

COMMONWEALTH OF KENTUCKY

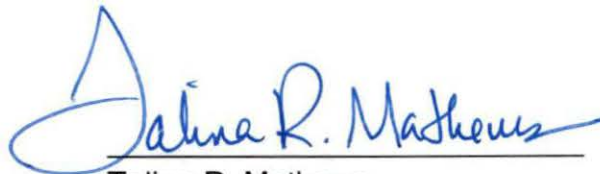
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF HENRY COUNTY WATER)
DISTRICT #2 FOR RATE ADJUSTMENT) CASE NO.
PURSUANT TO 807 KAR 5:076) 2016-00377

NOTICE OF FILING OF COMMISSION STAFF REPORT

Notice is hereby given that, in accordance with the Commission's Order of December 5, 2016, the attached report containing the findings of Commission Staff ("Staff") regarding the Applicant's proposed rate adjustment has been filed in the record of the above-styled proceeding. Pursuant to the Commission's December 5, 2016 Order, Henry County Water District #2 is required to file written comments regarding the findings of Commission Staff no later than 14 days from the date of this report.



Talina R. Mathews
Executive Director
Public Service Commission
P.O. Box 615
Frankfort, KY 40602

DATE FEB 09 2017

cc: Parties of Record

STAFF REPORT
ON
HENRY COUNTY WATER DISTRICT #2
CASE NO. 2016-00377

Henry County Water District #2 (“Henry District”) is a water district organized pursuant to KRS Chapter 74 that owns and operates a water treatment and distribution system through which it provides water service to approximately 4,492 retail water customers and seven wholesale water customers located in the Kentucky counties of Carroll, Henry, Oldham, Shelby, and Trimble.¹ On November 23, 2016, the Commission accepted for filing Henry District’s application (“Application”) to increase its monthly water service rates evenly across the board by approximately 5.2 percent pursuant to 807 KAR 5:076. The requested rates would increase a monthly bill of a typical residential customer² from \$42.35 to \$44.56, an increase of \$2.21, or 5.22 percent.

As required by 807 KAR 5:076, Section 3, Henry District based its requested rates on the historical test year that coincides with the reporting period shown in its most recent Annual Report on file with the Commission at the time it filed the Application, the calendar year ended December 31, 2015. To ensure the orderly review of the Application, the Commission established a procedural schedule by Order dated December 5, 2016.

¹ *Annual Report of Henry County Water District #2 to the Public Service Commission for the Calendar Year Ended December 31, 2015 (“Annual Report”)* at 12 and 53.

² A typical residential customer purchases 5,000 gallons of water per month through a 5/8- inch x 3/4- inch meter.

To determine the reasonableness of Henry District's current water service rates and its requested water service rates, Staff performed a limited financial review of Henry District's test-year operations. The scope of the review was limited to determining whether operations reported for the test year were representative of normal operations. Known and measurable changes to test-year operations were identified and adjustments were made when their effects were deemed to be material. Staff did not necessarily pursue or address discrepancies that it deemed insignificant and immaterial.

Staff's findings are summarized in this report. Jack Scott Lawless reviewed the calculation of Henry District's Overall Revenue Requirement. Eddie Beavers reviewed Henry District's reported revenues and rate design.

Summary of Findings

1. Overall Revenue Requirement and Required Revenue Increase. By applying methods that are generally accepted by the Commission, Staff found that Henry District's Overall Revenue Requirement is \$3,850,369 and that a revenue increase in the amount of \$436,852, or 13.24 percent, is necessary to generate the Overall Revenue Requirement.

2. Rates. In the Application, Henry District proposed to increase all of its monthly water service rates evenly across the board by approximately 5.2 percent. The Commission has previously found that the allocation of a revenue increase evenly across the board to a utility's current rate design is appropriate when there has been no evidence entered into the record demonstrating that this method is unreasonable. Finding no such evidence in this case, Staff followed the method proposed by Henry

District and allocated the \$436,852 revenue increase it found warranted evenly across the board to Henry District's current monthly water service.

The monthly water service rates calculated by Staff are shown in Attachment A to this report. These rates will increase a typical residential customer's monthly bill from \$42.35 to \$47.96, an increase of \$5.61, or 13.25 percent.

3. Depreciable Lives. As discussed beginning on page 12 of this report, Staff found that adjustments are warranted to the some of the depreciable lives that Henry District used to calculate depreciation expense during the test year. If the Commission Orders any changes to Henry District's depreciable lives for ratemaking and accounting purposes, Henry District should ensure that it calculates and records depreciation expense in all future reporting periods in accordance with the Commission's Orders. Henry District should not adjust accumulated depreciation or retained earnings to account for the retroactive cumulative effect of this change in accounting estimate.

Pro Forma Operating Statement

Henry District's Pro Forma Operating Statement for the test year ended December 31, 2015, as determined by Staff, appears below.

| | <u>Test Year</u> | <u>Adjustments</u> | <u>Ref.</u> | <u>Pro Forma</u> |
|--|-------------------|--------------------|-------------|-------------------|
| Operating Revenue | | | | |
| Water Sales Revenue | \$ 3,250,365 | \$ 48,390 | (A) | \$ 3,298,755 |
| Other Operating Revenue | 192,398 | (85,713) | (B) | 106,685 |
| Total Operating Revenues | <u>3,442,763</u> | <u>(37,323)</u> | | <u>3,405,440</u> |
| Operating Expenses | | | | |
| Operation and Maintenance | | | | |
| Salaries and Wages - Employees | 763,497 | (101,509) | (C) | 661,988 |
| Salaries and Wages - Officers | 33,900 | | | 33,900 |
| Employee Pensions and Benefits | 425,573 | (30,077) | (C) | |
| | | (118,024) | (D) | 277,472 |
| Purchased Power | 415,040 | (8,606) | (E) | 406,434 |
| Chemicals | 62,189 | (1,310) | (E) | 60,879 |
| Materials and Supplies | 366,543 | (57,547) | (F) | 308,996 |
| Contractual Services | 149,497 | (22,485) | (G) | 127,012 |
| Transportation Expense | 27,049 | | | 27,049 |
| Insurance | 44,477 | | | 44,477 |
| Advertising | 756 | | | 756 |
| Bad Debts | 10,674 | | | 10,674 |
| Miscellaneous | 36,731 | 7,290 | (H) | 44,021 |
| Total Operation and Maintenance | 2,335,926 | (332,268) | | 2,003,658 |
| Depreciation | 826,871 | 375 | (G) | |
| | | (151,648) | (I) | 675,598 |
| Taxes Other Than Income | 72,772 | (7,765) | (C) | 65,007 |
| Total Operating Expenses | <u>3,235,569</u> | <u>(491,306)</u> | | <u>2,744,263</u> |
| Net Operating Income | 207,194 | 453,983 | | 661,177 |
| Plus: Interest Income | 8,077 | | | 8,077 |
| Less: Miscellaneous Nonutility Expense | (7,290) | 7,290 | (H) | - |
| Income Available to Service Debt | <u>\$ 207,981</u> | <u>\$ 461,273</u> | | <u>\$ 669,254</u> |

(A) Billing Analysis. Henry County provided a billing analysis with the Application that based the water usage and water sales revenue on one month of average water sales. Henry County filed on November 23, 2016, a revised billing

analysis that based the water usage and water sales revenue for the entire twelve 12-month test year. This billing analysis contained an error in calculating the revenue from water sales.

The billing analysis was produced from test-year customer data from the utility's billing software. Henry County's billing analysis results in normalized test year water revenues of \$3,298,755, a \$48,390 increase to water sales revenues as reported in the 2015 Annual Report.

(B) Contributions in Aid of Construction. During the test year, Henry District received contributions in the amounts listed below from the Federal Emergency Management Agency ("FEMA"), Kentucky Department of Transportation ("DOT"), and Carrollton Utilities ("Carrollton") to fund various construction projects.

| | |
|----------------------|--------------------|
| Contribution from: | |
| FEMA | \$ (51,151) |
| DOT | (19,658) |
| Carrollton Utilities | <u>(14,904)</u> |
| Total | <u>\$ (85,713)</u> |

Henry District reported these contributions as Other Operating Revenue on its Income Statement. Proper accounting requires that they be reported as Contributions in Aid of Construction on Henry District's Balance Sheet. Following proper accounting practices, Staff removed these contributions from test-year Other Operating Revenue.

(C) Wage and Wage Overhead Expenses. Henry District's General Manager ("GM") retired effective December 31, 2016, after being employed by the district for over 36 years. He was replaced by another Henry District employee who, in return, received a promotional wage rate increase. Henry District does not expect to fill the position

vacated by the promoted employee. Staff made the following adjustments to wage and wage overhead expenses to account for the GM's retirement and the promotion of the employee into the GM position.

| | Remove from Test-Year for Retired GM | Add to Test Year for Promotion of Current GM | Net Decrease to Test Year |
|--|--|--|------------------------------|
| Wages | \$ (120,025) | \$ 18,516 | \$ (101,509) |
| Employee Benefits | | | |
| Retirement Contributions (wages x 18.28%, average test-year contribution rate) | (21,941) | 3,385 | (18,556) |
| Insurance Premiums | (11,521) | - | (11,521) |
| Employee Benefits | (33,462) | 3,385 | (30,077) |
| FICA Taxes (wages x 7.65 percent) | (9,182) | 1,416 | (7,765) |

(D) Retirement Costs. Henry District provides pension benefits and post-retirement health care benefits to its employees by participating in the County Employee Retirement System ("CERS"). As a participating member, Henry District is required to contribute a percentage of its employee wages to CERS. The table below summarizes the CERS contribution rates for each of the previous six fiscal years beginning July 1.

| Fiscal Year Beginning July 1, | Employer Contribution Rate |
|-------------------------------------|----------------------------------|
| 2011 | 16.93% |
| 2012 | 18.96% |
| 2013 | 19.55% |
| 2014 | 18.89% |
| 2015 | 17.67% |
| 2016 | 17.06% |

During the test year, Henry District contributed \$146,269 to CERS on behalf of its employees. Prior to the test year, Henry District was required to report annual pension costs and post-retirement health care costs pursuant to Governmental Accounting Standards Board (“GASB”) Statement No. 27 (“GASB 27”). GASB 27 required that Henry District report its CERS contributions as employee retirement expense. GASB 27 did not require that Henry District report a liability on its financial statements for a portion of either CERS’s Net Pension Liability (“NPL”) or CERS’s underfunded post-retirement health care costs.

The accounting and reporting requirements for the CERS pension benefit changed during the test year due to the passage and implementation of GASB 68. The accounting for post-retirement health care costs did not change. Beginning in the test year, GASB 68 requires that Henry District report for pensions:

- 1) A charge against Retained Earnings to account for the cumulative effect of switching from GASB 27 to GASB 68;
- 2) Henry District’s proportionate share of the CERS NPL;
- 3) Deferred Inflow of Resources and Deferred Outflow of Resources related to pensions; and
- 4) Annual pension expense that includes:
 - a. pension contributions to CERS during the reporting period that were made prior to the NPL’s measurement date;
 - b. the amortization of Henry District’s proportionate share of Deferred Outflow of Resources and Deferred Inflow of Resources related to pensions;

c. Henry District's proportionate share of the plan's actuarially determined annual pension expense; and

d. the increase or decrease that occurs during the reporting period to the amount of Henry District's proportionate share of the CERS NPL.

To implement GASB 68 during the test year, Henry District relied on the results of the CERS actuarial valuation for the fiscal year ended June 30, 2015. Using the 2015 valuation, Henry District reported the following account balances to account for GASB 68 and its impact on Henry District's test-year beginning balance of Retained Earnings.³

| | |
|-----------------------------|--------------|
| NPL | \$ 1,350,032 |
| Impact on Retained Earnings | (1,154,191) |
| Deferred Outflows | 236,342 |
| Deferred Inflows | 158,525 |
| Retirement Expense | 264,293 |

In Case No. 2016-00163,⁴ after considering the effects of GASB 68 on Marion County Water District's ("Marion District") test-year operations, the Commission found that, except for the NPL, the difference between the amounts reported for retirement costs pursuant to GASB 68 and those that would have been reported pursuant to GASB 27 should be accounted for as a regulatory asset as allowed by GASB 62. The Commission found that its method would mitigate the impact of GASB 68 on Marion District's Balance Sheet and that it would smooth the level of annual retirement expense reported by Marion District in future reporting periods because the annual expense

³ Note that Henry District's implementation of GASB 68 resulted in its reporting test-year retirement expense in the amount of \$264,293, or \$118,024 more than the amount of its actual test-year contributions to CERS.

⁴ *Alternative Rate Adjustment Filing of Marion County Water District* (Ky. PSC Nov. 10, 2016) at 12-16.

would always be equal to the amount of Marion District's contributions to CERS, which historically had been fairly constant.

Staff finds that the method of accounting for retirement costs applied by the Commission to Marion District will provide the same benefits to Henry District and should, therefore, be applied in this proceeding. Application of the Commission's method to Henry District's audited retirement costs requires the following journal entry.

| | Dr. | Cr. |
|--------------------|--------------|------------|
| Regulatory Asset | \$ 1,350,032 | |
| Deferred Inflows | 158,525 | |
| Retirement Expense | | \$ 118,024 |
| Retained Earnings | | 1,154,191 |
| Deferred Outflows | | 236,342 |

The above journal entry results in the Staff adjusted account balances shown below.

| | |
|-----------------------------|--------------|
| Regulatory Asset | \$ 1,350,032 |
| NPL | 1,350,032 |
| Impact on Retained Earnings | |
| Deferred Outflows | |
| Deferred Inflows | |
| Retirement Expense | 146,269 |

Accordingly, Staff decreased Henry District's test-year retirement expense by \$118,024 to restate the expense to \$146,269, the amount of Henry District's test-year contributions to CERS.

(E) Water Loss. In the Annual Report, Henry District reported test-year water loss at 21.5145 percent,⁵ or 6.5145 percent above the 15 percent allowed for

⁵ Annual Report at 61 of 71.

ratemaking purposes pursuant to 807 KAR 5:066, Section 6(3). Staff finds that the test-year percentage reported by Henry District is overstated.

The water loss calculation presented by Henry District in the Annual Report shows that Henry District produced 705,235,000 gallons of water at its water treatment plant. This is the amount of water registered leaving the plant from between January 1, 2015, to December 31, 2016, by the plant's electronic finished-water meter. From reviewing Henry District's records, Staff found that the finished-water meter had not been tested for many years until November 17, 2015, when The C.I. Thornburg Co., Inc. ("Thornburg") found that it was registering 1.062957 gallons of water for every 1 gallon of water that was actually passing through the meter. Thornburg recalibrated the meter on the day it was tested.

From January 1 to November 17 of the test year, the electronic meter registered 633,260,402 gallons of finished water exiting the plant. This amount was included by Henry District in its calculation of test-year water loss. Based on Thornburg's findings, Staff estimates that the actual amount of finished water passing through the meter during this time was 595,753,652 gallons (633,260,402 total gallons reported / 1.062957 gallons), or 37,506,750 gallons less than the amount registered by the meter.

Correcting the meter's readings reduces total test-year water production from 705,235,834 gallons to 667,729,084 gallons. Incorporating this correction into Henry District's test-year water loss calculation as shown in the Annual Report reduces the test-year water loss from 21.5145 percent to 17.1060 percent, which is 2.1060 percent above the amount allowed for ratemaking purposes as calculated below.

| | <u>(000's) Omitted</u> |
|--|------------------------|
| Water Produced | 667,729 |
| Less: Water Sold | (477,943) |
| Water Used by District and Fire Departments | <u>(75,564)</u> |
| Unaccounted for Water | <u>114,222</u> |
| Percent of Unaccounted for Water | 17.1060% |
| Less: Allowed for Ratemaking | <u>-15.0000%</u> |
| Excess | <u>2.1060%</u> |

As shown below, Staff removed the expenses incurred by Henry District during the test year to pump and treat the amount of water loss that exceeded the 15 percent allowed.

| | <u>Test Year</u> | <u>Times: Excess Water Loss Percentage</u> | <u>Decrease</u> |
|-----------------------------|------------------|--|-----------------|
| Purchased Power for Pumping | \$ 408,654 | 2.1060% | \$ (8,606) |
| Chemicals | 62,189 | 2.1060% | (1,310) |

The adjusted test-year water loss percentage calculated by Staff is very near the water loss percentage calculated by Henry District for the year 2016, which was 16.8 percent.

(F) Major Maintenance and Repair. During the test year, Henry District expended \$67,138 to clean and repair a well and a storage tank. Henry District reported this cost as a Materials and Supplies expense. Henry District estimates that these cleanings and repairs generally recur every seven years.

Because these cleanings and repairs do not recur annually, their entire cost should not be included in the calculation of Henry District's annual revenue requirement.

Instead, they should be amortized over the period of time that they are expected to recur, or seven years. Accordingly, Staff reduced the test-year expenses by \$57,547, allowing \$9,591 ($\$67,138 / 7$) in the calculation of Henry District's annual revenue requirement.

(G) Engineering Services. During the test year, Henry District recorded as an expense payments made to a contracted engineer totaling \$22,485 for the design of water main extension projects and for updating Henry District's hydraulic analysis for the effects of those projects. For accounting purposes, these fees are considered to be part of the cost to bring the water mains into service and should be capitalized and depreciated as part of the mains' original cost. Accordingly, Staff decreased test-year Contracted Services expense by \$22,485 and increased test-year depreciation expense by \$375 ($\$22,485, \text{ total fees} / 60\text{-year depreciable life}$) to account for depreciating the fees over a 60-year life. Staff use of the 60-year life to depreciate this main is discussed in greater detail in Ref. Item (I) below.

(H) Miscellaneous. In the Annual Report, Henry District incorrectly reported test-year Miscellaneous expenses in the amount of \$7,290 as a Nonutility Expense. Staff reclassified this amount to the appropriate operating expense account.

(I) Depreciation. Henry District reported test-year depreciation expense in the amount of \$826,871. It calculated the expense using the whole-life, straight-line method, pursuant to which an asset's depreciable basis is divided by its estimated useful life. The calculation of the expense is shown on Henry District's plant ledger that is part of the Application and is titled "Depreciation Expense." Each of Henry District's depreciable assets is listed separately on the ledger.

Staff decreased Henry District's test-year depreciation expense by \$151,648 to account for:

- 1) changes to the estimated useful lives assigned to some of the assets listed on the ledger that Staff classified to the following utility plant subsidiary accounts:
 - a. Distribution Reservoirs and Standpipes,
 - b. Transmission and Distribution Mains, and
 - c. Meters and Meter Installations;
- 2) reclassifying the original cost recorded for the asset labeled as "Regionalization p" on Henry District's plant ledger to the proper plant subsidiary accounts; and
- 3) the removal of test-year depreciation expense reported on assets that had become fully depreciated during the test year.

Staff's total decrease to test-year depreciation expense is summarized below.

| | |
|--|---------------------|
| Adjustment to Account for Changes to Depreciable Lives | \$ (88,020) |
| Adjustment to Account for Reclassifying "Regionalization p" | (45,338) |
| Adjustment to Remove Test-Year Depreciation Expense on Assets that had Become Fully Depreciated | <u>(18,289)</u> |
| Total Adjustment to Test-Year Depreciation Expense | <u>\$ (151,648)</u> |

Change to Depreciable Lives

Generally, the Commission requires that a "large" utility perform a depreciation study to determine the appropriate depreciable lives to be assigned to each of its utility plant account groups. Detailed property records specific to historical plant additions, plant retirements, and salvage practices are required to complete a depreciation study. Generally, "small" water utilities, such as Henry District, do not maintain property

records with enough detail to properly complete a formal study. Even when adequate records are maintained, “small” utilities do not have the financial resources to fund a formal study. Therefore, to evaluate the reasonableness of the depreciation practices of small water utilities, the Commission has historically relied upon the report published in 1979 by the National Association of Regulatory Utility Commissioners (“NARUC”) titled *Depreciation Practices for Small Water Utilities* (“NARUC Study”).⁶

The NARUC Study provides a range of average service lives that are assigned to water plant account groups by water utilities across the county that design, install, and maintain their systems in accordance with good engineering practices. It concludes that the ranges are intended to be used as a guide by state regulatory commissions and other water utilities when developing the depreciable lives to be assigned to water plant account groups. For example, the NARUC Study found that transmission and distribution mains are depreciated between 50 and 75 years. Lives outside the NARUC ranges are acceptable when conditions warrant alternative lives.

When evaluating a water district’s depreciable lives, the Commission considers an asset group’s construction materials, condition, and other factors to determine an appropriate depreciable life that falls either inside or outside of the NARUC ranges. The Commission has assigned lives at the short end and long end of the NARUC ranges when evidence is presented to support such lives. For example, in Case No. 2012-00309,⁷ the Commission found that Southern Water and Sewer District’s (“Southern”)

⁶ Case No. 2012-00278, *Application of Graves County Water District for an Adjustment in Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC Sept. 5, 2012).

⁷ *Application of Southern Water and Sewer District for an Adjustment in Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC July 12, 2013).

mains should be depreciated using a 50-year life, the shortest life within the NARUC range, because the majority of its main had decayed at a more rapid rate than originally anticipated. In Case No. 2012-00413, the Commission accepted Staff's finding that the depreciable life assigned to Pendleton County Water District's mains should be 75 years because they were thought to be free of noticeable decay and in excellent condition.⁸

When no evidence exists to support a specific life that is inside or outside the NARUC ranges, the Commission has used the mid-point of the NARUC ranges to depreciate utility plant. In Case No. 2013-00154, the Commission found that Henderson County Water District ("Henderson District") was depreciating the cost of some main using a 40-year life and others using a 50-year life. Even though the 50-year life is within the NARUC range, the Commission found that the depreciable life assigned to all of Henderson District's mains should be 62.5 years, the mid-point of the NARUC range, since no evidence was presented to support the 40-year or 50-year lives.⁹

The depreciable lives assigned to some of Henry District's plant account groups were addressed by Staff and the Commission in the Case No. 2009-00370.¹⁰ In a Stipulation between Henry District and Staff, Henry District agreed that it would depreciate all Transmission and Distribution Main and Meters and Meter Installations

⁸ Commission Staff Report on Pendleton County Water District (filed Oct. 29, 2012) at 10.

⁹ *Application of Henderson County Water District for an Alternative Rate Filing* (Ky. PSC Nov. 14, 2013) at Appendix B.

¹⁰ *Application of Henry County Water District No. 2 for Approval to Adjust Water Rates and Charges, Construct and Finance a Proposed Waterworks Project, and Implement a System Development Charge* (Ky. PSC Aug. 12, 2010).

that were constructed and placed into service subsequent to the Commission's ruling in Case No. 2009-00370 using a 60-year life and a 40-year life, respectively. The Stipulation was silent on the depreciable lives that Henry District would use to depreciate other plant assets. In its final Order, the Commission found that:

1) During the test year used in the proceeding, the calendar year ended December 31, 2008, Henry District depreciated Transmission and Distribution Mains "using a 25-year depreciable life or a 33-year depreciable life;"¹¹

2) Henry District's test-year depreciation of Transmission and District Mains should be recalculated "assuming" a 50-year depreciable life;¹²

3) During the test year Henry District depreciated Meters and Meter Installations using a ten-year depreciable life;¹³ and

4) Henry District's test-year depreciation of Meters and Meter Installations should be recalculated "assuming" a 40-year life.¹⁴

In its Order, the Commission did not require that Henry District use the 50-year life and 40-year life to depreciate Transmission and Distribution Mains and Meters and Meter Installations, respectively, in future reporting periods. Instead, it ordered that Henry District depreciate all assets in future periods using lives that fall within the NARUC ranges.¹⁵

¹¹ *Id.* at 4.

¹² *Id.* at 5.

¹³ *Id.* at 4.

¹⁴ *Id.* at 5.

¹⁵ *Id.* at 8.

Transmission and Distribution Mains. In this proceeding, Henry District is depreciating mains installed subsequent to the date of the Commission's final Order in Case No. 2009-00370 using the 60-year life included in the Stipulation, which is compliant with the Commission's Order; however, Henry District's depreciation of mains installed prior to the Commission's Order is not compliant. Henry District continues to depreciate these mains using lives that fall outside the NARUC range.

In this proceeding, Staff finds that Henry District's 60-year depreciation of Transmission and Distribution Mains installed subsequent to the Commission's Order in Case No. 2009-00370 is appropriate. Staff found no evidence in this proceeding that supports a life for these mains that deviates significantly from the midpoint of the NARUC range. The 60-year life is near 62.5 years, the midpoint of the 50-year to 75-year life range shown in the NARUC Study for mains.

Staff finds that the Transmission and Distribution Mains that were placed into service prior to the Commission's Order in Case No. 2009-00370 should be depreciated in future reporting periods using the same 50-year life that was assumed by the Commission in its Order in Case No. 2009-00370. While the Commission did not state in the Order the evidence upon which it relied to support the 50-year life, Staff finds that the 50-year life to accelerate depreciation on these is consistent with recognizing Henry District's small-diameter main replacement practices that had been documented in Case Nos. 2001-00393, 2006-00191, and 2009-00370.

In Case No. 2001-00393, the Commission authorized Henry District to assess an Offsetting Improvement Charge ("OIC") for a three-year period to fund the construction

of main upsizing projects.¹⁶ These projects were necessary to replace smaller-diameter main with larger-diameter main. While the smaller mains had not shown signs of material decay, they had become obsolete and required replacement due to increased demand on Henry District's distribution system caused by customer growth.

After expiration of the OIC, Henry District filed notice with the Commission requesting to continue the OIC. On May 22, 2006, the Commission opened Case No. 2006-00191 to investigate the reasonableness of the OIC. In that proceeding, the Commission denied the continuation of the OIC finding, in part, that Henry District's depreciation practices and its history of general rate adjustments were relevant to the determination of the reasonableness of the OIC.¹⁷

On November 16, 2009, Henry District filed the application in Case No. 2009-00370 requesting approval to construct a water improvement project; finance the project; increase general water service rates; and assess a System Development Charge ("SDC"), which was akin to the expired OIC. Henry District amended the application on February 11, 2010, removing the request to construct and finance the improvement project. On May 7, 2010, the Commission granted Henry District's motion to withdraw its request for the SDC. The only matter that remained before the Commission was Henry District's request to adjust general rates for water service. When calculating the rates authorized in its final Order, the Commission depreciated Transmission and Distribution Mains using a 50-year life. It is Staff's position that the

¹⁶ *The Tariff Filing of Henry County Water District No. 2 to Add Tariff Language for an Offsetting Improvement Charge* (Ky. PSC July 25, 2002).

¹⁷ *Examination of the Operation and Reasonableness of the Offsetting Improvement Charge of Henry County Water District No. 2*. (Ky. PSC Dec. 8, 2008).

Commission applied a 50-year life to accelerate depreciation to the fullest extent possible while remaining within the NARUC range to allow Henry District recovery of working capital through water service rates in an amount that was sufficient to replace the smaller-diameter main without assessing an OIC, an SDC, or any other special charge.

In this proceeding, Staff finds that the 50-year depreciation of Transmission and Distribution Main installed prior to the Commission's final Order in Case No. 2009-00370 should be continued to provide Henry District with sufficient replacement funds.

Meters and Meter Installations. In this proceeding, Henry District depreciated Meters and Meter Installations that had been installed subsequent to the year 2009 using a 40-year life in accordance with the Stipulation and the Commission Order filed in Case No. 2009-00370; however, it continued to depreciate Meters and Meter Installations that were installed in earlier years using either a ten-year life or a 20-year life.

In this proceeding, Staff found no evidence that supports a depreciable life for Meters and Meter Installations that greatly deviates from the midpoint of the NARUC range. Staff finds that Henry District should depreciate all Meters and Meter Installations using the 40-year life that was assumed by the Commission in Case No.

2009-00370. This life is near 42.5 years, the mid-point of the 35-year to 50-year life range shown in the NARUC study for these accounts.¹⁸

Distribution Reservoirs and Standpipes. Henry District currently depreciates Distribution Reservoirs and Standpipes using either a 25-year life or a 33-year life. In this proceeding, Staff found no evidence to support a life for this account group that significantly deviates from the NARUC midpoint. Staff finds that the depreciable lives assigned to Henry District's Distribution Reservoirs and Standpipes should be adjusted to 45 years, the midpoint of the NARUC range of 30 to 60 years.

If accepted by the Commission, Staff's proposed adjustments to the depreciable lives assigned to Henry District's Transmission and Distribution Main; Meters and Meter Installations; and Distribution Reservoirs and Standpipes would decrease Henry District's test-year depreciation expense by \$88,020. The calculation of this decrease is shown in Attachment B to this report.

Reclassification and Depreciation of "Regionalization p"

One of the assets listed on Henry District's plant ledger is labeled and described as "Regionalization p" with a stated original cost in the amount of \$3,001,568. Henry District depreciates this asset using a 25-year life, resulting in annual depreciation expense in the amount of \$120,063. As of the end of the test year, depreciation on "Regionalization p" had accumulated to \$1,490,779.¹⁹

¹⁸ Meters and Meter Installations are shown as two separate accounts in the NARUC Study. The Meter account is assigned a life range of 35–45 years, while the Meter Installations account is assigned a life range of 40–50 years. As allowed by Uniform System of Accounts prescribed by the Commission, Henry District combines the cost of meters and meter installations into one account for accounting and depreciation purposes. When applying the NARUC Study to the USoA Meter and Meter Installations account, Staff combined the life ranges assigned to the two accounts shown in the NARUC Study resulting in a life range of 35 to 50 years. The midpoint of this range is 42.5 years.

¹⁹ Application, "Depreciation Expense" at 2 of 14.

From reviewing contractor construction bid documents filed with the Commission by Henry District in Case No. 2002-00308,²⁰ Staff found that the plant assets constructed as part of “Regionalization p” included Transmission and Distribution Mains, Structures and Improvements, Wells and Springs, Meters and Meter Installations, and Communication Equipment. For depreciation purposes in this report, Staff allocated the original cost and accumulated depreciation reported on the plant ledger for “Regionalization p” to the appropriate plant subsidiary accounts based on the lowest contractor bid that was provided to the Commission. Staff’s allocation is shown below.

| Allocation of Recorded Cost to Plant Subsidiary Accounts | | | | |
|--|-------------------|-------------------------|------------------------------|---|
| NARUC Account Title | Contractor Bid | Percent of Total Bid | Allocate Recorded Cost | Allocate Accumulated Depreciation |
| Total | \$2,468,801 | 100% | \$3,001,568 | \$1,490,779 |
| Plant Subsidiary Account: | | | | |
| Structures and Improvements | 206,435 | 8.36% | 250,984 | 124,655 |
| Wells and Springs | 384,838 | 15.59% | 467,886 | 232,383 |
| Transmission and Distribution Mains | 1,735,441 | 70.29% | 2,109,949 | 1,047,941 |
| Meter Installations | 77,187 | 3.13% | 93,844 | 46,609 |
| Communication Equipment | 64,900 | 2.63% | 78,905 | 39,190 |
| | | | <u>\$3,001,568</u> | <u>\$1,490,779</u> |

Staff depreciated the costs allocated to Transmission and Distribution Mains and Meter Installations using the 50-year life and 40-year life, respectively, as discussed above. Staff depreciated the costs allocated to the other account groups using the midpoint of the NARUC ranges. Staff found no evidence in this proceeding to support

²⁰ *The Application of the Henry County Water District No. 2 for a Certificate of Public Convenience and Necessity to Construct an Improvements Project and to Issue Securities in the Approximate Principal Amount of \$900,000 for the Purpose of Financing Said Project Pursuant to the Provisions of KRS 278.020, 278.300 and 807 KAR 5:001.*

alternative lives. As calculated below, Staff depreciation of "Regionalization p" results in a \$45,338 reduction to the amount of test-year depreciation expense reported by Henry District for "Regionalization p."

| | Original Cost | Divide by: Depreciable Life | Pro Forma Depreciation Expense |
|-------------------------------------|------------------|-----------------------------------|--------------------------------------|
| Regionalization p | | | |
| Structures and Improvements | \$ 250,984 | 37.5 | \$ 6,693 |
| Wells and Springs | 467,886 | 30 | 15,596 |
| Transmission and Distribution Mains | 2,109,949 | 50 | 42,199 |
| Meters and Meter Installations | 93,844 | 40 | 2,346 |
| Communication Equipment | 78,905 | 10 | 7,891 |
| Pro forma Depreciation | | | 74,725 |
| Less: Test Year | | | (120,063) |
| Adjustment | | | <u>\$ (45,338)</u> |

Fully Depreciated Assets

Test-year depreciation expense reported on the assets listed below resulted in their full depreciation as of the end of the test year. As a result, depreciation expense will not accrue on these assets in future reporting periods. Accordingly, Staff removed their depreciation from Henry District's test-year expenses.

| Description Shown in Ledger | In Service Date | Test-Year Expense |
|--------------------------------|--------------------|--------------------------|
| Pump Base | 06/10/05 | \$ (500) |
| Pump s (2) | 05/05/05 | (562) |
| Trans & Dist main | 01/20/83 | (4,682) |
| Meter Installations | 07/01/05 | (2,526) |
| Handhelds | 12/15/08 | (593) |
| Computer Equipment | 07/01/10 | (1,426) |
| 2005 Ford Dump Truck | 06/01/05 | (1,609) |
| Case 560 Backhoe | 01/01/06 | (6,184) |
| 2006 4WD Silverado | 01/14/10 | <u>(208)</u> |
| Total Expense Removed | | <u><u>\$(18,289)</u></u> |

Overall Revenue Requirement and Required Revenue Increase

The Commission has historically applied a Debt Service Coverage (“DSC”) method to calculate the Overall Revenue Requirement of a water district or water association that has outstanding long-term debts. This method allows for recovery of:

- 1) cash-related pro forma operating expenses;
- 2) depreciation expense, a noncash item, to provide working capital;²¹
- 3) the average annual principal and interest payments on all long-term debts, and
- 4) working capital that is in addition to depreciation expense.

A comparison of Henry District’s and Staff’s calculation of Henry District’s Overall

²¹ The Kentucky Supreme Court has held that the Commission must permit a water district to recover its depreciation expense through its rates for service to provide internal funds to be used for renewing and replacing assets. See *Public Serv. Comm’n of Kentucky v. Dewitt Water Dist.*, 720 S.W.2d 725, 728 (Ky.1986). Although a water district’s lenders require that a small portion of the depreciation funds be deposited annually into a debt reserve/depreciation fund until the account’s balance accumulates to a required threshold, neither the Commission nor the Court requires that revenues collected for depreciation be accounted for separately from the water district’s general funds or that depreciation funds be used only for asset renewal and replacement. The Commission has recognized that the working capital provided through recovery of depreciation expense may be used for purposes other than renewal and replacement of assets. See, Case No. 2012-00309, *Application of Southern Water and Sewer District for an Adjustment in Rates Pursuant to the Alternative Rate Filing Procedure for Small Utilities* (Ky. PSC Dec. 21, 2012).

Revenue Requirement and Required Revenue Increase using the Commission's DSC method is shown below.

| | Henry District | Staff | Ref. |
|---------------------------------------|-------------------|--------------|------|
| Pro Forma Operating Expenses | \$ 3,224,931 | \$ 2,744,263 | (1) |
| Add: Average Annual Debt Payments | 848,806 | 921,755 | (2) |
| Additional Working Capital | (560,771) | 184,351 | (3) |
| Overall Revenue Requirement | 3,512,966 | 3,850,369 | |
| Less: Other Operating Revenue | | (106,685) | (1) |
| Nonoperating Revenue | 113,522 | | (1) |
| Interest Income | 8,077 | (8,077) | (1) |
| Revenue Required from Rates | 3,634,565 | 3,735,607 | |
| Less: Pro forma Present Rate Revenues | (3,482,889) | (3,298,755) | (1) |
| Revenue Increase | \$ 151,676 | \$ 436,852 | |
| Actual Percent Increase | 4.35% | 13.24% | (4) |

(1) Pro Forma Revenues and Pro Forma Expenses. The amount of the revenues and expenses shown above in Staff's calculation of Henry District's Required Revenue Increase are equal to the amount of the pro forma revenues and expenses shown on the pro forma operating statement compiled by Staff that was previously presented in this report. In its Application, Henry District provided a pro forma operating statement, but, without explanation, it did not use the pro forma revenues and expenses shown on that statement to calculate its Required Revenue Increase as shown in the Application.

(2) Average Annual Principal and Interest Payments. At test-year-end, Henry District had two outstanding bond series payable to the Kentucky Rural Water Finance Corporation ("KRWFC"); a loan payable to the Kentucky Infrastructure Authority ("KIA");

and a loan payable to Shelby Energy Cooperative, Inc. ("Shelby Energy"). The loan payable to Shelby Energy had a two-year term ending September 5, 2016, and is no longer outstanding. Portions of the KRWFC bonds and the KIA loan remain outstanding. Additionally, subsequent to the test year, Henry District executed another loan payable to KIA as approved by the Commission in Case No. 2016-00080.²² Semi-annual payments for this loan, which include principal, interest, and administrative fees, will begin on June 30, 2017.

In the Application, Henry District requested to include \$848,806 in its Overall Revenue Requirement to recover the three-year average of its debt payments. It did not show the calculation of the average payment in the Application; however, during Staff's review, Henry District explained that this average includes only the KRWFC bonds and the KIA loan that were outstanding at the end of the test year. It does not include loan payments made to Shelby RECC or payments that will be made on the KIA loan that was executed subsequent to the test year.

Staff finds that the average annual debt payment that should be included in the calculation of Henry District's Overall Revenue Requirement should be equal to the five-year average for the years 2017 through 2021, or \$921,755, of the payments to be made on the KRWFC bonds and both KIA loans. This five-year average, which is calculated below, allows Henry District recovery of the debt payments that will be made

²² Application of the Henry County Water District No. 2 for a Certificate of Public Convenience and Necessity to Construct a Water Improvement Project Pursuant to KRS 278.020 and 807 KAR 5:001 (Ky. PSC Mar. 30, 2016).

during the anticipated five-year life of the rates authorized by the Commission in this proceeding.²³

| Year | KRWFC | | KIA | | Total |
|------------------------|-----------|-----------|-----------|-----------|-------------------|
| | 2010 | 2013 | 2013 | 2016 | |
| 2017 | \$462,550 | \$250,692 | \$132,920 | \$142,484 | \$ 988,646 |
| 2018 | 462,875 | 161,321 | 132,583 | 142,240 | 899,019 |
| 2019 | 462,183 | 168,906 | 132,443 | 141,992 | 905,524 |
| 2020 | 465,659 | 166,261 | 132,199 | 141,740 | 905,859 |
| 2021 | 468,253 | 168,041 | 131,951 | 141,484 | 909,729 |
| Five-Year Total | | | | | 4,608,777 |
| Divide by: 5 Years | | | | | 5 |
| Average Annual Payment | | | | | <u>\$ 921,755</u> |

(3) Additional Working Capital. The DSC method, as historically applied by the Commission, includes an allowance for additional working capital that is equal to the minimum net revenues required by a district's lenders that are above its average annual debt payments. In this case, Henry District calculated its allowance for additional working capital to be a negative \$560,771. It did not provide the calculation of this amount in the Application. Staff calculated a positive allowance for additional working

²³ Generally, the anticipated life of a utility's service rates is based on the frequency of the utility's previous rate case filings, but no longer than five years, since rates tend to become obsolete due to changes that will likely occur to the utility's cost of service in a five-year period.

Henry District's previous general rate case filing was made in Case No. 2009-00370. Since the elapsed time between that case and this proceeding is approximately seven years, or two years longer than the five-year maximum, Staff anticipates that the life of the rates approved in this proceeding will be five years.

capital in the amount of \$184,351 following the Commission's traditional method as shown below.²⁴

| | |
|--|-------------------|
| Average Annual Principal and Interest Payments | \$ 921,755 |
| Times: DSC Ratio | <u>120%</u> |
| Total Net Revenues Required | 1,106,106 |
| Less: Average Annual Principal and Interest Payments | <u>(921,755)</u> |
| Additional Working Capital | <u>\$ 184,351</u> |

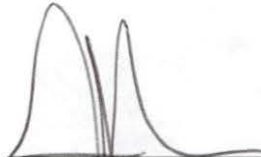
(4) Required Revenue Increase Percentage. In the Application, Henry District requested authority to increase all monthly water service rates evenly across the board by approximately 5.2 percent, which would generate approximately 5.2 percent in additional annual water sales revenue. The requested revenue increase is not

²⁴ The KRWFC bond resolutions require that Henry District assess rates for water service that produce net revenues that are equal to at least 120 percent of the average annual KRWFC bond principal and interest payments as well as all principal and interest payments on any debts that are on par with the KRWFC bonds. The DSC ratio measures an entity's ability to pay its cash-related operating expenses and to pay debt principal and interest. KRWFC calculates the ratio by dividing net revenues by the entity's average annual debt payments. Net revenues are equal to total revenues less cash-related expenses. Depreciation expense, a noncash operating expense, is excluded from the determination of net revenues. As shown below, the required DSC ratio is met with or without including the additional working capital in the calculation of Henry District's Overall Revenue Requirement.


| | With Additional Working Capital | Without Additional Working Capital |
|---|---------------------------------|------------------------------------|
| Overall Revenue Requirement | \$ 3,850,369 | \$ 3,666,018 |
| Less: Operation and Maintenance Expense | (2,003,658) | (2,003,658) |
| Taxes Other Than Income | <u>(65,007)</u> | <u>(65,007)</u> |
| Net Revenues | 1,781,704 | 1,597,353 |
| Divide by: Average Annual Debt Payments | <u>921,755</u> | <u>921,755</u> |
| DSC Ratio | <u>193%</u> | <u>173%</u> |

supported by the calculations presented by Henry District in the Application. The actual percentage increase supported by the calculations shown in the Application is 4.35 percent. By applying the Commission's DSC method, Staff determined that Henry District may increase revenues by 13.24 percent.

Signatures



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Water and Sewer Branch
Division of Financial Analysis



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Water and Sewer Branch
Division of Financial Analysis

ATTACHMENT A
STAFF REPORT, CASE NO. 2016-00377
HENRY DISTRICT COUNTY WATER ASSOCIATION

Staff Calculated Monthly Water Rates

| | | | |
|----------------|----------------|---------|-------------------|
| First | 1,500 gallons | \$21.25 | Minimum bill |
| Next | 3,500 gallons | 7.63 | per 1,000 gallons |
| Next | 5,000 gallons | 6.97 | per 1,000 gallons |
| Next | 10,000 gallons | 5.64 | per 1,000 gallons |
| Next | 30,000 gallons | 4.31 | per 1,000 gallons |
| Over | 50,000 gallons | 2.92 | per 1,000 gallons |
| Wholesale Rate | | 2.92 | per 1,000 gallons |

Attachment B

Meters and Meter Installations

| Description shown in Ledger | In Service Date | Original Cost | Depreciable Life | Pro forma Expense | Less: Test Year | Adjustment |
|---|-----------------|---------------|------------------|-------------------|-----------------|------------|
| Meters 3 - 1" | 07/01/06 | \$ 2,025 | 40 | 51 | \$ (203) | \$ (152) |
| Meters (2) 1" | 07/01/07 | 1,350 | 40 | 34 | (135) | (101) |
| Meters (1) 2" | 07/01/07 | 1,300 | 40 | 33 | (130) | (98) |
| Meters (62) 5/8" | 07/01/08 | 35,650 | 40 | 891 | (3,565) | (2,674) |
| Meters (1) 1" | 07/01/08 | 675 | 40 | 17 | (68) | (51) |
| Meters (1) Partial | 07/01/08 | 125 | 40 | 3 | (13) | (9) |
| Meters (18) Auto Read | 07/01/09 | 2,682 | 40 | 67 | (134) | (67) |
| Meters (50) 5/8" | 07/01/09 | 28,750 | 40 | 719 | (2,875) | (2,156) |
| Meters (2) 1" | 07/01/09 | 1,350 | 40 | 34 | (135) | (101) |
| Meters (96) 5/8" Install | 07/01/06 | 35,880 | 40 | 897 | (3,588) | (2,691) |
| Meters (81) 5/8" Install | 07/01/07 | 30,274 | 40 | 757 | (3,027) | (2,271) |
| Master Meter Vault | 12/15/15 | 29,808 | 40 | 745 | (745) | - |
| Box for Setter | 11/09/15 | 7,876 | 40 | 197 | (197) | - |
| Vaults for Setter | 12/07/15 | 28,320 | 40 | 708 | (708) | - |
| Total Adjustment for Meters and Meter Installations | | | | | | (10,370) |

Note: Staff's adjustment to a 40-year life has no effect on the depreciation reported during the test year for the last three assets listed above. Henry District calculated depreciation on these assets using a 20-year life, but reported only one-half of their annual depreciation expense during the test year, recognizing that they were not in service during the entire year. As a result, their test-year depreciation expense is equal to their pro forma depreciation expense for a full year, as calculated by Staff using the 40-year life. For example, test-year depreciation on the Master Meter Vault was reported as \$745 (\$29,808 original cost / 20 years x 1/2). The pro forma depreciation expense included by Staff using a 40-year life is also \$745 (\$29,808 original cost / 40 years).

Transmission and Distribution Mains

| Description shown in Ledger | In Service Date | Original Cost | Depreciable Life | Pro forma Expense | Less: Test Year | Adjustment |
|-----------------------------|-----------------|---------------|------------------|-------------------|-----------------|------------|
| Trans & dist main | 01/20/83 | 154,510 | 50 | 3,090 | (4,682) | (1,592) |
| 1986 Extensions | 07/04/86 | 41,851 | 50 | 837 | (1,268) | (431) |
| Schaug Line | 06/01/87 | 3,136 | 50 | 63 | (95) | (32) |
| Stalker Line | 10/01/87 | 13,484 | 50 | 270 | (409) | (139) |
| Flood Cropper lin | 11/01/87 | 12,653 | 50 | 253 | (383) | (130) |
| Banta Fork extens | 12/01/87 | 3,492 | 50 | 70 | (106) | (36) |
| Bethlehem/Franklin | 04/01/88 | 12,150 | 50 | 243 | (368) | (125) |
| Brown Lane | 04/01/88 | 3,400 | 50 | 68 | (103) | (35) |
| Hillsboro Rd. | 06/01/88 | 7,128 | 50 | 143 | (216) | (73) |
| Hill Sping Rd. | 07/01/88 | 2,100 | 50 | 42 | (64) | (22) |
| Fallen Timber Rd | 07/01/88 | 17,740 | 50 | 355 | (538) | (183) |
| Scobee Lane | 08/01/88 | 11,284 | 50 | 226 | (342) | (116) |
| Highway 421 | 10/01/88 | 15,208 | 50 | 304 | (461) | (157) |
| Providence Rd. | 10/01/88 | 19,800 | 50 | 396 | (600) | (204) |
| Carpenter Lane | 10/01/88 | 3,160 | 50 | 63 | (96) | (33) |
| Franklinton | 02/01/89 | 83,139 | 50 | 1,663 | (2,519) | (857) |

Transmission and Distribution Mains (Continued)

| Description shown in Ledger | In Service Date | Original Cost | Depreciable Life | Pro forma Expense | Less: Test Year | Adjustment |
|-----------------------------|-----------------|---------------|------------------|-------------------|-----------------|------------|
| Point Pleasant | 04/25/89 | 27,481 | 50 | 550 | (833) | (283) |
| Richmond Road | 05/25/89 | 6,017 | 50 | 120 | (182) | (62) |
| Camron Road | 06/05/89 | 13,296 | 50 | 266 | (403) | (137) |
| New Castle loop | 07/01/89 | 39,217 | 50 | 784 | (1,188) | (404) |
| Patton Creek | 07/10/89 | 10,515 | 50 | 210 | (319) | (108) |
| Maddox & 389 | 08/08/89 | 12,465 | 50 | 249 | (378) | (128) |
| Crabb farm sub. | 10/01/89 | 4,207 | 50 | 84 | (127) | (43) |
| Smith farm sub. | 10/05/89 | 13,531 | 50 | 271 | (410) | (139) |
| Hillsboro | 10/27/89 | 1,499 | 50 | 30 | (45) | (15) |
| Drennon | 12/20/89 | 30,941 | 50 | 619 | (938) | (319) |
| Marcus Burgan R | 02/09/90 | 2,855 | 50 | 57 | (87) | (29) |
| Blakemore | 04/13/90 | 2,172 | 50 | 43 | (66) | (22) |
| Orig. Hwy. 202 | 05/01/90 | 3,646 | 50 | 73 | (110) | (38) |
| Kidwell Pike | 06/09/90 | 6,194 | 50 | 124 | (188) | (64) |
| Hwy. 22 East | 08/01/90 | 35,944 | 50 | 719 | (1,089) | (370) |
| Pollitte Farm | 09/01/90 | 11,630 | 50 | 233 | (352) | (120) |
| Wilson Farm | 09/01/90 | 9,237 | 50 | 185 | (280) | (95) |
| Bunk Ellis Rd. | 09/06/90 | 12,179 | 50 | 244 | (369) | (125) |
| Fences around to | 10/01/90 | 9,587 | 50 | 192 | (291) | (99) |
| Union church | 10/15/90 | 11,593 | 50 | 232 | (351) | (119) |
| Hwy 421 ext. to 6 | 10/31/90 | 5,598 | 50 | 112 | (170) | (58) |
| Hillsboro Exit | 11/21/90 | 3,245 | 50 | 65 | (98) | (33) |
| Clifford Lane | 11/30/90 | 4,158 | 50 | 83 | (126) | (43) |
| Loudin Road | 04/04/91 | 22,397 | 50 | 448 | (679) | (231) |
| Lockport | 06/06/91 | 15,487 | 50 | 310 | (469) | (160) |
| Cavinall | 06/30/91 | 3,260 | 50 | 65 | (99) | (34) |
| Whiteagle | 07/16/91 | 2,577 | 50 | 52 | (78) | (27) |
| 22 + 389 | 07/16/91 | 24,380 | 50 | 488 | (739) | (251) |
| Carpenter Lane | 09/19/91 | 4,957 | 50 | 99 | (150) | (51) |
| Harrelt Road | 12/18/91 | 1,570 | 50 | 31 | (48) | (16) |
| Hunt 389 | 12/18/91 | 2,218 | 50 | 44 | (67) | (23) |
| Gest | 03/01/92 | 122,946 | 50 | 2,459 | (3,726) | (1,267) |
| Hwy 22 Walls | 05/20/92 | 7,466 | 50 | 149 | (226) | (77) |
| Pendleton/Mt. O | 07/20/92 | 7,993 | 50 | 160 | (242) | (82) |
| Deerfield | 08/18/92 | 1,003 | 50 | 20 | (30) | (10) |
| 202/389 | 09/04/92 | 16,770 | 50 | 335 | (508) | (173) |
| P. Pleasant-Robin | 10/22/92 | 898 | 50 | 18 | (27) | (9) |
| Banta Fork | 11/13/92 | 5,070 | 50 | 101 | (154) | (52) |
| Bohannon Lane | 12/03/92 | 1,803 | 50 | 36 | (55) | (19) |
| Wright-Mr. Olivet | 04/13/93 | 1,338 | 50 | 27 | (41) | (14) |
| Hwy 1606-Chilton | 04/22/93 | 1,224 | 50 | 24 | (37) | (13) |
| Carmon Road | 06/10/93 | 11,874 | 50 | 237 | (360) | (122) |
| Balts Lane Loop | 07/01/93 | 4,004 | 50 | 80 | (121) | (41) |
| Harpers Herry | 07/10/93 | 32,632 | 50 | 653 | (989) | (336) |
| T. nelson | 08/03/93 | 1,001 | 50 | 20 | (30) | (10) |
| Russell Road | 09/01/93 | 4,680 | 50 | 94 | (142) | (48) |
| Mill Creek | 09/15/93 | 2,746 | 50 | 55 | (83) | (28) |
| Long Branch | 10/26/93 | 18,477 | 50 | 370 | (560) | (190) |
| Hwy 421 -Parrish | 11/10/93 | 1,612 | 50 | 32 | (49) | (17) |

Transmission and Distribution Mains (Continued)

| Description shown in Ledger | In Service Date | Original Cost | Depreciable Life | Pro forma Expense | Less: Test Year | Adjustment |
|-----------------------------|-----------------|---------------|------------------|-------------------|-----------------|------------|
| Watkins/bush | 11/30/93 | 5,108 | 50 | 102 | (155) | (53) |
| Organ Creek | 12/01/93 | 2,806 | 50 | 56 | (85) | (29) |
| Magruder/Shipma | 12/17/93 | 2,877 | 50 | 58 | (87) | (30) |
| Martini Acres | 02/18/94 | 864 | 50 | 17 | (26) | (9) |
| Corley Road | 03/01/94 | 927 | 50 | 19 | (28) | (10) |
| Webb Lane | 03/10/94 | 816 | 50 | 16 | (25) | (8) |
| 421 to Six Mile | 04/15/94 | 3,000 | 50 | 60 | (91) | (31) |
| Deerfield/Fantu | 05/23/94 | 2,637 | 50 | 53 | (80) | (27) |
| Kidwell Pike | 06/27/94 | 7,275 | 50 | 145 | (220) | (75) |
| Hwy 1606-Gaines | 07/07/94 | 6,915 | 50 | 138 | (210) | (71) |
| Turners Sta.-Conn | 07/12/94 | 576 | 50 | 12 | (17) | (6) |
| Dawkins Lane | 08/01/94 | 1,467 | 50 | 29 | (44) | (15) |
| Pendleton Height | 08/05/94 | 296 | 50 | 6 | (9) | (3) |
| Organ Creek | 08/08/94 | 2,135 | 50 | 43 | (65) | (22) |
| Watkins/bush | 08/20/94 | 2,355 | 50 | 47 | (71) | (24) |
| Hwy 202 | 09/01/94 | 19,659 | 50 | 393 | (596) | (203) |
| Salt Creek | 09/12/94 | 3,756 | 50 | 75 | (114) | (39) |
| Hillsboro/Harp | 10/15/94 | 10,007 | 50 | 200 | (303) | (103) |
| Silvers | 10/18/94 | 4,006 | 50 | 80 | (121) | (41) |
| Saw Mill | 10/24/94 | 2,233 | 50 | 45 | (68) | (23) |
| Hwy 389 | 11/01/94 | 3,065 | 50 | 61 | (93) | (32) |
| Ditto Lane | 11/25/94 | 3,374 | 50 | 67 | (102) | (35) |
| Deerfield | 11/30/94 | 3,417 | 50 | 68 | (104) | (35) |
| Guthrie | 12/05/94 | 1,756 | 50 | 35 | (53) | (18) |
| Barton Lane | 08/28/95 | 921 | 50 | 18 | (28) | (9) |
| 1606 & Wolf Pen | 11/10/95 | 5,144 | 50 | 103 | (156) | (53) |
| New Castle loop | 05/01/98 | 1,790,804 | 50 | 35,816 | (54,267) | (18,451) |
| Davidson/Organ C | 11/30/98 | 52,505 | 50 | 1,050 | (1,591) | (541) |
| Hwy 22 Extension | 02/28/99 | 4,795 | 50 | 96 | (145) | (49) |
| Hwy 1606 Exten | 06/30/99 | 2,609 | 50 | 52 | (79) | (27) |
| I-71 Extension | 07/31/99 | 594,000 | 50 | 11,880 | (18,000) | (6,120) |
| Clements Bottom | 07/31/99 | 136,007 | 50 | 2,720 | (4,121) | (1,401) |
| Rowlett Gap Exte | 11/30/99 | 5,611 | 50 | 112 | (170) | (58) |
| Brown Lane (892' | 07/01/00 | 6,321 | 50 | 126 | (192) | (65) |
| Deerfield (1500' | 07/01/00 | 6,247 | 50 | 125 | (189) | (64) |
| Gullion Br. (2370' | 07/01/00 | 9,221 | 50 | 184 | (279) | (95) |
| Kavanaugh (1060' | 07/01/00 | 5,523 | 50 | 110 | (167) | (57) |
| Long Branch (81 | 07/01/00 | 9,278 | 50 | 186 | (281) | (96) |
| Morton Ridge (71 | 07/01/00 | 4,173 | 50 | 83 | (126) | (43) |
| Mt. Olivet (500' -3 | 07/01/00 | 4,454 | 50 | 89 | (135) | (46) |
| Raisor Lane (1140 | 07/01/00 | 8,725 | 50 | 174 | (264) | (90) |
| Russell Branch (| 07/01/00 | 5,235 | 50 | 105 | (159) | (54) |
| Stucker Lane (10 | 07/01/00 | 3,772 | 50 | 75 | (114) | (39) |
| Cropper School (| 07/01/00 | 129,671 | 50 | 2,593 | (3,929) | (1,336) |
| Brocius Lane (3 | 07/01/01 | 10,759 | 50 | 215 | (326) | (111) |
| Galbraith Rd (4" | 07/01/01 | 22,882 | 50 | 458 | (693) | (236) |
| Giltner Rd (4"-1100 | 07/01/01 | 2,547 | 50 | 51 | (77) | (26) |
| Hieatt Ln (6"-4180 | 07/01/01 | 24,551 | 50 | 491 | (744) | (253) |
| Marathon/Speed | 07/01/01 | 154,463 | 50 | 3,089 | (4,681) | (1,591) |

Transmission and Distribution Mains (Continued)

| Description shown in Ledger | In Service Date | Original Cost | Depreciable Life | Pro forma Expense | Less: Test Year | Adjustment |
|-----------------------------|-----------------|---------------|------------------|-------------------|-----------------|------------|
| Sweeney Lane P | 07/01/01 | 59,215 | 50 | 1,184 | (1,794) | (610) |
| Wooded Hills (4 | 07/01/01 | 23,585 | 50 | 472 | (715) | (243) |
| Carmon Creek - (| 07/01/02 | 13,567 | 50 | 271 | (411) | (140) |
| Happy Ridge Upg | 07/01/02 | 51,192 | 50 | 1,024 | (1,551) | (527) |
| Pendleton Height | 07/01/02 | 1,684 | 50 | 34 | (51) | (17) |
| Hieatt Lane II - (6" | 07/01/02 | 23,918 | 50 | 478 | (725) | (246) |
| Hwy 395 Elmburg | 07/01/02 | 8,331 | 50 | 167 | (252) | (86) |
| Joe's Branch Roa | 07/01/02 | 30,024 | 50 | 600 | (910) | (309) |
| Radcliff/Hickory C | 07/01/02 | 7,885 | 50 | 158 | (239) | (81) |
| Eminence Lin H | 11/22/02 | 170,980 | 50 | 3,420 | (5,181) | (1,762) |
| Eminence II | 01/01/03 | 24,294 | 50 | 486 | (736) | (250) |
| Elm Lane (Pendle | 01/01/03 | 1,413 | 50 | 28 | (43) | (15) |
| Sweeney II | 07/01/03 | 29,888 | 50 | 598 | (906) | (308) |
| Heron Creek | 07/01/03 | 2,619 | 50 | 52 | (79) | (27) |
| Organ Creek | 07/01/03 | 2,372 | 50 | 47 | (72) | (24) |
| Morton Ridge | 07/01/03 | 1,847 | 50 | 37 | (56) | (19) |
| Ballardsville Rd | 07/01/03 | 5,244 | 50 | 105 | (159) | (54) |
| Fox Creek Rd | 07/01/04 | 4,194 | 50 | 84 | (127) | (43) |
| Longbranch Ext. | 07/01/04 | 2,664 | 50 | 53 | (81) | (27) |
| Bush Ext. | 07/01/04 | 20,408 | 50 | 408 | (618) | (210) |
| Valley View Dr | 07/01/04 | 5,377 | 50 | 108 | (163) | (55) |
| New Cut Rd | 07/01/04 | 5,558 | 50 | 111 | (168) | (57) |
| Union church | 07/01/05 | 24,655 | 50 | 493 | (747) | (254) |
| Happy Ridge | 07/01/05 | 14,695 | 50 | 294 | (445) | (151) |
| Jackson Rd & Hwy 22 | 07/01/05 | 65,725 | 50 | 1,314 | (1,992) | (677) |
| Hawkins Lane | 07/01/05 | 1,752 | 50 | 35 | (53) | (18) |
| St Estes Lane | 07/01/05 | 8,876 | 50 | 178 | (269) | (91) |
| Hwy 55 Project | 07/01/05 | 214,383 | 50 | 4,288 | (6,496) | (2,209) |
| Union church | 07/01/05 | 22,273 | 50 | 445 | (675) | (229) |
| Pleasureville | 07/01/05 | 17,768 | 50 | 355 | (538) | (183) |
| Happy Ridge | 07/01/05 | 803 | 50 | 16 | (24) | (8) |
| Jackson Rd & Hwy 22 | 07/01/05 | 635 | 50 | 13 | (19) | (7) |
| Deerfield - Fox Run Rd | 07/01/06 | 3,692 | 50 | 74 | (112) | (38) |
| Deerfield - Arnold Ln | 07/01/06 | 2,263 | 50 | 45 | (69) | (23) |
| Lake Sherwood Norrell | 07/01/06 | 2,259 | 50 | 45 | (68) | (23) |
| Herron Creek Rd | 07/01/06 | 2,419 | 50 | 48 | (73) | (25) |
| System Betterment | 07/01/07 | 755,661 | 50 | 15,113 | (22,899) | (7,786) |
| Bullit Hill | 07/01/07 | 26,961 | 50 | 539 | (817) | (278) |
| Organ Creek | 07/01/07 | 56,345 | 50 | 1,127 | (1,707) | (581) |
| Henry Co. Business Pa | 07/01/07 | 4,944 | 50 | 99 | (150) | (51) |
| Chestnut Hill | 07/01/07 | 6,150 | 50 | 123 | (186) | (63) |
| Various Lines | 07/01/08 | 10,885 | 50 | 218 | (330) | (112) |
| Henry Co. Recreation | 07/01/08 | 5,845 | 50 | 117 | (177) | (60) |
| Scobie Lane | 07/01/08 | 8,671 | 50 | 173 | (263) | (89) |
| Carpenter Lane | 07/01/08 | 4,194 | 50 | 84 | (127) | (43) |
| Lower Pattons Creek R | 07/01/08 | 14,164 | 50 | 283 | (429) | (146) |
| McCarty Lane | 07/01/08 | 41,608 | 50 | 832 | (1,261) | (429) |
| Penny Winkle Extensio | 07/01/09 | 75,208 | 51 | 1,475 | (2,279) | (804) |
| Webb Lane Extension | 07/01/09 | 5,482 | 52 | 105 | (166) | (61) |

Transmission and Distribution Mains (Continued)

| Description shown in Ledger | In Service Date | Original Cost | Depreciable Life | Pro forma Expense | Less: Test Year | Adjustment |
|--|-----------------|---------------|------------------|-------------------|-----------------|------------|
| Hwy #389 Extension | 07/01/09 | 21,881 | 50 | 438 | (663) | (225) |
| Cedar Lake Extension | 07/01/09 | 15,471 | 50 | 309 | (469) | (159) |
| Upper Middle Creek | 07/01/09 | 62,235 | 50 | 1,245 | (1,886) | (641) |
| Total Adjustment for Transmission and Distribution Mains | | | | | | (62,720) |

Distribution Reservoirs and Standpipes

| Description shown in Ledger | In Service Date | Original Cost | Depreciable Life | Pro forma Expense | Less: Test Year | Adjustment |
|---|-----------------|---------------|------------------|-------------------|-----------------|-------------|
| Campbellsburg t | 05/01/98 | 442,744 | 45 | 9,839 | (17,710) | (7,871) |
| Pleasureville Tank | 07/01/09 | 873,555 | 45 | 19,412 | (26,471) | (7,059) |
| Total Adjustment for Distribution Reservoirs and Standpipes | | | | | | (14,930) |
| Total Adjustment for Change to Depreciable Lives | | | | | | \$ (88,020) |

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