION EXPENSES</b> |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper TD                           | 11                    | 11,117                    | 6,087              | 3,209             | 276               | 127                          | 0                          | 165            | 1,254                             |
| Storage Facility Exp                          | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Storage Facility Exp                          | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Lines Exp                                  | 7                     | 2,119                     | 724                | 652               | 92                | 16                           | 0                          | 74             | 562                               |
| TD Lines Exp                                  | 7                     | 8,625                     | 2,945              | 2,654             | 376               | 64                           | 0                          | 300            | 2,286                             |
| Meter Expense                                 | 9                     | 14,497                    | 10,149             | 3,982             | 158               | 207                          | 0                          | 0              | 0                                 |
| Meter Expense                                 | 9                     | 6                         | 4                  | 2                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Customer Install Exp                          | 10                    | 2                         | 2                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Customer Install Exp                          | 10                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Exp Oper TD                              | 11                    | 4,851                     | 2,656              | 1,400             | 120               | 55                           | 0                          | 72             | 547                               |
| Misc Exp Oper TD                              | 11                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |

MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT  
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                    | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Fire Protection<br>Public<br>(10) |
|-----------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|-----------------------------------|
| Misc Exp Oper TD                  | 11                    | (22,912)                  | (12,544)           | (6,615)           | (568)             | (261)                        | 0                          | (339)          | (2,584)                           |
| Rents Oper TD                     | 11                    | 315                       | 172                | 91                | 8                 | 4                            | 0                          | 5              | 36                                |
| TOTAL T & D EXPENSE OPERATION     |                       | 18,620                    | 10,195             | 5,376             | 462               | 211                          | 0                          | 276            | 2,099                             |
| Super & Eng Maint TD              | 12                    | 10,477                    | 7,491              | 2,067             | 79                | 66                           | 0                          | 399            | 375                               |
| Struct & Improve Maint TD         | 12                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint TD         | 12                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Dist Res Stand Maint TD           | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Main Maint TD                  | 7                     | 12,495                    | 4,267              | 3,845             | 545               | 92                           | 0                          | 435            | 3,311                             |
| TD Main Maint TD                  | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Fire Main Maint TD                | 8                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Services Maint TD                 | 10                    | 85,809                    | 66,176             | 15,591            | 197               | 523                          | 0                          | 3,321          | 0                                 |
| Services Maint TD                 | 10                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Meters Maint TD                   | 9                     | 1                         | 1                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Meters Maint TD                   | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Hydrants Maint TD                 | 8                     | 217                       | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 217                               |
| Hydrants Maint TD                 | 8                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Plant Maint TD               | 12                    | 6,763                     | 4,836              | 1,334             | 51                | 43                           | 0                          | 258            | 242                               |
| Mat and Sup Maint TD              | 12                    | 94,457                    | 67,537             | 18,636            | 708               | 595                          | 0                          | 3,599          | 3,382                             |
| Misc Maint TD                     | 12                    | 5,360                     | 3,832              | 1,058             | 40                | 34                           | 0                          | 204            | 192                               |
| Amort Def Maint TD                | 5                     | 19,619                    | 8,181              | 7,326             | 1,012             | 177                          | 0                          | 339            | 2,584                             |
| TOTAL T & D EXPENSE - MAINTENANCE |                       | 235,198                   | 162,321            | 49,858            | 2,632             | 1,530                        | 0                          | 8,555          | 10,303                            |
| TOTAL T & D EXPENSE               |                       | 253,818                   | 172,515            | 55,234            | 3,095             | 1,741                        | 0                          | 8,831          | 12,402                            |
| CUSTOMER ACCOUNTS                 |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Supervision CA                    | 13                    | 8,779                     | 7,254              | 1,398             | 11                | 34                           | 0                          | 81             | 0                                 |
| Meter Reading Exp CA              | 14                    | 45,597                    | 38,023             | 7,332             | 59                | 182                          | 0                          | 0              | 0                                 |
| Meter Reading Exp CA              | 14                    | 25                        | 21                 | 4                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Meter Reading Exp CA              | 14                    | 3,289                     | 2,743              | 529               | 4                 | 13                           | 0                          | 0              | 0                                 |
| Cust Rec & Collection CA          | 13                    | 68,270                    | 56,412             | 10,875            | 89                | 266                          | 0                          | 628            | 0                                 |
| Cust Rec & Collection CA          | 13                    | 17,767                    | 14,681             | 2,830             | 23                | 69                           | 0                          | 163            | 0                                 |
| Uncollectible Accts               | 13                    | 44,440                    | 36,721             | 7,079             | 58                | 173                          | 0                          | 409            | 0                                 |
| Misc Cust Accts Exp CA            | 13                    | (1,517)                   | (1,253)            | (242)             | (2)               | (6)                          | 0                          | (14)           | 0                                 |
| Misc Cust Accts Exp CA            | 13                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Cust Accts Exp CA            | 13                    | 3,562                     | 2,943              | 567               | 5                 | 14                           | 0                          | 33             | 0                                 |
| Cust Serv & Info Exp CA           | 13                    | 79                        | 65                 | 13                | 0                 | 0                            | 0                          | 1              | 0                                 |
| TOTAL CUSTOMER ACCOUNTING EXPENSE |                       | 190,291                   | 157,609            | 30,387            | 247               | 747                          | 0                          | 1,301          | 0                                 |

## MISSOURI-AMERICAN WATER COMPANY

## JEFFERSON CITY DISTRICT

## COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                             | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Public<br>(10) |
|--------------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|----------------|
| <b>ADMINISTRATIVE AND GENERAL EXPENSES</b> |                       |                           |                    |                   |                   |                              |                            |                |                |
| Salaries AG                                | 15                    | 212,214                   | 130,787            | 65,892            | 7,767             | 1,698                        | 0                          | 2,589          | 3,480          |
| Other Supplies & Exp AG                    | 15                    | 24                        | 15                 | 7                 | 1                 | 0                            | 0                          | 0              | 0              |
| Other Supplies & Exp AG                    | 15                    | 83,860                    | 51,683             | 26,038            | 3,069             | 671                          | 0                          | 1,023          | 1,375          |
| Other Supplies & Exp AG                    | 15                    | 87,234                    | 53,762             | 27,086            | 3,193             | 698                          | 0                          | 1,064          | 1,431          |
| Mgmt Fees-Corporate/Shared Service Center  | 15                    | 116,180                   | 71,602             | 36,074            | 4,252             | 929                          | 0                          | 1,417          | 1,905          |
| Mgmt Fees-Call Center                      | 13                    | 95,820                    | 79,176             | 15,264            | 125               | 374                          | 0                          | 882            | 0              |
| Mgmt Fees-Belleville Lab                   | 2                     | 17,365                    | 8,271              | 7,656             | 1,193             | 184                          | 0                          | 7              | 54             |
| Mgmt Fees- Financial ITS                   | 15                    | 10,099                    | 6,224              | 3,136             | 370               | 81                           | 0                          | 123            | 166            |
| Mgmt Fees- Customer Billings ITS           | 13                    | 57,021                    | 47,116             | 9,083             | 74                | 222                          | 0                          | 525            | 0              |
| Mgmt Fees-Other ITS                        | 15                    | 642                       | 396                | 199               | 23                | 5                            | 0                          | 8              | 11             |
| Outside Services AG                        | 15                    | 39,136                    | 24,120             | 12,152            | 1,432             | 313                          | 0                          | 477            | 642            |
| Outside Services AG                        | 15                    | (94)                      | (58)               | (29)              | (3)               | (1)                          | 0                          | (1)            | (2)            |
| Property Insurance                         | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Ins Gen Liab Oper AG                       | 15                    | 30,184                    | 18,603             | 9,372             | 1,105             | 241                          | 0                          | 368            | 495            |
| Ins Work Comp AG                           | 16                    | 17,221                    | 10,538             | 5,457             | 653               | 141                          | 0                          | 183            | 250            |
| Ins Other Oper AG                          | 15                    | 21,125                    | 13,019             | 6,559             | 773               | 169                          | 0                          | 258            | 346            |
| Property Insurance                         | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Injuries & Damages                         | 16                    | 386                       | 236                | 122               | 15                | 3                            | 0                          | 4              | 6              |
| Employee Pension & Benefits                | 16                    | 174,984                   | 107,073            | 55,452            | 6,632             | 1,435                        | 0                          | 1,855          | 2,537          |
| Employee Pension & Benefits                | 16                    | 118,837                   | 72,716             | 37,659            | 4,504             | 974                          | 0                          | 1,260          | 1,723          |
| Employee Pension & Benefits                | 16                    | 47,006                    | 28,763             | 14,896            | 1,782             | 385                          | 0                          | 498            | 682            |
| Reg Commission Exp                         | 15                    | 6,551                     | 4,037              | 2,034             | 240               | 52                           | 0                          | 80             | 107            |
| Rents AG                                   | 15                    | 50,513                    | 31,131             | 15,684            | 1,849             | 404                          | 0                          | 616            | 828            |
| Goodwill Advertising Exp                   | 15                    | 1,972                     | 1,215              | 612               | 72                | 16                           | 0                          | 24             | 32             |
| Misc Exp AG                                | 15                    | 37,521                    | 23,124             | 11,650            | 1,373             | 300                          | 0                          | 458            | 615            |
| Research & Development                     | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| TOTAL A & G OPERATIONS                     |                       | 1,225,800                 | 783,549            | 362,060           | 40,492            | 9,297                        | 0                          | 13,718         | 16,685         |
| General Plant Maint AG                     | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| General Plant Maint AG                     | 15                    | 3,244                     | 1,999              | 1,007             | 119               | 26                           | 0                          | 40             | 53             |
| TOTAL A & G EXPENSE - MAINTENANCE          |                       | 3,244                     | 1,999              | 1,007             | 119               | 26                           | 0                          | 40             | 53             |
| TOTAL A & G EXPENSE                        |                       | 1,229,044                 | 785,548            | 363,067           | 40,611            | 9,323                        | 0                          | 13,757         | 16,738         |
| Total Operation & Maintenance Expenses     |                       | 2,456,478                 | 1,476,617          | 799,615           | 103,089           | 20,225                       | 0                          | 24,311         | 32,622         |

**MISSOURI-AMERICAN WATER COMPANY**  
**JEFFERSON CITY DISTRICT**  
**COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS**

| Account<br>(1)                       | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Fire Protection<br>Public<br>(10) |
|--------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|-----------------------------------|
| <b>DEPRECIATION EXPENSE</b>          |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Struct & Imp SS                      | 2                     | 75                        | 36                 | 33                | 5                 | 1                            | 0                          | 0              | 0                                 |
| Struct & Imp P                       | 6                     | 28,111                    | 13,195             | 12,209            | 1,900             | 292                          | 0                          | 59             | 455                               |
| Struct & Imp WT                      | 2                     | 52,461                    | 24,987             | 23,130            | 3,604             | 556                          | 0                          | 21             | 163                               |
| Struct & Imp TD                      | 7                     | 1,154                     | 394                | 355               | 50                | 9                            | 0                          | 40             | 306                               |
| Struct & Imp Offices                 | 15                    | 7,993                     | 4,926              | 2,482             | 293               | 64                           | 0                          | 98             | 131                               |
| Struct & Imp Store, Shop, Gar        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp Misc                    | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Collect & Impounding                 | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Lake, River & Other Intakes          | 2                     | 2,683                     | 1,278              | 1,183             | 184               | 28                           | 0                          | 1              | 8                                 |
| Wells & Springs                      | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Supply Mains                         | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Power Generation Equip Othe          | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Electric                  | 6                     | 31,671                    | 14,866             | 13,755            | 2,141             | 329                          | 0                          | 67             | 513                               |
| Pump Equip Diesel                    | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Other                     | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Non-Media                   | 2                     | 84,096                    | 40,055             | 37,078            | 5,777             | 891                          | 0                          | 34             | 261                               |
| Dist Reservoirs & Standpipe          | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Elevated Tanks & Standpipes          | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Ground Level Facilities              | 5                     | 19,060                    | 7,948              | 7,117             | 983               | 172                          | 0                          | 330            | 2,510                             |
| TD Mains Not Classified by           | 7                     | 81,777                    | 27,927             | 25,163            | 3,565             | 605                          | 0                          | 2,846          | 21,671                            |
| TD Mains 4 & Less                    | 4                     | 155                       | 50                 | 45                | 6                 | 1                            | 0                          | 6              | 46                                |
| TD Mains 6 to 8"                     | 4                     | (24,342)                  | (7,889)            | (7,059)           | (974)             | (170)                        | 0                          | (957)          | (7,293)                           |
| TD Mains 10 to 16"                   | 3                     | 12,243                    | 5,392              | 4,987             | 776               | 120                          | 0                          | 111            | 857                               |
| TD Mains 18 & Grtr                   | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Services                             | 10                    | 4,356                     | 3,359              | 791               | 10                | 27                           | 0                          | 169            | 0                                 |
| Meters Bronze Case                   | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Meters Plastic Case                  | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Meters Other                         | 9                     | 24,708                    | 17,298             | 6,787             | 269               | 353                          | 0                          | 0              | 0                                 |
| Meters Other-Rem Rdr Units           | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Meter Installations                  | 9                     | 32                        | 22                 | 9                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Meter Installation Other             | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Hydrants                             | 8                     | 19,938                    | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Utility Plant Acquisition Adjustment | 17                    | 650                       | 292                | 233               | 33                | 6                            | 0                          | 7              | 19,938                            |
| Other P/E WT Res Hand Equip          | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 79                                |
| Other P/E TD                         | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Other P/E CPS                        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Office Furniture & Equip             | 15                    | 8,899                     | 5,484              | 2,763             | 326               | 71                           | 0                          | 109            | 146                               |
| Comp & Periph Equip                  | 15                    | 13,338                    | 8,220              | 4,141             | 488               | 107                          | 0                          | 163            | 219                               |
| Computer Software                    | 15                    | 2,592                     | 1,597              | 805               | 95                | 21                           | 0                          | 32             | 43                                |
| Comp Software Personal               | 15                    | 642                       | 396                | 199               | 23                | 5                            | 0                          | 8              | 11                                |

**MISSOURI-AMERICAN WATER COMPANY**  
**JEFFERSON CITY DISTRICT**  
**COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS**

| Account<br>(1)                                         | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4)  | Commercial<br>(5)   | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Fire Protection<br>Private<br>(9) | Public<br>(10)    |
|--------------------------------------------------------|-----------------------|---------------------------|---------------------|---------------------|-------------------|------------------------------|----------------------------|-----------------------------------|-------------------|
| Data Handling Equipment                                | 15                    | 0                         | 0                   | 0                   | 0                 | 0                            | 0                          | 0                                 | 0                 |
| Other Office Equipment                                 | 15                    | 31                        | 19                  | 10                  | 1                 | 0                            | 0                          | 0                                 | 1                 |
| Trans Equip Lt Duty Trks                               | 15                    | 8,736                     | 5,384               | 2,713               | 320               | 70                           | 0                          | 107                               | 143               |
| Trans Equip Hwy Duty Trks                              | 15                    | 0                         | 0                   | 0                   | 0                 | 0                            | 0                          | 0                                 | 0                 |
| Trans Equip Autos                                      | 15                    | 2,364                     | 1,457               | 734                 | 87                | 19                           | 0                          | 29                                | 39                |
| Trans Equip Other                                      | 15                    | 0                         | 0                   | 0                   | 0                 | 0                            | 0                          | 0                                 | 0                 |
| Stores Equipment                                       | 15                    | 76                        | 47                  | 24                  | 3                 | 1                            | 0                          | 1                                 | 1                 |
| Tools,Shop, Garage Equip                               | 15                    | 7,435                     | 4,582               | 2,309               | 272               | 59                           | 0                          | 91                                | 122               |
| Tools,Shop, Garage Equip Oth                           | 15                    | 0                         | 0                   | 0                   | 0                 | 0                            | 0                          | 0                                 | 0                 |
| Laboratory Equipment                                   | 2                     | 1,969                     | 938                 | 868                 | 135               | 21                           | 0                          | 1                                 | 6                 |
| Laboratory Equip Other                                 | 2                     | 0                         | 0                   | 0                   | 0                 | 0                            | 0                          | 0                                 | 0                 |
| Power Operated Equipment                               | 15                    | 8,293                     | 5,111               | 2,575               | 304               | 66                           | 0                          | 101                               | 136               |
| Comm Equip Non-Telephone                               | 15                    | 6,283                     | 3,872               | 1,951               | 230               | 50                           | 0                          | 77                                | 103               |
| Comm Equip Telephone                                   | 15                    | 0                         | 0                   | 0                   | 0                 | 0                            | 0                          | 0                                 | 0                 |
| Misc Equipment                                         | 15                    | 1,925                     | 1,186               | 598                 | 70                | 15                           | 0                          | 23                                | 32                |
| <b>Total Depreciation Expense</b>                      |                       | <b>409,404</b>            | <b>192,431</b>      | <b>147,986</b>      | <b>20,979</b>     | <b>3,790</b>                 | <b>0</b>                   | <b>3,571</b>                      | <b>40,646</b>     |
| Amort-Other UP                                         | 18                    | 0                         | 0                   | 0                   | 0                 | 0                            | 0                          | 0                                 | 0                 |
| <b>Taxes Other Than Income</b>                         |                       |                           |                     |                     |                   |                              |                            |                                   |                   |
| Utility Reg Assessment Fee                             | 19                    | 17,799                    | 9,547               | 6,053               | 817               | 155                          | 0                          | 180                               | 1,047             |
| Property Taxes                                         | 18                    | 220,864                   | 99,256              | 79,091              | 11,264            | 2,032                        | 0                          | 2,385                             | 26,835            |
| FUTA                                                   | 16                    | 974                       | 596                 | 309                 | 37                | 8                            | 0                          | 10                                | 14                |
| FICA                                                   | 16                    | 57,113                    | 34,947              | 18,099              | 2,165             | 468                          | 0                          | 605                               | 828               |
| SUTA                                                   | 16                    | 11                        | 7                   | 3                   | 0                 | 0                            | 0                          | 0                                 | 0                 |
| Other Taxes & Licenses                                 | 15                    | (3,376)                   | (2,081)             | (1,048)             | (124)             | (27)                         | 0                          | (41)                              | (55)              |
| Gross Receipts Tax                                     | 19                    | 0                         | 0                   | 0                   | 0                 | 0                            | 0                          | 0                                 | 0                 |
| <b>Total Taxes, Other Than Income</b>                  |                       | <b>293,385</b>            | <b>142,273</b>      | <b>102,508</b>      | <b>14,159</b>     | <b>2,636</b>                 | <b>0</b>                   | <b>3,140</b>                      | <b>28,669</b>     |
| <b>Income Taxes</b>                                    | 18                    | <b>352,971</b>            | <b>158,625</b>      | <b>126,399</b>      | <b>18,002</b>     | <b>3,247</b>                 | <b>0</b>                   | <b>3,812</b>                      | <b>42,886</b>     |
| <b>Utility Income Available for Return</b>             | 18                    | <b>981,859</b>            | <b>441,247</b>      | <b>351,604</b>      | <b>50,075</b>     | <b>9,033</b>                 | <b>0</b>                   | <b>10,604</b>                     | <b>119,296</b>    |
| <b>Total Cost of Service</b>                           |                       | <b>4,494,097</b>          | <b>2,411,193</b>    | <b>1,528,111</b>    | <b>206,304</b>    | <b>38,932</b>                | <b>0</b>                   | <b>45,438</b>                     | <b>264,118</b>    |
| <b>Less: Other Water Revenues</b>                      | 19                    | <b>24,150</b>             | <b>12,954</b>       | <b>8,213</b>        | <b>1,108</b>      | <b>210</b>                   | <b>0</b>                   | <b>244</b>                        | <b>1,420</b>      |
| <b>Revenue Contribution</b>                            | 19                    | <b>0</b>                  | <b>0</b>            | <b>0</b>            | <b>0</b>          | <b>0</b>                     | <b>0</b>                   | <b>0</b>                          | <b>0</b>          |
| <b>Total Other Water Revenues</b>                      |                       | <b>24,150</b>             | <b>12,954</b>       | <b>8,213</b>        | <b>1,108</b>      | <b>210</b>                   | <b>0</b>                   | <b>244</b>                        | <b>1,420</b>      |
| <b>Total Cost of Service Related to Sales of Water</b> |                       | <b>\$ 4,469,947</b>       | <b>\$ 2,398,239</b> | <b>\$ 1,519,897</b> | <b>\$ 205,196</b> | <b>\$ 38,722</b>             | <b>\$ -</b>                | <b>\$ 45,195</b>                  | <b>\$ 262,698</b> |

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS**

**FACTOR 1. ALLOCATION OF COSTS WHICH VARY WITH THE AMOUNT OF WATER CONSUMED.**

Factors are based on the pro forma test year average daily consumption for each customer classification.

| <u>Customer<br/>Classification</u><br>(1) | <u>Average Daily<br/>Consumption,<br/>Thousand Gallons</u><br>(2) | <u>Allocation<br/>Factor</u><br>(3) |
|-------------------------------------------|-------------------------------------------------------------------|-------------------------------------|
| Residential                               | 1,468                                                             | 0.4448                              |
| Commercial                                | 1,504                                                             | 0.4558                              |
| Industrial                                | 273                                                               | 0.0827                              |
| Other Public Authority                    | 36                                                                | 0.0109                              |
| Sales for Resale                          | 0                                                                 | 0.0000                              |
| Private Fire Protection                   | 2                                                                 | 0.0006                              |
| Public Fire Protection                    | 17                                                                | 0.0052                              |
| Total                                     | <u>3,300</u>                                                      | <u>1.0000</u>                       |

**FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM DAY EXTRA CAPACITY FUNCTIONS.**

Factors are based on the weighting of the factors for average daily consumption (Factor 1) and the factors derived from maximum day extra capacity demand for each customer classification, as follows:

| <u>Customer<br/>Classification</u><br>(1) | <u>Average Daily<br/>Consumption</u>  |                                                  | <u>Maximum Day<br/>Extra Capacity</u> |                                                  | <u>Allocation<br/>Factor</u><br>(6)=(3)+(5) |
|-------------------------------------------|---------------------------------------|--------------------------------------------------|---------------------------------------|--------------------------------------------------|---------------------------------------------|
|                                           | <u>Allocation<br/>Factor 1</u><br>(2) | <u>Weighted<br/>Factor</u><br>(3)=(2)x<br>0.5882 | <u>Allocation<br/>Factor</u><br>(4)   | <u>Weighted<br/>Factor</u><br>(5)=(4)x<br>0.4118 |                                             |
| Residential                               | 0.4448                                | 0.2616                                           | 0.5215                                | 0.2147                                           | 0.4763                                      |
| Commercial                                | 0.4558                                | 0.2681                                           | 0.4195                                | 0.1728                                           | 0.4409                                      |
| Industrial                                | 0.0827                                | 0.0486                                           | 0.0487                                | 0.0201                                           | 0.0687                                      |
| Other Public Authority                    | 0.0109                                | 0.0064                                           | 0.0103                                | 0.0042                                           | 0.0106                                      |
| Sales for Resale                          | 0.0000                                | 0.0000                                           | 0.0000                                | 0.0000                                           | 0.0000                                      |
| Private Fire Protection                   | 0.0006                                | 0.0004                                           |                                       |                                                  | 0.0004                                      |
| Public Fire Protection                    | 0.0052                                | 0.0031                                           |                                       |                                                  | 0.0031                                      |
| Total                                     | <u>1.0000</u>                         | <u>0.5882</u>                                    | <u>1.0000</u>                         | <u>0.4118</u>                                    | <u>1.0000</u>                               |

The derivation of the maximum day extra capacity factors in column 4 and the basis for the column 3 and 5 weightings are presented on the following page.

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND  
MAXIMUM DAY EXTRA CAPACITY FUNCTIONS, cont.**

| Customer<br>Classification | Average Daily<br>Consumption,<br>Thousand Gal. | Maximum Day Extra Capacity |                                           |                      |
|----------------------------|------------------------------------------------|----------------------------|-------------------------------------------|----------------------|
|                            |                                                | Factor*                    | Rate of Flow,<br>Thousand Gal.<br>Per Day | Allocation<br>Factor |
| (1)                        | (2)                                            | (3)                        | (4)=(2)x(3)                               | (5)                  |
| Residential                | 1,468                                          | 1.0                        | 1,468                                     | 0.5215               |
| Commercial                 | 1,477                                          | 0.8                        | 1,181                                     | 0.4195               |
| Industrial                 | 273                                            | 0.5                        | 137                                       | 0.0487               |
| Other Public Authority     | 36                                             | 0.8                        | 29                                        | 0.0103               |
| Sales for Resale           | 0                                              | 0.6                        | 0                                         | 0.0000               |
| Total                      | <u>3,254</u>                                   |                            | <u>2,815</u>                              | <u>1.0000</u>        |

The weighting of the factors is based on the maximum day ratio of 1.70, based on a review of maximum day ratios experienced during the period 1999 through 2002 (see Schedule D).

|                               | Maximum<br>Day<br>Ratio | Weight        |
|-------------------------------|-------------------------|---------------|
| Average Day                   | 1.00                    | 0.5882        |
| Maximum Day<br>Extra Capacity | <u>0.70</u>             | <u>0.4118</u> |
| Total                         | <u>1.70</u>             | <u>1.0000</u> |

\* Ratio of maximum day to average day minus 1.0.

MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY  
AND FIRE PROTECTION FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

| Customer<br>Classification<br>(1) | Average Daily<br>Consumption |                                           | Maximum Day<br>Extra Capacity |                                           | Fire Protection             |                                           | Allocation<br>Factor<br>(8)=(3)+(5)+(7) |
|-----------------------------------|------------------------------|-------------------------------------------|-------------------------------|-------------------------------------------|-----------------------------|-------------------------------------------|-----------------------------------------|
|                                   | Allocation<br>Factor<br>(2)  | Weighted<br>Factor<br>(3)=(2) X<br>0.5435 | Allocation<br>Factor<br>(4)   | Weighted<br>Factor<br>(5)=(4) X<br>0.3805 | Allocation<br>Factor<br>(6) | Weighted<br>Factor<br>(7)=(6) X<br>0.0760 |                                         |
| Residential                       | 0.4448                       | 0.2419                                    | 0.5215                        | 0.1985                                    |                             |                                           | 0.4404                                  |
| Commercial                        | 0.4558                       | 0.2477                                    | 0.4195                        | 0.1596                                    |                             |                                           | 0.4073                                  |
| Industrial                        | 0.0827                       | 0.0449                                    | 0.0487                        | 0.0185                                    |                             |                                           | 0.0634                                  |
| Other Public Authority            | 0.0109                       | 0.0059                                    | 0.0103                        | 0.0039                                    |                             |                                           | 0.0098                                  |
| Sales for Resale                  | 0.0000                       | 0.0000                                    | 0.0000                        | 0.0000                                    |                             |                                           | 0.0000                                  |
| Private Fire Protection           | 0.0006                       | 0.0003                                    |                               |                                           | 0.1160                      | 0.0088                                    | 0.0091                                  |
| Public Fire Protection            | 0.0052                       | 0.0028                                    |                               |                                           | 0.8840                      | 0.0672                                    | 0.0700                                  |
| <b>Total</b>                      | <b>1.0000</b>                | <b>0.5435</b>                             | <b>1.0000</b>                 | <b>0.3805</b>                             | <b>1.0000</b>               | <b>0.0760</b>                             | <b>1.0000</b>                           |

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS, cont.**

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum day ratio of 1.70 and the average daily system sendout for 2002 of 3.861 MGD. The system demand for fire protection is 3,000 Gallons per minute for 3 hours.

|                               | <u>Ratio</u>       | <u>Rate of Flow,<br/>(GPD)</u> | <u>Weight</u>        |
|-------------------------------|--------------------|--------------------------------|----------------------|
| Average Day                   | 1.00               | 3,861,000                      | 0.5435               |
| Maximum Day<br>Extra Capacity | <u>0.70</u>        | <u>2,702,700</u>               | <u>0.3805</u>        |
| Subtotal                      | <u><u>1.70</u></u> | 6,563,700                      | 0.9240               |
| Fire Protection               |                    | <u>540,000</u>                 | <u>0.0760</u>        |
| Total                         |                    | <u><u>7,103,700</u></u>        | <u><u>1.0000</u></u> |

The public and private fire protection allocation factors in column 6 on the previous page are based on the relative potential demands (see Schedule E).

MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

| Customer<br>Classification<br>(1) | Average Hourly Consumption |                             | Maximum Hour<br>Extra Capacity |                                           | Fire Protection             |                                           | Allocation<br>Factor<br>(9)=(4)+(6)+(8) |
|-----------------------------------|----------------------------|-----------------------------|--------------------------------|-------------------------------------------|-----------------------------|-------------------------------------------|-----------------------------------------|
|                                   | Thousand<br>Gallons<br>(2) | Allocation<br>Factor<br>(3) | Allocation<br>Factor<br>(5)    | Weighted<br>Factor<br>(6)=(5) X<br>0.3615 | Allocation<br>Factor<br>(7) | Weighted<br>Factor<br>(8)=(7) X<br>0.3372 |                                         |
| Residential                       | 61.2                       | 0.4448                      | 0.1341                         | 0.1900                                    |                             |                                           | 0.3241                                  |
| Commercial                        | 62.7                       | 0.4557                      | 0.1373                         | 0.1527                                    |                             |                                           | 0.2900                                  |
| Industrial                        | 11.4                       | 0.0828                      | 0.0249                         | 0.0151                                    |                             |                                           | 0.0400                                  |
| Other Public Authority            | 1.5                        | 0.0109                      | 0.0033                         | 0.0037                                    |                             |                                           | 0.0070                                  |
| Sales for Resale                  | 0.0                        | 0.0000                      | 0.0000                         | 0.0000                                    |                             |                                           | 0.0000                                  |
| Private Fire Protection           | 0.1                        | 0.0007                      | 0.0002                         |                                           | 0.1160                      | 0.0391                                    | 0.0393                                  |
| Public Fire Protection            | 0.7                        | 0.0051                      | 0.0015                         |                                           | 0.8840                      | 0.2981                                    | 0.2996                                  |
| Total                             | 137.6                      | 1.0000                      | 0.3013                         | 0.3615                                    | 1.0000                      | 0.3372                                    | 1.0000                                  |

The maximum hour extra capacity factors in column 5 are determined as follows:

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND  
MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.**

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 2.20 and the average daily system sendout for 2002 of 3.861 MGD. The system demand for fire protection is 3,000 gallons per minute.

|                                | <u>Ratio</u>       | <u>Rate of Flow,<br/>(GPM)</u> | <u>Weight</u>        |
|--------------------------------|--------------------|--------------------------------|----------------------|
| Average Hour                   | 1.00               | 2,681                          | 0.3013               |
| Maximum Hour<br>Extra Capacity | <u>1.20</u>        | <u>3,217</u>                   | <u>0.3615</u>        |
| Subtotal                       | <u><u>2.20</u></u> | 5,898                          | 0.6628               |
| Fire Protection                |                    | <u>3,000</u>                   | <u>0.3372</u>        |
| Total                          |                    | <u><u>8,898</u></u>            | <u><u>1.0000</u></u> |

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

| Customer<br>Classification | Average<br>Hourly<br>Consumption<br>Thousand Gal. | <u>Maximum Hour Extra Capacity</u> |                                   |                              |
|----------------------------|---------------------------------------------------|------------------------------------|-----------------------------------|------------------------------|
|                            |                                                   | <u>Factor*</u>                     | <u>1,000 Gallons<br/>Per Hour</u> | <u>Allocation<br/>Factor</u> |
| (1)                        | (2)                                               | (3)                                | (4)=(2)x(3)                       | (5)                          |
| Residential                | 61.2                                              | 3.5                                | 214.2                             | 0.5253                       |
| Commercial                 | 61.5                                              | 2.8                                | 172.3                             | 0.4225                       |
| Industrial                 | 11.4                                              | 1.5                                | 17.1                              | 0.0419                       |
| Other Public Authority     | 1.5                                               | 2.8                                | 4.2                               | 0.0103                       |
| Sales for Resale           | <u>0.0</u>                                        | 2.0                                | <u>0.0</u>                        | <u>0.0000</u>                |
| Total                      | <u><u>135.6</u></u>                               |                                    | <u><u>407.8</u></u>               | <u><u>1.0000</u></u>         |

\* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands (see Schedule E).

MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES.

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and the fire protection demand for each customer classification.

| Customer Classification | Average Hourly Consumption |            |        | Maximum Hour<br>Extra Capacity         |                          |                                        | Fire Protection          |                                        |        | Allocation Factor<br>(9)=(4)+(6)+(8) |
|-------------------------|----------------------------|------------|--------|----------------------------------------|--------------------------|----------------------------------------|--------------------------|----------------------------------------|--------|--------------------------------------|
|                         | Thousand Gallons<br>(2)    | Allocation |        | Weighted Factor<br>(4)=(3) X<br>0.3879 | Allocation Factor<br>(5) | Weighted Factor<br>(6)=(5) X<br>0.4654 | Allocation Factor<br>(7) | Weighted Factor<br>(8)=(7) X<br>0.1467 |        |                                      |
|                         |                            |            |        |                                        |                          |                                        |                          |                                        |        |                                      |
| (1)                     |                            |            |        |                                        |                          |                                        |                          |                                        |        |                                      |
| Residential             | 61.2                       | 0.4448     | 0.1725 | 0.5253                                 | 0.2445                   |                                        |                          |                                        | 0.4170 |                                      |
| Commercial              | 62.7                       | 0.4557     | 0.1768 | 0.4225                                 | 0.1966                   |                                        |                          |                                        | 0.3734 |                                      |
| Industrial              | 11.4                       | 0.0828     | 0.0321 | 0.0419                                 | 0.0195                   |                                        |                          |                                        | 0.0516 |                                      |
| Other Public Authority  | 1.5                        | 0.0109     | 0.0042 | 0.0103                                 | 0.0048                   |                                        |                          |                                        | 0.0090 |                                      |
| Sales for Resale        | 0.0                        | -0.0001    | 0.0000 | 0.0000                                 | 0.0000                   |                                        |                          |                                        | 0.0000 |                                      |
| Private Fire Protection | 0.1                        | 0.0007     | 0.0003 |                                        |                          | 0.1160                                 | 0.0170                   |                                        | 0.0173 |                                      |
| Public Fire Protection  | 0.7                        | 0.0051     | 0.0020 |                                        |                          | 0.8840                                 | 0.1297                   |                                        | 0.1317 |                                      |
| Total                   | 137.6                      | 0.9999     | 0.3879 | 1.0000                                 | 0.4654                   | 1.0000                                 | 0.1467                   |                                        | 1.0000 |                                      |

The weighting of the factors is based on the ratio of the capacity required for a 3 hour demand of fire flow, as related to total storage capacity. The calculation is shown on the following page.

MISSOURI-AMERICAN WATER COMPANY  
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES, cont.

The weighting of the factors is based on the ratio of the capacity required for a 3 hour demand of fire flow, as related to total storage capacity.

$$\text{Fire Protection Weight} = \frac{3,000 \text{ GPM} \times 60 \text{ Min.} \times 3 \text{ Hrs.}}{3,680,000 \text{ Gallons}} = 0.1467$$

$$\text{General Service Weight} = 1.0000 - 0.1467 = 0.8533$$

The weighting of the average hourly consumption and maximum hour extra demand for general service is based on the maximum hour ratio, as follows:

|                                | Maximum<br>Hour<br>Ratio | Percent | Weight |
|--------------------------------|--------------------------|---------|--------|
| Average Hour                   | 1.00                     | 45.45   | 0.3879 |
| Extra Capacity<br>Maximum Hour | 1.20                     | 54.55   | 0.4654 |
| Total                          | 2.20                     | 100.00  | 0.8533 |

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH POWER AND PUMPING FACILITIES.**

Factors are based on the weighting of the maximum daily consumption, Factor 2, the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

| Customer<br>Classification | Maximum Daily<br>Consumption |                    | Maximum Daily<br>Consumption |                    | Maximum Hourly<br>Consumption |                    | Allocation<br>Factor |
|----------------------------|------------------------------|--------------------|------------------------------|--------------------|-------------------------------|--------------------|----------------------|
|                            | Allocation<br>Factor 2       | Weighted<br>Factor | Allocation<br>Factor 3       | Weighted<br>Factor | Allocation<br>Factor 4        | Weighted<br>Factor |                      |
| (1)                        | (2)                          | (3)=(2)X<br>0.8042 | (4)                          | (5)=(4)X<br>0.1958 | (6)                           | (7)=(6)X<br>0.0000 | (8)=(3)+<br>(5)+(7)  |
| Residential                | 0.4763                       | 0.3831             | 0.4404                       | 0.0863             | 0.3241                        | 0.0000             | 0.4694               |
| Commercial                 | 0.4409                       | 0.3546             | 0.4073                       | 0.0797             | 0.2900                        | 0.0000             | 0.4343               |
| Industrial                 | 0.0687                       | 0.0552             | 0.0634                       | 0.0124             | 0.0400                        | 0.0000             | 0.0676               |
| Other Public Authority     | 0.0106                       | 0.0085             | 0.0098                       | 0.0019             | 0.0070                        | 0.0000             | 0.0104               |
| Sales for Resale           | 0.0000                       | 0.0000             | 0.0000                       | 0.0000             | 0.0000                        | 0.0000             | 0.0000               |
| Private Fire Protection    | 0.0004                       | 0.0003             | 0.0091                       | 0.0018             | 0.0393                        | 0.0000             | 0.0021               |
| Public Fire Protection     | 0.0031                       | 0.0025             | 0.0700                       | 0.0137             | 0.2996                        | 0.0000             | 0.0162               |
| Total                      | <u>1.0000</u>                | <u>0.8042</u>      | <u>1.0000</u>                | <u>0.1958</u>      | <u>1.0000</u>                 | <u>0.0000</u>      | <u>1.0000</u>        |

The weighting of the factors is based on the horsepower of pumps associated with maximum day facilities, maximum day and fire facilities, and maximum hour facilities, as follows:

|                                      | <u>Horsepower<br/>of Pumps</u> | <u>Weight</u> |
|--------------------------------------|--------------------------------|---------------|
| Associated with Maximum Day          | 1,160                          | 0.8042        |
| Associated with Maximum Day and Fire | 283                            | 0.1958        |
| Associated with Maximum Hour         | <u>0</u>                       | <u>0.0000</u> |
| Total                                | <u>1,443</u>                   | <u>1.0000</u> |

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 7. ALLOCATION OF COSTS ASSOCIATED WITH TRANSMISSION AND DISTRIBUTION MAINS.**

Factors are based on the weighting of the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

| Customer<br>Classification | Maximum Daily<br>Consumption |                    | Maximum Hourly<br>Consumption |                    | Allocation<br>Factor |
|----------------------------|------------------------------|--------------------|-------------------------------|--------------------|----------------------|
|                            | Allocation<br>Factor 3       | Weighted<br>Factor | Allocation<br>Factor 4        | Weighted<br>Factor |                      |
| (1)                        | (2)                          | (3)=(2)X<br>0.1507 | (4)                           | (5)=(4)X<br>0.8493 | (6)=(3)+(5)          |
| Residential                | 0.4404                       | 0.0663             | 0.3241                        | 0.2752             | 0.3415               |
| Commercial                 | 0.4073                       | 0.0614             | 0.2900                        | 0.2463             | 0.3077               |
| Industrial                 | 0.0634                       | 0.0096             | 0.0400                        | 0.0340             | 0.0436               |
| Other Public Authority     | 0.0098                       | 0.0015             | 0.0070                        | 0.0059             | 0.0074               |
| Sales for Resale           | 0.0000                       | 0.0000             | 0.0000                        | 0.0000             | 0.0000               |
| Private Fire Protection    | 0.0091                       | 0.0014             | 0.0393                        | 0.0334             | 0.0348               |
| Public Fire Protection     | 0.0700                       | 0.0105             | 0.2996                        | 0.2545             | 0.2650               |
| Total                      | <u>1.0000</u>                | <u>0.1507</u>      | <u>1.0000</u>                 | <u>0.8493</u>      | <u>1.0000</u>        |

The weighting of the factors is based on the total footage of mains, designated as either transmission mains or distribution mains, as follows:

|                    | Total Footage<br>of Mains | Weight        |
|--------------------|---------------------------|---------------|
| Transmission Mains | 114,360                   | 0.1507        |
| Distribution Mains | <u>644,570</u>            | <u>0.8493</u> |
| Total              | <u>758,930</u>            | 1.0000        |

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH FIRE HYDRANTS.**

Costs are assigned directly to Public Fire Protection.

| <u>Customer<br/>Classification</u><br>(1) | <u>Allocation<br/>Factor</u><br>(3) |
|-------------------------------------------|-------------------------------------|
| Public Fire Protection                    | <u>1.0000</u>                       |
| Total                                     | <u><u>1.0000</u></u>                |

**FACTOR 9. ALLOCATION OF COSTS ASSOCIATED WITH METERS.**

Factors are based on the relative cost of meters by size and customer classification, as developed on the following page and summarized below.

| <u>Customer<br/>Classification</u><br>(1) | <u>5/8" Dollar<br/>Equivalents</u><br>(2) | <u>Allocation<br/>Factor</u><br>(3) |
|-------------------------------------------|-------------------------------------------|-------------------------------------|
| Residential                               | 8,930                                     | 0.7001                              |
| Commercial                                | 3,504                                     | 0.2747                              |
| Industrial                                | 139                                       | 0.0109                              |
| Other Public Authority                    | 183                                       | 0.0143                              |
| Sales for Resale                          | 0                                         | 0.0000                              |
| Private Fire                              | <u>0</u>                                  | <u>0.0000</u>                       |
| Total                                     | <u><u>12,756</u></u>                      | <u><u>1.0000</u></u>                |

## Schedule C-JFC

MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT

## BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

| Meter<br>Size<br>(1) | 5/8"<br>Dollar<br>Equivalent<br>(2) | Residential                |                          | Commercial                 |                          | Industrial                 |                          | Other Public Authority     |                           | Sales for Resale            |                            | Total                       |                   |
|----------------------|-------------------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|---------------------------|-----------------------------|----------------------------|-----------------------------|-------------------|
|                      |                                     | Number of<br>Meters<br>(3) | Weighting<br>(4)=(2)X(3) | Number of<br>Meters<br>(5) | Weighting<br>(6)=(2)X(5) | Number of<br>Meters<br>(7) | Weighting<br>(8)=(2)X(7) | Number of<br>Meters<br>(9) | Weighting<br>(10)=(2)X(9) | Number of<br>Meters<br>(11) | Weighting<br>(12)=(2)X(11) | Number of<br>Meters<br>(13) | Weighting<br>(14) |
| 5/8                  | 1.0                                 | 8,740                      | 8,740                    | 1,026                      | 1,026                    | 3                          | 3                        | 10                         | 10                        | 0                           | 0                          | 9,779                       | 9,779             |
| 3/4                  | 1.3                                 | 1                          | 1                        | 0                          | 0                        | 0                          | 0                        | 0                          | 0                         | 0                           | 0                          | 1                           | 1                 |
| 1                    | 1.7                                 | 92                         | 156                      | 342                        | 581                      | 2                          | 3                        | 6                          | 10                        | 0                           | 0                          | 442                         | 750               |
| 1-1/2                | 3.5                                 | 3                          | 11                       | 103                        | 361                      | 0                          | 0                        | 4                          | 14                        | 0                           | 0                          | 110                         | 386               |
| 2                    | 4.3                                 | 5                          | 22                       | 205                        | 882                      | 4                          | 17                       | 19                         | 82                        | 0                           | 0                          | 233                         | 1,003             |
| 3                    | 19.0                                | 0                          | 0                        | 19                         | 361                      | 3                          | 57                       | 2                          | 38                        | 0                           | 0                          | 24                          | 456               |
| 4                    | 29.3                                | 0                          | 0                        | 10                         | 293                      | 2                          | 59                       | 1                          | 29                        | 0                           | 0                          | 13                          | 381               |
| 6                    | 48.4                                | 0                          | 0                        | 0                          | 0                        | 0                          | 0                        | 0                          | 0                         | 0                           | 0                          | 0                           | 0                 |
| 8                    | 112.9                               | 0                          | 0                        | 0                          | 0                        | 0                          | 0                        | 0                          | 0                         | 0                           | 0                          | 0                           | 0                 |
| Total                |                                     | 8,841                      | 8,930                    | 1,705                      | 3,504                    | 14                         | 139                      | 42                         | 183                       | 0                           | 0                          | 10,602                      | 12,756            |

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 10. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.**

Factors are based on the relative cost of services by size and customer classification, as developed on the following page and summarized below.

| <u>Customer<br/>Classification</u><br>(1) | <u>3/4" Dollar<br/>Equivalents</u><br>(2) | <u>Allocation<br/>Factor</u><br>(3) |
|-------------------------------------------|-------------------------------------------|-------------------------------------|
| Residential                               | 8,864                                     | 0.7712                              |
| Commercial                                | 2,088                                     | 0.1817                              |
| Industrial                                | 27                                        | 0.0023                              |
| Other Public Authority                    | 70                                        | 0.0061                              |
| Sales for Resale                          | 0                                         | 0.0000                              |
| Private Fire Protection                   | <u>445</u>                                | <u>0.0387</u>                       |
| <br>Total                                 | <br><u><u>11,494</u></u>                  | <br><u><u>1.0000</u></u>            |

## Schedule C-JFC

MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT

## BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

| Service<br>Size<br>(1) | 3/4"<br>Dollar<br>Equivalent<br>(2) | Residential                  |                          | Commercial                   |                          | Industrial                   |                          | Other Public Authority       |                           | Sales for Resale              |                            | Private Fire Protection       |                            | Total                         |                   |
|------------------------|-------------------------------------|------------------------------|--------------------------|------------------------------|--------------------------|------------------------------|--------------------------|------------------------------|---------------------------|-------------------------------|----------------------------|-------------------------------|----------------------------|-------------------------------|-------------------|
|                        |                                     | Number of<br>Services<br>(3) | Weighting<br>(4)=(2)X(3) | Number of<br>Services<br>(5) | Weighting<br>(6)=(2)X(5) | Number of<br>Services<br>(7) | Weighting<br>(8)=(2)X(7) | Number of<br>Services<br>(9) | Weighting<br>(10)=(2)X(9) | Number of<br>Services<br>(11) | Weighting<br>(12)=(2)X(11) | Number of<br>Services<br>(13) | Weighting<br>(14)=(2)X(13) | Number of<br>Services<br>(15) | Weighting<br>(16) |
| 3/4                    | 1.00                                | 8,741                        | 8,741                    | 1,026                        | 1,026                    | 3                            | 3                        | 10                           | 10                        | 0                             | 0                          | 0                             | 0                          | 9,780                         | 9,780             |
| 1                      | 1.17                                | 92                           | 108                      | 342                          | 400                      | 2                            | 2                        | 6                            | 7                         | 0                             | 0                          | 0                             | 0                          | 442                           | 517               |
| 1-1/2                  | 1.58                                | 3                            | 5                        | 103                          | 163                      | 0                            | 0                        | 4                            | 6                         | 0                             | 0                          | 0                             | 0                          | 110                           | 174               |
| 2                      | 2.04                                | 5                            | 10                       | 205                          | 418                      | 4                            | 8                        | 19                           | 39                        | 0                             | 0                          | 1                             | 2                          | 234                           | 477               |
| 3                      | 2.73                                | 0                            | 0                        | 19                           | 52                       | 3                            | 8                        | 2                            | 5                         | 0                             | 0                          | 1                             | 3                          | 25                            | 68                |
| 4                      | 2.88                                | 0                            | 0                        | 10                           | 29                       | 2                            | 6                        | 1                            | 3                         | 0                             | 0                          | 24                            | 69                         | 37                            | 107               |
| 6                      | 4.24                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 48                            | 204                        | 48                            | 204               |
| 8                      | 6.98                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 17                            | 119                        | 17                            | 119               |
| 10                     | 9.50                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 5                             | 48                         | 5                             | 48                |
| 12                     | 12.16                               | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 0                             | 0                          | 0                             | 0                 |
| Total                  |                                     | 8,841                        | 8,864                    | 1,705                        | 2,088                    | 14                           | 27                       | 42                           | 70                        | 0                             | 0                          | 96                            | 445                        | 10,698                        | 11,494            |

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 11. ALLOCATION OF TRANSMISSION AND DISTRIBUTION OPERATION SUPERVISION  
AND ENGINEERING AND MISCELLANEOUS EXPENSES.**

Factors are based on transmission and distribution operation expenses other than those being allocated, as follows:

| Customer<br>Classification | Transmission<br>& Distribution<br>Operating<br>Expenses | Allocation<br>Factor |
|----------------------------|---------------------------------------------------------|----------------------|
| (1)                        | (2)                                                     | (3)                  |
| Residential                | \$ 13,824                                               | 0.5475               |
| Commercial                 | 7,290                                                   | 0.2887               |
| Industrial                 | 627                                                     | 0.0248               |
| Other Public Authority     | 287                                                     | 0.0114               |
| Sales for Resale           | -                                                       | 0.0000               |
| Private Fire Protection    | 374                                                     | 0.0148               |
| Public Fire Protection     | 2,847                                                   | 0.1128               |
|                            | <hr/>                                                   | <hr/>                |
| Total                      | 25,249                                                  | 1.0000               |
|                            | <hr/> <hr/>                                             | <hr/> <hr/>          |

**FACTOR 12. ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINTENANCE SUPERVISION  
AND ENGINEERING, STRUCTURES AND IMPROVEMENTS, AND OTHER EXPENSES.**

Factors are based on transmission and distribution maintenance expenses other than those being allocated, as follows:

| Customer<br>Classification | Transmission<br>& Distribution<br>Maintenance<br>Expenses | Allocation<br>Factor |
|----------------------------|-----------------------------------------------------------|----------------------|
| (1)                        | (2)                                                       | (3)                  |
| Residential                | \$ 70,444                                                 | 0.7150               |
| Commercial                 | 19,436                                                    | 0.1973               |
| Industrial                 | 742                                                       | 0.0075               |
| Other Public Authority     | 616                                                       | 0.0063               |
| Sales for Resale           | -                                                         | 0.0000               |
| Private Fire Protection    | 3,756                                                     | 0.0381               |
| Public Fire Protection     | 3,528                                                     | 0.0358               |
|                            | <hr/>                                                     | <hr/>                |
| Total                      | \$98,522                                                  | 1.0000               |
|                            | <hr/> <hr/>                                               | <hr/> <hr/>          |

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 13. ALLOCATION OF BILLING AND COLLECTING COSTS.**

Factors are based on the total number of customers.

| <u>Customer<br/>Classification</u><br>(1) | <u>Total<br/>Customers</u><br>(2) | <u>Allocation<br/>Factor</u><br>(3) |
|-------------------------------------------|-----------------------------------|-------------------------------------|
| Residential                               | 8,841                             | 0.8263                              |
| Commercial                                | 1,705                             | 0.1593                              |
| Industrial                                | 14                                | 0.0013                              |
| Other Public Authority                    | 42                                | 0.0039                              |
| Sales for Resale                          | 0                                 | 0.0000                              |
| Private Fire Protection                   | 98                                | 0.0092                              |
| Public Fire Protection                    | <u>0</u>                          | <u>0.0000</u>                       |
| <br>Total                                 | <br><u><u>10,700</u></u>          | <br><u><u>1.0000</u></u>            |

**FACTOR 14. ALLOCATION OF METER READING COSTS.**

Factors are based on the number of metered customers.

| <u>Customer<br/>Classification</u><br>(1) | <u>Total Metered<br/>Customers</u><br>(2) | <u>Allocation<br/>Factor</u><br>(3) |
|-------------------------------------------|-------------------------------------------|-------------------------------------|
| Residential                               | 8,841                                     | 0.8339                              |
| Commercial                                | 1,705                                     | 0.1608                              |
| Industrial                                | 14                                        | 0.0013                              |
| Other Public Authority                    | 42                                        | 0.0040                              |
| Sales for Resale                          | <u>0</u>                                  | <u>0.0000</u>                       |
| <br>Total                                 | <br><u><u>10,602</u></u>                  | <br><u><u>1.0000</u></u>            |

MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 15. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES AND CASH  
WORKING CAPITAL.

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

| Customer<br>Classification | Operation &<br>Maintenance<br>Expenses | Allocation<br>Factor |
|----------------------------|----------------------------------------|----------------------|
| (1)                        | (2)                                    | (3)                  |
| Residential                | \$521,322                              | 0.6163               |
| Commercial                 | 262,604                                | 0.3105               |
| Industrial                 | 30,918                                 | 0.0366               |
| Other Public Authority     | 6,742                                  | 0.0080               |
| Sales for Resale           | 0                                      | 0.0000               |
| Private Fire Protection    | 10,325                                 | 0.0122               |
| Public Fire Protection     | 13,900                                 | 0.0164               |
|                            | <hr/>                                  | <hr/>                |
| Total                      | <u>\$845,811</u>                       | <u>1.0000</u>        |

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 16. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.**

Factors are based on the allocation of direct labor expense.

| Customer<br>Classification | Direct Labor<br>Expense | Allocation<br>Factor |
|----------------------------|-------------------------|----------------------|
| (1)                        | (2)                     | (3)                  |
| Residential                | \$469,700               | 0.6119               |
| Commercial                 | 243,311                 | 0.3169               |
| Industrial                 | 29,070                  | 0.0379               |
| Other Public Authority     | 6,332                   | 0.0082               |
| Sales for Resale           | 0                       | 0.0000               |
| Private Fire Protection    | 8,154                   | 0.0106               |
| Public Fire Protection     | 11,127                  | 0.0145               |
| Total                      | <u>\$767,694</u>        | <u>1.0000</u>        |

**FACTOR 17. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS,  
MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.**

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

| Customer<br>Classification | Original<br>Cost Less<br>Depreciation | Allocation<br>Factor |
|----------------------------|---------------------------------------|----------------------|
| (1)                        | (2)                                   | (3)                  |
| Residential                | \$5,554,893                           | 0.4489               |
| Commercial                 | 4,433,954                             | 0.3583               |
| Industrial                 | 631,732                               | 0.0511               |
| Other Public Authority     | 113,544                               | 0.0092               |
| Sales for Resale           | 0                                     | 0.0000               |
| Private Fire Protection    | 133,723                               | 0.0108               |
| Public Fire Protection     | 1,506,116                             | 0.1217               |
| Total                      | <u>\$12,373,961</u>                   | <u>1.0000</u>        |

**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 18. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.**

Factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below.

| Customer<br>Classification | Original<br>Cost Measure<br>of Value | Allocation<br>Factor |
|----------------------------|--------------------------------------|----------------------|
| (1)                        | (2)                                  | (3)                  |
| Residential                | \$5,316,862                          | 0.4494               |
| Commercial                 | 4,235,952                            | 0.3581               |
| Industrial                 | 603,161                              | 0.0510               |
| Other Public Authority     | 108,452                              | 0.0092               |
| Sales for Resale           | 0                                    | 0.0000               |
| Private Fire Protection    | 128,250                              | 0.0108               |
| Public Fire Protection     | 1,436,950                            | 0.1215               |
| Total                      | <u>\$11,829,628</u>                  | <u>1.0000</u>        |

**FACTOR 19. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS AND OTHER WATER REVENUES.**

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

| Customer<br>Classification | Total Cost<br>of Service | Allocation<br>Factor |
|----------------------------|--------------------------|----------------------|
| (1)                        | (2)                      | (3)                  |
| Residential                | \$2,397,609              | 0.5364               |
| Commercial                 | 1,520,023                | 0.3401               |
| Industrial                 | 205,247                  | 0.0459               |
| Other Public Authority     | 38,725                   | 0.0087               |
| Sales for Resale           | 0                        | 0.0000               |
| Private Fire Protection    | 45,179                   | 0.0101               |
| Public Fire Protection     | 262,964                  | 0.0588               |
| Total                      | <u>\$4,469,747</u>       | <u>1.0000</u>        |

**MISSOURI-AMERICAN WATER COMPANY**  
**JEFFERSON CITY DISTRICT**  
**COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS**

| Account<br>(1)                | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Fire Protection<br>Public<br>(10) |
|-------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|-----------------------------------|
| <b>RATE BASE</b>              |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Organization                  | 17                    | \$ 13,007                 | \$ 5,839           | \$ 4,660          | \$ 665            | \$ 120                       | \$ -                       | \$ 140         | \$ 1,583                          |
| Franchises                    | 17                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Land & Ld Rights SS           | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Land & Ld Rights P            | 6                     | 944                       | 443                | 410               | 64                | 10                           | 0                          | 2              | 15                                |
| Land & Ld Rights WT           | 2                     | 50,762                    | 24,178             | 22,381            | 3,487             | 538                          | 0                          | 20             | 157                               |
| Land & Ld Rights TD           | 7                     | 45,514                    | 15,543             | 14,005            | 1,984             | 337                          | 0                          | 1,584          | 12,061                            |
| Land & Land Rights AG         | 15                    | 7,181                     | 4,426              | 2,230             | 263               | 57                           | 0                          | 88             | 118                               |
| Struct & Imp SS               | 2                     | 1,270                     | 605                | 560               | 87                | 13                           | 0                          | 1              | 4                                 |
| Struct & Imp P                | 6                     | 556,154                   | 261,059            | 241,538           | 37,596            | 5,784                        | 0                          | 1,168          | 9,010                             |
| Struct & Imp Pumps (STL)      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp Pump Boosters    | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp WT               | 2                     | 1,960,441                 | 933,758            | 864,358           | 134,682           | 20,781                       | 0                          | 784            | 6,077                             |
| Struct & Imp WT Nth Plt (ST)  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp WT Ctrl Plt 1    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp WT Ctrl Plt 3    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp WT Sth Plt (ST)  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp WT Meramec (ST)  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp TD               | 7                     | 35,578                    | 12,150             | 10,947            | 1,551             | 263                          | 0                          | 1,238          | 9,428                             |
| Struct & Imp TD Spec Cross    | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp Offices          | 15                    | 134,839                   | 83,101             | 41,868            | 4,935             | 1,079                        | 0                          | 1,645          | 2,211                             |
| Struct & Imp Leasehold        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp Leasehold        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp Store, Shop, Gar | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Imp Misc             | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Collect & Impounding          | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Lake, River & Other Intakes   | 2                     | 54,227                    | 25,828             | 23,909            | 3,725             | 575                          | 0                          | 22             | 168                               |
| Wells & Springs               | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Supply Mains                  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Supply Mains Nth Plt (STL)    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Supply Mains Ctrl Plt (STL)   | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Supply Mains Sth Plt (STL)    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Supply Mains Meramec Plt (S   | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Power Generation Equip Othe   | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Boiler Plant Equipment P      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Steam              | 6                     | 14,955                    | 7,020              | 6,495             | 1,011             | 156                          | 0                          | 31             | 242                               |
| Pump Equip Electric           | 6                     | 824,166                   | 386,864            | 357,935           | 55,714            | 8,571                        | 0                          | 1,731          | 13,351                            |
| Pump Equip Elec Pre46 (STL)   | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Elec Post46 (STL)  | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Elec Boosters Po   | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Diesel             | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |

MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)              | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Fire Protection<br>Public<br>(10) |
|-----------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|-----------------------------------|
| Pump Equip Diesel Stratman\ | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Diesel Ctrl Plt  | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Hydraulic        | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Pump Equip Other            | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Non-Media          | 2                     | 1,728,517                 | 823,293            | 762,103           | 118,749           | 18,322                       | 0                          | 691            | 5,358                             |
| WT Equip Non-Med North (STL | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Non-Media Ctrl 1 & | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Non-Media Ctrl 3 ( | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Non-Media Sth (STL | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Non-Media Mer (STL | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Filter Media       | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Dist Reservoirs & Standpipe | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Elevated Tanks & Standpipes | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Ground Level Facilities     | 5                     | 951,334                   | 396,706            | 355,228           | 49,089            | 8,562                        | 0                          | 16,458         | 125,291                           |
| TD Mains Not Classified by  | 7                     | 4,770,626                 | 1,629,169          | 1,467,922         | 207,999           | 35,303                       | 0                          | 166,018        | 1,264,216                         |
| TD Mains 4 & Less "         | 4                     | 11,393                    | 3,692              | 3,304             | 456               | 80                           | 0                          | 448            | 3,413                             |
| TD Mains 6 to 8"            | 4                     | (2,191,440)               | (710,246)          | (635,518)         | (87,658)          | (15,340)                     | 0                          | (86,124)       | (656,555)                         |
| TD Mains 10 to 16"          | 3                     | 902,463                   | 397,445            | 367,573           | 57,216            | 8,844                        | 0                          | 8,212          | 63,172                            |
| TD Mains 18 & Grtr "        | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains AC 4 (STL) "       | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains CI <10 1900-28 (S" | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains CI <10 1929-56 (S" | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains CI <10 1957-93 (S" | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains CI 12 (STL) "      | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains CI 16 (STL) "      | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains DI 6-8 (STL) "     | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains DI 12 (STL) "      | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains DI 16 & >(STL)     | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains Galve 1 (STL) "    | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| TD Mains LJ 20 (STL) "      | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Fire Mains                  | 8                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Services                    | 10                    | 255,738                   | 197,225            | 46,468            | 588               | 1,560                        | 0                          | 9,897          | 0                                 |
| Meters Bronze Case          | 9                     | 165,498                   | 115,865            | 45,462            | 1,804             | 2,367                        | 0                          | 0              | 0                                 |
| Meters Plastic Case         | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Meters Other                | 9                     | 622,828                   | 436,042            | 171,091           | 6,789             | 8,906                        | 0                          | 0              | 0                                 |
| Meters Other-Rem Rdr Units  | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Meter Installations         | 9                     | 874                       | 612                | 240               | 10                | 12                           | 0                          | 0              | 0                                 |
| Meter Installation Other    | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Hydrants                    | 8                     | 635,109                   | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Other P/E Intangible        | 15                    | 2,492                     | 1,536              | 774               | 91                | 20                           | 0                          | 30             | 635,109                           |
| Other P/E WT Res Hand Equip | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 41                                |

**MISSOURI-AMERICAN WATER COMPANY**  
**JEFFERSON CITY DISTRICT**  
**COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS**

| Account<br>(1)                       | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Fire Protection<br>Private<br>(9) | Public<br>(10) |
|--------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|-----------------------------------|----------------|
| Other P/E TD                         | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Other P/E CPS                        | 15                    | 6,834                     | 4,212              | 2,122             | 250               | 55                           | 0                          | 83                                | 112            |
| Office Furniture & Equip             | 15                    | 194,278                   | 119,734            | 60,323            | 7,111             | 1,554                        | 0                          | 2,370                             | 3,186          |
| Comp & Periph Equip                  | 15                    | 329,978                   | 203,365            | 102,458           | 12,077            | 2,640                        | 0                          | 4,026                             | 5,412          |
| Computer Software                    | 15                    | 15,119                    | 9,318              | 4,694             | 553               | 121                          | 0                          | 184                               | 248            |
| Comp Software Personal               | 15                    | 3,744                     | 2,307              | 1,163             | 137               | 30                           | 0                          | 46                                | 61             |
| Data Handling Equipment              | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Other Office Equipment               | 15                    | 342                       | 211                | 106               | 13                | 3                            | 0                          | 4                                 | 6              |
| Trans Equip Lt Duty Trks             | 15                    | 66,903                    | 41,232             | 20,773            | 2,449             | 535                          | 0                          | 816                               | 1,097          |
| Trans Equip Hwy Duty Trks            | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Trans Equip Autos                    | 15                    | 23,203                    | 14,300             | 7,205             | 849               | 186                          | 0                          | 283                               | 381            |
| Trans Equip Other                    | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Stores Equipment                     | 15                    | 1,020                     | 629                | 317               | 37                | 8                            | 0                          | 12                                | 17             |
| Tools,Shop, Garage Equip             | 15                    | 60,126                    | 37,056             | 18,669            | 2,201             | 481                          | 0                          | 734                               | 986            |
| Tools,Shop, Garage Equip Oth         | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Laboratory Equipment                 | 2                     | 32,061                    | 15,271             | 14,136            | 2,203             | 340                          | 0                          | 13                                | 99             |
| Laboratory Equip Other               | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Power Operated Equipment             | 15                    | (22,429)                  | (13,823)           | (6,964)           | (821)             | (179)                        | 0                          | (274)                             | (368)          |
| Comm Equip Non-Telephone             | 15                    | 85,254                    | 52,542             | 26,471            | 3,120             | 682                          | 0                          | 1,040                             | 1,398          |
| Comm Equip Telephone                 | 15                    | 700                       | 431                | 217               | 26                | 6                            | 0                          | 9                                 | 11             |
| Misc Equipment                       | 15                    | 35,365                    | 21,795             | 10,981            | 1,294             | 283                          | 0                          | 431                               | 580            |
| Other Tangible Property              | 17                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Total Utility Plant in Service       |                       | 12,386,968                | 5,560,732          | 4,438,614         | 632,397           | 113,663                      | 0                          | 133,863                           | 1,507,699      |
| <b>Other Rate Base Items</b>         |                       |                           |                    |                   |                   |                              |                            |                                   |                |
| Add:                                 |                       |                           |                    |                   |                   |                              |                            |                                   |                |
| Other Utility Plant Adjustments      | 17                    | 25,515                    | 11,454             | 9,142             | 1,304             | 235                          | 0                          | 276                               | 3,105          |
| Cash Working Capital                 | 15                    | 49,000                    | 30,199             | 15,215            | 1,793             | 392                          | 0                          | 598                               | 804            |
| Materials and Supplies               | 15                    | 196,425                   | 121,057            | 60,990            | 7,189             | 1,571                        | 0                          | 2,396                             | 3,221          |
| Prepayments                          | 15                    | 12,443                    | 7,669              | 3,864             | 455               | 100                          | 0                          | 152                               | 204            |
| OPEB's Contributed to External Fund  | 16                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Premature Retirement                 | 17                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Regulatory Deferrals                 | 17                    | 349,185                   | 156,749            | 125,113           | 17,843            | 3,213                        | 0                          | 3,771                             | 42,496         |
| Less:                                |                       |                           |                    |                   |                   |                              |                            |                                   |                |
| Accumulated Deferred ITC (3%)        | 17                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Deferred Income Taxes                | 17                    | (963,850)                 | (432,672)          | (345,347)         | (49,253)          | (8,867)                      | 0                          | (10,410)                          | (117,301)      |
| Pensions                             | 16                    | (226,058)                 | (138,325)          | (71,638)          | (8,568)           | (1,854)                      | 0                          | (2,396)                           | (3,278)        |
| Total Other Rate Base Elements       |                       | (557,340)                 | (243,870)          | (202,662)         | (29,235)          | (5,211)                      | 0                          | (5,613)                           | (70,748)       |
| Total Original Cost Measure of Value |                       | \$ 11,829,628             | \$ 5,316,862       | \$ 4,235,952      | \$ 603,161        | \$ 108,452                   | \$ -                       | \$ 128,250                        | \$ 1,436,950   |

MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT

SUMMARY OF AVERAGE DAILY SEND OUT AND MAXIMUM DAILY USAGE  
FOR THE YEARS 1999 - 2002

| Year<br>(1) | Average Daily<br>Send Out<br>(MGD)<br>(2) | Maximum Daily Use |                            |                           |
|-------------|-------------------------------------------|-------------------|----------------------------|---------------------------|
|             |                                           | MGD<br>(3)        | Ratio to<br>Average<br>(4) | Highest<br>Use Day<br>(5) |
| 1999        | 3.810                                     | 8.254             | 2.17                       | 7/22/1999                 |
| 2000        | 4.101                                     | 7.684             | 1.87                       | 7/11/2000                 |
| 2001        | 3.739                                     | 7.393             | 1.98                       | 8/21/2001                 |
| 2002        | 3.861                                     | 8.462             | 2.19                       | 8/5/2002                  |



**MISSOURI-AMERICAN WATER COMPANY  
JEFFERSON CITY DISTRICT**

**BASIS FOR ALLOCATING DEMAND RELATED COSTS OF FIRE SERVICE  
TO PRIVATE AND PUBLIC FIRE PROTECTION CUSTOMER CLASSIFICATIONS**

| Description<br>(1)                    | Restrictive<br>Diameters<br>Squared<br>(2) | Quantity<br>(3) | Relative<br>Demand*<br>(4)=(2)x(3) | Allocation<br>Factor<br>(5) |
|---------------------------------------|--------------------------------------------|-----------------|------------------------------------|-----------------------------|
| <b><u>PRIVATE FIRE PROTECTION</u></b> |                                            |                 |                                    |                             |
| <b>Fire Lines</b>                     |                                            |                 |                                    |                             |
| 2 -inch                               | 4.00                                       | 1               | 4                                  |                             |
| 3 -inch                               | 9.00                                       | 1               | 9                                  |                             |
| 4 -inch                               | 16.00                                      | 24              | 384                                |                             |
| 6 -inch                               | 36.00                                      | 48              | 1,728                              |                             |
| 8 -inch                               | 64.00                                      | 17              | 1,088                              |                             |
| 10 -inch                              | 100.00                                     | 5               | 500                                |                             |
| 12 -inch                              | 144.00                                     | 0               | 0                                  |                             |
| Private Hydrants                      | 32.75                                      | 2               | 66                                 |                             |
| <b>Total Private Fire Protection</b>  |                                            | <b>98</b>       | <b>3,779</b>                       | <b>0.1160</b>               |
| <b><u>PUBLIC FIRE PROTECTION</u></b>  |                                            |                 |                                    |                             |
| <b>Hydrant</b>                        | <b>Nozzle Sizes</b>                        |                 |                                    |                             |
| 6" Valve                              | 2- 2-1/2" & 1- 4.5"                        | 32.75           | 877                                | 28,722                      |
| 2 -inch Fire Line                     |                                            | 4.00            | 13                                 | 52                          |
| 4 -inch Fire Line                     |                                            | 16.00           | 1                                  | 16                          |
| <b>Total Public Fire Protection</b>   |                                            | <b>891</b>      | <b>28,790</b>                      | <b>0.8840</b>               |
| <b>Total Fire Protection</b>          |                                            | <b>989</b>      | <b>32,569</b>                      | <b>1.0000</b>               |

**JOPLIN DISTRICT**

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT

COMPARISON OF COST OF SERVICE WITH REVENUES UNDER PRESENT AND PROPOSED RATES  
FOR THE TEST YEAR ENDED DECEMBER 31, 2002

| Customer<br>Classification<br>(1) | Cost of Service               |                | Revenues, Present Rates |                | Revenues, Proposed Rates |                | Proposed Increase |                            |
|-----------------------------------|-------------------------------|----------------|-------------------------|----------------|--------------------------|----------------|-------------------|----------------------------|
|                                   | Amount<br>(Schedule B)<br>(2) | Percent<br>(3) | Amount<br>(4)           | Percent<br>(5) | Amount<br>(6)            | Percent<br>(7) | Amount<br>(8)     | Percent<br>Increase<br>(9) |
| Residential                       | \$ 4,416,482                  | 50.9%          | \$ 4,163,828            | 52.8%          | \$ 4,375,899             | 50.4%          | \$ 212,071        | 5.1%                       |
| Commercial                        | 1,689,738                     | 19.4%          | 1,625,606               | 20.6%          | 1,690,096                | 19.5%          | 64,490            | 4.0%                       |
| Industrial                        | 1,362,686                     | 15.7%          | 1,258,298               | 15.9%          | 1,362,959                | 15.7%          | 104,661           | 8.3%                       |
| Public Authority                  | 198,168                       | 2.3%           | 207,001                 | 2.6%           | 199,078                  | 2.3%           | (7,923)           | -3.8%                      |
| Sales for Resale                  | 407,151                       | 4.7%           | 443,290                 | 5.6%           | 408,036                  | 4.7%           | (35,254)          | -8.0%                      |
| Private Fire Service              | 158,311                       | 1.8%           | 196,436                 | 2.5%           | 196,436                  | 2.2%           | -                 | 0.0%                       |
| Public Fire Service               | 448,733                       | 5.2%           | -                       | 0.0%           | 448,733                  | 5.2%           | 448,733           | -                          |
| Total Sales                       | 8,681,269                     | 100.0%         | 7,894,459               | 100.0%         | 8,681,237                | 100.0%         | 786,778           | 10.0%                      |
| Other Revenues                    | 165,846                       |                | 165,846                 |                | 165,846                  |                | -                 | 0.0%                       |
| Total                             | \$ 8,847,115                  |                | \$ 8,060,305            |                | \$ 8,847,083             |                | \$ 786,778        | 9.8%                       |

PART II. COST OF SERVICE BY CUSTOMER CLASSIFICATION



MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT  
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                            | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Fire Protection<br>Public<br>(10) |
|-------------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|-----------------------------------|
| <b>OPERATION AND MAINTENANCE EXPENSES</b> |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| <b>SOURCE OF SUPPLY EXPENSES</b>          |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper SS                       | 2                     | \$ -                      | \$ -               | \$ -              | \$ -              | \$ -                         | \$ -                       | \$ -           | \$ -                              |
| Labor & Exp Oper SS                       | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Labor & Exp Oper SS                       | 2                     | 14,834                    | 5,680              | 3,446             | 4,133             | 414                          | 1,087                      | 16             | 58                                |
| Purchased Water                           | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| <b>TOTAL SS EXPENSE - OPERATION</b>       |                       | <b>14,834</b>             | <b>5,680</b>       | <b>3,446</b>      | <b>4,133</b>      | <b>414</b>                   | <b>1,087</b>               | <b>16</b>      | <b>58</b>                         |
| Misc Exp Oper SS                          | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Exp Oper SS                          | 2                     | 3,378                     | 1,293              | 785               | 941               | 94                           | 248                        | 4              | 13                                |
| Rents Oper SS                             | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Super & Eng Maint SS                      | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint SS                 | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint SS                 | 2                     | 129                       | 49                 | 30                | 36                | 4                            | 9                          | 0              | 1                                 |
| Collect & Impound Maint SS                | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Lake, River & Oth Maint SS                | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Lake, River & Oth Maint SS                | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Wells & Springs Maint SS                  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Wells & Springs Maint SS                  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Infil Gall & Tunnels Maint SS             | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Supply Mains Maint SS                     | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Plant Maint SS                       | 2                     | 11,644                    | 4,458              | 2,705             | 3,244             | 325                          | 854                        | 13             | 45                                |
| Misc Plant Maint SS                       | 2                     | 10,804                    | 4,137              | 2,510             | 3,010             | 301                          | 792                        | 12             | 42                                |
| <b>TOTAL SS EXPENSE - MAINTENANCE</b>     |                       | <b>25,955</b>             | <b>9,938</b>       | <b>6,029</b>      | <b>7,231</b>      | <b>724</b>                   | <b>1,903</b>               | <b>29</b>      | <b>101</b>                        |
| <b>TOTAL SS EXPENSE</b>                   |                       | <b>40,789</b>             | <b>15,618</b>      | <b>9,475</b>      | <b>11,364</b>     | <b>1,138</b>                 | <b>2,990</b>               | <b>45</b>      | <b>159</b>                        |
| <b>POWER AND PUMPING EXPENSES</b>         |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper P                        | 6                     | 40,968                    | 15,633             | 9,476             | 11,029            | 1,139                        | 2,978                      | 156            | 557                               |
| Fuel for Power Prod                       | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Labor & Exp Oper Pwr Prod                 | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Labor & Exp Oper Pwr Prod                 | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Purch Fuel/Power for Pump                 | 1                     | 510,240                   | 171,594            | 115,212           | 164,603           | 13,828                       | 40,666                     | 918            | 3,419                             |
| Labor & Exp Oper Pump                     | 6                     | 182,909                   | 69,798             | 42,307            | 49,239            | 5,085                        | 13,297                     | 695            | 2,488                             |
| Labor & Exp Oper Pump                     | 6                     | 141                       | 54                 | 33                | 38                | 4                            | 10                         | 1              | 2                                 |
| Expenses Transferred                      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Exp Oper P                           | 6                     | 6,376                     | 2,433              | 1,475             | 1,716             | 177                          | 464                        | 24             | 87                                |
| Rents Oper P                              | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| <b>TOTAL PUMPING EXPENSE - OPERATION</b>  |                       | <b>740,634</b>            | <b>259,512</b>     | <b>168,502</b>    | <b>226,625</b>    | <b>20,232</b>                | <b>57,416</b>              | <b>1,794</b>   | <b>6,552</b>                      |

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                                | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Fire Protection<br>Public<br>(10) |
|-----------------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|-----------------------------------|
| Super & Eng Maint P                           | 6                     | 25,015                    | 9,546              | 5,786             | 6,734             | 695                          | 1,819                      | 95             | 340                               |
| Struct & Improve Maint P                      | 6                     | 928                       | 354                | 215               | 250               | 26                           | 67                         | 4              | 13                                |
| Power Prod Equip Maint P                      | 6                     | 3,303                     | 1,260              | 764               | 889               | 92                           | 240                        | 13             | 45                                |
| Pump Equip Maint P                            | 6                     | 15,640                    | 5,988              | 3,618             | 4,210             | 435                          | 1,137                      | 59             | 213                               |
| Pump Equip Maint P                            | 6                     | 657                       | 251                | 152               | 177               | 18                           | 48                         | 2              | 9                                 |
| <b>TOTAL PUMPING EXPENSES - MAINTENANCE</b>   |                       | <b>45,543</b>             | <b>17,379</b>      | <b>10,534</b>     | <b>12,260</b>     | <b>1,266</b>                 | <b>3,311</b>               | <b>173</b>     | <b>619</b>                        |
| <b>TOTAL PUMPING EXPENSES</b>                 |                       | <b>786,177</b>            | <b>276,891</b>     | <b>179,036</b>    | <b>238,886</b>    | <b>21,499</b>                | <b>60,727</b>              | <b>1,967</b>   | <b>7,171</b>                      |
| <b>WATER TREATMENT</b>                        |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper WT                           | 2                     | 30,202                    | 11,564             | 7,016             | 8,414             | 843                          | 2,214                      | 33             | 118                               |
| Chemicals                                     | 1                     | 97,076                    | 32,647             | 21,920            | 31,317            | 2,631                        | 7,737                      | 175            | 650                               |
| Labor & Exp Oper WT                           | 2                     | 93,636                    | 35,853             | 21,752            | 26,087            | 2,612                        | 6,864                      | 103            | 365                               |
| Labor & Exp Oper WT                           | 2                     | 3,193                     | 1,223              | 742               | 890               | 89                           | 234                        | 4              | 12                                |
| Misc Exp Oper WT                              | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Exp Oper WT                              | 1                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Misc Exp Oper WT                              | 2                     | 37,850                    | 14,493             | 8,793             | 10,545            | 1,056                        | 2,774                      | 42             | 148                               |
| Rents Oper WT                                 | 2                     | 58                        | 22                 | 13                | 16                | 2                            | 4                          | 0              | 0                                 |
| <b>TOTAL WT EXPENSE - OPERATION</b>           |                       | <b>262,015</b>            | <b>95,802</b>      | <b>60,235</b>     | <b>77,269</b>     | <b>7,233</b>                 | <b>19,827</b>              | <b>356</b>     | <b>1,294</b>                      |
| <b>Super &amp; Eng Maint WT</b>               | 2                     | 26,232                    | 10,044             | 6,094             | 7,308             | 732                          | 1,923                      | 29             | 102                               |
| Struct & Improve Maint WT                     | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Struct & Improve Maint WT                     | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Maint WT                             | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| WT Equip Maint WT                             | 2                     | 23,766                    | 9,100              | 5,521             | 6,621             | 663                          | 1,742                      | 26             | 93                                |
| <b>TOTAL WT EXPENSE - MAINTENANCE</b>         |                       | <b>49,998</b>             | <b>19,144</b>      | <b>11,615</b>     | <b>13,929</b>     | <b>1,395</b>                 | <b>3,665</b>               | <b>55</b>      | <b>195</b>                        |
| <b>TOTAL WT EXPENSE</b>                       |                       | <b>312,013</b>            | <b>114,946</b>     | <b>71,850</b>     | <b>91,198</b>     | <b>8,628</b>                 | <b>23,492</b>              | <b>411</b>     | <b>1,489</b>                      |
| <b>TRANSMISSION AND DISTRIBUTION EXPENSES</b> |                       |                           |                    |                   |                   |                              |                            |                |                                   |
| Super & Eng Oper TD                           | 11                    | 95,684                    | 60,176             | 17,797            | 5,693             | 2,737                        | 2,717                      | 1,808          | 4,755                             |
| Storage Facility Exp                          | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0                                 |
| Storage Facility Exp                          | 5                     | 1,864                     | 600                | 348               | 354               | 42                           | 101                        | 91             | 328                               |
| TD Lines Exp                                  | 7                     | 38,207                    | 14,282             | 8,390             | 4,317             | 1,009                        | 2,491                      | 1,677          | 6,041                             |
| TD Lines Exp                                  | 7                     | 30,017                    | 11,220             | 6,592             | 3,392             | 792                          | 1,957                      | 1,318          | 4,746                             |
| Meter Expense                                 | 9                     | 117,983                   | 87,355             | 20,753            | 4,483             | 3,834                        | 1,557                      | 0              | 0                                 |
| Meter Expense                                 | 9                     | 16,534                    | 12,242             | 2,908             | 628               | 537                          | 218                        | 0              | 0                                 |
| Customer Install Exp                          | 10                    | 18,968                    | 14,873             | 2,597             | 138               | 182                          | 34                         | 1,144          | 0                                 |
| Customer Install Exp                          | 10                    | 23                        | 18                 | 3                 | 0                 | 0                            | 0                          | 1              | 0                                 |
| Misc Exp Oper TD                              | 11                    | 24,173                    | 15,202             | 4,496             | 1,438             | 691                          | 687                        | 457            | 1,201                             |

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                               | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Fire Protection<br>Private<br>(9) | Public<br>(10) |
|----------------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|-----------------------------------|----------------|
| Misc Exp Oper TD                             | 11                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Misc Exp Oper TD                             | 11                    | 18,626                    | 11,714             | 3,464             | 1,108             | 533                          | 529                        | 352                               | 926            |
| Rents Oper TD                                | 11                    | 612                       | 385                | 114               | 36                | 18                           | 17                         | 12                                | 30             |
| <b>TOTAL T &amp; D EXPENSE OPERATION</b>     |                       | <b>362,691</b>            | <b>228,066</b>     | <b>67,463</b>     | <b>21,589</b>     | <b>10,375</b>                | <b>10,309</b>              | <b>6,860</b>                      | <b>18,027</b>  |
| Super & Eng Maint TD                         | 12                    | 3,621                     | 1,514              | 717               | 335               | 88                           | 190                        | 142                               | 635            |
| Struct & Improve Maint TD                    | 12                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Struct & Improve Maint TD                    | 12                    | 102                       | 43                 | 20                | 9                 | 2                            | 5                          | 4                                 | 18             |
| Dist Res Stand Maint TD                      | 5                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| TD Main Maint TD                             | 7                     | 124,603                   | 46,577             | 27,363            | 14,080            | 3,290                        | 8,124                      | 5,470                             | 19,700         |
| TD Main Maint TD                             | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Fire Main Maint TD                           | 8                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Services Maint TD                            | 10                    | 12,786                    | 10,026             | 1,750             | 93                | 123                          | 23                         | 771                               | 0              |
| Services Maint TD                            | 10                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Meters Maint TD                              | 9                     | 6,623                     | 4,904              | 1,165             | 252               | 215                          | 87                         | 0                                 | 0              |
| Meters Maint TD                              | 9                     | 6,719                     | 4,975              | 1,182             | 255               | 218                          | 89                         | 0                                 | 0              |
| Hydrants Maint TD                            | 8                     | 8,184                     | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 8,184          |
| Hydrants Maint TD                            | 8                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Misc Plant Maint TD                          | 12                    | 1,966                     | 822                | 389               | 182               | 48                           | 103                        | 77                                | 345            |
| Mat and Sup Maint TD                         | 12                    | 46,312                    | 19,368             | 9,170             | 4,279             | 1,121                        | 2,427                      | 1,820                             | 8,128          |
| Misc Maint TD                                | 12                    | 112                       | 47                 | 22                | 10                | 3                            | 6                          | 4                                 | 20             |
| Amort Def Maint TD                           | 5                     | 60,391                    | 19,440             | 11,287            | 11,456            | 1,353                        | 3,273                      | 2,953                             | 10,629         |
| <b>TOTAL T &amp; D EXPENSE - MAINTENANCE</b> |                       | <b>271,419</b>            | <b>107,714</b>     | <b>53,066</b>     | <b>30,952</b>     | <b>6,460</b>                 | <b>14,327</b>              | <b>11,242</b>                     | <b>47,658</b>  |
| <b>TOTAL T &amp; D EXPENSE</b>               |                       | <b>634,110</b>            | <b>335,780</b>     | <b>120,529</b>    | <b>52,541</b>     | <b>16,835</b>                | <b>24,636</b>              | <b>18,102</b>                     | <b>65,686</b>  |
| <b>CUSTOMER ACCOUNTS</b>                     |                       |                           |                    |                   |                   |                              |                            |                                   |                |
| Supervision CA                               | 13                    | 55,990                    | 47,312             | 7,335             | 218               | 358                          | 39                         | 728                               | 0              |
| Meter Reading Exp CA                         | 14                    | 104,348                   | 89,343             | 13,847            | 407               | 678                          | 73                         | 0                                 | 0              |
| Meter Reading Exp CA                         | 14                    | 48                        | 41                 | 6                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Meter Reading Exp CA                         | 14                    | 46                        | 39                 | 6                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Cust Rec & Collection CA                     | 13                    | 10,420                    | 8,805              | 1,365             | 41                | 67                           | 7                          | 135                               | 0              |
| Cust Rec & Collection CA                     | 13                    | 54,976                    | 46,455             | 7,202             | 214               | 352                          | 38                         | 715                               | 0              |
| Uncollectible Accts                          | 13                    | 138,527                   | 117,055            | 18,147            | 540               | 887                          | 97                         | 1,801                             | 0              |
| Misc Cust Accts Exp CA                       | 13                    | 12,321                    | 10,411             | 1,614             | 48                | 79                           | 9                          | 160                               | 0              |
| Misc Cust Accts Exp CA                       | 13                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0                                 | 0              |
| Misc Cust Accts Exp CA                       | 13                    | 15,880                    | 13,419             | 2,080             | 62                | 102                          | 11                         | 206                               | 0              |
| Cust Serv & Info Exp CA                      | 13                    | 170                       | 144                | 22                | 1                 | 1                            | 0                          | 2                                 | 0              |
| <b>TOTAL CUSTOMER ACCOUNTING EXPENSE</b>     |                       | <b>392,726</b>            | <b>333,023</b>     | <b>51,625</b>     | <b>1,532</b>      | <b>2,524</b>                 | <b>275</b>                 | <b>3,748</b>                      | <b>0</b>       |

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT  
COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account                                    | Factor<br>Ref. | Cost of<br>Service | Residential | Commercial | Industrial | Public<br>Authorities | Sales for<br>Resale | Private | Public  |
|--------------------------------------------|----------------|--------------------|-------------|------------|------------|-----------------------|---------------------|---------|---------|
| (1)                                        | (2)            | (3)                | (4)         | (5)        | (6)        | (7)                   | (8)                 | (9)     | (10)    |
| <b>ADMINISTRATIVE AND GENERAL EXPENSES</b> |                |                    |             |            |            |                       |                     |         |         |
| Salaries AG                                | 15             | 331,422            | 185,431     | 62,804     | 42,455     | 7,258                 | 13,555              | 4,938   | 14,980  |
| Other Supplies & Exp AG                    | 15             | 57                 | 32          | 11         | 7          | 1                     | 2                   | 1       | 3       |
| Other Supplies & Exp AG                    | 15             | 99,323             | 55,571      | 18,822     | 12,723     | 2,175                 | 4,062               | 1,480   | 4,489   |
| Other Supplies & Exp AG                    | 15             | 109,710            | 61,383      | 20,790     | 14,054     | 2,403                 | 4,487               | 1,635   | 4,959   |
| Mgmt Fees-Corporate/Shared Service Center  | 15             | 249,304            | 139,486     | 47,243     | 31,936     | 5,460                 | 10,197              | 3,715   | 11,269  |
| Mgmt Fees-Call Center                      | 13             | 205,614            | 173,744     | 26,935     | 802        | 1,316                 | 144                 | 2,673   | 0       |
| Mgmt Fees-Belleville Lab                   | 2              | 37,262             | 14,268      | 8,656      | 10,381     | 1,040                 | 2,731               | 41      | 145     |
| Mgmt Fees- Financial ITS                   | 15             | 21,672             | 12,125      | 4,107      | 2,776      | 475                   | 886                 | 323     | 980     |
| Mgmt Fees- Customer Billings ITS           | 13             | 122,356            | 103,391     | 16,029     | 477        | 783                   | 86                  | 1,591   | 0       |
| Mgmt Fees-Other ITS                        | 15             | 1,377              | 770         | 261        | 176        | 30                    | 56                  | 21      | 62      |
| Outside Services AG                        | 15             | 78,041             | 43,664      | 14,789     | 9,997      | 1,709                 | 3,192               | 1,163   | 3,527   |
| Outside Services AG                        | 15             | (201)              | (112)       | (38)       | (26)       | (4)                   | (8)                 | (3)     | (9)     |
| Property Insurance                         | 15             | 0                  | 0           | 0          | 0          | 0                     | 0                   | 0       | 0       |
| Ins Gen Liab Oper AG                       | 15             | 45,059             | 25,211      | 8,539      | 5,772      | 987                   | 1,843               | 671     | 2,037   |
| Ins Work Comp AG                           | 16             | 31,789             | 17,316      | 6,189      | 4,358      | 744                   | 1,389               | 426     | 1,367   |
| Ins Other Oper AG                          | 15             | 41,451             | 23,192      | 7,855      | 5,310      | 908                   | 1,695               | 618     | 1,874   |
| Property Insurance                         | 15             | 0                  | 0           | 0          | 0          | 0                     | 0                   | 0       | 0       |
| Injuries & Damages                         | 16             | 1,119              | 610         | 218        | 153        | 26                    | 49                  | 15      | 48      |
| Employee Pension & Benefits                | 16             | 321,653            | 175,204     | 62,626     | 44,099     | 7,527                 | 14,056              | 4,310   | 13,831  |
| Employee Pension & Benefits                | 16             | 226,275            | 123,252     | 44,056     | 31,022     | 5,295                 | 9,888               | 3,032   | 9,730   |
| Employee Pension & Benefits                | 16             | 52,223             | 28,446      | 10,168     | 7,160      | 1,222                 | 2,282               | 700     | 2,246   |
| Reg Commission Exp                         | 15             | 14,057             | 7,865       | 2,664      | 1,801      | 308                   | 575                 | 209     | 635     |
| Rents AG                                   | 15             | 85,847             | 48,031      | 16,268     | 10,997     | 1,880                 | 3,511               | 1,279   | 3,880   |
| Goodwill Advertising Exp                   | 15             | 1,661              | 929         | 315        | 213        | 36                    | 68                  | 25      | 75      |
| Misc Exp AG                                | 15             | 34,533             | 19,321      | 6,544      | 4,424      | 756                   | 1,412               | 515     | 1,561   |
| Research & Development                     | 15             | 0                  | 0           | 0          | 0          | 0                     | 0                   | 0       | 0       |
| TOTAL A & G OPERATIONS                     |                | 2,111,604          | 1,259,128   | 385,850    | 241,068    | 42,334                | 76,160              | 29,376  | 77,689  |
| General Plant Maint AG                     | 15             | 0                  | 0           | 0          | 0          | 0                     | 0                   | 0       | 0       |
| General Plant Maint AG                     | 15             | 8,768              | 4,906       | 1,662      | 1,123      | 192                   | 359                 | 131     | 396     |
| TOTAL A & G EXPENSE - MAINTENANCE          |                | 8,768              | 4,906       | 1,662      | 1,123      | 192                   | 359                 | 131     | 396     |
| TOTAL A & G EXPENSE                        |                | 2,120,372          | 1,264,034   | 387,511    | 242,191    | 42,526                | 76,519              | 29,507  | 78,085  |
| Total Operation & Maintenance Expenses     |                | 4,286,187          | 2,340,293   | 820,026    | 637,712    | 93,149                | 188,639             | 53,780  | 152,590 |

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                       | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Fire Protection |                |
|--------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|-----------------|----------------|
|                                      |                       |                           |                    |                   |                   |                              |                            | Private<br>(9)  | Public<br>(10) |
| DEPRECIATION EXPENSE                 |                       |                           |                    |                   |                   |                              |                            |                 |                |
| Struct & Imp SS                      | 2                     | 355                       | 136                | 82                | 99                | 10                           | 26                         | 0               | 1              |
| Struct & Imp P                       | 6                     | 10,887                    | 4,154              | 2,518             | 2,931             | 303                          | 791                        | 41              | 148            |
| Struct & Imp WT                      | 2                     | 10,698                    | 4,096              | 2,485             | 2,980             | 298                          | 784                        | 12              | 42             |
| Struct & Imp TD                      | 7                     | 11,888                    | 4,444              | 2,611             | 1,343             | 314                          | 775                        | 522             | 1,879          |
| Struct & Imp Offices                 | 15                    | 564                       | 316                | 107               | 72                | 12                           | 23                         | 8               | 25             |
| Struct & Imp Store,Shop,Gar          | 15                    | 753                       | 421                | 143               | 96                | 16                           | 31                         | 11              | 34             |
| Struct & Imp Misc                    | 15                    | 2,084                     | 1,166              | 395               | 267               | 46                           | 85                         | 31              | 94             |
| Collect & Impounding                 | 1                     | 2,007                     | 675                | 453               | 647               | 54                           | 160                        | 4               | 13             |
| Lake, River & Other Intakes          | 2                     | 50,500                    | 19,336             | 11,731            | 14,069            | 1,409                        | 3,702                      | 56              | 197            |
| Wells & Springs                      | 2                     | 55,541                    | 21,267             | 12,902            | 15,474            | 1,550                        | 4,071                      | 61              | 217            |
| Supply Mains                         | 2                     | 4,803                     | 1,839              | 1,116             | 1,338             | 134                          | 352                        | 5               | 19             |
| Power Generation Equip Othe          | 6                     | 1,462                     | 558                | 338               | 394               | 41                           | 106                        | 6               | 20             |
| Boiler Plant Equipment P             | 6                     | 27                        | 10                 | 6                 | 7                 | 1                            | 2                          | 0               | 0              |
| Pump Equip Electric                  | 6                     | 77,767                    | 29,676             | 17,988            | 20,935            | 2,162                        | 5,654                      | 296             | 1,058          |
| Pump Equip Diesel                    | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Pump Equip Other                     | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| WT Equip Non-Media                   | 2                     | 86,540                    | 33,136             | 20,103            | 24,110            | 2,414                        | 6,343                      | 95              | 338            |
| WT Equip Filter Media                | 2                     | 104                       | 40                 | 24                | 29                | 3                            | 8                          | 0               | 0              |
| Dist Reservoirs & Standpipe          | 5                     | 53,214                    | 17,130             | 9,946             | 10,095            | 1,192                        | 2,884                      | 2,602           | 9,366          |
| Elevated Tanks & Standpipes          | 5                     | 35,125                    | 11,307             | 6,565             | 6,663             | 787                          | 1,904                      | 1,718           | 6,182          |
| Ground Level Facilities              | 5                     | 560                       | 180                | 105               | 106               | 13                           | 30                         | 27              | 99             |
| TD Mains 4 & Less                    | 4                     | 8,863                     | 3,332              | 1,945             | 730               | 233                          | 570                        | 446             | 1,606          |
| TD Mains 6 to 8"                     | 4                     | 96,369                    | 36,235             | 21,153            | 7,941             | 2,535                        | 6,197                      | 4,847           | 17,462         |
| TD Mains 10 to 16"                   | 3                     | 79,497                    | 28,865             | 17,521            | 21,011            | 2,107                        | 5,525                      | 970             | 3,498          |
| TD Mains 18 & Grtr                   | 3                     | 8,252                     | 2,996              | 1,819             | 2,181             | 219                          | 574                        | 101             | 363            |
| Services                             | 10                    | 120,330                   | 94,351             | 16,473            | 878               | 1,155                        | 217                        | 7,256           | 0              |
| Meters Bronze Case                   | 9                     | 46,702                    | 34,578             | 8,215             | 1,775             | 1,518                        | 616                        | 0               | 0              |
| Meters Plastic Case                  | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Meters Other                         | 9                     | 9,693                     | 7,177              | 1,705             | 368               | 315                          | 128                        | 0               | 0              |
| Meters Other-Rem Rdr Units           | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Meter Installations                  | 9                     | 114,881                   | 85,058             | 20,208            | 4,365             | 3,734                        | 1,516                      | 0               | 0              |
| Meter Installation Other             | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Hydrants                             | 8                     | 9,084                     | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 9,084          |
| Utility Plant Acquisition Adjustment | 17                    | 1,395                     | 646                | 276               | 235               | 33                           | 70                         | 35              | 99             |
| Other P/E WT Res Hand Equip          | 2                     | 248                       | 95                 | 58                | 69                | 7                            | 18                         | 0               | 1              |
| Other P/E TD                         | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Other P/E CPS                        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Office Furniture & Equip             | 15                    | 3,986                     | 2,230              | 755               | 511               | 87                           | 163                        | 59              | 180            |
| Comp & Periph Equip                  | 15                    | 23,988                    | 13,421             | 4,546             | 3,073             | 525                          | 981                        | 357             | 1,084          |
| Computer Software                    | 15                    | 7,613                     | 4,259              | 1,443             | 975               | 167                          | 311                        | 113             | 344            |

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                                         | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4)  | Commercial<br>(5)   | Industrial<br>(6)   | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9)    | Fire Protection<br>Public<br>(10) |
|--------------------------------------------------------|-----------------------|---------------------------|---------------------|---------------------|---------------------|------------------------------|----------------------------|-------------------|-----------------------------------|
| Comp Software Personal                                 | 15                    | 2,345                     | 1,312               | 444                 | 300                 | 51                           | 96                         | 35                | 106                               |
| Data Handling Equipment                                | 15                    | 0                         | 0                   | 0                   | 0                   | 0                            | 0                          | 0                 | 0                                 |
| Other Office Equipment                                 | 15                    | 2,562                     | 1,433               | 485                 | 328                 | 56                           | 105                        | 38                | 116                               |
| Trans Equip Lt Duty Trks                               | 15                    | 14,655                    | 8,199               | 2,777               | 1,877               | 321                          | 599                        | 218               | 662                               |
| Trans Equip Hvy Duty Trks                              | 15                    | 3,750                     | 2,098               | 711                 | 480                 | 82                           | 153                        | 56                | 170                               |
| Trans Equip Autos                                      | 15                    | 7,988                     | 4,469               | 1,514               | 1,023               | 175                          | 327                        | 119               | 361                               |
| Trans Equip Other                                      | 15                    | 0                         | 0                   | 0                   | 0                   | 0                            | 0                          | 0                 | 0                                 |
| Stores Equipment                                       | 15                    | 303                       | 170                 | 57                  | 39                  | 7                            | 12                         | 5                 | 14                                |
| Tools, Shop, Garage Equip                              | 15                    | 16,571                    | 9,271               | 3,140               | 2,123               | 363                          | 678                        | 247               | 749                               |
| Tools, Shop, Garage Equip Oth                          | 15                    | 0                         | 0                   | 0                   | 0                   | 0                            | 0                          | 0                 | 0                                 |
| Laboratory Equipment                                   | 2                     | 7,800                     | 2,987               | 1,812               | 2,173               | 218                          | 572                        | 9                 | 30                                |
| Laboratory Equip Other                                 | 2                     | 0                         | 0                   | 0                   | 0                   | 0                            | 0                          | 0                 | 0                                 |
| Power Operated Equipment                               | 15                    | 7,755                     | 4,339               | 1,470               | 993                 | 170                          | 317                        | 116               | 351                               |
| Comm Equip Non-Telephone                               | 15                    | 2,616                     | 1,464               | 496                 | 335                 | 57                           | 107                        | 39                | 118                               |
| Comm Equip Telephone                                   | 15                    | 0                         | 0                   | 0                   | 0                   | 0                            | 0                          | 0                 | 0                                 |
| Misc Equipment                                         | 15                    | 3,992                     | 2,234               | 756                 | 511                 | 87                           | 163                        | 59                | 180                               |
| <b>Total Depreciation Expense</b>                      |                       | <b>1,006,117</b>          | <b>501,108</b>      | <b>199,397</b>      | <b>155,954</b>      | <b>24,979</b>                | <b>47,748</b>              | <b>20,621</b>     | <b>56,311</b>                     |
| Amort-Other UP                                         | 18                    | 0                         | 0                   | 0                   | 0                   | 0                            | 0                          | 0                 | 0                                 |
| <b>Taxes Other Than Income</b>                         |                       |                           |                     |                     |                     |                              |                            |                   |                                   |
| Utility Reg Assessment Fee                             | 19                    | 35,292                    | 17,957              | 6,868               | 5,541               | 805                          | 1,655                      | 642               | 1,825                             |
| Property Taxes                                         | 18                    | 341,340                   | 158,245             | 67,517              | 57,550              | 8,056                        | 17,238                     | 8,499             | 24,235                            |
| FUTA                                                   | 16                    | 1,770                     | 964                 | 345                 | 243                 | 41                           | 77                         | 24                | 76                                |
| FICA                                                   | 16                    | 103,626                   | 56,445              | 20,176              | 14,207              | 2,425                        | 4,528                      | 1,389             | 4,456                             |
| SUTA                                                   | 16                    | 19                        | 10                  | 4                   | 3                   | 0                            | 1                          | 0                 | 1                                 |
| Other Taxes & Licenses                                 | 15                    | 13,655                    | 7,640               | 2,588               | 1,749               | 299                          | 558                        | 203               | 617                               |
| Gross Receipts Tax                                     | 19                    | 0                         | 0                   | 0                   | 0                   | 0                            | 0                          | 0                 | 0                                 |
| <b>Total Taxes, Other Than Income</b>                  |                       | <b>495,702</b>            | <b>241,261</b>      | <b>97,497</b>       | <b>79,292</b>       | <b>11,626</b>                | <b>24,058</b>              | <b>10,758</b>     | <b>31,210</b>                     |
| <b>Income Taxes</b>                                    | 18                    | <b>810,868</b>            | <b>375,919</b>      | <b>160,390</b>      | <b>136,712</b>      | <b>19,136</b>                | <b>40,949</b>              | <b>20,191</b>     | <b>57,572</b>                     |
| <b>Utility Income Available for Return</b>             | 18                    | <b>2,248,240</b>          | <b>1,042,284</b>    | <b>444,702</b>      | <b>379,053</b>      | <b>53,058</b>                | <b>113,536</b>             | <b>55,981</b>     | <b>159,625</b>                    |
| <b>Total Cost of Service</b>                           |                       | <b>8,847,115</b>          | <b>4,500,864</b>    | <b>1,722,011</b>    | <b>1,388,724</b>    | <b>201,949</b>               | <b>414,929</b>             | <b>161,330</b>    | <b>457,307</b>                    |
| Less: Other Water Revenues                             | 19                    | 165,846                   | 84,382              | 32,274              | 26,038              | 3,781                        | 7,778                      | 3,018             | 8,574                             |
| Revenue Contribution                                   | 19                    | 0                         | 0                   | 0                   | 0                   | 0                            | 0                          | 0                 | 0                                 |
| <b>Total Other Water Revenues</b>                      |                       | <b>165,846</b>            | <b>84,382</b>       | <b>32,274</b>       | <b>26,038</b>       | <b>3,781</b>                 | <b>7,778</b>               | <b>3,018</b>      | <b>8,574</b>                      |
| <b>Total Cost of Service Related to Sales of Water</b> |                       | <b>\$ 8,681,269</b>       | <b>\$ 4,416,482</b> | <b>\$ 1,689,738</b> | <b>\$ 1,362,686</b> | <b>\$ 198,168</b>            | <b>\$ 407,151</b>          | <b>\$ 158,311</b> | <b>\$ 448,733</b>                 |

**MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS**

**FACTOR 1. ALLOCATION OF COSTS WHICH VARY WITH THE AMOUNT OF WATER CONSUMED.**

Factors are based on the pro forma test year average daily consumption for each customer classification.

| Customer<br>Classification<br>(1) | Average Daily<br>Consumption,<br>Thousand Gallons<br>(2) | Allocation<br>Factor<br>(3) |
|-----------------------------------|----------------------------------------------------------|-----------------------------|
| Residential                       | 3,866                                                    | 0.3363                      |
| Commercial                        | 2,597                                                    | 0.2258                      |
| Industrial                        | 3,710                                                    | 0.3226                      |
| Other Public Authority            | 312                                                      | 0.0271                      |
| Sales for Resale                  | 917                                                      | 0.0797                      |
| Private Fire Protection           | 21                                                       | 0.0018                      |
| Public Fire Protection            | 77                                                       | 0.0067                      |
| Total                             | 11,500                                                   | 1.0000                      |

**FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND  
MAXIMUM DAY EXTRA CAPACITY FUNCTIONS.**

Factors are based on the weighting of the factors for average daily consumption (Factor 1) and the factors derived from maximum day extra capacity demand for each customer classification, as follows:

| Customer<br>Classification<br>(1) | Average Daily<br>Consumption  |                                          | Maximum Day<br>Extra Capacity |                                          | Allocation<br>Factor<br>(6)=(3)+(5) |
|-----------------------------------|-------------------------------|------------------------------------------|-------------------------------|------------------------------------------|-------------------------------------|
|                                   | Allocation<br>Factor 1<br>(2) | Weighted<br>Factor<br>(3)=(2)x<br>0.5882 | Allocation<br>Factor<br>(4)   | Weighted<br>Factor<br>(5)=(4)x<br>0.4118 |                                     |
| Residential                       | 0.3363                        | 0.1978                                   | 0.4495                        | 0.1851                                   | 0.3829                              |
| Commercial                        | 0.2258                        | 0.1328                                   | 0.2417                        | 0.0995                                   | 0.2323                              |
| Industrial                        | 0.3226                        | 0.1898                                   | 0.2157                        | 0.0888                                   | 0.2786                              |
| Other Public Authority            | 0.0271                        | 0.0159                                   | 0.0291                        | 0.0120                                   | 0.0279                              |
| Sales for Resale                  | 0.0797                        | 0.0469                                   | 0.0640                        | 0.0264                                   | 0.0733                              |
| Private Fire Protection           | 0.0018                        | 0.0011                                   |                               |                                          | 0.0011                              |
| Public Fire Protection            | 0.0067                        | 0.0039                                   |                               |                                          | 0.0039                              |
| Total                             | 1.0000                        | 0.5882                                   | 1.0000                        | 0.4118                                   | 1.0000                              |

The derivation of the maximum day extra capacity factors in column 4 and the basis for the column 3 and 5 weightings are presented on the following page.

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**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 2. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND  
MAXIMUM DAY EXTRA CAPACITY FUNCTIONS, cont.**

| Customer<br>Classification | Average Daily<br>Consumption,<br>Thousand Gal. | Maximum Day Extra Capacity |                                           |                      |
|----------------------------|------------------------------------------------|----------------------------|-------------------------------------------|----------------------|
|                            |                                                | Factor*                    | Rate of Flow,<br>Thousand Gal.<br>Per Day | Allocation<br>Factor |
| (1)                        | (2)                                            | (3)                        | (4)=(2)x(3)                               | (5)                  |
| Residential                | 3,866                                          | 1.0                        | 3,866                                     | 0.4495               |
| Commercial                 | 2,597                                          | 0.8                        | 2,078                                     | 0.2417               |
| Industrial                 | 3,710                                          | 0.5                        | 1,855                                     | 0.2157               |
| Other Public Authority     | 312                                            | 0.8                        | 250                                       | 0.0291               |
| Sales for Resale           | 917                                            | 0.6                        | 550                                       | 0.0640               |
| Total                      | 11,402                                         |                            | 8,599                                     | 1.0000               |

The weighting of the factors is based on the maximum day ratio of 1.70, based on a review of maximum day ratios experienced during the period 1990 through 2002 (see Schedule D).

|                               | Maximum<br>Day<br>Ratio | Weight |
|-------------------------------|-------------------------|--------|
| Average Day                   | 1.00                    | 0.5882 |
| Maximum Day<br>Extra Capacity | 0.70                    | 0.4118 |
| Total                         | 1.70                    | 1.0000 |

\* Ratio of maximum day to average day minus 1.0.

MISSOURI-AMERICAN WATER COMPANY  
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY  
AND FIRE PROTECTION FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

| Customer<br>Classification<br>(1) | Average Daily<br>Consumption |                                           | Maximum Day<br>Extra Capacity |                                           | Fire Protection             |                                           | Allocation<br>Factor<br>(8)=(3)+(5)+(7) |
|-----------------------------------|------------------------------|-------------------------------------------|-------------------------------|-------------------------------------------|-----------------------------|-------------------------------------------|-----------------------------------------|
|                                   | Allocation<br>Factor<br>(2)  | Weighted<br>Factor<br>(3)=(2) X<br>0.5579 | Allocation<br>Factor<br>(4)   | Weighted<br>Factor<br>(5)=(4) X<br>0.3906 | Allocation<br>Factor<br>(6) | Weighted<br>Factor<br>(7)=(6) X<br>0.0515 |                                         |
| Residential                       | 0.3363                       | 0.1876                                    | 0.4496                        | 0.1755                                    |                             |                                           | 0.3631                                  |
| Commercial                        | 0.2258                       | 0.1260                                    | 0.2417                        | 0.0944                                    |                             |                                           | 0.2204                                  |
| Industrial                        | 0.3226                       | 0.1800                                    | 0.2157                        | 0.0843                                    |                             |                                           | 0.2643                                  |
| Other Public Authority            | 0.0271                       | 0.0151                                    | 0.0291                        | 0.0114                                    |                             |                                           | 0.0265                                  |
| Sales for Resale                  | 0.0797                       | 0.0445                                    | 0.0640                        | 0.0250                                    |                             |                                           | 0.0695                                  |
| Private Fire Protection           | 0.0018                       | 0.0010                                    |                               |                                           | 0.2172                      | 0.0112                                    | 0.0122                                  |
| Public Fire Protection            | 0.0067                       | 0.0037                                    |                               |                                           | 0.7828                      | 0.0403                                    | 0.0440                                  |
| <b>Total</b>                      | <u>1.0000</u>                | <u>0.5579</u>                             | <u>1.0001</u>                 | <u>0.3906</u>                             | <u>1.0000</u>               | <u>0.0515</u>                             | <u>1.0000</u>                           |

**MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 3. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE, MAXIMUM DAY EXTRA CAPACITY AND FIRE PROTECTION FUNCTIONS, cont.**

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum day ratio of 1.70 and the average daily system sendout for 2002 of 11.694 MGD. The system demand for fire protection is 6,000 Gallons per minute for 3 hours.

|                               | <u>Ratio</u>       | <u>Rate of Flow,<br/>(GPD)</u> | <u>Weight</u>        |
|-------------------------------|--------------------|--------------------------------|----------------------|
| Average Day                   | 1.00               | 11,694,000                     | 0.5579               |
| Maximum Day<br>Extra Capacity | <u>0.70</u>        | <u>8,185,800</u>               | <u>0.3906</u>        |
| Subtotal                      | <u><u>1.70</u></u> | 19,879,800                     | 0.9485               |
| Fire Protection               |                    | <u>1,080,000</u>               | <u>0.0515</u>        |
| Total                         |                    | <u><u>20,959,800</u></u>       | <u><u>1.0000</u></u> |

The public and private fire protection allocation factors in column 6 on the previous page are based on the relative potential demands (see Schedule E).

MISSOURI-AMERICAN WATER COMPANY  
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS.

Factors are based on the weighting of the average daily consumption, the maximum day extra capacity demand, and the fire protection demand for each customer classification.

| Customer<br>Classification<br>(1) | Average Hourly Consumption |                             |                                           | Maximum Hour<br>Extra Capacity |                                           |                             | Fire Protection                           |                                         |        |
|-----------------------------------|----------------------------|-----------------------------|-------------------------------------------|--------------------------------|-------------------------------------------|-----------------------------|-------------------------------------------|-----------------------------------------|--------|
|                                   | Thousand<br>Gallons<br>(2) | Allocation<br>Factor<br>(3) | Weighted<br>Factor<br>(4)=(3) X<br>0.3087 | Allocation<br>Factor<br>(5)    | Weighted<br>Factor<br>(6)=(5) X<br>0.4631 | Allocation<br>Factor<br>(7) | Weighted<br>Factor<br>(8)=(7) X<br>0.2282 | Allocation<br>Factor<br>(9)=(4)+(6)+(8) |        |
|                                   |                            |                             |                                           |                                |                                           |                             |                                           |                                         |        |
| Residential                       | 161.1                      | 0.4229                      | 0.1306                                    | 0.5299                         | 0.2454                                    |                             |                                           |                                         | 0.3760 |
| Commercial                        | 108.2                      | 0.2841                      | 0.0877                                    | 0.2847                         | 0.1318                                    |                             |                                           |                                         | 0.2195 |
| Industrial                        | 56.3                       | 0.1478                      | 0.0456                                    | 0.0794                         | 0.0368                                    |                             |                                           |                                         | 0.0824 |
| Other Public Authority            | 13.0                       | 0.0341                      | 0.0105                                    | 0.0342                         | 0.0158                                    |                             |                                           |                                         | 0.0263 |
| Sales for Resale                  | 38.2                       | 0.1003                      | 0.0310                                    | 0.0718                         | 0.0333                                    |                             |                                           |                                         | 0.0643 |
| Private Fire Protection           | 0.9                        | 0.0024                      | 0.0007                                    |                                |                                           | 0.2172                      | 0.0496                                    |                                         | 0.0503 |
| Public Fire Protection            | 3.2                        | 0.0084                      | 0.0026                                    |                                |                                           | 0.7828                      | 0.1786                                    |                                         | 0.1812 |
| Total                             | 380.9                      | 1.0000                      | 0.3087                                    | 1.0000                         | 0.4631                                    | 1.0000                      | 0.2282                                    |                                         | 1.0000 |

The maximum hour extra capacity factors in column 5 are determined as follows:

**MISSOURI-AMERICAN WATER COMPANY  
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**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 4. ALLOCATION OF COSTS ASSOCIATED WITH FACILITIES SERVING BASE AND  
MAXIMUM HOUR EXTRA CAPACITY FUNCTIONS, cont.**

The weighting of the factors is based on the potential demand of general and fire protection service. The bases for the potential demand of general service are the maximum hour ratio of 2.5 and the average daily system sendout for 2002 of 11.694 MGD. The system demand for fire protection is 6,000 gallons per minute.

|                                | Ratio | Rate of Flow,<br>(GPM) | Weight |
|--------------------------------|-------|------------------------|--------|
| Average Hour                   | 1.00  | 8,121                  | 0.3087 |
| Maximum Hour<br>Extra Capacity | 1.50  | 12,182                 | 0.4631 |
| Subtotal                       | 2.50  | 20,303                 | 0.7718 |
| Fire Protection                |       | 6,000                  | 0.2282 |
| Total                          |       | 26,303                 | 1.0000 |

The maximum hour extra capacity factors in column 5 of the previous page are determined as follows:

| Customer<br>Classification | Average<br>Hourly<br>Consumption<br>Thousand Gal. | Maximum Hour Extra Capacity |                           |                      |
|----------------------------|---------------------------------------------------|-----------------------------|---------------------------|----------------------|
|                            |                                                   | Factor*                     | 1,000 Gallons<br>Per Hour | Allocation<br>Factor |
| (1)                        | (2)                                               | (3)                         | (4)=(2)x(3)               | (5)                  |
| Residential                | 161.1                                             | 3.5                         | 563.9                     | 0.5299               |
| Commercial                 | 108.2                                             | 2.8                         | 303.0                     | 0.2847               |
| Industrial                 | 56.3                                              | 1.5                         | 84.5                      | 0.0794               |
| Other Public Authority     | 13.0                                              | 2.8                         | 36.4                      | 0.0342               |
| Sales for Resale           | 38.2                                              | 2.0                         | 76.4                      | 0.0718               |
| Total                      | 376.8                                             |                             | 1,064.2                   | 1.0000               |

\* Ratio of Maximum Hour To Average Hour Minus 1.0.

The public and private fire protection allocation factors in column 7 on the previous page are based on the relative potential demands (see Schedule E).

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JOPLIN DISTRICT

FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES.

Factors are based on the weighting of the average hourly consumption, the maximum hour extra capacity demand, and the fire protection demand for each customer classification.

| Customer<br>Classification | Average Hourly Consumption |                      |                     | Maximum Hour<br>Extra Capacity |                     |                      | Fire Protection     |                      |  |
|----------------------------|----------------------------|----------------------|---------------------|--------------------------------|---------------------|----------------------|---------------------|----------------------|--|
|                            | Thousand<br>Gallons        | Allocation<br>Factor | Weighted<br>Factor  | Allocation<br>Factor           | Weighted<br>Factor  | Allocation<br>Factor | Weighted<br>Factor  | Allocation<br>Factor |  |
|                            | (2)                        | (3)                  | (4)=(3) X<br>0.3111 | (5)                            | (6)=(5) X<br>0.4667 | (7)                  | (8)=(7) X<br>0.2222 | (9)=(4)+(6)+(8)      |  |
| Residential                | 161.1                      | 0.3363               | 0.1047              | 0.4654                         | 0.2172              |                      |                     | 0.3219               |  |
| Commercial                 | 108.2                      | 0.2258               | 0.0702              | 0.2501                         | 0.1167              |                      |                     | 0.1869               |  |
| Industrial                 | 154.6                      | 0.3226               | 0.1004              | 0.1914                         | 0.0893              |                      |                     | 0.1897               |  |
| Other Public Authority     | 13.0                       | 0.0271               | 0.0084              | 0.0300                         | 0.0140              |                      |                     | 0.0224               |  |
| Sales for Resale           | 38.2                       | 0.0796               | 0.0248              | 0.0631                         | 0.0294              |                      |                     | 0.0542               |  |
| Private Fire Protection    | 0.9                        | 0.0019               | 0.0006              |                                |                     | 0.2172               | 0.0483              | 0.0489               |  |
| Public Fire Protection     | 3.2                        | 0.0067               | 0.0021              |                                |                     | 0.7828               | 0.1739              | 0.1760               |  |
| Total                      | 479.2                      | 1.0000               | 0.3112              | 1.0000                         | 0.4666              | 1.0000               | 0.2222              | 1.0000               |  |

The weighting of the factors is based on the ratio of the capacity required for a 3 hour demand of fire flow, as related to total storage capacity. The calculation is shown on the following page.

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## FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, (

## FACTOR 5. ALLOCATION OF COSTS ASSOCIATED WITH STORAGE FACILITIES, cont.

The weighting of the factors is based on the ratio of the capacity required for a 3 hour demand of fire flow, as related to total storage capacity.

$$\text{Fire Protection Weight} = \frac{6,000 \text{ GPM} \times 60 \text{ Min.} \times}{4,860,000 \text{ Gallons}} = 0.2222$$

$$\text{General Service Weight} = 1.0000 - 0.2222 = 0.7778$$

The weighting of the average hourly consumption and maximum hour extra demand for general service is based on the maximum hour ratio, as follows:

|                                | Maximum<br>Hour<br>Ratio | Percent              | Weight               |
|--------------------------------|--------------------------|----------------------|----------------------|
| Average Hour                   | 1.00                     | 40.00                | 0.3111               |
| Extra Capacity<br>Maximum Hour | <u>1.50</u>              | <u>60.00</u>         | <u>0.4667</u>        |
| Total                          | <u><u>2.50</u></u>       | <u><u>100.00</u></u> | <u><u>0.7778</u></u> |

  

| Customer<br>Classification | Average<br>Hourly<br>Consumption<br>Thousand Gal. | Maximum Hour Extra Capacity |                           |                      |
|----------------------------|---------------------------------------------------|-----------------------------|---------------------------|----------------------|
|                            |                                                   | Factor*                     | 1,000 Gallons<br>Per Hour | Allocation<br>Factor |
| (1)                        | (2)                                               | (3)                         | (4)=(2)x(3)               | (5)                  |
| Residential                | 161.1                                             | 3.5                         | 563.9                     | 0.4654               |
| Commercial                 | 108.2                                             | 2.8                         | 303.0                     | 0.2501               |
| Industrial                 | 154.6                                             | 1.5                         | 231.9                     | 0.1914               |
| Other Public Authority     | 13.0                                              | 2.8                         | 36.4                      | 0.0300               |
| Sales for Resale           | <u>38.2</u>                                       | <u>2.0</u>                  | <u>76.4</u>               | <u>0.0631</u>        |
| Total                      | <u><u>475.1</u></u>                               |                             | <u><u>1,211.6</u></u>     | <u><u>1.0000</u></u> |

**MISSOURI-AMERICAN WATER COMPANY  
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FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

FACTOR 6. ALLOCATION OF COSTS ASSOCIATED WITH POWER AND PUMPING FACILITIES.

Factors are based on the weighting of the maximum daily consumption, Factor 2, the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 4, for each customer classification, as follows:

| Customer<br>Classification | Maximum Daily<br>Consumption |                    | Maximum Daily<br>Consumption |                    | Maximum Hourly<br>Consumption |                    | Allocation<br>Factor |
|----------------------------|------------------------------|--------------------|------------------------------|--------------------|-------------------------------|--------------------|----------------------|
|                            | Allocation<br>Factor 2       | Weighted<br>Factor | Allocation<br>Factor 3       | Weighted<br>Factor | Allocation<br>Factor 4        | Weighted<br>Factor |                      |
| (1)                        | (2)                          | (3)=(2)X<br>0.9159 | (4)                          | (5)=(4)X<br>0.0385 | (6)                           | (7)=(6)X<br>0.0456 | (8)=(3)+<br>(5)+(7)  |
| Residential                | 0.3829                       | 0.3506             | 0.3631                       | 0.0139             | 0.3760                        | 0.0171             | 0.3816               |
| Commercial                 | 0.2323                       | 0.2128             | 0.2204                       | 0.0085             | 0.2195                        | 0.0100             | 0.2313               |
| Industrial                 | 0.2786                       | 0.2552             | 0.2643                       | 0.0102             | 0.0824                        | 0.0038             | 0.2692               |
| Other Public Authority     | 0.0279                       | 0.0256             | 0.0265                       | 0.0010             | 0.0263                        | 0.0012             | 0.0278               |
| Sales for Resale           | 0.0733                       | 0.0671             | 0.0695                       | 0.0027             | 0.0643                        | 0.0029             | 0.0727               |
| Private Fire Protection    | 0.0011                       | 0.0010             | 0.0122                       | 0.0005             | 0.0503                        | 0.0023             | 0.0038               |
| Public Fire Protection     | 0.0039                       | 0.0036             | 0.0440                       | 0.0017             | 0.1812                        | 0.0083             | 0.0136               |
| Total                      | <u>1.0000</u>                | <u>0.9159</u>      | <u>1.0000</u>                | <u>0.0385</u>      | <u>1.0000</u>                 | <u>0.0456</u>      | <u>1.0000</u>        |

The weighting of the factors is based on the horsepower of pumps associated with maximum day facilities, maximum day and fire facilities, and maximum hour facilities, as follows:

|                                      | <u>Horsepower<br/>of Pumps</u> | <u>Weight</u> |
|--------------------------------------|--------------------------------|---------------|
| Associated with Maximum Day          | 3,215                          | 0.9159        |
| Associated with Maximum Day and Fire | 135                            | 0.0385        |
| Associated with Maximum Hour         | <u>160</u>                     | <u>0.0456</u> |
| Total                                | <u>3,510</u>                   | <u>1.0000</u> |

**MISSOURI-AMERICAN WATER COMPANY  
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**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 7. ALLOCATION OF COSTS ASSOCIATED WITH TRANSMISSION AND DISTRIBUTION MAINS.**

Factors are based on the weighting of the maximum daily consumption with fire, Factor 3, and the maximum hour consumption, Factor 5, for each customer classification, as follows:

| Customer<br>Classification | Maximum Daily<br>Consumption |                    | Maximum Hourly<br>Consumption |                    | Allocation    |
|----------------------------|------------------------------|--------------------|-------------------------------|--------------------|---------------|
|                            | Allocation<br>Factor 3       | Weighted<br>Factor | Allocation<br>Factor 4        | Weighted<br>Factor |               |
| (1)                        | (2)                          | (3)=(2)X<br>0.1686 | (4)                           | (5)=(4)X<br>0.8314 | (6)=(3)+(5)   |
| Residential                | 0.3631                       | 0.0613             | 0.3760                        | 0.3125             | 0.3738        |
| Commercial                 | 0.2204                       | 0.0371             | 0.2195                        | 0.1825             | 0.2196        |
| Industrial                 | 0.2643                       | 0.0445             | 0.0824                        | 0.0685             | 0.1130        |
| Other Public Authority     | 0.0265                       | 0.0045             | 0.0263                        | 0.0219             | 0.0264        |
| Sales for Resale           | 0.0695                       | 0.0117             | 0.0643                        | 0.0535             | 0.0652        |
| Private Fire Protection    | 0.0122                       | 0.0021             | 0.0503                        | 0.0418             | 0.0439        |
| Public Fire Protection     | 0.0440                       | 0.0074             | 0.1812                        | 0.1507             | 0.1581        |
| Total                      | <u>1.0000</u>                | <u>0.1686</u>      | <u>1.0000</u>                 | <u>0.8314</u>      | <u>1.0000</u> |

The weighting of the factors is based on the total footage of mains, designated as either transmission mains or distribution mains, as follows:

|                    | Total Footage<br>of Mains | Weight        |
|--------------------|---------------------------|---------------|
| Transmission Mains | 325,873                   | 0.1686        |
| Distribution Mains | <u>1,607,496</u>          | <u>0.8314</u> |
| Total              | <u>1,933,369</u>          | 1.0000        |

**MISSOURI-AMERICAN WATER COMPANY  
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**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 8. ALLOCATION OF COSTS ASSOCIATED WITH FIRE HYDRANTS.**

Costs are assigned directly to Public Fire Protection.

| <u>Customer<br/>Classification</u><br>(1) | <u>Allocation<br/>Factor</u><br>(3) |
|-------------------------------------------|-------------------------------------|
| Public Fire Protection                    | <u>1.0000</u>                       |
| Total                                     | <u><u>1.0000</u></u>                |

**FACTOR 9. ALLOCATION OF COSTS ASSOCIATED WITH METERS.**

Factors are based on the relative cost of meters by size and customer classification, as developed on the following page and summarized below.

| <u>Customer<br/>Classification</u><br>(1) | <u>5/8" Dollar<br/>Equivalents</u><br>(2) | <u>Allocation<br/>Factor</u><br>(3) |
|-------------------------------------------|-------------------------------------------|-------------------------------------|
| Residential                               | 20,941                                    | 0.7404                              |
| Commercial                                | 4,976                                     | 0.1759                              |
| Industrial                                | 1,075                                     | 0.0380                              |
| Other Public Authority                    | 920                                       | 0.0325                              |
| Sales for Resale                          | 372                                       | 0.0132                              |
| Private Fire                              | <u>0</u>                                  | <u>0.0000</u>                       |
| Total                                     | <u><u>28,284</u></u>                      | <u><u>1.0000</u></u>                |

MISSOURI-AMERICAN WATER COMPANY  
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BASIS FOR ALLOCATING METER COSTS TO CUSTOMER CLASSIFICATIONS

| Meter<br>Size<br>(1) | 5/8"<br>Dollar<br>Equivalent<br>(2) | Residential                |                          | Commercial                 |                          | Industrial                 |                          | Other Public Authority     |                           | Sales for Resale            |                            | Total                       |                   |
|----------------------|-------------------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|--------------------------|----------------------------|---------------------------|-----------------------------|----------------------------|-----------------------------|-------------------|
|                      |                                     | Number of<br>Meters<br>(3) | Weighting<br>(4)=(2)X(3) | Number of<br>Meters<br>(5) | Weighting<br>(6)=(2)X(5) | Number of<br>Meters<br>(7) | Weighting<br>(8)=(2)X(7) | Number of<br>Meters<br>(9) | Weighting<br>(10)=(2)X(9) | Number of<br>Meters<br>(11) | Weighting<br>(12)=(2)X(11) | Number of<br>Meters<br>(13) | Weighting<br>(14) |
| 5/8                  | 1.0                                 | 17,556                     | 17,556                   | 2,155                      | 2,155                    | 9                          | 9                        | 37                         | 37                        | 0                           | 0                          | 19,757                      | 19,757            |
| 3/4                  | 1.3                                 | 16                         | 21                       | 14                         | 18                       | 2                          | 3                        | 3                          | 4                         | 0                           | 0                          | 35                          | 46                |
| 1                    | 1.7                                 | 1,941                      | 3,300                    | 533                        | 906                      | 17                         | 29                       | 47                         | 80                        | 1                           | 2                          | 2,539                       | 4,317             |
| 1-1/2                | 3.5                                 | 1                          | 4                        | 18                         | 63                       | 2                          | 7                        | 3                          | 11                        | 0                           | 0                          | 24                          | 85                |
| 2                    | 4.3                                 | 14                         | 60                       | 291                        | 1,251                    | 36                         | 155                      | 51                         | 219                       | 11                          | 47                         | 403                         | 1,732             |
| 3                    | 19.0                                | 0                          | 0                        | 0                          | 0                        | 0                          | 0                        | 0                          | 0                         | 0                           | 0                          | 0                           | 0                 |
| 4                    | 29.3                                | 0                          | 0                        | 10                         | 293                      | 16                         | 469                      | 4                          | 117                       | 0                           | 0                          | 30                          | 879               |
| 6                    | 48.4                                | 0                          | 0                        | 6                          | 290                      | 6                          | 290                      | 0                          | 0                         | 2                           | 97                         | 14                          | 677               |
| 8                    | 112.9                               | 0                          | 0                        | 0                          | 0                        | 1                          | 113                      | 4                          | 452                       | 2                           | 226                        | 7                           | 791               |
| Total                |                                     | 19,528                     | 20,941                   | 3,027                      | 4,976                    | 89                         | 1,075                    | 149                        | 920                       | 16                          | 372                        | 22,809                      | 28,284            |

**MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 10. ALLOCATION OF COSTS ASSOCIATED WITH SERVICES.**

Factors are based on the relative cost of services by size and customer classification, as developed on the following page and summarized below.

| <u>Customer<br/>Classification</u><br>(1) | <u>3/4" Dollar<br/>Equivalents</u><br>(2) | <u>Allocation<br/>Factor</u><br>(3) |
|-------------------------------------------|-------------------------------------------|-------------------------------------|
| Residential                               | 19,874                                    | 0.7841                              |
| Commercial                                | 3,469                                     | 0.1369                              |
| Industrial                                | 185                                       | 0.0073                              |
| Other Public Authority                    | 244                                       | 0.0096                              |
| Sales for Resale                          | 45                                        | 0.0018                              |
| Private Fire Protection                   | <u>1,529</u>                              | <u>0.0603</u>                       |
| <br>Total                                 | <br><u><u>25,346</u></u>                  | <br><u><u>1.0000</u></u>            |

## Schedule C-JOP

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT

## BASIS FOR ALLOCATING SERVICE COSTS TO CUSTOMER CLASSIFICATIONS

| Service<br>Size<br>(1) | 3/4"<br>Dollar<br>Equivalent<br>(2) | Residential                  |                          | Commercial                   |                          | Industrial                   |                          | Other Public Authority       |                           | Sales for Resale              |                            | Private Fire Protection       |                            | Total                         |                   |
|------------------------|-------------------------------------|------------------------------|--------------------------|------------------------------|--------------------------|------------------------------|--------------------------|------------------------------|---------------------------|-------------------------------|----------------------------|-------------------------------|----------------------------|-------------------------------|-------------------|
|                        |                                     | Number of<br>Services<br>(3) | Weighting<br>(4)=(2)X(3) | Number of<br>Services<br>(5) | Weighting<br>(6)=(2)X(5) | Number of<br>Services<br>(7) | Weighting<br>(8)=(2)X(7) | Number of<br>Services<br>(9) | Weighting<br>(10)=(2)X(9) | Number of<br>Services<br>(11) | Weighting<br>(12)=(2)X(11) | Number of<br>Services<br>(13) | Weighting<br>(14)=(2)X(11) | Number of<br>Services<br>(15) | Weighting<br>(16) |
| 3/4                    | 1.00                                | 17,572                       | 17,572                   | 2,169                        | 2,169                    | 11                           | 11                       | 40                           | 40                        | 0                             | 0                          | 0                             | 0                          | 19,792                        | 19,792            |
| 1                      | 1.17                                | 1,941                        | 2,271                    | 533                          | 624                      | 17                           | 20                       | 47                           | 55                        | 1                             | 1                          | 0                             | 0                          | 2,539                         | 2,971             |
| 1-1/2                  | 1.58                                | 1                            | 2                        | 18                           | 28                       | 2                            | 3                        | 3                            | 5                         | 0                             | 0                          | 0                             | 0                          | 24                            | 38                |
| 2                      | 2.04                                | 14                           | 29                       | 291                          | 594                      | 36                           | 73                       | 51                           | 104                       | 11                            | 22                         | 5                             | 10                         | 408                           | 832               |
| 3                      | 2.73                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 1                             | 3                          | 1                             | 3                 |
| 4                      | 2.88                                | 0                            | 0                        | 10                           | 29                       | 16                           | 46                       | 4                            | 12                        | 0                             | 0                          | 28                            | 81                         | 58                            | 168               |
| 6                      | 4.24                                | 0                            | 0                        | 6                            | 25                       | 6                            | 25                       | 0                            | 0                         | 2                             | 8                          | 157                           | 666                        | 171                           | 724               |
| 8                      | 6.98                                | 0                            | 0                        | 0                            | 0                        | 1                            | 7                        | 4                            | 28                        | 2                             | 14                         | 102                           | 712                        | 109                           | 761               |
| 10                     | 9.50                                | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 6                             | 57                         | 6                             | 57                |
| 12                     | 12.16                               | 0                            | 0                        | 0                            | 0                        | 0                            | 0                        | 0                            | 0                         | 0                             | 0                          | 0                             | 0                          | 0                             | 0                 |
| Total                  |                                     | 19,528                       | 19,874                   | 3,027                        | 3,469                    | 89                           | 185                      | 149                          | 244                       | 16                            | 45                         | 299                           | 1,529                      | 23,108                        | 25,346            |

**MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 11. ALLOCATION OF TRANSMISSION AND DISTRIBUTION OPERATION SUPERVISION AND ENGINEERING AND MISCELLANEOUS EXPENSES.**

Factors are based on transmission and distribution operation expenses other than those being allocated, as follows:

| Customer<br>Classification | Transmission<br>& Distribution<br>Operating<br>Expenses | Allocation<br>Factor |
|----------------------------|---------------------------------------------------------|----------------------|
| (1)                        | (2)                                                     | (3)                  |
| Residential                | \$ 140,589                                              | 0.6289               |
| Commercial                 | 41,592                                                  | 0.1860               |
| Industrial                 | 13,313                                                  | 0.0595               |
| Other Public Authority     | 6,397                                                   | 0.0286               |
| Sales for Resale           | 6,359                                                   | 0.0284               |
| Private Fire Protection    | 4,231                                                   | 0.0189               |
| Public Fire Protection     | 11,114                                                  | 0.0497               |
|                            | <hr/>                                                   | <hr/>                |
| Total                      | 223,596                                                 | 1.0000               |
|                            | <hr/>                                                   | <hr/>                |

**FACTOR 12. ALLOCATION OF TRANSMISSION AND DISTRIBUTION MAINTENANCE SUPERVISION AND ENGINEERING, STRUCTURES AND IMPROVEMENTS, AND OTHER EXPENSES.**

Factors are based on transmission and distribution maintenance expenses other than those being allocated, as follows:

| Customer<br>Classification | Transmission<br>& Distribution<br>Maintenance<br>Expenses | Allocation<br>Factor |
|----------------------------|-----------------------------------------------------------|----------------------|
| (1)                        | (2)                                                       | (3)                  |
| Residential                | \$ 66,481                                                 | 0.4182               |
| Commercial                 | 31,460                                                    | 0.1980               |
| Industrial                 | 14,680                                                    | 0.0924               |
| Other Public Authority     | 3,846                                                     | 0.0242               |
| Sales for Resale           | 8,323                                                     | 0.0524               |
| Private Fire Protection    | 6,241                                                     | 0.0393               |
| Public Fire Protection     | 27,884                                                    | 0.1755               |
|                            | <hr/>                                                     | <hr/>                |
| Total                      | \$158,915                                                 | 1.0000               |
|                            | <hr/>                                                     | <hr/>                |

# Schedule C-JOP

## MISSOURI-AMERICAN WATER COMPANY JOPLIN DISTRICT

### FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.

#### FACTOR 13. ALLOCATION OF BILLING AND COLLECTING COSTS.

Factors are based on the total number of customers.

| Customer<br>Classification | Total<br>Customers | Allocation<br>Factor |
|----------------------------|--------------------|----------------------|
| (1)                        | (2)                | (3)                  |
| Residential                | 19,528             | 0.8450               |
| Commercial                 | 3,027              | 0.1310               |
| Industrial                 | 89                 | 0.0039               |
| Other Public Authority     | 149                | 0.0064               |
| Sales for Resale           | 16                 | 0.0007               |
| Private Fire Protection    | 301                | 0.0130               |
| Public Fire Protection     | 0                  | 0.0000               |
| Total                      | 23,110             | 1.0000               |

#### FACTOR 14. ALLOCATION OF METER READING COSTS.

Factors are based on the number of metered customers.

| Customer<br>Classification | Total Metered<br>Customers | Allocation<br>Factor |
|----------------------------|----------------------------|----------------------|
| (1)                        | (2)                        | (3)                  |
| Residential                | 19,528                     | 0.8562               |
| Commercial                 | 3,027                      | 0.1327               |
| Industrial                 | 89                         | 0.0039               |
| Other Public Authority     | 149                        | 0.0065               |
| Sales for Resale           | 16                         | 0.0007               |
| Total                      | 22,809                     | 1.0000               |

**MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 15. ALLOCATION OF ADMINISTRATIVE AND GENERAL EXPENSES AND CASH  
WORKING CAPITAL.**

Factors are based on the allocation of all other operation and maintenance expenses excluding purchased water, power, chemicals and waste disposal.

| Customer<br>Classification<br><u>(1)</u> | Operation &<br>Maintenance<br>Expenses<br><u>(2)</u> | Allocation<br>Factor<br><u>(3)</u> |
|------------------------------------------|------------------------------------------------------|------------------------------------|
| Residential                              | \$872,018                                            | 0.5595                             |
| Commercial                               | 295,383                                              | 0.1895                             |
| Industrial                               | 199,600                                              | 0.1281                             |
| Other Public Authority                   | 34,165                                               | 0.0219                             |
| Sales for Resale                         | 63,717                                               | 0.0409                             |
| Private Fire Protection                  | 23,180                                               | 0.0149                             |
| Public Fire Protection                   | <u>70,436</u>                                        | <u>0.0452</u>                      |
| <br>Total                                | <br><u><u>\$1,558,499</u></u>                        | <br><u><u>1.0000</u></u>           |

**MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 16. ALLOCATION OF LABOR RELATED TAXES AND BENEFITS.**

Factors are based on the allocation of direct labor expense.

| Customer<br>Classification | Direct Labor<br>Expense | Allocation<br>Factor |
|----------------------------|-------------------------|----------------------|
| (1)                        | (2)                     | (3)                  |
| Residential                | \$761,511               | 0.5447               |
| Commercial                 | 272,114                 | 0.1947               |
| Industrial                 | 191,586                 | 0.1371               |
| Other Public Authority     | 32,640                  | 0.0234               |
| Sales for Resale           | 61,090                  | 0.0437               |
| Private Fire Protection    | 18,708                  | 0.0134               |
| Public Fire Protection     | 60,128                  | 0.0430               |
| Total                      | <u>\$1,397,776</u>      | <u>1.0000</u>        |

**FACTOR 17. ALLOCATION OF ORGANIZATION, FRANCHISES AND CONSENTS,  
MISCELLANEOUS INTANGIBLE PLANT AND OTHER RATE BASE ELEMENTS.**

Factors are based on the allocation of the original cost less depreciation other than those items being allocated, as follows:

| Customer<br>Classification | Original<br>Cost Less<br>Depreciation | Allocation<br>Factor |
|----------------------------|---------------------------------------|----------------------|
| (1)                        | (2)                                   | (3)                  |
| Residential                | \$13,334,477                          | 0.4632               |
| Commercial                 | 5,696,532                             | 0.1979               |
| Industrial                 | 4,861,221                             | 0.1688               |
| Other Public Authority     | 679,928                               | 0.0236               |
| Sales for Resale           | 1,455,015                             | 0.0505               |
| Private Fire Protection    | 718,108                               | 0.0249               |
| Public Fire Protection     | 2,046,066                             | 0.0711               |
| Total                      | <u>\$28,791,347</u>                   | <u>1.0000</u>        |

**MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT**

**FACTORS FOR ALLOCATING COST OF SERVICE TO CUSTOMER CLASSIFICATIONS, cont.**

**FACTOR 18. ALLOCATION OF INCOME TAXES AND INCOME AVAILABLE FOR RETURN.**

Factors are based on the allocation of the original cost measure of value rate base as shown on the following pages and summarized below.

| Customer<br>Classification | Original<br>Cost Measure<br>of Value | Allocation<br>Factor |
|----------------------------|--------------------------------------|----------------------|
| (1)                        | (2)                                  | (3)                  |
| Residential                | \$12,594,146                         | 0.4636               |
| Commercial                 | 5,371,042                            | 0.1978               |
| Industrial                 | 4,578,167                            | 0.1686               |
| Other Public Authority     | 640,806                              | 0.0236               |
| Sales for Resale           | 1,370,637                            | 0.0505               |
| Private Fire Protection    | 676,535                              | 0.0249               |
| Public Fire Protection     | 1,927,187                            | 0.0710               |
| Total                      | <u>\$27,158,522</u>                  | <u>1.0000</u>        |

**FACTOR 19. ALLOCATION OF REGULATORY COMMISSION EXPENSES, ASSESSMENTS AND OTHER WATER REVENUES.**

The factors are based on the allocation of the total cost of service, excluding those items being allocated.

| Customer<br>Classification | Total Cost<br>of Service | Allocation<br>Factor |
|----------------------------|--------------------------|----------------------|
| (1)                        | (2)                      | (3)                  |
| Residential                | \$4,475,043              | 0.5088               |
| Commercial                 | 1,712,480                | 0.1946               |
| Industrial                 | 1,381,382                | 0.1570               |
| Other Public Authority     | 200,836                  | 0.0228               |
| Sales for Resale           | 412,699                  | 0.0469               |
| Private Fire Protection    | 160,478                  | 0.0182               |
| Public Fire Protection     | 454,847                  | 0.0517               |
| Total                      | <u>\$8,797,766</u>       | <u>1.0000</u>        |

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Fire Protection |                |
|-------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|-----------------|----------------|
|                               |                       |                           |                    |                   |                   |                              |                            | Private<br>(9)  | Public<br>(10) |
| <b>RATE BASE</b>              |                       |                           |                    |                   |                   |                              |                            |                 |                |
| Organization                  | 17                    | \$ 26,255                 | \$ 12,161          | \$ 5,196          | \$ 4,432          | \$ 620                       | \$ 1,326                   | \$ 654          | \$ 1,867       |
| Franchises                    | 17                    | 20,740                    | 9,607              | 4,104             | 3,501             | 489                          | 1,047                      | 516             | 1,475          |
| Land & Ld Rights SS           | 2                     | 96,342                    | 36,889             | 22,380            | 26,841            | 2,688                        | 7,062                      | 106             | 376            |
| Land & Ld Rights P            | 6                     | 12,561                    | 4,793              | 2,905             | 3,381             | 349                          | 913                        | 48              | 171            |
| Land & Ld Rights WT           | 2                     | 11,715                    | 4,486              | 2,721             | 3,264             | 327                          | 859                        | 13              | 46             |
| Land & Ld Rights TD           | 7                     | 27,039                    | 10,107             | 5,938             | 3,055             | 714                          | 1,763                      | 1,187           | 4,275          |
| Land & Land Rights AG         | 15                    | 717                       | 401                | 136               | 92                | 16                           | 29                         | 11              | 32             |
| Struct & Imp SS               | 2                     | 17,008                    | 6,512              | 3,951             | 4,738             | 475                          | 1,247                      | 19              | 66             |
| Struct & Imp P                | 6                     | 332,709                   | 126,962            | 76,956            | 89,565            | 9,249                        | 24,188                     | 1,264           | 4,525          |
| Struct & Imp Pumps (STL)      | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Struct & Imp Pump Boosters    | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Struct & Imp WT               | 2                     | 445,528                   | 170,593            | 103,496           | 124,124           | 12,430                       | 32,657                     | 490             | 1,738          |
| Struct & Imp WT Nth Pit (ST)  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Struct & Imp WT Ctrl Pit 1    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Struct & Imp WT Ctrl Pit 3    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Struct & Imp WT Sth Pit (ST)  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Struct & Imp WT Meramec (ST)  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Struct & Imp TD               | 7                     | 338,794                   | 126,641            | 74,399            | 38,284            | 8,944                        | 22,089                     | 14,873          | 53,563         |
| Struct & Imp TD Spec Cross    | 7                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Struct & Imp Offices          | 15                    | (3,228)                   | (1,806)            | (612)             | (414)             | (71)                         | (132)                      | (48)            | (146)          |
| Struct & Imp Leasehold        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Struct & Imp Leasehold        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Struct & Imp Store, Shop, Gar | 15                    | 28,598                    | 16,001             | 5,419             | 3,663             | 626                          | 1,170                      | 426             | 1,293          |
| Struct & Imp Misc             | 15                    | 79,179                    | 44,301             | 15,004            | 10,143            | 1,734                        | 3,238                      | 1,180           | 3,579          |
| Collect & Impounding          | 1                     | 31,542                    | 10,608             | 7,122             | 10,175            | 855                          | 2,514                      | 57              | 211            |
| Lake, River & Other Intakes   | 2                     | 18,912                    | 7,241              | 4,393             | 5,269             | 528                          | 1,386                      | 21              | 74             |
| Wells & Springs               | 2                     | 3,415,139                 | 1,307,657          | 793,337           | 951,458           | 95,282                       | 250,330                    | 3,757           | 13,319         |
| Supply Mains                  | 2                     | 110,839                   | 42,440             | 25,748            | 30,880            | 3,092                        | 8,124                      | 122             | 432            |
| Supply Mains Nth Pit (STL)    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Supply Mains Ctrl Pit (STL)   | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Supply Mains Sth Pit (STL)    | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Supply Mains Meramec Pit (S)  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Power Generation Equip Othe   | 6                     | 64,557                    | 24,635             | 14,932            | 17,379            | 1,795                        | 4,693                      | 245             | 878            |
| Boiler Plant Equipment P      | 6                     | 348                       | 133                | 80                | 94                | 10                           | 25                         | 1               | 5              |
| Pump Equip Steam              | 6                     | 6,907                     | 2,636              | 1,598             | 1,859             | 192                          | 502                        | 26              | 94             |
| Pump Equip Electric           | 6                     | 1,359,231                 | 518,683            | 314,390           | 365,905           | 37,787                       | 98,816                     | 5,165           | 18,486         |
| Pump Equip Elec Pre46 (STL)   | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Pump Equip Elec Post46 (STL)  | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Pump Equip Elec Boosters Po   | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Pump Equip Diesel             | 6                     | 102,440                   | 39,091             | 23,694            | 27,577            | 2,848                        | 7,447                      | 389             | 1,393          |

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)               | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Fire Protection |                |
|------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|-----------------|----------------|
|                              |                       |                           |                    |                   |                   |                              |                            | Private<br>(9)  | Public<br>(10) |
| Pump Equip Diesel Stratman\  | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Pump Equip Diesel Ctrl Pitt  | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Pump Equip Hydraulic         | 6                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Pump Equip Other             | 6                     | 118,995                   | 45,408             | 27,524            | 32,033            | 3,308                        | 8,651                      | 452             | 1,618          |
| WT Equip Non-Media           | 2                     | 1,517,822                 | 581,174            | 352,590           | 422,865           | 42,347                       | 111,256                    | 1,670           | 5,920          |
| WT Equip Non-Med North (STL) | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| WT Equip Non Media Ctrl 1 &  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| WT Equip Non Media Ctrl 3 (  | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| WT Equip Non Media Sth (STL) | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| WT Equip Non Media Mer (STL) | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| WT Equip Filter Media        | 2                     | 3,073                     | 1,177              | 714               | 856               | 86                           | 225                        | 3               | 12             |
| Dist Reservoirs & Standpipe  | 5                     | 1,882,054                 | 605,833            | 351,756           | 357,026           | 42,158                       | 102,007                    | 92,032          | 331,242        |
| Elevated Tanks & Standpipes  | 5                     | 1,734,517                 | 558,341            | 324,181           | 329,038           | 38,853                       | 94,011                     | 84,818          | 305,275        |
| Ground Level Facilities      | 5                     | 27,887                    | 8,977              | 5,212             | 5,290             | 625                          | 1,511                      | 1,364           | 4,908          |
| TD Mains Not Classified by   | 7                     | (3,461,798)               | (1,294,020)        | (760,211)         | (391,183)         | (91,391)                     | (225,709)                  | (151,973)       | (547,310)      |
| TD Mains 4 & Less "          | 4                     | 628,790                   | 236,425            | 138,019           | 51,812            | 16,537                       | 40,431                     | 31,628          | 113,937        |
| TD Mains 6 to 8 "            | 4                     | 5,321,863                 | 2,001,020          | 1,168,149         | 438,522           | 139,965                      | 342,196                    | 267,690         | 964,322        |
| TD Mains 10 to 16 "          | 3                     | 5,670,761                 | 2,059,053          | 1,249,836         | 1,498,782         | 150,275                      | 394,118                    | 69,183          | 249,513        |
| TD Mains 18 & Grtr "         | 3                     | 585,443                   | 212,574            | 129,032           | 154,733           | 15,514                       | 40,688                     | 7,142           | 25,759         |
| TD Mains AC 4 (STL) "        | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| TD Mains CI <10 1900-28 (S"  | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| TD Mains CI <10 1929-56 (S"  | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| TD Mains CI <10 1957-93 (S"  | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| TD Mains CI 12 (STL) "       | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| TD Mains CI 16 (STL) "       | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| TD Mains DI 6-8 (STL) "      | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| TD Mains DI 12 (STL) "       | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| TD Mains DI 16 & >(STL)      | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| TD Mains Galve 1 (STL) "     | 4                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| TD Mains LJ 20 (STL) "       | 3                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Fire Mains                   | 8                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Services                     | 10                    | 4,542,953                 | 3,562,129          | 621,930           | 33,164            | 43,612                       | 8,177                      | 273,940         | 0              |
| Meters Bronze Case           | 9                     | 812,135                   | 601,305            | 142,855           | 30,861            | 26,394                       | 10,720                     | 0               | 0              |
| Meters Plastic Case          | 9                     | 13,269                    | 9,824              | 2,334             | 504               | 431                          | 175                        | 0               | 0              |
| Meters Other                 | 9                     | 48,731                    | 36,080             | 8,572             | 1,852             | 1,584                        | 643                        | 0               | 0              |
| Meters Other-Rem Rdr Units   | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Meter Installations          | 9                     | 1,583,293                 | 1,172,270          | 278,501           | 60,165            | 51,457                       | 20,899                     | 0               | 0              |
| Meter Installation Other     | 9                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Hydrants                     | 8                     | 453,650                   | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 0              |
| Other P/E Intangible         | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0               | 453,650        |
| Other P/E WT Res Hand Equip  | 2                     | 8,217                     | 3,146              | 1,909             | 2,289             | 229                          | 602                        | 0               | 32             |

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT

COST OF SERVICE FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2002, ALLOCATED TO CUSTOMER CLASSIFICATIONS

| Account<br>(1)                       | Factor<br>Ref.<br>(2) | Cost of<br>Service<br>(3) | Residential<br>(4) | Commercial<br>(5) | Industrial<br>(6) | Public<br>Authorities<br>(7) | Sales for<br>Resale<br>(8) | Private<br>(9) | Public<br>(10) |
|--------------------------------------|-----------------------|---------------------------|--------------------|-------------------|-------------------|------------------------------|----------------------------|----------------|----------------|
| Other P/E TD                         | 7                     | (868)                     | (324)              | (191)             | (98)              | (23)                         | (57)                       | (38)           | (137)          |
| Other P/E CPS                        | 15                    | (63,124)                  | (35,318)           | (11,962)          | (8,086)           | (1,382)                      | (2,582)                    | (941)          | (2,853)        |
| Office Furniture & Equip             | 15                    | 338,996                   | 189,668            | 64,240            | 43,425            | 7,424                        | 13,865                     | 5,051          | 15,323         |
| Comp & Periph Equip                  | 15                    | 82,160                    | 45,969             | 15,569            | 10,525            | 1,799                        | 3,360                      | 1,224          | 3,714          |
| Computer Software                    | 15                    | (25,729)                  | (14,395)           | (4,876)           | (3,296)           | (563)                        | (1,052)                    | (383)          | (1,163)        |
| Comp Software Personal               | 15                    | (2,267)                   | (1,268)            | (430)             | (290)             | (50)                         | (93)                       | (34)           | (102)          |
| Data Handling Equipment              | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Other Office Equipment               | 15                    | 24,273                    | 13,561             | 4,600             | 3,109             | 532                          | 993                        | 362            | 1,097          |
| Trans Equip Lt Duty Trks             | 15                    | (14,295)                  | (7,998)            | (2,709)           | (1,831)           | (313)                        | (585)                      | (213)          | (646)          |
| Trans Equip Hvy Duty Trks            | 15                    | 12,700                    | 7,106              | 2,407             | 1,627             | 278                          | 519                        | 189            | 574            |
| Trans Equip Autos                    | 15                    | 31,409                    | 17,573             | 5,952             | 4,023             | 688                          | 1,285                      | 468            | 1,420          |
| Trans Equip Other                    | 15                    | 56,926                    | 31,850             | 10,787            | 7,292             | 1,247                        | 2,328                      | 848            | 2,573          |
| Stores Equipment                     | 15                    | (1,339)                   | (749)              | (254)             | (172)             | (29)                         | (55)                       | (20)           | (61)           |
| Tools, Shop, Garage Equip            | 15                    | 144,510                   | 80,853             | 27,385            | 18,512            | 3,165                        | 5,910                      | 2,153          | 6,532          |
| Tools, Shop, Garage Equip Oth        | 15                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Laboratory Equipment                 | 2                     | 82,563                    | 31,613             | 19,179            | 23,002            | 2,304                        | 6,052                      | 91             | 322            |
| Laboratory Equip Other               | 2                     | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Power Operated Equipment             | 15                    | 92,273                    | 51,627             | 17,486            | 11,820            | 2,021                        | 3,774                      | 1,375          | 4,171          |
| Comm Equip Non-Telephone             | 15                    | 43,289                    | 24,220             | 8,203             | 5,545             | 948                          | 1,771                      | 645            | 1,957          |
| Comm Equip Telephone                 | 15                    | (33,295)                  | (18,629)           | (6,309)           | (4,265)           | (729)                        | (1,362)                    | (496)          | (1,505)        |
| Misc Equipment                       | 15                    | 34,633                    | 19,377             | 6,563             | 4,436             | 758                          | 1,416                      | 516            | 1,565          |
| Other Tangible Property              | 17                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Total Utility Plant in Service       |                       | 28,838,342                | 13,356,245         | 5,705,833         | 4,869,154         | 681,037                      | 1,457,388                  | 719,278        | 2,049,407      |
| <b>Other Rate Base Items</b>         |                       |                           |                    |                   |                   |                              |                            |                |                |
| Add:                                 |                       |                           |                    |                   |                   |                              |                            |                |                |
| Other Utility Plant Adjustments      | 17                    | 54,752                    | 25,361             | 10,835            | 9,242             | 1,292                        | 2,765                      | 1,363          | 3,893          |
| Cash Working Capital                 | 15                    | 136,000                   | 76,092             | 25,772            | 17,422            | 2,978                        | 5,562                      | 2,026          | 6,147          |
| Materials and Supplies               | 15                    | 211,110                   | 118,116            | 40,005            | 27,043            | 4,623                        | 8,634                      | 3,146          | 9,542          |
| Prepayments                          | 15                    | 26,700                    | 14,939             | 5,060             | 3,420             | 585                          | 1,092                      | 398            | 1,207          |
| OPEB's Contributed to External Fund  | 16                    | 239,634                   | 130,529            | 46,657            | 32,854            | 5,607                        | 10,472                     | 3,211          | 10,304         |
| Premature Retirement                 | 17                    | 0                         | 0                  | 0                 | 0                 | 0                            | 0                          | 0              | 0              |
| Regulatory Deferrals                 | 17                    | 335,702                   | 155,497            | 66,435            | 56,666            | 7,923                        | 16,953                     | 8,359          | 23,868         |
| Less:                                |                       |                           |                    |                   |                   |                              |                            |                |                |
| Accumulated Deferred ITC (3%)        | 17                    | (13,433)                  | (6,222)            | (2,658)           | (2,267)           | (317)                        | (678)                      | (334)          | (955)          |
| Deferred Income Taxes                | 17                    | (2,185,203)               | (1,012,166)        | (432,452)         | (368,862)         | (51,571)                     | (110,353)                  | (54,412)       | (155,368)      |
| Pensions                             | 16                    | (485,082)                 | (264,224)          | (94,445)          | (66,505)          | (11,351)                     | (21,198)                   | (6,500)        | (20,859)       |
| Total Other Rate Base Elements       |                       | (1,679,820)               | (762,099)          | (334,791)         | (290,987)         | (40,230)                     | (86,750)                   | (42,743)       | (122,220)      |
| Total Original Cost Measure of Value |                       | \$ 27,158,522             | \$ 12,594,146      | \$ 5,371,042      | \$ 4,578,167      | \$ 640,806                   | \$ 1,370,637               | \$ 676,535     | \$ 1,927,187   |

MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT

SUMMARY OF AVERAGE DAILY SEND OUT AND MAXIMUM DAILY USAGE  
FOR THE YEARS 1990 - 2002

| Year<br>(1) | Average Daily<br>Send Out<br>(MGD)<br>(2) | Maximum Daily Use |                            |                           |
|-------------|-------------------------------------------|-------------------|----------------------------|---------------------------|
|             |                                           | MGD<br>(3)        | Ratio to<br>Average<br>(4) | Highest<br>Use Day<br>(5) |
| 1990        | 9.656                                     | 14.110            | 1.46                       | 8/29/1990                 |
| 1991        | 9.954                                     | 16.140            | 1.62                       | 7/22/1991                 |
| 1992        | 9.610                                     | 14.828            | 1.54                       | 6/30/1992                 |
| 1993        | 9.947                                     | 12.940            | 1.30                       | 8/23/1993                 |
| 1994        | 10.586                                    | 15.120            | 1.43                       | 7/6/1994                  |
| 1995        | 10.848                                    | 16.800            | 1.55                       | 8/30/1995                 |
| 1996        | 11.063                                    | 15.440            | 1.40                       | 6/26/1996                 |
| 1997        | 10.681                                    | 14.900            | 1.40                       | 7/31/1997                 |
| 1998        | 10.902                                    | 15.760            | 1.45                       | 9/4/1998                  |
| 1999        | 10.993                                    | 18.452            | 1.68                       | 7/30/1999                 |
| 2000        | 11.334                                    | 18.747            | 1.65                       | 8/29/2000                 |
| 2001        | 10.862                                    | 16.432            | 1.51                       | 7/20/2001                 |
| 2002        | 11.694                                    | 18.552            | 1.59                       | 8/2/2002                  |



**MISSOURI-AMERICAN WATER COMPANY  
JOPLIN DISTRICT**

**BASIS FOR ALLOCATING DEMAND RELATED COSTS OF FIRE SERVICE  
TO PRIVATE AND PUBLIC FIRE PROTECTION CUSTOMER CLASSIFICATIONS**

| Description<br>(1)                    | Restrictive<br>Diameters<br>Squared<br>(2) | Quantity<br>(3) | Relative<br>Demand<br>(4)=(2)x(3) | Allocation<br>Factor<br>(5) |
|---------------------------------------|--------------------------------------------|-----------------|-----------------------------------|-----------------------------|
| <b><u>PRIVATE FIRE PROTECTION</u></b> |                                            |                 |                                   |                             |
| <b>Fire Lines</b>                     |                                            |                 |                                   |                             |
| 2 -inch                               | 4.00                                       | 5               | 20                                |                             |
| 3 -inch                               | 9.00                                       | 0               | 0                                 |                             |
| 4 -inch                               | 16.00                                      | 28              | 448                               |                             |
| 6 -inch                               | 36.00                                      | 157             | 5,652                             |                             |
| 8 -inch                               | 64.00                                      | 102             | 6,528                             |                             |
| 10 -inch                              | 100.00                                     | 6               | 600                               |                             |
| 12 -inch                              | 144.00                                     | 0               | 0                                 |                             |
| Private Hydrants                      | 32.75                                      | 3               | 98                                |                             |
| <b>Total Private Fire Protection</b>  |                                            | 301             | 13,346                            | 0.2172                      |
| <b><u>PUBLIC FIRE PROTECTION</u></b>  |                                            |                 |                                   |                             |
| <b>Hydrant</b>                        | <b>Nozzle Sizes</b>                        |                 |                                   |                             |
| 6" Valve                              | 2- 2-1/2" & 1- 4.5"                        | 32.75           | 1,469                             | 48,110                      |
| 6" Valve                              | 2- 2-1/2" & 1- 4"                          | 28.50           | 0                                 | 0                           |
| <b>Total Public Fire Protection</b>   |                                            | 1,469           | 48,110                            | 0.7828                      |
| <b>Total Fire Protection</b>          |                                            | 1,770           | 61,456                            | 1.0000                      |