

**BEFORE THE
PUBLIC SERVICE COMMISSION OF WISCONSIN**

Application of the Milwaukee Water Works
for Authority to Increase Water Rates

Docket 3720-WR-108

**DIRECT TESTIMONY OF CARRIE LEWIS
ON BEHALF OF MILWAUKEE WATER WORKS**

1 **Q. Please state your name and business address.**

2 A. My name is Carrie Lewis. My business address is 841 N. Broadway, Room 409,
3 Milwaukee WI 53202.

4 **Q. In what capacity are you appearing as a witness?**

5 A. I am the Superintendent of Milwaukee Water Works.

6 **Q. Please describe your background.**

7 A. I have a Bachelor's of Science degree from McGill University in Montreal, Canada and a
8 Master's of Science degree from the University of Calgary in Calgary, Canada. I have
9 worked in the drinking water industry since 1982 and have been Superintendent of
10 Milwaukee Water Works since 1997.

11 **Q. What is the purpose of your testimony?**

12 A. The purpose of my testimony is to describe the revenue increase sought by Milwaukee
13 Water Works (MWW) in this rate adjustment and the key reasons for it, compare the
14 approach taken by MWW in this application to the approach taken by MWW in its 2009
15 rate increase application (Docket No. 3720-WR-107), address issues identified in the

1 Prehearing Conference (PSC REF# 204383), and introduce the MWW witnesses who
2 will address different aspects of our 2014 rate increase application.

3 **Q. Why did Milwaukee Water Works (MWW) apply for a water rate adjustment?**

4 A. MWW's last full water rate case ("2009-11 rate case") was initiated in September 2009
5 with a test year of 2010. The Final Decision in this rate case was issued on February 3,
6 2011 (PSC REF#:144469). The approved rate increase was fully implemented on May 8,
7 2011. The regulatory lag associated with this full rate case resulted in foregone revenue
8 of close to \$18 million: \$13.7 million for the 2010 test year and an additional
9 approximately \$4.0 million in 2011 before the increase was fully implemented. MWW
10 was not eligible to use the Simplified Rate Case process in 2012, but two rate increases
11 using the Simplified Rate Case process were approved by the Public Service Commission
12 of Wisconsin (PSC) effective June 1, 2013 (PSC REF#: 184601) and June 1, 2014 (PSC
13 REF#: 203932).

14 The revenue requirement shortfall that occurred in 2010-2011 has been
15 exacerbated by a continuing decline in water usage, even with the addition of four new
16 wholesale customers since 1997. Water sales overall have decreased from 58.4 billion
17 gallons in 1976 to 33.3 billion gallons in 2009 to 30.6 billion gallons in 2013.
18 Residential, commercial and industrial customer classes have the largest decreases;
19 public authority and wholesale classes show smaller changes. Ex.-MWW-Lewis-1 shows
20 the decline in water usage by customer class since 1970. Ex.-MWW-Lewis-2 is the detail
21 since 2009, when the last full rate case was filed. There was an increase in water sales in
22 the hot, dry year of 2012, but 2013 water sales fall right in line with the overall continued
23 decreasing trend.

1 Expenses have been increasing. Electric rates have increased 15% since 2009,
2 along with an increase due to the expiration of Point Beach credits from which the utility
3 had benefitted since 2008. Actuarial pension contributions exceeding \$1.1 million per
4 year are required from 2012 through at least 2018. Office supplies, property insurance,
5 and rents for administrative office space have increased. Starting in 2010, MWW has
6 acknowledged the uncollectible nature of bankruptcy cases and has so far written off \$1.2
7 million in uncollectible bills. The Payment in Lieu of Taxes has increased due to a
8 combination of investments in infrastructure which added to the rate base and increasing
9 local tax rates. Treatment expenses are generally on the increase due to repairs.
10 Regulatory and legislative requirements for additional water quality monitoring (from the
11 US Environmental Protection Agency), orders to increase pressure in some areas of the
12 MWW water distribution system (from the Wisconsin Department of Natural Resources)
13 and additional activities related to compliance with 2013 Wis. Act 25 relating to state
14 municipal utility customer privacy laws have all contributed to increasing costs.

15 **Q. What steps has MWW taken to mitigate the need for a rate increase?**

16 A. MWW has done a creditable job with utility finances, resizing and restructuring
17 throughout the organization to reduce costs. Examples include:

- 18 • Increasing the payment channels for the municipal services bill to include payments
19 over the web and over the telephone using e-check, MasterCard and Discover credit
20 cards. This resulted in over 438,000 payments being processed without postal and
21 lockbox handling costs, saving the utility over \$462,000 over the last five years.
- 22 • Continuing to institute new efficiencies made possible as a result of the consolidation
23 of MWW's two distribution field facilities into one central location in 2006. To date

1 MWW has eliminated two full repair crews and their accompanying equipment thus
2 saving costs for personnel, vehicle fuel and maintenance and future equipment
3 replacement cost. A new schedule for Utility Investigators enabled the reduction of
4 two Utility Investigators and two Water Distribution Laborers while still maintaining
5 high quality service levels. To date, MWW has eliminated a total of 45 positions in
6 the Distribution Section due to the facility consolidation and the use of new
7 technologies.

- 8 • The consolidation of the two field facilities left both the Lincoln Distribution Yard
9 and the Cameron Distribution Yard vacant. The ownership of the 12.58 acre Lincoln
10 Yard was transferred to the City of Milwaukee's Parking Enforcement Division,
11 yielding annual savings to the utility and its ratepayers by eliminating the
12 maintenance and upkeep of this facility. It also provided the utility with a one-time
13 payment of \$272,281. The Cameron Yard facility was renovated to become the new
14 Water Meter Services Shop, which has sufficient space to accommodate the routine
15 Meter Services functions as well as the Automatic Meter Replacement project. The
16 shop located on S. Kinnickinnic Avenue will be sold or transferred to another city
17 department, removing it from MWW's operating and maintenance budget.
- 18 • In 2008, the Milwaukee metropolitan area received amounts of rainfall that exceeded
19 the control capacity of both manmade and natural water systems. This flooding event
20 damaged the Menomonee Valley Pumping Station for the fourth time since 1937.
21 After reviewing alternatives, it was decided to decommission the station and modify
22 the utility's distribution system to perform the functions provided by the station. This
23 project yielded operation and maintenance savings associated with the operation of

1 this aged facility, and provided the utility with a one-time revenue injection in 2011
2 of \$297,500 when the land was sold to Milwaukee County.

- 3 • MWW continues to implement the systems necessary for the automated operation of
4 the Howard Avenue Water Treatment Plant, in conformance with requirements of the
5 Department of Natural Resources for remote operation of a facility of this type.
6 Benefits will include reduction of operations and management staff.

7 **Q. What approach did MWW take in this rate increase process?**

8 A. First and foremost, MWW resolved to approach the ratemaking in a fair and unbiased
9 manner to produce a result that would be equitable to all ratepayers. An important part of
10 that approach included gathering and utilizing data to replace assumptions where it was
11 possible to do so. When data or new information was available to update aspects of the
12 Cost of Service used in the 2009-11 rate case, these were used. Mr. John Wright of
13 Raftelis Financial Consultants, Inc. (“Raftelis”) will provide information about the
14 methodologies used in this rate case in his testimony on this topic.

15 The most significant data gap identified in the 2009–11 rate case was in the area
16 of customer demand ratios. The 2009–11 rate case was the first rate case in which the
17 PSC considered each of MWW’s wholesale customers as individual classes, yet there
18 were very limited data available to PSC staff for water use patterns for each individual
19 utility. On the retail side, the most recent actual data for use patterns came from a study
20 done by Black & Veatch in 1977, a year in which MWW sold 54.7 billion gallons of
21 water, compared to 2010’s 32.4 billion gallons. The customer demand ratios used in the
22 2009–11 rate case were the same as those used in MWW’s 2007 rate case, which were
23 “virtually unchanged from those used in docket 3720-WR-101 in 1990” (PSC REF#:

1 144469, at 13). Those 1990 ratios were themselves based on assumptions made from
2 water use in 1988, a year with an extremely hot and dry summer.

3 To ensure that actual data would be available in the next rate case, MWW
4 engaged Trilogy Consulting, LLC (“Trilogy”) in 2012 to design and conduct a study to
5 gather and analyze data for the purpose of updating customer class demand ratios. These
6 updated ratios were used to prepare the Cost of Service. Data collected in this study also
7 support a new rate structure for residential customers that better corresponds to their
8 actual water usage. Testimony on this study will be presented by Mr. Erik Granum and
9 Ms. Christine Cramer of Trilogy.

10 In this 2014 conventional rate increase application, MWW has prepared and
11 submitted a cost of service study and proposed rate design along with the revenue
12 requirement application. (In the 2009-11 rate case, MWW relied on PSC staff to prepare
13 the cost of service study and proposed rate design.) MWW engaged external water
14 industry consultants to prepare the revenue requirement, cost of service, and rate design
15 components of the rate application. (In the 2009 rate case, MWW did not utilize the
16 services of external consultants.) MWW is also submitting comprehensive testimony in
17 support of the revenue requirement, cost of service, and rate design components of the
18 rate application. (In the 2009-11 rate case, MWW filed only limited testimony in support
19 of the rate increase application.)

20 **Q. How did MWW determine the magnitude of the requested rate increase?**

21 A. MWW sought a fair and equitable rate structure, with a rate of return (ROR) that would
22 allow for increased investment in infrastructure, would continue the 1% differential ROR
23 authorized in the 2009-11 rate case, would have an impact to all customers that was not

1 overly burdensome, and would have resulting rates remain competitive regionally and
2 nationally. MWW also wished to retain a declining block rate structure. There is no
3 transfer of surplus earnings (or “dividend”) to the City of Milwaukee contemplated in the
4 test year or future years.

5 On March 4, 2014 MWW filed a Revenue Requirements Application based on a
6 ROR of 4.5% for retail customer classes and 5.5% for wholesale customer classes,
7 yielding a blended ROR of 4.63% and an increase in revenue of \$10.1 million. PSC staff
8 performed their review of the application and with their adjustments, the increase in
9 revenue was revised downward to \$ 9.3 million. See Ex.-MWW-Brandt-4 (PSC
10 REF#:203844). It should be noted that at the time of the initial filing the revenues were
11 compared to revenues generated from rates prior to the increases from the Simplified
12 Rate Case effective June 1, 2014. See Ex.-MWW-Lewis-17 (PSC REF#: 203932). In the
13 Revised Revenue Requirements Application dated May 30, 2014, Ex-MWW-Brandt-2
14 (PSC REF#: 205543), the revenue increases are calculated relative to revenues generated
15 from rates after the increases from the Simplified Rate Case effective June 1, 2014.

16 In response to the combination of an extremely harsh winter, the catastrophic
17 failure of the transmission line at the Texas Avenue Pumping Station and resulting water
18 main breaks, and the encouragement of PSC staff to increase investment in MWW’s
19 infrastructure, MWW filed a revised Revenue Requirements Application on May 30,
20 2014 with a higher requested ROR (Ex.-MWW-Brandt-2).

21 MWW is requesting the current PSC benchmark ROR of 6.25% for wholesale
22 customer classes and an ROR of 5.25% for retail customers leading to a blended ROR of
23 5.38%. Revenue generated at this ROR is \$94.9 million. The 100 basis point

1 differential compensates inside city customers for investments they have made to provide
2 service to outside city wholesale customers, compensates MWW for the business risk
3 associated with the wholesale customers' option to seek water from another source
4 whereas MWW is obligated to serve those customers under contracts guaranteeing
5 certain levels of water availability, and continues the structure approved in the 2009-11
6 rate case (PSC REF#: 144469). For further discussion of the differential ROR, please see
7 the direct testimony of Mr. John Wright.

8 Reviewing the impact to customers that results from these requested ROR, MWW
9 believes that the impact to customers is reasonable and can demonstrate that rates remain
10 competitive both regionally and nationally. The average water use for a single-family
11 residence in Milwaukee is 15 hundred cubic feet (Ccf) per quarter. This customer will
12 see an increase of 5.3 cents per day, or 37 cents per week for a total quarterly bill of
13 \$52.95. The average commercial customer uses 300 Ccf of water per quarter. This
14 customer will see an increase of 86 cents per day, or \$6.02 per week for a total quarterly
15 bill of \$689.25. The average industrial customer uses 5,000 Ccf per quarter. This
16 customer will see an increase of \$15.79 per day, or \$110.53 per week, for a total quarterly
17 bill of \$10,390.79. The overall increase to retail customer classes for this step of the rate
18 increase is 9.2%.

19 In order to assess the regional competitiveness of MWW's proposed rates,
20 Raftelis compared the quarterly bills of Milwaukee average single family residential (15
21 Ccf with 5/8" meter), average commercial (300 Ccf with 1.5" meter) and average
22 industrial (5,000 Ccf with 4" meter) customers with the bills of the Class AB utilities in
23 counties bordering Milwaukee County and those in Milwaukee County not served by

1 MWW. The comparison is based on rates effective June 2, 2014 as posted on tariffs on
2 the PSC website. (Ex.-MWW-Lewis-3). With the proposed rates, 15 Ccf per quarter
3 customers in Milwaukee will pay less than corresponding customers in 12 of these
4 regional utilities and more than only five. Milwaukee costs rank 6th lowest of the 17
5 utilities for the 300 Ccf per quarter customers and 9th lowest of the 17 utilities for 5,000
6 Ccf per quarter.

7 Suburban retail customers will see the same proportionate increase as urban retail
8 customers. The average single-family customer in Greenfield, Hales Corners and St.
9 Francis will increase 6.5 cents per day (46 cents per week) for a total quarterly bill of
10 \$66.15. The average commercial customer will see an increase of \$1.08 per day (\$7.56
11 per week) for a total quarterly bill of \$861.57 and the average industrial customer will
12 increase \$20.00 per day (\$140.00 per week) for a total quarterly bill of \$12,988.49.

13 For West Milwaukee, the average single-family customer will see an increase of
14 two cents per day (14 cents per week) for a quarterly bill of \$45.22. West Milwaukee
15 commercial and industrial customers will actually see a decrease in their bills. The West
16 Milwaukee commercial customer using 300 Ccf of water will see a decrease of 15 cents
17 per day (decrease of \$1.05 per week) for a total quarterly bill of \$441.87. The industrial
18 customer using 5,000 Ccf of water will see a decrease of \$1.26 per day (decrease of \$8.82
19 per week) for a total quarterly bill of \$6,188.01.

20 With the proposed rates, the cost of water to urban retail customers remains well
21 below average when compared to costs paid by customers of 10 other large Midwest
22 cities that experience freezing winters, based on rate schedules of each utility effective
23 May 20, 2014. The quarterly bill for Milwaukee's average single-family residential

1 customer using 15 Ccf of water per quarter is 2nd lowest of 11 comparable utilities. This
2 customer pays more than only one city (Chicago) and less than nine others (Pittsburgh,
3 Toledo, Indianapolis, Columbus, Cleveland, Akron, St. Louis, Cincinnati and Detroit,
4 listed in order of most to least costly quarterly bills). Milwaukee's average commercial
5 customer using 300 Ccf of water per quarter is fourth lowest, paying more than only three
6 of these cities (Chicago, Cincinnati and St. Louis) and the average industrial customer
7 using 5,000 Ccf of water per quarter is also fourth lowest, paying more than only three
8 (Detroit, Cincinnati and St. Louis). Ex.-MWW-Lewis-3 depicts the quarterly costs of
9 various water usage for these Midwestern utilities.

10 In a survey released on May 7, 2014 (Ex.-MWW-Lewis-4), the Circle of Blue, an
11 association of journalists and scientists based in Traverse City, MI, compared the cost of
12 water in 30 cities nationwide for a family of four using 50 gallons of water per person per
13 day. Milwaukee's cost ranked 13th lowest in this survey, another validation of the great
14 value that is Milwaukee's drinking water.

15 The overall increase to wholesale customer classes is 26.1%. This increase is
16 largely due to the utilization of actual customer demand ratios in place of the assumptions
17 used in the 2009-11 rate case. Utilization of the actual ratios as measured and calculated
18 for each wholesale customer class to develop MWW's Cost of Service is a significant
19 factor in designing a fair and equitable rate structure for our wholesale customers. These
20 wholesale customers, of course, set their own rates for their customers and purchasing
21 water from MWW is only one part of their utility costs.

22 Even with the proposed increase, wholesale customers of MWW will receive
23 great value in the price per Ccf that they pay, when compared to prices paid by other

1 Wisconsin utilities purchasing water wholesale. Ex.-MWW-Lewis-5 shows the prices
2 paid by 28 utilities buying water wholesale from other utilities in Wisconsin. The rates
3 shown for Milwaukee customers are the rates proposed in this rate case. The rates shown
4 for non-Milwaukee customers were obtained by Trilogy from those utilities' tariffs and
5 ongoing rate proceedings posted on the PSC websites in May 2014. All of Milwaukee's
6 wholesale customers' costs are at or below the 50th percentile. Ten of the 15 lowest-
7 prices per Ccf are those proposed for Milwaukee's wholesale customers.

8 **Q. What is the status of the "Use Water Wisely" program?**

9 A. The Use Water Wisely program is in its fourth year. This collaborative effort with Clean
10 Wisconsin was initiated in the 2009-11 rate case as a consumer outreach program to
11 effectively change consumer behavior to reduce wasted water and lower water costs for
12 the utility's retail customers. Materials were specially designed for customers to relate to
13 Milwaukee and environs. Materials are distributed by Meter Services technicians as they
14 replace water meters and investigate high water usage premises, by Department of
15 Neighborhood Services Permit Center employees to owners and plumbers as they apply
16 for permits to perform plumbing work and at landlord training sessions, and at a variety
17 of public events. These materials are also made available to customers who call or visit
18 MWW's Customer Service Center. A complete summary of activities is presented in
19 Ex.-MWW-Lewis-6.

20 "Use Water Wisely" was honored with the Utility Special Achievement Award
21 from the Wisconsin Water Association in 2011.

1 The program has also been very well received by customers—96% of those who
2 returned feedback cards have said they found the information useful and 33% said they
3 found and fixed leaks in their homes.

4 **Q. Does MWW have plans to expand these types of activities?**

5 A. MWW plans to continue the “Use Water Wisely” program, practicing supply side
6 conservation, and the other sustainability practices identified in Ex.-MWW-Lewis-7. At
7 the urging of Clean Wisconsin, MWW will review the 2011 PSC/DNR “Water Efficiency
8 Potential Study for Wisconsin” report and the Alliance for Water Efficiency’s Water
9 Conservation Tracking Tool for practices that may be applicable to MWW’s situation.

10 **Q. Why is the “Use Water Wisely” program not included in Schedule 19 of the Rate**
11 **Application?**

12 A. It is my understanding that Schedule 19 is used to report on PSC-approved conservation
13 programs. The “Use Water Wisely” program does not fall into this category. MWW is in
14 the enviable position of having ample water supply as well as ample treatment and
15 pumping capacity. Water used is returned to the Great Lakes basin. Avoiding future
16 capital investment that would be needed to accommodate growth, often an important
17 driver in a conservation program, is not an issue for MWW. In fact, continued declining
18 water usage itself necessitates capital investment as facilities are downsized to function
19 more efficiently with reduced water flows. MWW uses sustainable practices such as
20 supply side conservation, water accountability, energy conservation, operational
21 efficiency, and consumer advocacy to “Use Water Wisely.” These practices ensure the
22 long-term availability of safe and affordable drinking water while considering other water
23 uses.

1 **Q. Should the Commission order an Economic Development Rate (EDR)?**

2 A. No. MWW does not want to provide an EDR for all of the reasons stated in PSC Docket
3 3720-WI-102, particularly the reasons stated in the direct testimony of Carrie Lewis and
4 Ex.-MWW-Lewis-1 to Ex.-MWW-Lewis-19, filed in that docket (See PSC
5 REF#:183583).

6 **Q. Is the estimated test year Payment in Lieu of Taxes (PILOT) reasonable given the**
7 **applicable statute and code?**

8 A. Yes. The forecast 2014 test year property tax equivalent of \$12.3 million was calculated
9 in compliance with Wisconsin Administrative Code § PSC 109.02 and compares
10 favorably with the PILOT payments of other municipal utilities in Wisconsin. The \$12.3
11 million amount is 12.9 percent of the revenue requirement, which compares to the
12 average of 14.9 percent of the total revenue requirement in 2010 and 14.8 percent in 2011
13 according to the January 2013 PSC Staff Report, “Investigation into Municipal Utility
14 Payment In Lieu of Taxes (PILOT)” (PSC REF#: 180955). Ex.-MWW-Lewis-8 is a
15 compilation of the 2011 PILOT as percent of total revenue requirements from the PSC
16 Staff Report for the Class AB utilities and the three Class C utilities that are wholesale
17 customers of MWW. MWW’s 2011 PILOT of 13.9 percent is lower than the average of
18 14.9 percent for this subset of utilities, ranking 58th lowest of these 99 utilities.

19 **Q. Please describe MWW’s infrastructure replacement program and priorities.**

20 A. MWW’s capital program is primarily composed of treatment, pumping, and storage
21 facility projects, and water main replacements. We carefully consider all sources of
22 information and utilize our professional judgment in a very complex water system as we
23 strive to make decisions that will be to the benefit of future users and ratepayers. We

1 take our responsibility as caretakers of the water system very seriously and understand
2 that the “life” of the system will long exceed our tenure.

3 The capital projects in the treatment-pumping-storage facility category primarily
4 involve replacing or upgrading existing features that have reached the end of their useful
5 lives and/or are oversized for current water flows and/or have been identified by the DNR
6 as deficiencies requiring corrective action. These are typically complex, multi-year
7 projects. An initiative to provide backup power generation at critical facilities is
8 currently underway; in the event of a local or regional power failure, these backup power
9 generators will provide water treatment meeting all regulatory standards and distribution
10 of water up to 150 million gallons per day—enough water for a typical summer day for
11 the utility’s entire service area, including service to wholesale communities. Projects are
12 prioritized based on many factors including a cost-benefit review, annual condition
13 assessments, linkages to other projects either in progress or planned, construction
14 scheduling considerations, and are included in the six-year capital improvement program
15 based on urgency and availability of funding.

16 Water main improvements make up the majority of dollars budgeted for and spent
17 on MWW’s capital program. Water main improvements include alterations (e.g.,
18 relocations of hydrants, resolving conflicts with sewer projects, additions of valves) as
19 well as replacements of water mains. Water mains are first prioritized for replacement
20 based on their condition assessment rank on the Water Main Experience Index (WMEI)
21 and field observations.

22 The WMEI is MWW’s condition assessment of water main segments. Each
23 segment on the list is ranked from worst condition (#1) to better condition (#2266).

1 Segments that have no main break history are considered in “best” condition and are not
2 listed. In addition to the condition assessment rank of the segments, the WMEI contains
3 information on the breaks per 100 feet of each segment, the segment’s location, size, year
4 installed, length, and quarter section. The WMEI also includes the month and year of the
5 most recent breaks and the condition assessment ranking of the segment in the previous
6 update of the index, both of which indicate the rate of change of break activity over time.
7 As water main break data are entered into the WMEI, the condition of each segment will
8 be updated and the rank of the segment may change; segments with increased main break
9 activity will “rise” to the top of the list and be a higher priority for replacement. See Ex.-
10 MWW-Lewis-9 (PSC REF#:204754) and Ex.-MWW-Lewis-10 (PSC REF#: 204755) for
11 a complete description of WMEI.

12 Detailed information is maintained on each water main break from field
13 observations to complement the WMEI condition assessment ranking. This information
14 includes the diameter, pipe material and joint type of the water main segment, year
15 constructed and placed in service, date/description/type/size of break and material used to
16 make the repair and details of bedding and backfill materials. See Ex.-MWW-Lewis-11
17 (PSC REF#: 204756) for an example of these data.

18 After the condition assessment rating is generated for each segment of water main
19 on the WMEI, additional criteria are considered, including:

- 20 • Upcoming paving projects—the life expectancy of proposed pavement type is
21 weighed against the condition assessment rank and remaining life expectancy
22 of the water mains within the pavement project,

- City sewer projects—a water main replacement may be initiated when a sewer is replaced in order to comply with DNR clearance requirements, which call for 8’ of horizontal separation and 1.5’ of vertical clearance between sewers and water mains,
- Deficiencies in existing mains—an existing main with an acceptable condition assessment ranking may be replaced with a larger diameter main if the carrying capacity of the existing main is inadequate or if pressure deficiencies exist; or if main size or material is creating water quality issues.

These additional criteria may override the WMEI condition assessment ranking in the final list of projects offered to the Milwaukee Common Council each year for preliminary engineering and subsequent construction.

Q. Is the level of water main replacement in the test year reasonable?

A. As described in MWW’s Water Main Replacement Report, Ex.-MWW-Lewis-12 (PSC REF#: 199900), MWW has 1,961 miles of water main in sizes from 4” to 60” in diameter. Twenty-two percent (approximately 430 miles) of the water mains were installed between 1943 and 1963. Approximately 55% of water main breaks occur in mains of this vintage, due to the quality of manufacture and installation of this era of pipe. MWW’s water main replacement budget for the test year is \$10 million, \$9.3 million of which is planned to replace water mains that were installed between 1943 and 1963. The non-mains component of MWW’s test year capital budget is \$2.3 million, further demonstrating MWW’s commitment to water main replacements.

Q. Is the proposed future water main replacement schedule reasonable and is it adequately financed?

1 A. The PSC's standard process of setting rates using a utility basis and revenue requirements
2 for a single test year does not account for the financing methods of capital improvement
3 projects in general or take into account future capital improvements and financing
4 methods.

5 MWW is submitting to the Mayor and Common Council a six-year plan for water
6 main replacements that budgets for 15 miles of water main to be replaced each year
7 starting in 2015. This steady annual investment will continue essentially unabated until
8 the entire system has been replaced, and then it will likely be time to begin again. It is
9 anticipated that revenue from depreciation and rate of return will be used to cash finance
10 the water main replacements. MWW believes cash financing is appropriate given the
11 need for steady annual investment. This approach will also allow revenue to go directly
12 into infrastructure improvements and not into interest payments. (Debt financing may be
13 used for one-time large non-mains projects.) For further discussion of MWW's funding
14 source for capital improvements, see Direct-MWW-Brandt-9 to 10.

15 **Q. Is the number of water meters to be replaced in the test year reasonable?**

16 A. Yes. In 2012, MWW initiated an eight-year meter replacement project to replace the
17 meter and electronic meter reading devices of 155,857 small meters. The meter
18 replacement strategy for two, five and eight year projects were evaluated as shown in Ex-
19 MWW-Lewis-13. Eight years was selected as the interval that could best be
20 accommodated by MWW in terms of hiring and training field, clerical and supervisory
21 staff, having adequate workspace for employees, procuring equipment and vehicles for
22 the meter exchanges, and also allowing MWW to continue the other functions routinely
23 performed by Meter Services staff, such as meter reading, field testing of large meters,

1 exchanging medium meters, addressing accounts with consecutive estimated readings,
2 performing high consumption investigations, installing meters in new/rehabbed buildings,
3 conducting frozen service/no water investigations and replacing burst/damaged meters in
4 a timely fashion. As of March 31, 2014 the project was 41.3% complete with 64,384
5 meters replaced.

6 **Q. Is the reduction in the number of accounts with more than three consecutive**
7 **estimates in the test year reasonable and does it constitute reasonable progress on**
8 **the multiple estimates project?**

9 A. MWW has worked diligently to reduce the number of accounts with more than three
10 consecutive estimates, using messages on bills, letters informing customers of the need to
11 replace the device, and personal visits to properties. When these measures are
12 unsuccessful, MWW initiates a service disconnection process in accordance with PSC
13 Administrative Code. MWW reports progress to the PSC on this project twice annually.
14 The December 31, 2013 report, Ex.-MWW-Lewis-14 (PSC REF#: 199219), noted that of
15 MWW's over 157,000 accounts, only 628 had three or more consecutive estimates, down
16 from 1,883 reported in December 31, 2011.

17 Given the progress under MWW's normal operating procedures during the last
18 few years, no additional expenses are anticipated related to this topic, so it is unrelated to
19 the development of the revenue requirement, the cost of service or the rate design.

20 **Q. Did you obtain authority from your governing body for a rate increase?**

21 A. Yes. Ex.-MWW-Lewis-15 is a certified copy of City of Milwaukee Common Council
22 Resolution granting authority to apply for a rate increase.

23 **Q. Did you notify your customers of your application for a rate increase?**

1 A. Yes. A notice was published in the Milwaukee Journal Sentinel on March 9, 2014
2 announcing that the request for an increase had been filed with the PSC. A certified copy
3 of this notice is filed as Ex.-MWW-Lewis-16.

4 **Q Did you notify your customers of this hearing?**

5 A. Customers have not been notified as of the date this testimony was filed. Notices are
6 planned to be published in the Milwaukee Journal Sentinel on June 15 and June 22, 2014.
7 Confirmation of notification and certified copies of proof of that notice will be provided
8 in upcoming testimony.

9 **Q. Please introduce the witnesses filing testimony on behalf of MWW to support this**
10 **2014 rate increase application.**

11 A. MWW is represented by the following witnesses:

- 12 • Mr. Peiffer Brandt of Raftelis Financial Consultants, Inc. will address the revenue
13 requirement and rate design components of our rate increase application.
- 14 • Mr. John Wright of Raftelis Financial Consultants, Inc. will address the cost of
15 service component of our rate increase application.
- 16 • Ms. Christine Cramer and Mr. Erik Granum of Trilogy Consulting, LLC will
17 address the process used to develop the customer class maximum day and
18 maximum hour demand ratios used in the cost of service component of our rate
19 increase application.

20 **Q. Does this conclude your testimony at this time?**

21 A. Yes.