STATE OF INDIANA

INDIANA UTILITY REGULATORY COMMISSION

VERIFIED PETITION OF THE BOARD OF DIRECTORS FOR UTILITIES OF THE DEPARTMENT OF PUBLIC UTILITIES OF THE CITY OF INDIANAPOLIS ("BOARD") IN ITS CAPACITY AS OWNER OF THE GAS UTILITY D/B/A/ CITIZENS GAS; THE BOARD IN ITS CAPACITY AS OWNER OF THE WATER UTILITY D/B/A/ CITIZENS WATER; THE BOARD IN ITS CAPACITY AS OWNER OF THE STEAM UTILITY D/B/A/ CITIZENS THERMAL; WESTFIELD GAS, LLC D/B/A CITIZENS GAS OF WESTFIELD; CITIZENS WASTEWATER OF WESTFIELD, LLC; CITIZENS WATER OF WESTFIELD, LLC; AND CWA AUTHORITY, INC., FOR PRESENTATION AND APPROVAL OF NEW DEPRECIATION ACCRUAL RATES	)	**CAUSE NO. 45039**

OUCC PREFILED TESTIMONY

OF

DAVID J. GARRETT - PUBLIC'S EXHIBIT NO. 1

ON BEHALF OF THE

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

June 22, 2018

Respectfully Submitted,

INDIANA OFFICE OF UTILITY CONSUMER COUNSELOR

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CERTIFICATE OF SERVICE

This is to certify that a copy of the foregoing ***Office of Utility Consumer Counselor's Prefiled Testimony of David J. Garrett*** has been served upon the following counsel of record in the captioned proceeding by electronic service on June 22, 2018.

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I. INTRODUCTION

Q. State your name and occupation.

A. My name is David J. Garrett. I am a consultant specializing in public utility regulation. I am the managing member of Resolve Utility Consulting, PLLC. I focus my practice on the primary capital recovery mechanisms for public utility companies: cost of capital and depreciation.

Q. Summarize your educational background and professional experience.

A. I received a B.B.A. degree with a major in Finance, an M.B.A. degree, and a Juris Doctor degree from the University of Oklahoma. I worked in private legal practice for several years before accepting a position as assistant general counsel at the Oklahoma Corporation Commission in 2011, where I worked in the Office of General Counsel in regulatory proceedings. In 2012, I began working for the Public Utility Division as a regulatory analyst providing testimony in regulatory proceedings. In 2016 I formed Resolve Utility Consulting, PLLC, where I have represented various consumer groups and state agencies in utility regulatory proceedings, primarily in the areas of cost of capital and depreciation. I am a Certified Depreciation Professional with the Society of Depreciation Professionals. I am also a Certified Rate of Return Analyst with the Society of Utility and Regulatory Financial Analysts. A more complete description of my qualifications and regulatory experience is included in my curriculum vitae.[1]

[1] Attachment DJG-1.

Q. Describe the purpose and scope of your testimony in this proceeding.

A. I am testifying on behalf of the Indiana Office of Utility Consumer Counselor ("OUCC") regarding the depreciation study and proposed depreciation expense of the following joint petitioners, which are owned and/or operated by Citizens Energy Group ("CEG"): Citizens Gas, Citizens Water, Citizens Thermal Steam, CWA Authority, Inc. ("CWA"), Westfield Gas, LLC ("Westfield Gas"), Citizens Water of Westfield, LLC ("Westfield Water"), Citizens Wastewater of Westfield, LLC ("Westfield Wastewater") (collectively "CEG" or the "Companies"). I am responding to the direct testimonies of CEG witnesses Sabine E. Karner and John J. Spanos. Primarily, I address the depreciation rates proposed in the depreciation study sponsored by Mr. Spanos.

II. EXECUTIVE SUMMARY

Q. Summarize the key points of your testimony.

A. In the context of utility ratemaking, "depreciation" refers to a cost allocation system designed to measure the rate by which a utility may recover its capital investments in a systematic and rational manner. I employed a well-established depreciation system and used actuarial analysis to statistically analyze the Company's depreciable assets to develop reasonable depreciation rates in this case. The table below compares the proposed depreciation rates and expenses by utility.[2]

[2] *See* Attachment DJG-2.

Figure 1:
Depreciation Expense Comparison by Utility

Utility	Company Proposal		OUCC Proposal		OUCC Adjustment	
	Rate	Expense	Rate	Expense	Rate	Expense
Shared Services	8.40%	$ 7,781,015	5.27%	$ 4,879,277	-3.13%	$(2,901,738)
Citizens Gas	1.97%	14,064,970	1.95%	13,913,285	-0.02%	(151,685)
Citizens Thermal Steam	3.92%	3,567,796	3.87%	3,521,049	-0.05%	(46,748)
Citizens Water	1.18%	19,281,124	1.16%	18,858,049	-0.03%	(423,075)
CWA Authority	1.73%	46,959,086	1.61%	43,530,220	-0.13%	(3,428,867)
Westfield Gas	2.18%	248,048	2.18%	247,980	0.00%	(68)
Westfield Water	1.84%	1,382,757	1.65%	1,233,605	-0.20%	(149,151)
Westfield Wastewater	2.44%	2,630,974	2.20%	2,378,839	-0.23%	(252,135)
Total Plant Studied	1.77%	$95,915,770	1.63%	$88,562,303	-0.14%	**$(7,353,466)**

The original cost and accrual amounts shown in this table correspond to plant balances at September 30, 2017. Mr. Spanos' depreciation study was conducted based on the plant data and balances as of December 31, 2016.[3] In conducting my depreciation analysis, I incorporated the same plant data used by Mr. Spanos as of the study date. I applied my proposed depreciation rates to plant balances as of December 31, 2016 to show a direct comparison between the accrual amounts proposed by Mr. Spanos and myself.[4] I also applied my proposed rates to plant balances as of September 30, 2017 to show the impact to CEG's proposed depreciation expense.[5] Adoption of OUCC's proposed depreciation rates would result in a decrease of $8.8 million to CEG's proposed depreciation expense.

[3] *See* Direct Testimony of John J. Spanos p. 3, lines 4-7.

[4] *See* Attachment DJG-4.

[5] *See* Attachment DJG-3.

Q. Summarize the primary factors driving OUCC's adjustment.

A. CEG's depreciation study proposed depreciation rates for 170 accounts in seven utilities and CEG's Shared Services. I analyzed each of these accounts to determine the reasonableness of the average service lives and net salvage rates, which impact the overall depreciation rate for each account. I proposed adjustments to 22 accounts, generally recommending a longer average remaining life, which results in a lower proposed depreciation rate and expense for each account. These accounts will be discussed in more detail below.

Q. Describe why it is important not to overestimate depreciation rates.

A. Under the rate base rate of return model, the utility is allowed to recover the original cost of its prudent investments required to provide service. Depreciation systems are designed to allocate those costs in a systematic and rational manner – specifically, over the service lives of the utility's assets. If depreciation rates are overestimated (i.e., service lives are underestimated), it may unintentionally incent economic inefficiency. When an asset is fully depreciated and no longer in rate base, a utility may be incented to retire and replace the asset to increase rate base, even though the retired asset may not have reached the end of its economic useful life. If, on the other hand, an asset must be retired before it is fully depreciated, there are regulatory mechanisms that can ensure the utility fully recovers its prudent investment in the retired asset. Thus, in my opinion it is preferable for regulators to ensure that assets are not depreciated before the end of their economic useful lives.

III. LEGAL STANDARDS

Q. Discuss the standard by which regulated utilities are allowed to recover depreciation expense.

A. In *Lindheimer v. Illinois Bell Telephone Co.*, the U.S. Supreme Court stated that "depreciation is the loss, not restored by current maintenance, which is due to all the factors causing the ultimate retirement of the property. These factors embrace wear and tear, decay, inadequacy, and obsolescence."[6] The *Lindheimer* Court also recognized that the original cost of plant assets, rather than present value or some other measure, is the proper basis for calculating depreciation expense.[7] Moreover, the *Lindheimer* Court found:

> [T]he company has the burden of making a convincing showing that the amounts it has charged to operating expenses for depreciation have not been excessive. That burden is not sustained by proof that its general accounting system has been correct. The calculations are mathematical, but the predictions underlying them are essentially matters of opinion.[8]

Thus, the Commission must ultimately determine if CEG has met its burden of proof by making a convincing showing that its proposed depreciation rates are not excessive.

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[6] *Lindheimer v. Illinois Bell Tel. Co.*, 292 U.S. 151, 167 (1934).

[7] *Id*. (Referring to the straight-line method, the *Lindheimer* Court stated that "[a]ccording to the principle of this accounting practice, the loss is computed upon the actual cost of the property as entered upon the books, less the expected salvage, and the amount charged each year is one year's pro rata share of the total amount."). The original cost standard was reaffirmed by the Court in *Federal Power Commission v. Hope Natural Gas Co.*, 320 U.S. 591, 606 (1944). The *Hope* Court stated: "Moreover, this Court recognized in [*Lindheimer*], supra, the propriety of basing annual depreciation on cost. By such a procedure the utility is made whole and the integrity of its investment maintained. No more is required."

[8] *Id*. at 169.

Q. Should depreciation represent an allocated cost of capital to operation, rather than a mechanism to determine loss of value?

A. Yes. While the *Lindheimer* case and other early literature recognized depreciation as a necessary expense, the language indicated that depreciation was primarily a mechanism to determine loss of value.[9] Adoption of this "value concept" requires annual appraisals of extensive utility plant and is thus not practical in this context. Rather, the "cost allocation concept" recognizes that depreciation is a cost of providing service, and that in addition to receiving a "return on" invested capital through the allowed rate of return, a utility should also receive a "return of" its invested capital in the form of recovered depreciation expense. The cost allocation concept also satisfies several fundamental accounting principles, including verifiability, neutrality, and the matching principle.[10] The definition of "depreciation accounting" published by the American Institute of Certified Public Accountants ("AICPA") properly reflects the cost allocation concept:

> Depreciation accounting is a system of accounting that aims to distribute cost or other basic value of tangible capital assets, less salvage (if any), over the estimated useful life of the unit (which may be a group of assets) in a systematic and rational manner. It is a process of allocation, not of valuation.[11]

Thus, the concept of depreciation as "the allocation of cost has proven to be the most useful and most widely used concept."[12]

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[9] *See* Frank K. Wolf & W. Chester Fitch, *Depreciation Systems* 71 (Iowa State University Press 1994).

[10] National Association of Regulatory Utility Commissioners, *Public Utility Depreciation Practices* 12 (NARUC 1996).

[11] American Institute of Accountants, *Accounting Terminology Bulletins Number 1: Review and Résumé* 25 (American Institute of Accountants 1953).

[12] Wolf *supra* n. 9, at 73.

IV. ANALYTIC METHODS

Q. Discuss your approach to analyzing the Company's depreciable property in this case.

A. I obtained and reviewed all the data that was used to conduct the Company's depreciation study. The depreciation rates proposed by Mr. Spanos were developed based on depreciable property recorded as of December 31, 2015 for distribution plant and December 31, 2014 for general plant. I used the same plant balances to develop my proposed depreciation rates and applied those rates to the Company's updated plant balances to arrive at the OUCC's final adjustment to the Company's proposed depreciation rates.[13]

Q. Discuss the definition and purpose of a depreciation system, as well as the depreciation system you employed for this project.

A. The legal standards set forth above do not mandate a specific procedure for conducting depreciation analysis. These standards, however, direct that analysts use a system for estimating depreciation rates that will result in the "systematic and rational" allocation of capital recovery for the utility. Over the years, analysts have developed "depreciation systems" designed to analyze grouped property in accordance with this standard. A depreciation system may be defined by several primary parameters: 1) a method of allocation; 2) a procedure for applying the method of allocation; 3) a technique of applying the depreciation rate; and 4) a model for analyzing the characteristics of vintage property groups.[14] In this case, I used the straight line method, the equal life grouping procedure,

[13] *See* Attachment DJG-3 for a detailed comparison between rates and accrual amounts as of the study date.

[14] *See* Wolf *supra* n. 9, at 70, 140.

the remaining life technique, and the broad group model to analyze the Company's actuarial data; this system would be denoted as an "SL-EL-RL-BG" system. I provide a more detailed discussion of depreciation system parameters, theories, and equations in Appendix A.

Q. Do you normally use this depreciation system to conduct a depreciation analysis?

A. No. Many depreciation analysts, including Mr. Spanos and myself, normally use the straight-line allocation method, the average life procedure, the remaining life technique, and the broad group model (or an "SL-**AL**-RL-BG" system). In other words, three out of the four parameters are the same, but the second grouping parameter normally used is called the average life procedure, instead of the equal life procedure.

Q. Why do analysts typically use the average life grouping procedure instead of the equal life grouping procedure?

A. Most depreciation analysts use the average life procedure, in my opinion, because it is the procedure adopted in the majority of regulatory jurisdictions. In addition, it is easier to apply and understand. Finally, many jurisdictions likely rely on the average life procedure because it applies the same average life to all age intervals, whereas the equal life group results in annual accruals that are higher during the early years and lower in later years. I will discuss these distinctions in further detail later in my testimony.

Q. Why did you select the equal life procedure to conduct your analysis in this case?

A. It is my understanding that the Commission has consistently adopted depreciation rates based on the equal life procedure. According to authoritative depreciation texts, it is reasonable to use the equal life procedure to develop depreciation rates, and I do not

disagree. However, as discussed further below, use of the equal life procedure can have unintended consequences if not addressed. I also used the equal life procedure, in part, because it was used by Mr. Spanos to conduct his depreciation study. By using the same depreciation system, the Commission can focus on our differing opinions regarding service lives without also having to consider the impacts on our proposed rates resulting from different depreciation systems.

V. SERVICE LIFE ANALYSIS

Q. Describe the methodology used to estimate the service lives of grouped depreciable assets.

A. The study of retirement patterns of industrial property is derived from the same actuarial process used to study human mortality. Just as actuarial analysts study historical human mortality data to predict how long a group of people will live, depreciation analysts study historical plant data to estimate the average lives of property groups. The most common actuarial method used by depreciation analysts is called the "retirement rate method." In the retirement rate method, original property data, including additions, retirements, transfers, and other transactions, are organized by vintage and transaction year.[15] The retirement rate method is ultimately used to develop an "observed life table," ("OLT") which shows the percentage of property surviving at each age interval. This pattern of property retirement is described as a "survivor curve." The survivor curve derived from

[15] The "vintage" year refers to the year that a group of property was placed in service (a.k.a. "placement" year). The "transaction" year refers to the accounting year in which a property transaction occurred, such as an addition, retirement, or transfer (a.k.a. "experience" year).

the observed life table, however, must be fitted and smoothed with a complete curve in order to determine the ultimate average life of the group.[16] The most widely used survivor curves for this curve fitting process were developed at Iowa State University in the early 1900s and are commonly known as the "Iowa curves."[17] A more detailed explanation of how the Iowa curves are used in the actuarial analysis of depreciable property is set forth in Appendix C.

Q. Describe how you statistically analyzed CEG's historical retirement data in order to determine the most reasonable Iowa curve to apply to each account.

A. I used the aged property data provided by the Company to create an observed life table ("OLT") for each account. The data points on the OLT can be plotted to form a curve (the "OLT curve"). The OLT curve is not a theoretical curve; rather, it is actual observed data from the Company's records that indicate the rate of retirement for each property group. An OLT curve by itself, however, is rarely a smooth curve, and is often not a "complete" curve (i.e., it does not end at zero percent surviving). In order to calculate average life (the area under a curve), a complete survivor curve is required. The Iowa curves are empirically-derived curves based on the extensive studies of the actual mortality patterns of many different types of industrial property. The curve-fitting process involves selecting the best Iowa curve to fit the OLT curve. This can be accomplished through a combination of visual and mathematical curve-fitting techniques, as well as professional judgment. The

[16] *See* Appendix C for a more detailed discussion of the actuarial analysis used to determine the average lives of grouped industrial property.

[17] *See* Appendix B for a more detailed discussion of the Iowa curves.

first step of my approach to curve-fitting involves visually inspecting the OLT curve for any irregularities. For example, if the "tail" end of the curve is erratic and shows a sharp decline over a short period of time, it may indicate that this portion of the data is less reliable, as further discussed below. After inspecting the OLT curve, I use a mathematical curve-fitting technique which essentially involves measuring the distance between the OLT curve and the selected Iowa curve to get an objective, mathematical assessment of how well the curve fits. After selecting an Iowa curve, I observe the OLT curve along with the Iowa curve on the same graph to determine how well the curve fits. As part of my analysis, I may repeat this process several times for any given account to ensure that the most reasonable Iowa curve is selected.

Q. Do you always select the mathematically best-fitting curve?

A. Not necessarily. Mathematical fitting is an important part of the curve-fitting process because it promotes objective, unbiased results. While mathematical curve fitting is important, however, it may not always yield the optimum result. For example, if there is insufficient historical data in a particular account and the OLT curve derived from that data is relatively short and flat, the mathematically "best" curve may be one with a very long average life. However, when there is sufficient data available, mathematical curve fitting can be used as part of an objective service life analysis.

Q. Should every portion of the OLT curve be given equal weight?

A. Not necessarily. Many analysts have observed that the points comprising the "tail end" of the OLT curve may often have less analytical value than other portions of the curve. In fact, "[p]oints at the end of the curve are often based on fewer exposures and may be given

less weight than points based on larger samples. The weight placed on those points will depend on the size of the exposures."[18] In accordance with this standard, an analyst may decide to truncate the tail end of the OLT curve at a certain percent of initial exposures, such as one percent. Using this approach puts greater emphasis on the most valuable portions of the curve. For my analysis in this case, I not only considered the entirety of the OLT curve, but also conducted further analyses that involved fitting Iowa curves to the most significant part of the OLT curve for certain accounts. In other words, to verify the accuracy of my curve selection, I narrowed the focus of my additional calculation to consider the top 99% of the "exposures" (i.e., dollars exposed to retirement) and to eliminate the tail end of the curve representing the bottom 1% of exposures for some accounts, if necessary. I will illustrate an example of this approach in the discussion below.

Q. Generally, describe the differences between the Company's service life proposals and your service life proposals.

A. For each of the accounts to which I propose adjustments, the Company's proposed average service life, as estimated through an Iowa curve, is too short to accurately describe the mortality characteristics of the account in my opinion. Generally, for the accounts in which I propose a longer service life, that proposal is based on the objective approach of choosing an Iowa curve that provides a better mathematical fit to the observed historical retirement pattern derived from the Company's plant data.

[18] Wolf *supra* n. 9, at 46.

Q. In support of its service life estimates, did CEG present substantial evidence in addition to the historical plant data for each account?

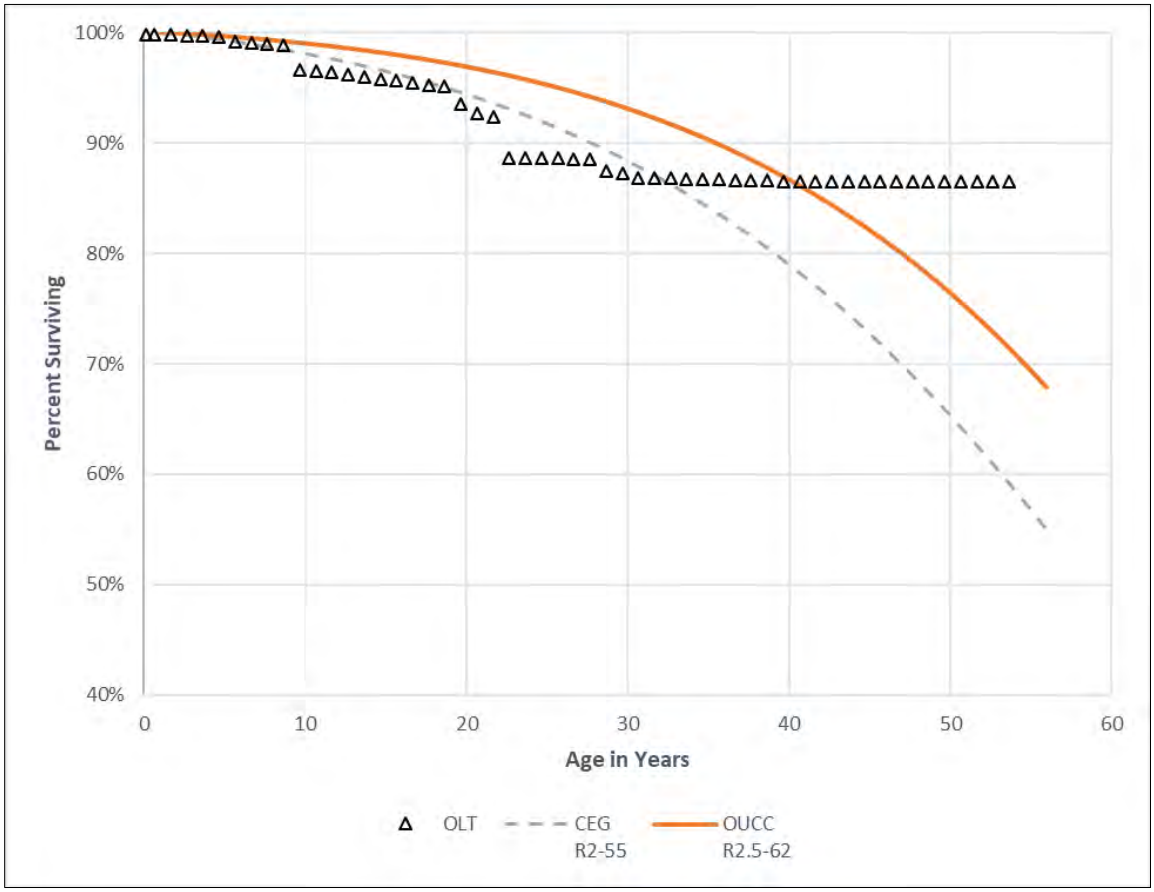
A. No. It appears that CEG is relying primarily on its historical retirement data in order to make predictions about the remaining average life for the assets in each account. Therefore, I think the Commission should focus primarily on this historical data and objective Iowa curve fitting when assessing fair and reasonable depreciation rates for CEG. The service lives I propose in this case are based on Iowa curves that provide better mathematical fits to CEG's historical retirement data, and in my opinion, result in more reasonable service life estimates and depreciation rates for the accounts to which I propose adjustments.

A. Citizens Gas Account 352 – Wells

Q. Describe your service life estimate for this account and compare it with the Company's estimate.

A. The observed survivor curve derived from the Company's data for this account is relatively smooth and well-suited for Iowa curve fitting up to the 30-year age interval, and then becomes relatively flat. This OLT curve provides a good example of the value of mathematical curve fitting. The graph below shows the OLT curve (black triangles) for this account. It also shows CEG's selected Iowa curve (R2-55) and the Iowa curve I selected (R2.5-62).

Figure 2:
Citizens Gas Account 352 – Wells



As shown in the graph, CEG's R2-55 curve tracks fairly well with the OLT curve from age zero until around age 30. Sometimes, when an OLT curve displays a pattern like the one shown above, the "flat" portion of the curve toward the end represents data that is less meaningful from a statistical standpoint. However, the statistical significance of this portion of the curve cannot be sufficiently analyzed from a mere visual inspection. If we inspect the data comprising this particular OLT curve, we see that the amount of beginning

dollars exposed to retirement is $14 million.[19] As a general rule, data points corresponding to exposures that are less than 1% of the amount of beginning exposures should be given less statistical weight or completely disregarded in the Iowa curve fitting process. For this particular account however, even the last data point occurring at age interval 53.5 is associated with $1.7 million of exposures, or more than 12% of the beginning exposure amount. In other words, all of the data points on this OLT curve are statistically significant. However, it appears that CEG's selected Iowa curve ignores all of the data points beyond age interval 30, as illustrated in the graph above. In contrast, the R2.5-62 curve I selected recognizes the data points between age interval 30 to the end of the OLT curve.

Q. Does your selected Iowa curve provide a better mathematical fit to the relevant portion of the OLT curve?

A. Yes. While visual curve fitting techniques (though not exclusively) can help an analyst identify the most statistically relevant portions of the OLT curve for this account, mathematical curve fitting techniques can help us determine which of the two Iowa curves provides the better fit. Mathematical curve fitting essentially involves measuring the "distance" between the OLT curve and the selected Iowa curve. The best mathematically-fitted curve is the one that minimizes the distance between the OLT curve and the Iowa curve, thus providing the closest fit. The distance between the curves is calculated using the "sum-of-squared differences" ("SSD") technique. In this account, the total SSD, or distance between the Company's curve and the OLT curve is 0.6096, while the total SSD

[19] *See* Attachment DJG-6.

between the R2.5-62 curve and the OLT curve is only 0.1823.[20] Thus, the R2.5-65 curve is a better mathematical fit and provides a more reasonable service life estimate and depreciation rate for this account. Applying the R2.5-65 curve to this account results in a remaining life of 22.77 years and a depreciation accrual rate of 0.59%.[21]

B. Citizens Gas Account 356 – Purification Equipment

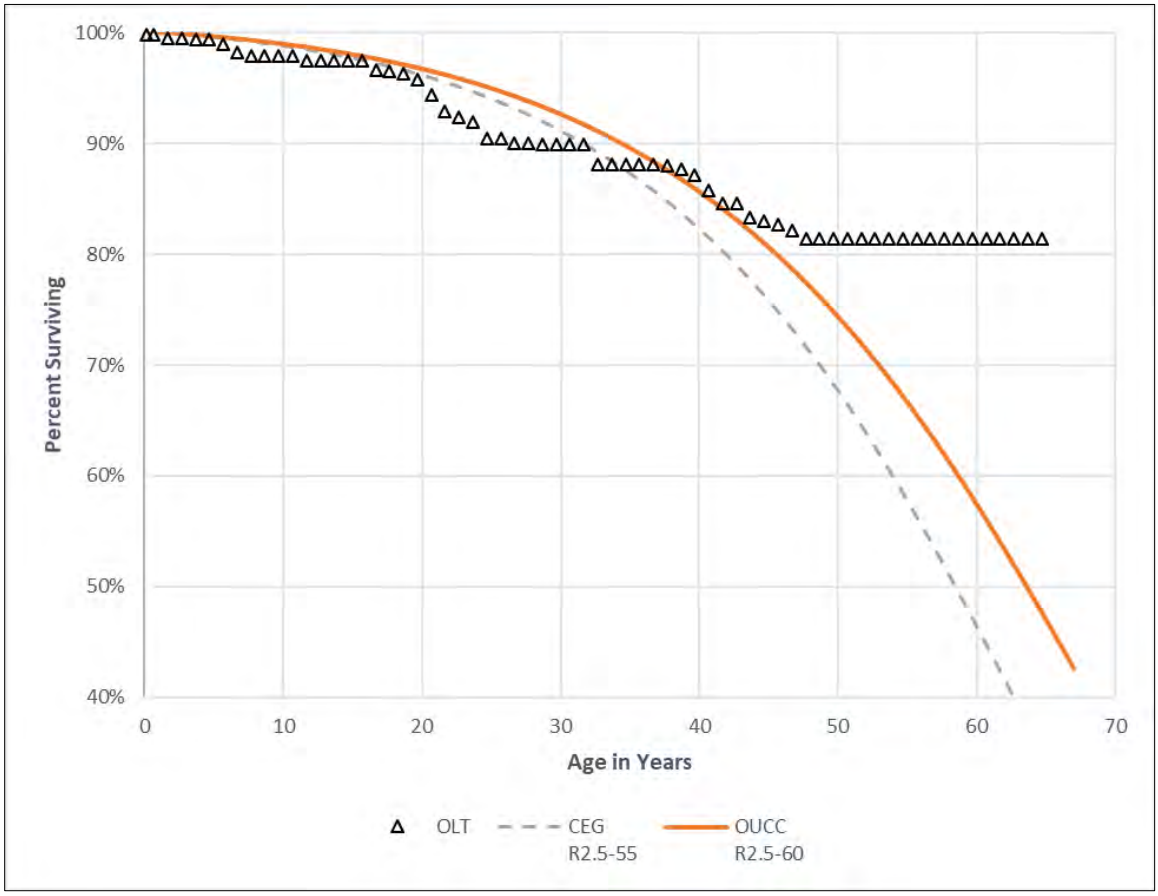
Q. Describe your service life estimate for this account and compare it with the Company's estimate.

A. The observed survivor curve derived from the Company's data for this account is fairly well-suited for conventional curve fitting techniques. For this account, the Company selected the R2.5-55 curve and I selected the R2.5-60 curve. The curves are illustrated in the graph below.

[20] Attachment DJG-6.

[21] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

Figure 3:
Citizens Gas Account 356 – Purification Equipment



The OLT curve for this account provides a good comparison to the account discussed above. As with the previous account, the end of this curve, from age interval 50-65, is relatively flat. However, unlike the previous account, the data points in the flat portion of this OLT curve are statistically insignificant because they correspond to dollar exposures that are less than 1% of the beginning dollars exposed to retirement in this account. Therefore, both selected Iowa curves correctly ignore the tail-end of this OLT curve. However, CEG's selected curve begins to decline too sharply around the 35th age interval and seems to ignore relevant data between age intervals 35-45.

Q. Does your selected Iowa curve provide a better mathematical fit to the relevant portion of the OLT curve?

A. Yes. In this account, the total SSD, or "distance" between the Company's curve and the OLT curve is 1.9347, while the total SSD between the better-fitting R2.5-60 curve and the OLT curve is only 0.9161. Thus, the R2.5-60 curve is a better mathematical fit and arguably results in a more reasonable service life and depreciation rate estimate for this account. This curve results in a remaining life of 33.40 years and a depreciation rate of 1.55%.[22]

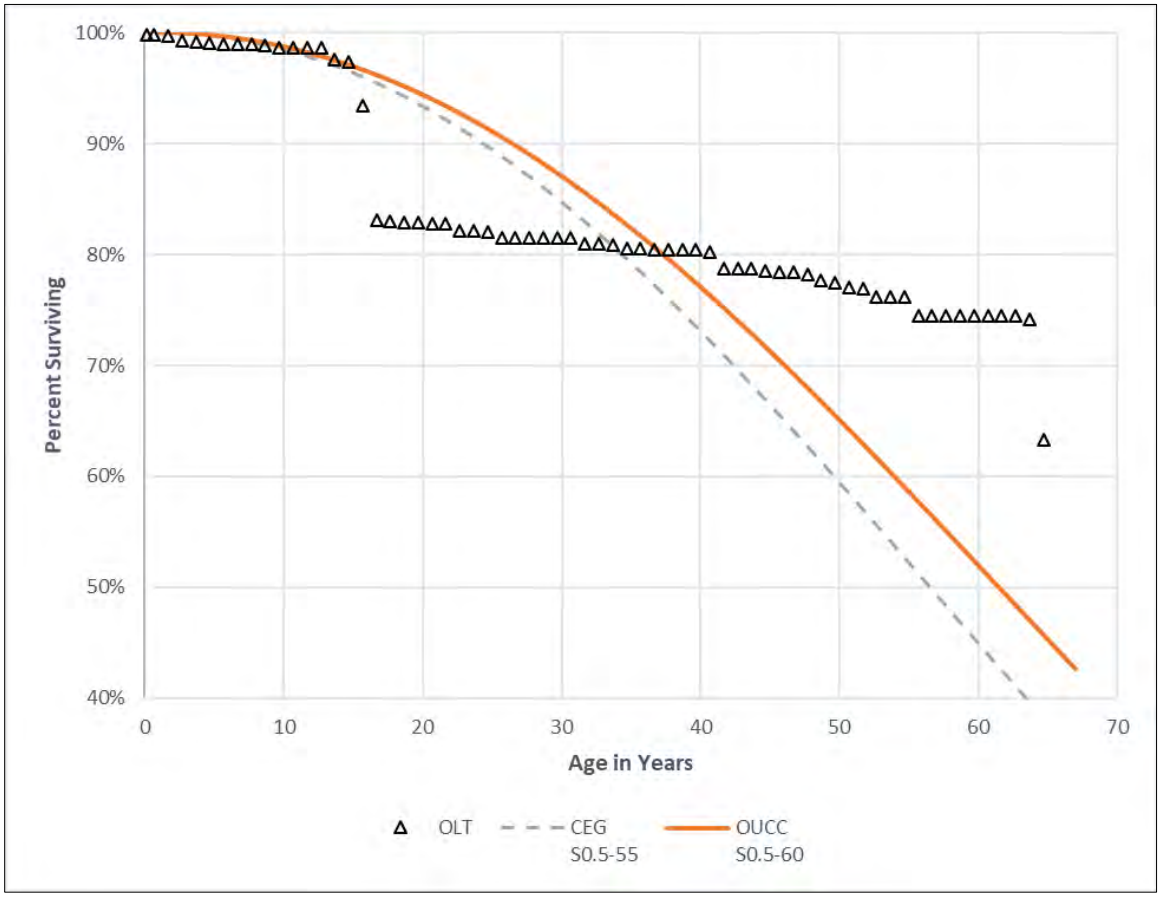
C. Citizens Gas Accounts 367 and 367.10 – Mains

Q. Describe your service life estimate for this account and compare it with the Company's estimate.

A. The OLT curve for this account is unusual in that it shows a sharp decline at an early age interval, though it is relatively smooth from that point. The Companies selected the S0.5-55 curve for this account, and I selected the S0.5-60 curve. All three curves are shown in the graph below.

[22] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

Figure 4:
Citizens Gas Accounts 367 and 367.10 – Mains



As with the first Citizens Gas account discussed above, all of the data points on this OLT curve are statistically relevant in that they correspond with exposures that are greater than 1% of the beginning dollars exposed to retirement. Also, as with the same account 352 discussed above, CEG's curve appears to ignore this relevant data. While this OLT curve is not particularly well-suited for conventional Iowa curve-fitting techniques because of its unusual shape, CEG's selected Iowa curve is nonetheless too short in that it ignores relevant data in the curve. While a shallower and longer curve could arguably be supported, I selected the same curve shape as Mr. Spanos (the S0.5 shape) but added five

years of average service life to give more statistical credit to relevant portions of the OLT curve.

Q. Is your selected Iowa curve a better mathematical fit to the relevant portion of the OLT curve?

A. Yes. In this account, the total SSD, or "distance" between the Company's curve and the OLT curve is 1.5540, while the total SSD between the S0.5-60 curve and the OLT curve is only 0.9259.[23] Thus, the S0.5-60 curve is a better mathematical fit. My proposed remaining lives and depreciation rates for Accounts 367 and 367.1 from applying the S0.5-60 curve for these accounts is presented in the attached documents.[24]

Q. Please summarize your adjustments to the proposed depreciation expense of Citizens Gas.

A. I propose adjustments to five Citizens Gas accounts (the four accounts discussed above and Account 391.7 – Software, which is discussed in Section J below). These adjustments would reduce the depreciation expense proposed by Citizens Gas from $14 million to $13.9 million, which is a reduction in the depreciation rate of 1.97% to 1.95%.[25]

[23] Attachment DJG-8.

[24] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

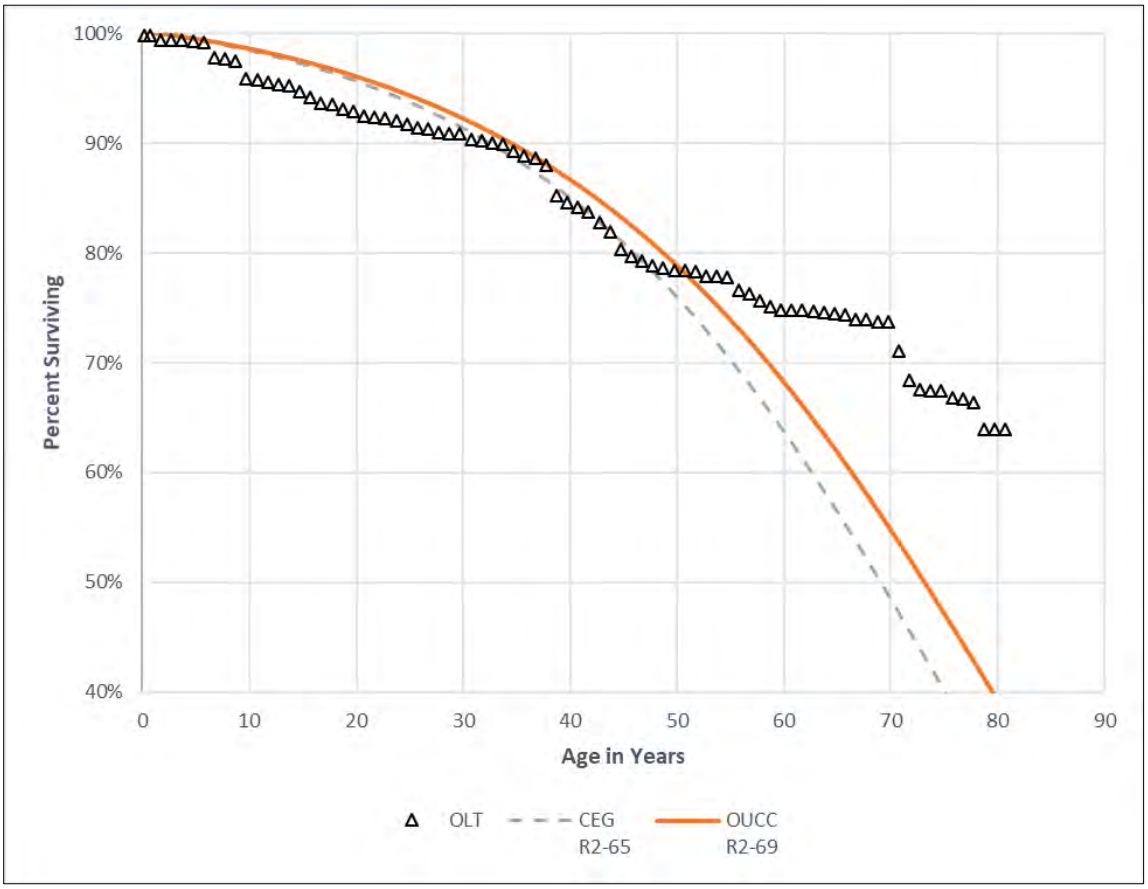
[25] Attachment DJG-2.

D. Citizens Thermal Steam Account 366 – Mains

Q. Describe your service life estimate for this account and compare it with the Company's estimate.

A. The OLT curve derived from the Company's data for this account is fairly well-suited for Iowa curve fitting, particularly up to age interval 50. Mr. Spanos selected the R2-65 curve for this account and I selected the R2-69 curve. The two Iowa curves and the OLT curve are shown in the graph below.

Figure 5:
Citizens Thermal Steam Account 366 – Mains



As shown in the graph, both Iowa curves do not appear to give much significance to the data points after age interval 50. In this OLT curve, the data points occurring after age

interval 53 correspond to exposures that are less than 1% of the beginning dollars exposed to retirement and are thus much less significant, if at all. Thus, both curves correctly ignore this data. Both Iowa curves provide close fits to the OLT curves, and thus it is difficult to tell which curve provides a better fit through mere visual inspection. Mathematical curve fitting techniques are especially useful in these types of situations.

Q. Does the Iowa curve you selected provide a better mathematical fit to the observed data than the Company's curve?

A. Yes. Regardless of whether we consider the entire OLT curve, or the portion of the OLT curve without the 1% tail end, the R2-69 curve I selected provides a better mathematical fit under both scenarios, and thus results in a more reasonable service life estimate and depreciation rate for this account, in my opinion. The SSD for CEG's curve is 1.5531, while the SSD for the R2-69 curve I selected is only 0.8608, which means it is mathematically "closer" to the OLT curve.[26] The R2-69 curve results in a remaining life of 45.54 years and a depreciation rate of 1.78%.[27]

Q. In your opinion, is the Iowa curve and remaining life proposed by Mr. Spanos for this account unreasonable?

A. No. In my opinion, both proposed Iowa curves and remaining lives fall within the range of reasonableness. However, when two selected Iowa curves are close in shape and average

[26] Attachment DJG-9.

[27] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

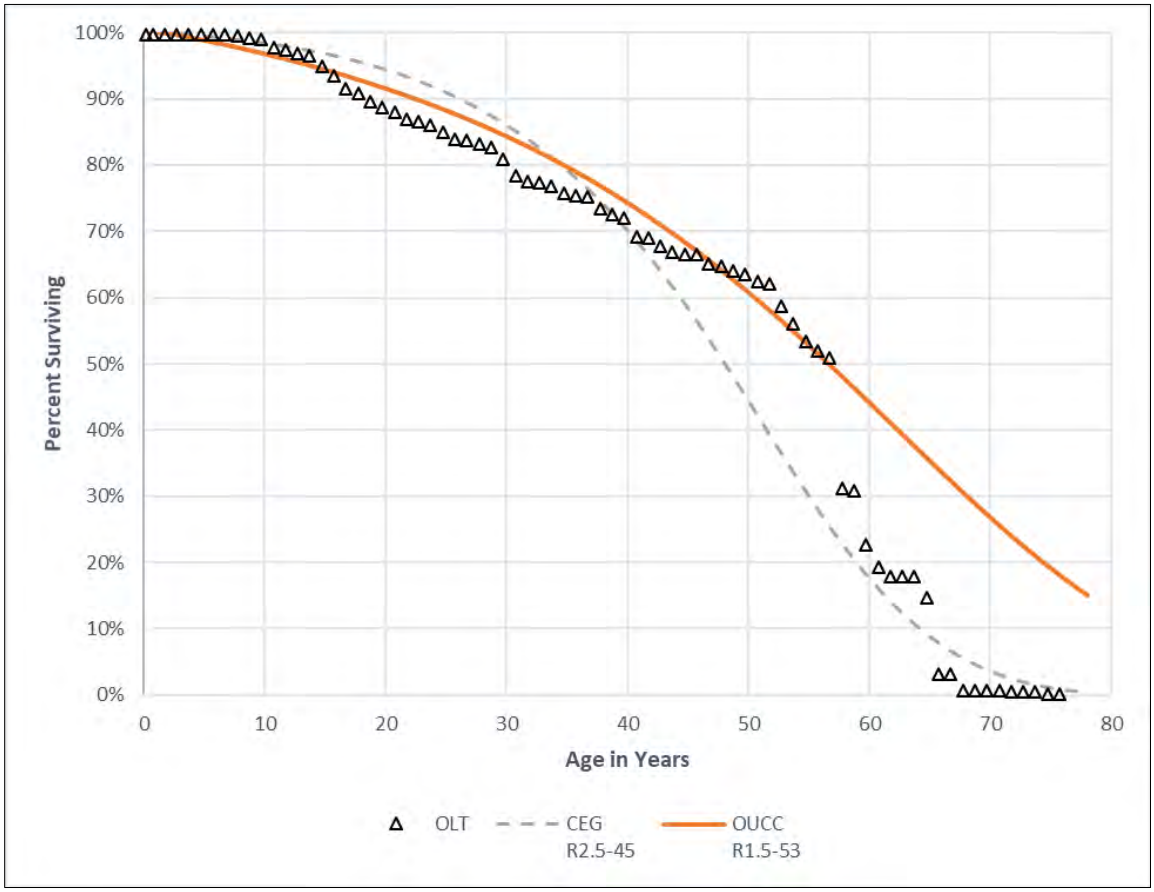
life, I think it is preferable to select the mathematically better-fitting Iowa curve, which is the R2-69 curve for this account.

E. Citizens Thermal Steam Account 369 – Services

Q. Describe your service life estimate for this account and compare it with the Company's estimate.

A. The OLT curve derived from the Company's data for this account is particularly well-suited for Iowa curve fitting. However, it is important to consider the 1% exposure cut-off guideline for this account. Mr. Spanos selected the R2.5-45 curve for this account, and I selected the R1.5-53 curve. The Iowa and OLT curves are shown in the graph below.

Figure 6:
Citizens Thermal Steam Account 369 – Services



This account illustrates the importance of mathematical curve fitting. From a mere visual inspection, it appears CEG's curve tracks fairly well with the observed data through the entirety of the OLT curve. However, as discussed above, not every point on the OLT curve should necessarily be given equal weight, or even considered at all. It is not possible to determine which data points are statistically significant without looking at the numbers comprising the OLT curve. For this particular OLT curve, all of the data points occurring after age interval 41.5 correspond to exposures that are less than 1% of beginning exposures. This discrepancy gets larger as we approach the end of this OLT curve.

Specifically, the beginning exposures in this account is $3 million, and the exposures after age interval 59 are about $1,000 each year. Nonetheless, CEG's R2.5-45 curve passes directly through these insignificant data points. As a result, CEG's Iowa curve and proposed average life for this account is too short.

Q. Does the Iowa curve you selected provide a better mathematical fit to the observed data than the Company's curve, when disregarding the statistically insignificant portions of the OLT curve?

A. Yes. If we disregard the insignificant data after age interval 41.5, and especially after age interval 56.5 (where there is a sharp drop in the OLT curve), the R1.5-53 curve I selected provides a better mathematical fit to the observed data. Specifically, the SSD for CEG's curve is 0.0424, while the SSD for the R1.5-53 curve I selected is only 0.0174.[28] The R1.5-53 curve results in a remaining life of 33.64 years and a depreciation rate of 2.46%.[29]

Q. Please summarize your adjustments to the proposed depreciation expense of Citizens Thermal Steam.

A. I propose adjustments to two Citizens Thermal Steam accounts, as discussed above. These adjustments would reduce the depreciation expense proposed by Citizens Thermal Steam by $46,748, which is a reduction in the depreciation rate of 3.92% to 3.87%.[30]

[28] Attachment DJG-10.

[29] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

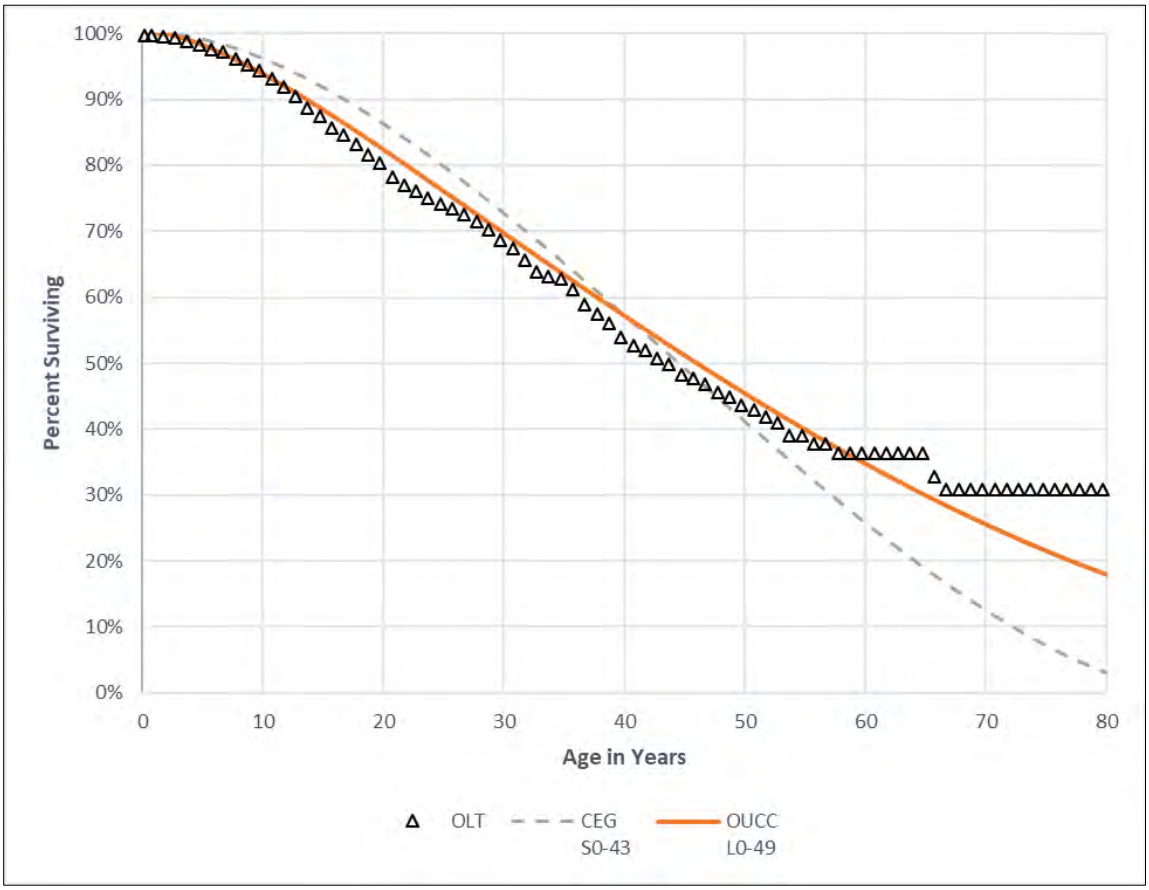
[30] Attachment DJG-2.

F. Citizens Water Account 334.4 – Meters and Meter Installations

Q. Describe your service life estimate for this account and compare it with CEG's estimate.

A. The OLT curve for this account is relatively well-suited for Iowa curve fitting. The OLT curve declines steadily and smoothly in a pattern typical of certain types of utility property. The Company selected the S0-43 curve for this account, and I selected the L0-49 curve. All three curves are shown in the graph below.

Figure 7:
Citizens Water Account 334.4 – Meters and Meter Installations



Visually, we see that both curves do not track with the tail end of the OLT curve. The fact that the OLT curve becomes consistently flat toward the tail end of the curve provides some

indication that a portion of the tail end of this OLT curve may be statistically unreliable. In fact, by using the same 1% exposure cut-off benchmark discussed above in other accounts, the data points occurring after the 51-year age interval have much less statistical significance. Where the two Iowa curves primarily differ is in their shape between age intervals 10 and 35. Visually, we see that the L0-49 curve tracks better with the observed data during this significant middle portion of the OLT curve.

Q. Does the Iowa curve you selected provide a better mathematical fit to the observed data than CEG's curve?

A. Yes. Regardless of whether we consider the entire OLT curve, or the portion of the OLT curve without the 1% tail end, the L0-49 curve I selected provides a better mathematical fit under both scenarios, and thus results in a more reasonable service life estimate and depreciation rate for this account, in my opinion. The SSD for CEG's curve is 1.4961, while the SSD for the L0-49 curve I selected is only 0.2786, which means it is mathematically "closer" to the OLT curve.[31] Applying the L0-49 curve to this account results in a remaining life of 26.32 years and a depreciation rate of 0.41%.[32]

[31] Attachment DJG-11.

[32] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

Q. Did you also apply the same Iowa curve to Westfield Water's Account 334.4 to determine the remaining life and depreciation rate for that account, similar to the approach taken by Mr. Spanos?

A. Yes. The data provided for Westfield Water's Account 334.4 was not well suited for Iowa curve analysis. I agree with Mr. Spanos that it is appropriate to apply the same Iowa curve estimated for the Citizens Water account to the same account for Westfield Water.[33]

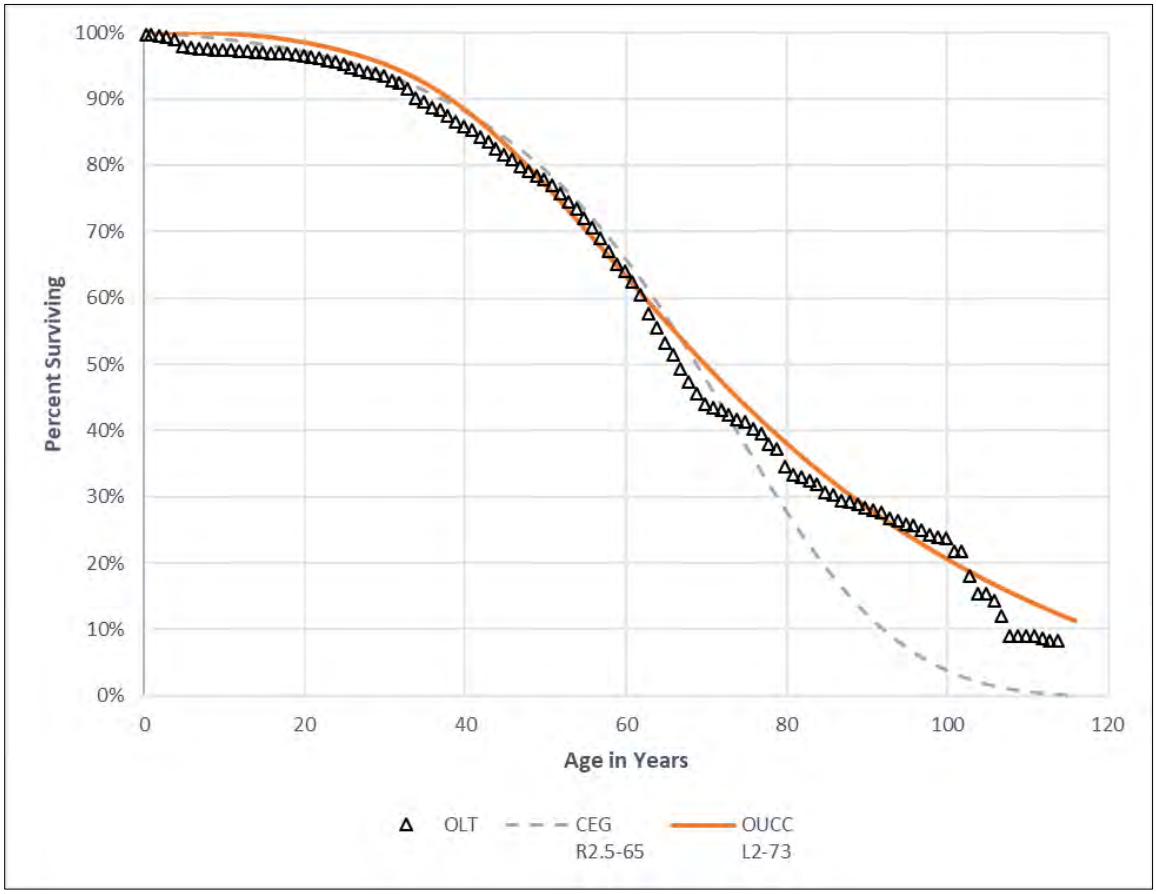
G. Citizens Water Account 335.4 – Hydrants

Q. Describe your service life estimate for this account and compare it with CEG's estimate.

A. The OLT curve for this account is relatively well-suited for Iowa curve fitting. It is mostly smooth, and nearly complete in that it reaches almost zero percent surviving. The two primary purposes of Iowa curve fitting are to get a smooth and complete survivor curve to calculate average life. If we use the complete data band for this account, the OLT curved derived from that data is already relatively smooth and complete, as shown in the graph below.

[33] *Id.*

Figure 8:
Citizens Water Account 335.4 – Hydrants



Mr. Spanos selected the R2.5-65 curve for this account, and I selected the L2-73 curve. However, the curve selected by Mr. Spanos appears to ignore relevant data beyond age interval 80. In contrast, the L2-73 curve I selected provides a better fit to the observed data, which is nearly a complete survivor curve on its own.

Q. Does the Iowa curve you selected provide a better mathematical fit to the observed data than CEG's curve?

A. Yes. The SSD for CEG's curve is 0.8668 and the SSD for the L2-73 curve is 0.0564, which means it is a better mathematical fit to the OLT curve.[34] Applying the L2-73 curve to this account results in a remaining life of 46.01 years and a depreciation rate of 1.14%.[35]

Q. Please summarize your adjustments to the proposed depreciation expense of Citizens Water and Westfield Water.

A. I propose adjustments to three accounts for Citizens Water and the same three accounts for Westfield Water (the accounts discussed above and Account 340.54 – Software, which is discussed in Section J below). These adjustments would reduce the depreciation expense proposed by Citizens Water from $19.2 million to $18 million, which is a reduction in the depreciation rate of 1.18% to 1.11%. These adjustments would also reduce the depreciation expense proposed by Westfield Water from $1.4 million to $1.2 million, which is a reduction in the depreciation rate of 1.84% to 1.65%.[36]

[34] Attachment DJG-12.

[35] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

[36] Attachment DJG-2.

Q. Did you also apply the same Iowa curve to Westfield Water's Account 335.4 to determine the remaining life and depreciation rate for that account, similar to the approach taken by Mr. Spanos?

A. Yes. The data provided for Westfield Water's Account 335.4 was not well suited for Iowa curve analysis. I agree with Mr. Spanos that it is appropriate to apply the same Iowa curve estimated for the Citizens Water account to the same account for Westfield Water.[37]

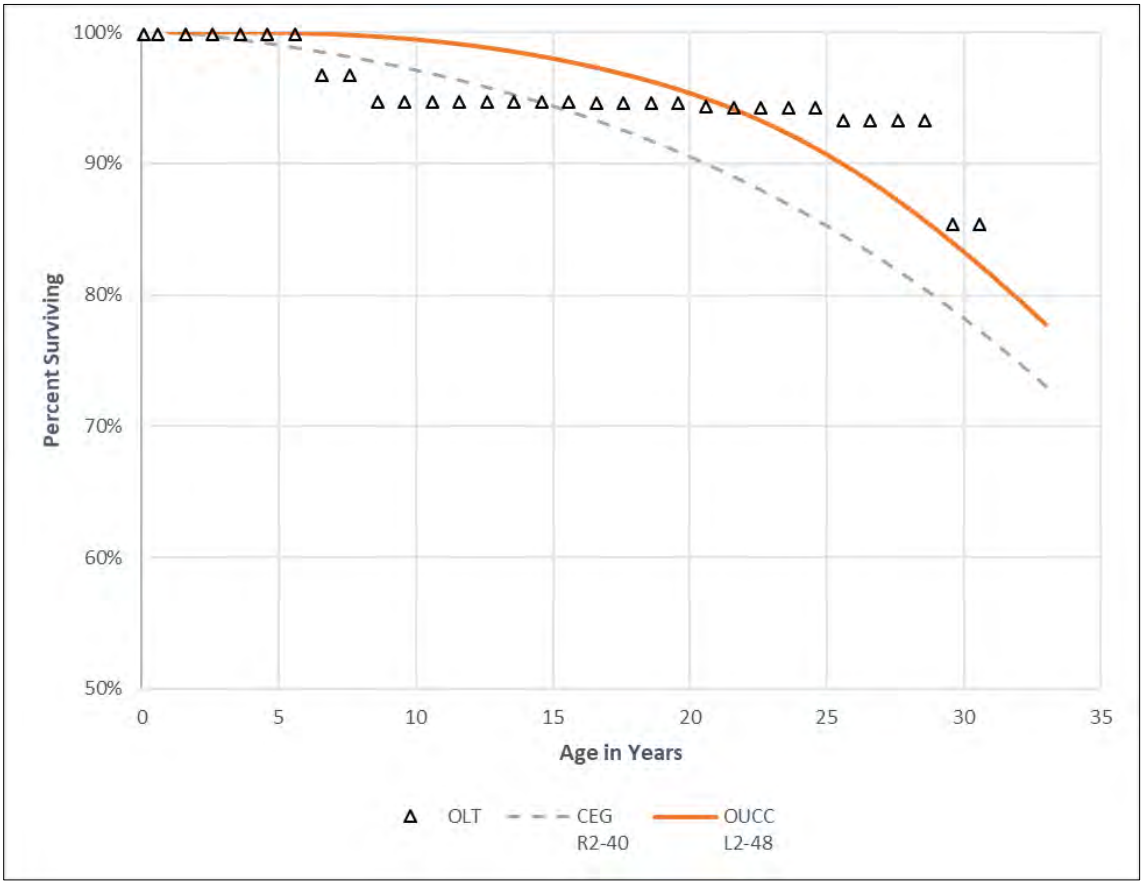
H. CWA Account 371.3 – Pumping Equipment

Q. Describe your service life estimate for this account and compare it with CEG's estimate.

A. Mr. Spanos selected the R2-40 curve for this account, and I selected the L2-48 curve. These curves, along with the OLT curve, are show in the graph below.

[37] *Id*.

Figure 9:
CWA Account 371.3 – Pumping Equipment



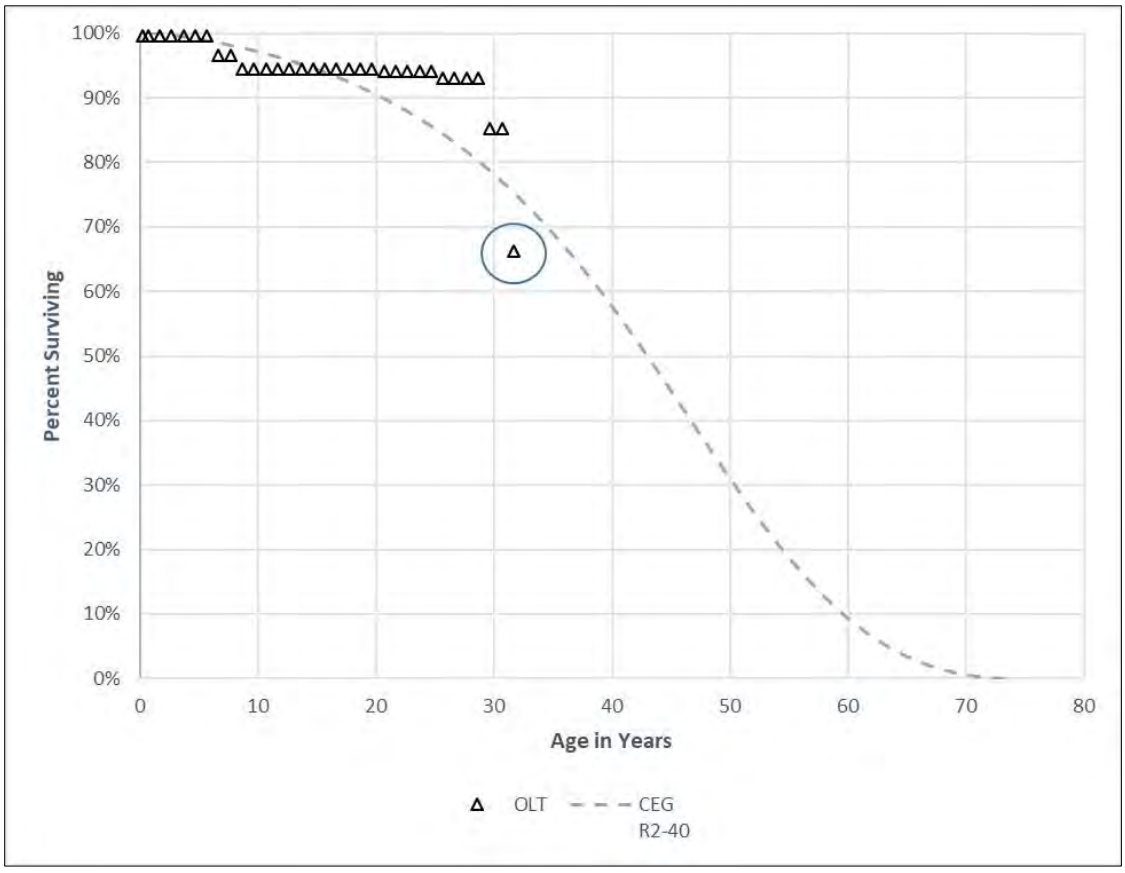
Although this OLT curve is relatively flat, all of the data points on the curve correspond to exposures that are greater than 1% of the beginning exposures in this account.[38] CEG's R2-40 curve begins to decline sharply relative to the observed data around age interval 15, thereby ignoring relevant data in the remaining age intervals.

[38] *See* Attachment DJG-13.

Q. In the depreciation study, does it appear that the R2-40 curve proposed for this account gives some statistical consideration to a random data point at the end of the OLT curve that is associated with zero exposures?

A. Yes. I am not sure if this was a mistake, but the graph presented in the depreciation study for this account show a random data point at the end of the OLT curve. The observed life table in the depreciation study shows 66.52% surviving at age interval 31.5, but it is associated with no exposures to retirement. This means that it is an irrelevant data point. The graph below replicates the graph shown in CEG's depreciation study at p. VII-294.

Figure 10:
CWA Account 371.3 – Pumping Equipment (From Depreciation Study)



The data point in question is circled in the graph above. It appears that in the curve fitting process, Mr. Spanos may have unintentionally given some statistical weight to this data

point at the end of the OLT curve, which causes his proposed curve to decline too sharply around age interval 15, relative to the meaningful portions of the remaining OLT curve. Regardless, the R2-40 curve proposed by Mr. Spanos does not give enough weight to the data points between age intervals 15-30, in my opinion.

Q. Has CEG presented additional evidence supporting its service life or depreciation rate proposal for Account 371.3 other than the historical retirement data used to create the observed life table?

A. No. CEG appears to be relying primarily on the historical, statistical retirement data to support its service life proposal for this account, in a similar fashion to all of the Companies' other accounts.

Q. Does the Iowa curve you selected provide a better mathematical fit to the observed data than CEG's curve?

A. Yes. The SSD for CEG's curve is 0.1300 and the SSD for the L2-48 curve is 0.0476, which means it is a better mathematical fit to the OLT curve.[39] Applying the L2-73 curve to this account results in a remaining life of 27.08 years and a depreciation rate of 2.14%.[40]

[39] Attachment DJG-13.

[40] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

Q. Did you also apply the same Iowa curve to Westfield Wastewater's Account 371.3 to determine the remaining life and depreciation rate for that account, similar to the approach taken by Mr. Spanos?

A. Yes. The data provided for Westfield Wastewater's Account 371.3 was not well suited for Iowa curve analysis. I agree with Mr. Spanos that it is appropriate to apply the same Iowa curve estimated for the CWA account to the same account for Westfield Wastewater.[41]

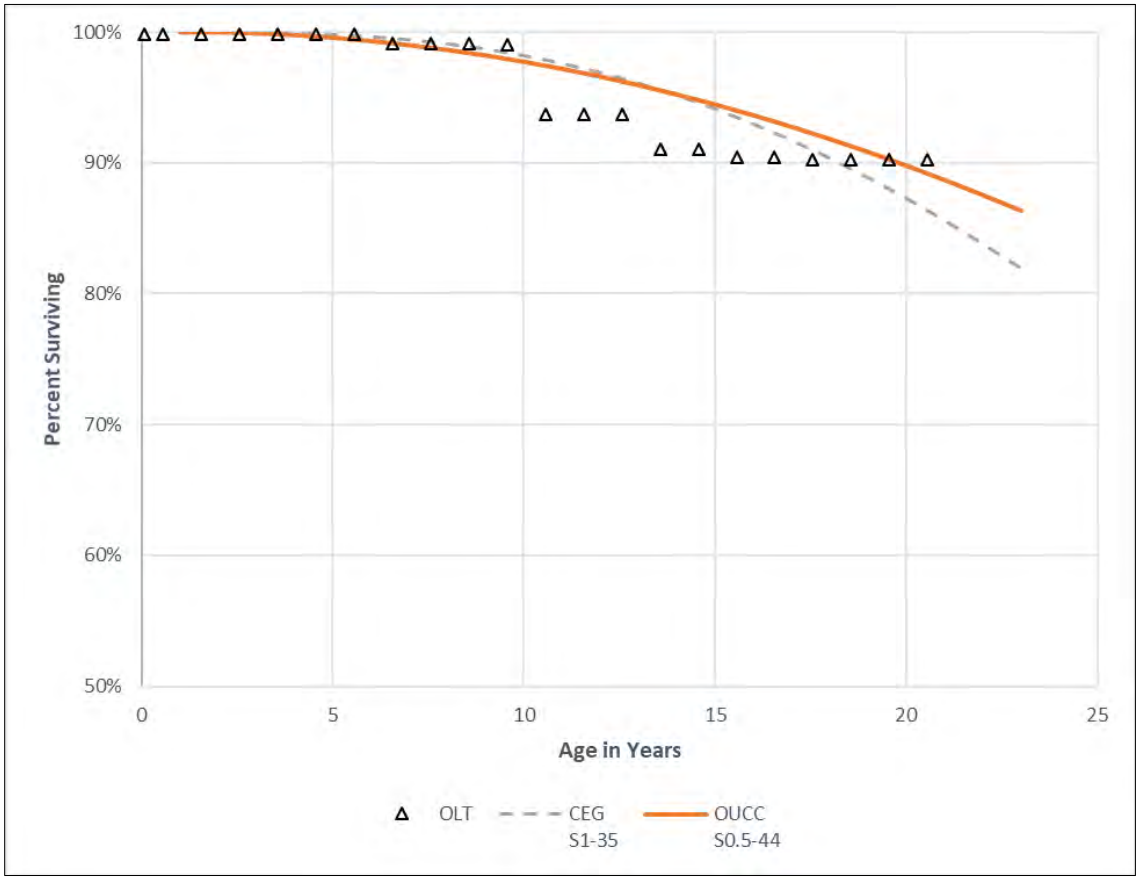
I. CWA Account 380.4 – Treatment and Disposal Equipment

Q. Describe your service life estimate for this account and compare it with the CEG's estimate.

A. As with CWA Account 371.3 discussed above, the OLT curve for CWA Account 380.4 is relatively flat. Mr. Spanos selected the S1-35 curve for this account, and I selected the S0.5-44 curve. All three curves are shown in the graph below.

[41] *Id.*

Figure 11:
CWA Account 380.4 – Treatment and Disposal Equipment



Both curves are relatively similar in terms of shape. The S0.5 is a lower modal curve than the S1 curve, and thus has a flatter trajectory in its survivor curve.

Q. Has CEG presented additional evidence supporting its service life or depreciation rate proposal for Account 380.4 other than the historical retirement data used to create the observed life table?

A. No. CEG appears to be relying primarily on the historical, statistical retirement data to support its service life proposal for this account, in a similar fashion to all of the Companies' other accounts.

Q. Does the Iowa curve you selected provide a better mathematical fit to the observed data than CEG's curve?

A. Yes. The SSD for CEG's curve is 0.0113 and the SSD for the S0.5-44 curve is 0.0057, which means it is a better mathematical fit to the OLT curve.[42] Applying the S0.5-44 curve to this account results in a remaining life of 24.06 years and a depreciation rate of 1.86%.[43]

Q. Please summarize your adjustments to the proposed depreciation expense of CWA Authority and Westfield Wastewater.

A. I propose adjustments to three accounts for CWA Authority and the same three accounts for Westfield Wastewater (the accounts discussed above and Account 390.74 – Software, which is discussed in Section J below). These adjustments would reduce the depreciation expense proposed by CWA Authority from $47 million to $43 million, which is a reduction in the depreciation rate of 1.73% to 1.59%. These adjustments would also reduce the depreciation expense proposed by Westfield Wastewater from $2.6 million to $2.4 million, which is a reduction in the depreciation rate of 2.44% to 2.18%.[44]

[42] Attachment DJG-13.

[43] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

[44] Attachment DJG-2.

Q. Did you also apply the same Iowa curve to Westfield Wastewater's Account 380.4 to determine the remaining life and depreciation rate for that account, similar to the approach taken by Mr. Spanos?

A. Yes. The data provided for Westfield Wastewater's Account 380.4 was not well suited for Iowa curve analysis. I agree with Mr. Spanos that it is appropriate to apply the same Iowa curve estimated for the CWA account to the same account for Westfield Wastewater.[45]

J. CEG Shared Services - Software Accounts

Q. Describe the Company's position regarding its software accounts.

A. Each of the CEG utilities, except Westfield Gas, has a general plant account for its software systems. As of September 30, 2017, these software accounts combined had a balance of $36.9 million.[46] Mr. Spanos assumed a five-year average service life for the software systems in these accounts. The combined annual depreciation expense proposed by CEG for all of its software accounts under a five-year service life is about $6.5 million.[47]

Q. Do you agree with the Company's proposal regarding this account?

A. No. By choosing a five-year amortization period for Account 303, the Company is suggesting that its software programs will last only five years, on average, which results in an excessive proposed expense level. While a five-year service life estimate might be appropriate for basic consumer software systems, it does not accurately describe the service life of major software systems. Unlike basic consumer software systems, large enterprise

[45] *Id*.

[46] *See* Attachment DJG-3.

[47] *Id*.

software systems can be customized to the specific needs of the company. These modular systems require substantial upfront engineering costs along with periodic maintenance and support fees to ensure that the system performs reliably over a long period of time. For example, many utility companies rely on Enterprise Resource Planning ("ERP") systems comprising a suite of modular applications that collect and integrate data from different facets of the firm.

Q. Has Mr. Spanos recommended amortization periods up to 15 years for Account 303 in other depreciation studies?

A. Yes. Mr. Spanos has recommended amortization periods of up to 15 years for this account in other cases.[48]

Q. Are you aware of service life estimates of Enterprise Resource Planning systems of 20 years or more?

A. Yes. ERP systems are designed to provide long term solutions to companies. SAP is one of several providers of ERP systems.[49] According to a report by CGI Consulting Services, SAP systems can last 25 – 30 years.[50] Given the extremely high installation costs for these complex systems as well as the annual maintenance fees, it is not surprising that companies using ERP systems would demand that the systems last longer than 10 years.

[48] *See* Petition of NSTAR Electric Company and Western Massachusetts Electric Company each d/b/a Eversource Energy for Approval of an Increase in Base Distribution Rates for Electric Service Pursuant to G.L. c. 164 § 94 and 220 C.M.R. § 500.

[49] SAP ERP is enterprise resource planning software developed by the German company SAP SE.

[50] *Taking the Long View to SAP Value*, CGI, "Enlightened Managed Services Series," CGI Group Inc. 2011 p. 2.

Q. Have utility companies recognized that their ERP systems can last at least 20 years?

A. Yes. Florida Power & Light ("FP&L") is one of many utilities that utilize ERP systems. In 2011, FP&L implemented SAP's ERP system to replace its previous accounting system.[51] FP&L had previously amortized its software over a five-year period. FP&L, however, requested that the amortization period be extended to 20 years in order to reflect the much longer lifespan of the new ERP system.[52] Kim Ousdahl, FP&L's Vice President, Controller and Chief Accounting Officer, gave the following testimony regarding FP&L's software account:

> In 2011, the Company implemented a new general ledger accounting system (SAP) to replace its legacy system. . . . FPL's policy for accounting for new software requires . . . amortization on a straight-line basis over a period of five years, which is the current amortization period approved for this account. The Company is requesting to extend the amortization period of this system from five to twenty years in order to more appropriately recognize the longer benefit period expected from this major business system.[53]

While a 10-year average life may have been appropriate for older, more basic software systems, it does not reflect the much longer service life of newer, more complex systems.

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[51] Petition for Rate Increase by Florida Power & Light Company, Docket No. 120015-EI, Testimony Public's Exhibit No. 3 Cause No. 45039 Page 43 of 51 & Exhibits of Kim Ousdahl, p. 14.

[52] *Id*.

[53] *Id*.

Q. Are you recommending that the Company use a service life of its software account to 15 or 20 years?

A. No. Although it would not be unreasonable to consider a 15 or 20-year amortization period for the assets in Account 303, I am recommending a more conservative 10-year amortization period for this account. The remaining life and depreciation rate calculations for each software account adjustment is included in my attachments.[54]

Q. Have any other regulatory commissions recently adopted your recommendation of a 10-year service life for software?

A. Yes. In Public Service Company of Oklahoma's ("PSO") recent rate case, the company proposed a five-year service life for its software assets (in Account 303 for PSO). Making arguments similar to those that I have in this case, I proposed to the Oklahoma Commission that a 10-year average service life for these assets would be more reasonable. The Oklahoma Commission agreed, and found:

> On pages 46 through 49 of Mr. Garrett's responsive testimony on depreciation, Mr. Garrett stated that (Account 303) includes PSO's software. He recommended a 10-year amortization period instead of the 5-year amortization period PSO proposed. Mr. Garrett's analysis was clear and convincing. … Based upon the evidence in the record, the Commission accepts the recommendation of Mr. David Garrett pertaining to Account 303.[55]

I am recommending the Indiana Utility Regulatory Commission make a similar finding in this case.

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[54] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

[55] Order No. 672864 entered January 31, 2018 in Cause No. PUD 201700151 before the Corporation Commission of Oklahoma, Attachment 1 (p. 29 of 239), Paragraph 110.

Q. Did Mr. Spanos also recently recommend a 10-year service life for a utility's software account?

A. Yes. In Oklahoma Gas and Electric Company's ("OG&E") pending rate case in Oklahoma, Mr. Spanos sponsored the depreciation study. He proposed a 10-year average service life for OG&E's software account.[56] Three other witnesses in the case filed responsive testimony for other parties, including myself, and no party disagreed with the 10-year service life proposed by Mr. Spanos.

Q. Has CEG met its burden of proof regarding the amortization period for its software accounts?

A. No, not in my opinion. CEG has not provided support for the proposed five-year amortization period for this account, either in its workpapers or testimony. As discussed above in Section III, the utility bears the burden of making a "convincing showing" that its proposed depreciation rates are not excessive.[57] By underestimating the average life of its software assets, CEG has proposed depreciation rates for these accounts that are very likely excessive.

Q. Please summarize your adjustments to the Shared Services division.

A. I propose an adjustment to only one shared services account – Account 391.7 – Software. This adjustment would reduce the depreciation expense proposed for the Shared Services

[56] *See* Direct Testimony of John J. Spanos filed January 16, 2018 in Cause No. PUD 201700496 before the Corporation Commission of Oklahoma, Exhibit JJS-2, p. VI-4.

[57] *Lindheimer v. Illinois Bell Tel. Co.*, 292 U.S. 151, 167 (1934).

division from $7.8 million to $4.9 million, which is a reduction in the depreciation rate from 8.40% to 5.27%.[58]

Q. Does your recommended average life of 10 years for the Shared Services software account also apply to the software accounts of the other CEG utilities?

A. Yes. In total, I recommend adjustments to six software accounts by changing the proposed average life from 5 years to 10 years.[59]

VI. NET SALVAGE ANALYSIS

Q. Describe the concept of net salvage.

A. If an asset has any value left when it is retired from service, a utility might decide to sell the asset. The proceeds from this transaction are called "gross salvage." The corresponding expense associated with removing the asset from service is called the "cost of removal." The term "net salvage" equates to gross salvage less the cost of removal. Often, the net salvage for utility assets is a negative number (or percentage) because the cost of removing the assets from service exceeds any proceeds received from selling the assets. When a negative net salvage rate is applied to an account to calculate the depreciation rate, it results in increasing the total depreciable base to be recovered over a particular period of time and increases the depreciation rate.

[58] Attachment DJG-2.

[59] *See* Attachment DJG-5 for depreciation calculation; *see also* Attachment DJG-16 for detailed remaining life calculations.

Q. Describe how you analyzed the Company's net salvage rates.

A. In this case, I examined the Company's historical net salvage provided by Mr. Spanos over different periods of time.

Q. Are you recommending any adjustments to the Company's proposed net salvage rates?

A. Yes. Generally, the net salvage rates proposed by Mr. Spanos were reasonable in my opinion, however, I believe there should be adjustments made to two accounts, as further discussed below.

A. Citizens Water Account 331.4 – Transmission and Distribution Mains

Q. Describe CEG's proposed net salvage rate for this account.

A. CEG proposes a net salvage rate of -15% for this account.

Q. Describe the data submitted by CEG to support its position.

A. As part of the depreciation study and in response to discovery, CEG submitted historical data by account showing amounts for gross salvage and cost of removal. CEG did not provide any substantial data beyond this historical net salvage data in support of its position. According to the net salvage data submitted for this account, the total book net salvage rate is only -2%. When three and five-year rolling averages are considered, the highest negative net salvage rate for this account is only -3%, which is much less than the -15% net salvage rate proposed by the Companies.

Q. What is your recommended net salvage rate for this account?

A. Although the total net salvage rate for this account based on the historical data is only -2%, I recommend a -5% net salvage rate. CEG has not presented any evidence supporting its proposed -15% salvage rate for this account. Once additional historical data is gathered over time, the net salvage rates can be adjusted accordingly if the data indicate a greater negative net salvage rate.[60]

B. CWA Account 354.4 – Structures and Improvements

Q. Describe CEG's proposed net salvage rate for this account.

A. CEG proposes a net salvage rate of -10% for this account.

Q. Describe the data submitted by CEG to support its position.

A. As part of the depreciation study and in response to discovery, CEG submitted historical data by account showing amounts for gross salvage and cost of removal. CEG did not provide any substantial data beyond this historical net salvage data in support of its position. According to the net salvage data submitted for this account, the total book net salvage rate is only -3%, which is much less than the -10% net salvage rate proposed by the Companies.

Q. What is your recommended net salvage rate for this account?

A. Although the total net salvage rate for this account based on the historical data is only -3%, I recommend a -5% net salvage rate in the interest of reasonableness. CEG has not

[60] *See* Attachment DJG-5 for the depreciation rate calculation based on the recommended net salvage rate.

presented any evidence supporting its proposed -10% salvage rate for this account. Once additional historical data is gathered over time, the net salvage rates can be adjusted accordingly if the data indicate a greater negative net salvage rate.[61]

VII. AVERAGE LIFE GROUP COMPARISON

Q. What is the difference between the average life procedure and the equal life?

A. As discussed above in Section IV, the depreciation rates I recommend in this case were calculated under the equal life procedure. However, for informational purposes, I think it would be informative to the Commission to see a comparison of CEG's proposed depreciation rates and expense as calculated under the average life procedure. Essentially, in the average life procedure, a constant accrual rate based on the average life of all property in the group is applied to the surviving property.[62] In the equal life procedure, property is divided into subgroups that each have a common life. Moreover, the equal life procedure results in higher depreciation rates in the early years of a vintage's life. This fact is confirmed by authoritative depreciation literature. According to Wolf:

> When contrasted with the average life procedure, the equal life group procedure results in annual accruals that are higher during the early years and lower in the later years.[63]

The NARUC Public Utility Depreciation Practices also makes the same conclusion about the equal life procedure:

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[61] *See* Attachment DJG-5 for the depreciation rate calculation based on the recommended net salvage rate. I also applied the same net salvage rate to Westfield Water's Account 354.4, in a similar manner to Mr. Spanos.

[62] Wolf supra n. 9, at 74-75.

[63] *Id*. at 93.

> [T]he ELG procedure results in annual accruals that are higher during the early years of a vintage's life, thereby causing an increase in depreciation expense and revenue requirements during these years.[64]

In contrast, use of the average life results in the same depreciation rate applied to each age interval.

Q. Discuss the unintended consequences that could result from using the equal life procedure if unaddressed.

A. While theoretically the equal life procedure is a sound method, it can be problematic in a ratemaking context. This is because a mathematical result of using the equal life procedure is higher depreciation rates in earlier vintage years, which often results in higher depreciation expense for current customers and lower expense for future customers, because utility plant is often increasing. This inequity could be exacerbated by realities of typical ratemaking procedure. Under the equal life procedure, depreciation rates are supposed to decrease each subsequent year of an asset's remaining life. This makes sense because current customers are charged higher rates than future customers under the equal life procedure. However, because most jurisdictions do not have rate cases every year and do not true up the equal life depreciation rates, it results in current customers likely being charged with an even higher depreciation expense than what would otherwise be imposed by the equal life procedure. Thus, if the equal life procedure is used by the Commission, it is important that depreciation rates are updated more frequently than if the average life

[64] NARUC supra n. 10 at 176.

procedure were used. This will help reduce any intergenerational inequities that might result from using the equal life procedure.

Q. Describe an example of the intergenerational inequities that can result from using the equal life procedure.

A. In a recent rate case filed by Atmos Pipeline – Texas, the utility filed a depreciation study using the equal life procedure. Because the utility had recently installed a substantial amount of new plant, the increased amount of depreciation expense as a result of using the equal life procedure was significant for current customers. In fact, even if all of the utility's proposed service lives and salvage rates for each account were accepted, simply using the average life procedure instead of the equal life procedure would have resulted in an adjustment reducing the utility's proposed depreciation accrual by $33 million. This means that the utility's current customers would pay about $33 million more each year than what they would have paid under the average life procedure, until new depreciation rates are set. The only way that intergenerational inequity could be minimized under this situation is if depreciation rates were adjusted each year under the equal life procedure, but that will not be the case.[65]

[65] *See generally* Direct Testimony of David J. Garrett, filed March 22, 2017 before the Railroad Commission of Texas, GUD No. 10580.

Q. Is the discrepancy between rates calculated under the average life and equal life procedures exacerbated if there are a large amount of assets recently placed in service?

A. Yes. By definition, the equal life procedure results in current ratepayers being charged more depreciation expense during the early years of an asset's life, while future ratepayers are charged less expense. In the Texas case discussed above, the reason there was a substantial $33 million difference between the two procedures was because of the fact that the utility had recently placed a large number of assets into service as part of a replacement program for its gas mains. Thus, if a utility places a large asset or groups of assets into service under the equal life procedure, current ratepayers will be burdened with the majority of the depreciation expense associated with those assets. The amount of this disproportionate burden will higher if the amount of the new assets placed in service is higher.

Q. Did you also calculate CEG's proposed depreciation rates under the average life procedure in this case?

A. Yes. For informational purposes, I conducted a separate depreciation analysis using the average life procedure instead of the equal life procedure. Under this analysis, I accepted all of Mr. Spanos' proposed depreciation parameters, including his proposed service lives and net salvage rates for each account, in order to isolate the impact of using the different depreciation system. The results are illustrated in the table below.

Figure 12:
Depreciation Expense Comparison by Utility – Average Life Procedure

Utility	Company Proposal		OUCC Proposal		OUCC Adjustment	
	Rate	Expense	Rate	Expense	Rate	Expense
Shared Services	8.40%	$ 7,781,015	9.72%	$ 9,002,577	1.32%	$ 1,221,562
Citizens Gas	1.97%	14,064,970	1.74%	12,439,536	-0.23%	(1,625,434)
Citizens Thermal Steam	3.92%	3,567,796	2.04%	1,857,904	-1.88%	(1,709,892)
Citizens Water	1.18%	19,281,124	1.12%	18,291,902	-0.06%	(989,222)
CWA Authority	1.73%	46,959,086	1.68%	45,511,723	-0.05%	(1,447,363)
Westfield Gas	2.18%	248,048	1.81%	205,062	-0.38%	(42,985)
Westfield Water	1.84%	1,382,757	1.58%	1,183,672	-0.27%	(199,084)
Westfield Wastewater	2.44%	2,630,974	2.02%	2,181,512	-0.42%	(449,462)
Total Plant Studied	1.77%	$95,915,770	1.67%	$90,673,889	-0.10%	**$(5,241,881)**

Using the average life grouping procedure, along with Mr. Spanos' proposed depreciation parameters, would result in an adjustment reducing CEG's proposed expense in the amount of $5.2 million.[66] In this case, the discrepancies between the two procedures are not as drastic as in the gas case discussed above. Again, OUCC is not recommending that the average life procedure be adopted in this case, or that the adjustments shown in the table above be adopted. However, it is important that the Commission understand the difference between the two procedures and that the Commission consider the necessity for more frequent updates to depreciation rates in order to mitigate any intergenerational inequities that might occur under application of the equal life procedure.

[66] The detailed calculations are presented in Attachments DJG-17 through DJG-21.

VIII. CONCLUSION AND RECOMMENDATION

Q. Summarize the key points of your testimony.

A. In conducting my depreciation analysis in this case, I used the same depreciation system used by Mr. Spanos, which includes the equal life grouping procedure. When using the equal life procedure, the Commission should consider more frequent updates to depreciation rates to avoid any intergenerational inequities that might arise from using the equal life procedure. Of the 170 depreciable accounts presented in CEG's combined depreciation study, I propose service life adjustments to 22 accounts and net salvage rate adjustments to three accounts. My service life adjustments consider the historical plant data provided by CEG in support of its proposed service life estimates. Using the same data, I created observed life tables and OLT curves. I used visual and mathematical Iowa curve-fitting techniques to developed reasonable service life estimates. For each account to which I propose an adjustment to service life, the Iowa curve I employ results in a better mathematical fit to the relevant observed data. The net salvage rate adjustments I propose are conservative, and they are based on CEG's historical data.

Q. What is your recommendation to the Commission regarding depreciation rates and expense?

A. I recommend the Commission adopt the depreciation rates presented in Attachment DJG-3. Applying these rates to CEG's plant balances as of September 30, 2017 results in an adjustment reducing CEG's proposed depreciation expense in the amount of $8.8 million.

Q. Does this conclude your testimony?

A. Yes, including any attachments, appendices, and other items attached hereto.

APPENDIX A:

THE DEPRECIATION SYSTEM

A depreciation accounting system may be thought of as a dynamic system in which estimates of life and salvage are inputs to the system, and the accumulated depreciation account is a measure of the state of the system at any given time.[67] The primary objective of the depreciation system is the timely recovery of capital. The process for calculating the annual accruals is determined by the factors required to define the system. A depreciation system should be defined by four primary factors: 1) a method of allocation; 2) a procedure for applying the method of allocation to a group of property; 3) a technique for applying the depreciation rate; and 4) a model for analyzing the characteristics of vintage groups comprising a continuous property group.[68] The figure below illustrates the basic concept of a depreciation system and includes some of the available parameters.[69]

There are hundreds of potential combinations of methods, procedures, techniques, and models, but in practice, analysts use only a few combinations. Ultimately, the system selected must result in the systematic and rational allocation of capital recovery for the utility. Each of the four primary factors defining the parameters of a depreciation system is discussed further below.

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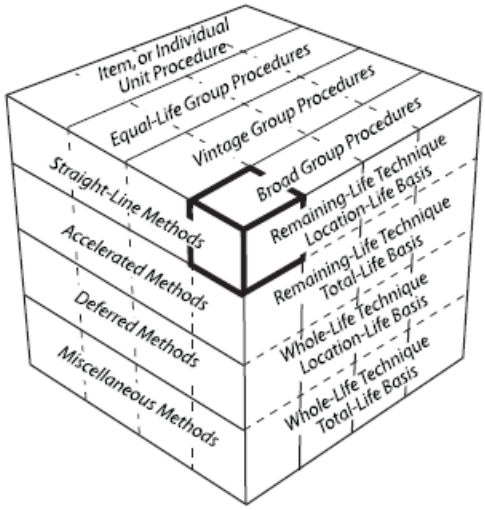
[67] Wolf *supra* n. 9, at 69-70.

[68] *Id*. at 70, 139-40.

[69] Edison Electric Institute, *Introduction to Depreciation* (inside cover) (EEI April 2013). Some definitions of the terms shown in this diagram are not consistent among depreciation practitioners and literature due to the fact that depreciation analysis is a relatively small and fragmented field. This diagram simply illustrates some of the available parameters of a depreciation system.

Figure 13:
The Depreciation System Cube



1. Allocation Methods

The "method" refers to the pattern of depreciation in relation to the accounting periods. The method most commonly used in the regulatory context is the "straight-line method" – a type of age-life method in which the depreciable cost of plant is charged in equal amounts to each accounting period over the service life of plant.[70] Because group depreciation rates and plant balances often change, the amount of the annual accrual rarely remains the same, even when the straight-line method is employed.[71] The basic formula for the straight-line method is as follows:[72]

[70] NARUC *supra* n. 10, at 56.

[71] *Id*.

[72] *Id*.

Equation 1:
Straight-Line Accrual

$$Annual\ Accrual = \frac{Gross\ Plant - Net\ Salavage}{Service\ Life}$$

Gross plant is a known amount from the utility's records, while both net salvage and service life must be estimated to calculate the annual accrual. The straight-line method differs from accelerated methods of recovery, such as the "sum-of-the-years-digits" method and the "declining balance" method. Accelerated methods are primarily used for tax purposes and are rarely used in the regulatory context for determining annual accruals.[73] In practice, the annual accrual is expressed as a rate which is applied to the original cost of plant to determine the annual accrual in dollars. The formula for determining the straight-line rate is as follows:[74]

Equation 2:
Straight-Line Rate

$$Depreciation\ Rate\ \% = \frac{100 - Net\ Salvage\ \%}{Service\ Life}$$

2. Grouping Procedures

The "procedure" refers to the way the allocation method is applied through subdividing the total property into groups.[75] While single units may be analyzed for depreciation, a group plan of depreciation is particularly adaptable to utility property. Employing a grouping procedure allows for a composite application of depreciation rates to groups of similar property, rather than

[73] *Id*. at 57.

[74] *Id*. at 56.

[75] Wolf *supra* n. 9, at 74-75.

conducting calculations for each unit. Whereas an individual unit of property has a single life, a group of property displays a dispersion of lives and the life characteristics of the group must be described statistically.[76] When analyzing mass property categories, it is important that each group contains homogenous units of plant that are used in the same general manner throughout the plant and operated under the same general conditions.[77]

The "average life" and "equal life" grouping procedures are the two most common. In the average life procedure, a constant annual accrual rate based on the average life of all property in the group is applied to the surviving property. While property having shorter lives than the group average will not be fully depreciated, and likewise, property having longer lives than the group average will be over-depreciated, the ultimate result is that the group will be fully depreciated by the time of the final retirement.[78] Thus, the average life procedure treats each unit as though its life is equal to the average life of the group. In contrast, the equal life procedure treats each unit in the group as though its life was known.[79] Under the equal life procedure the property is divided into subgroups that each has a common life.[80]

3. Application Techniques

The third factor of a depreciation system is the "technique" for applying the depreciation rate. There are two commonly used techniques: "whole life" and "remaining life." The whole life

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[76] *Id*. at 74.

[77] NARUC *supra* n. 10, at 61-62.

[78] *See* Wolf *supr*a n. 9, at 74-75.

[79] *Id*. at 75.

[80] *Id*.

technique applies the depreciation rate on the estimated average service life of a group, while the remaining life technique seeks to recover undepreciated costs over the remaining life of the plant.[81]

In choosing the application technique, consideration should be given to the proper level of the accumulated depreciation account. Depreciation accrual rates are calculated using estimates of service life and salvage. Periodically these estimates must be revised due to changing conditions, which cause the accumulated depreciation account to be higher or lower than necessary. Unless some corrective action is taken, the annual accruals will not equal the original cost of the plant at the time of final retirement.[82] Analysts can calculate the level of imbalance in the accumulated depreciation account by determining the "calculated accumulated depreciation," (a.k.a. "theoretical reserve" and referred to in these appendices as "CAD"). The CAD is the calculated balance that would be in the accumulated depreciation account at a point in time using current depreciation parameters.[83] An imbalance exists when the actual accumulated depreciation account does not equal the CAD. The choice of application technique will affect how the imbalance is dealt with.

Use of the whole life technique requires that an adjustment be made to accumulated depreciation after calculation of the CAD. The adjustment can be made in a lump sum or over a period of time. With use of the remaining life technique, however, adjustments to accumulated depreciation are amortized over the remaining life of the property and are automatically included

[81] NARUC *supra* n. 10, at 63-64.

[82] Wolf *supra* n. 9, at 83.

[83] NARUC *supra* n. 10, at 325.

in the annual accrual.[84] This is one reason that the remaining life technique is popular among practitioners and regulators. The basic formula for the remaining life technique is as follows:[85]

Equation 3:
Remaining Life Accrual

$$Annual\ Accrual = \frac{Gross\ Plant - Accumulated\ Depreciation - Net\ Salvage}{Average\ Remaining\ Life}$$

The remaining life accrual formula is similar to the basic straight-line accrual formula above with two notable exceptions. First, the numerator has an additional factor in the remaining life formula: the accumulated depreciation. Second, the denominator is "average remaining life" instead of "average life." Essentially, the future accrual of plant (gross plant less accumulated depreciation) is allocated over the remaining life of plant. Thus, the adjustment to accumulated depreciation is "automatic" in the sense that it is built into the remaining life calculation.[86]

4. Analysis Model

The fourth parameter of a depreciation system, the "model," relates to the way of viewing the life and salvage characteristics of the vintage groups that have been combined to form a continuous property group for depreciation purposes.[87] A continuous property group is created when vintage groups are combined to form a common group. Over time, the characteristics of the property may change, but the continuous property group will continue. The two analysis models

[84] NARUC *supra* n. 10, at 65 ("The desirability of using the remaining life technique is that any necessary adjustments of [accumulated depreciation] . . . are accrued automatically over the remaining life of the property. Once commenced, adjustments to the depreciation reserve, outside of those inherent in the remaining life rate would require regulatory approval.").

[85] *Id*. at 64.

[86] Wolf *supra* n. 9, at 178.

[87] *See* Wolf *supra* n. 9, at 139 (I added the term "model" to distinguish this fourth depreciation system parameter from the other three parameters).

used among practitioners, the “broad group” and the “vintage group,” are two ways of viewing the life and salvage characteristics of the vintage groups that have been combined to form a continuous property group.

The broad group model views the continuous property group as a collection of vintage groups that each have the same life and salvage characteristics. Thus, a single survivor curve and a single salvage schedule are chosen to describe all the vintages in the continuous property group. In contrast, the vintage group model views the continuous property group as a collection of vintage groups that may have different life and salvage characteristics. Typically, there is not a significant difference between vintage group and broad group results unless vintages within the applicable property group experienced dramatically different retirement levels than anticipated in the overall estimated life for the group. For this reason, many analysts utilize the broad group procedure because it is more efficient.

APPENDIX B:

IOWA CURVES

Early work in the analysis of the service life of industrial property was based on models that described the life characteristics of human populations.[88] This explains why the word "mortality" is often used in the context of depreciation analysis. In fact, a group of property installed during the same accounting period is analogous to a group of humans born during the same calendar year. Each period the group will incur a certain fraction of deaths / retirements until there are no survivors. Describing this pattern of mortality is part of actuarial analysis and is regularly used by insurance companies to determine life insurance premiums. The pattern of mortality may be described by several mathematical functions, particularly the survivor curve and frequency curve. Each curve may be derived from the other so that if one curve is known, the other may be obtained. A survivor curve is a graph of the percent of units remaining in service expressed as a function of age.[89] A frequency curve is a graph of the frequency of retirements as a function of age. Several types of survivor and frequency curves are illustrated in the figures below.

1. Development

The survivor curves used by analysts today were developed over several decades from extensive analysis of utility and industrial property. In 1931, Edwin Kurtz and Robley Winfrey used extensive data from a range of 65 industrial property groups to create survivor curves representing the life characteristics of each group of property.[90] They generalized the 65 curves

[88] Wolf *supra* n. 9, at 276.

[89] *Id*. at 23.

[90] *Id*. at 34.

into 13 survivor curve types and published their results in *Bulletin 103: Life Characteristics of Physical Property*. The 13 type curves were designed to be used as valuable aids in forecasting probable future service lives of industrial property. Over the next few years, Winfrey continued gathering additional data, particularly from public utility property, and expanded the examined property groups from 65 to 176.[91] This resulted in 5 additional survivor curve types for a total of 18 curves. In 1935, Winfrey published *Bulletin 125: Statistical Analysis of Industrial Property Retirements*. According to Winfrey, "[t]he 18 type curves are expected to represent quite well all survivor curves commonly encountered in utility and industrial practices."[92] These curves are known as the "Iowa curves" and are used extensively in depreciation analysis in order to obtain the average service lives of property groups. (Use of Iowa curves in actuarial analysis is further discussed in Appendix C.)

In 1942, Winfrey published *Bulletin 155: Depreciation of Group Properties*. In Bulletin 155, Winfrey made some slight revisions to a few of the 18 curve types, and published the equations, tables of the percent surviving, and probable life of each curve at five-percent intervals.[93] Rather than using the original formulas, analysts typically rely on the published tables containing the percentages surviving. This is because absent knowledge of the integration technique applied to each age interval, it is not possible to recreate the exact original published table values. In the 1970s, John Russo collected data from over 2,000 property accounts reflecting

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[91] *Id*.

[92] Robley Winfrey, *Bulletin 125: Statistical Analyses of Industrial Property Retirements* 85, Vol. XXXIV, No. 23 (Iowa State College of Agriculture and Mechanic Arts 1935).

[93] Robley Winfrey, Bulletin 155: Depreciation of Group Properties 121-28, Vol XLI, No. 1 (The Iowa State College Bulletin 1942); see also Wolf supra n. 9, at 305-38 (publishing the percent surviving for each Iowa curve, including "O" type curve, at one percent intervals).

observations during the period 1965 – 1975 as part of his Ph.D. dissertation at Iowa State. Russo essentially repeated Winfrey's data collection, testing, and analysis methods used to develop the original Iowa curves, except that Russo studied industrial property in service several decades after Winfrey published the original Iowa curves. Russo drew three major conclusions from his research:[94]

1. No evidence was found to conclude that the Iowa curve set, as it stands, is not a valid system of standard curves;

2. No evidence was found to conclude that new curve shapes could be produced at this time that would add to the validity of the Iowa curve set; and

3. No evidence was found to suggest that the number of curves within the Iowa curve set should be reduced.

Prior to Russo's study, some had criticized the Iowa curves as being potentially obsolete because their development was rooted in the study of industrial property in existence during the early 1900s. Russo's research, however, negated this criticism by confirming that the Iowa curves represent a sufficiently wide range of life patterns, and that though technology will change over time, the underlying patterns of retirements remain constant and can be adequately described by the Iowa curves.[95]

Over the years, several more curve types have been added to Winfrey's 18 Iowa curves. In 1967, Harold Cowles added four origin-modal curves. In addition, a square curve is sometimes used to depict retirements which are all planned to occur at a given age. Finally, analysts

[94] *See* Wolf *supra* n. 9, at 37.

[95] *Id*.

commonly rely on several "half curves" derived from the original Iowa curves. Thus, the term "Iowa curves" could be said to describe up to 31 standardized survivor curves.

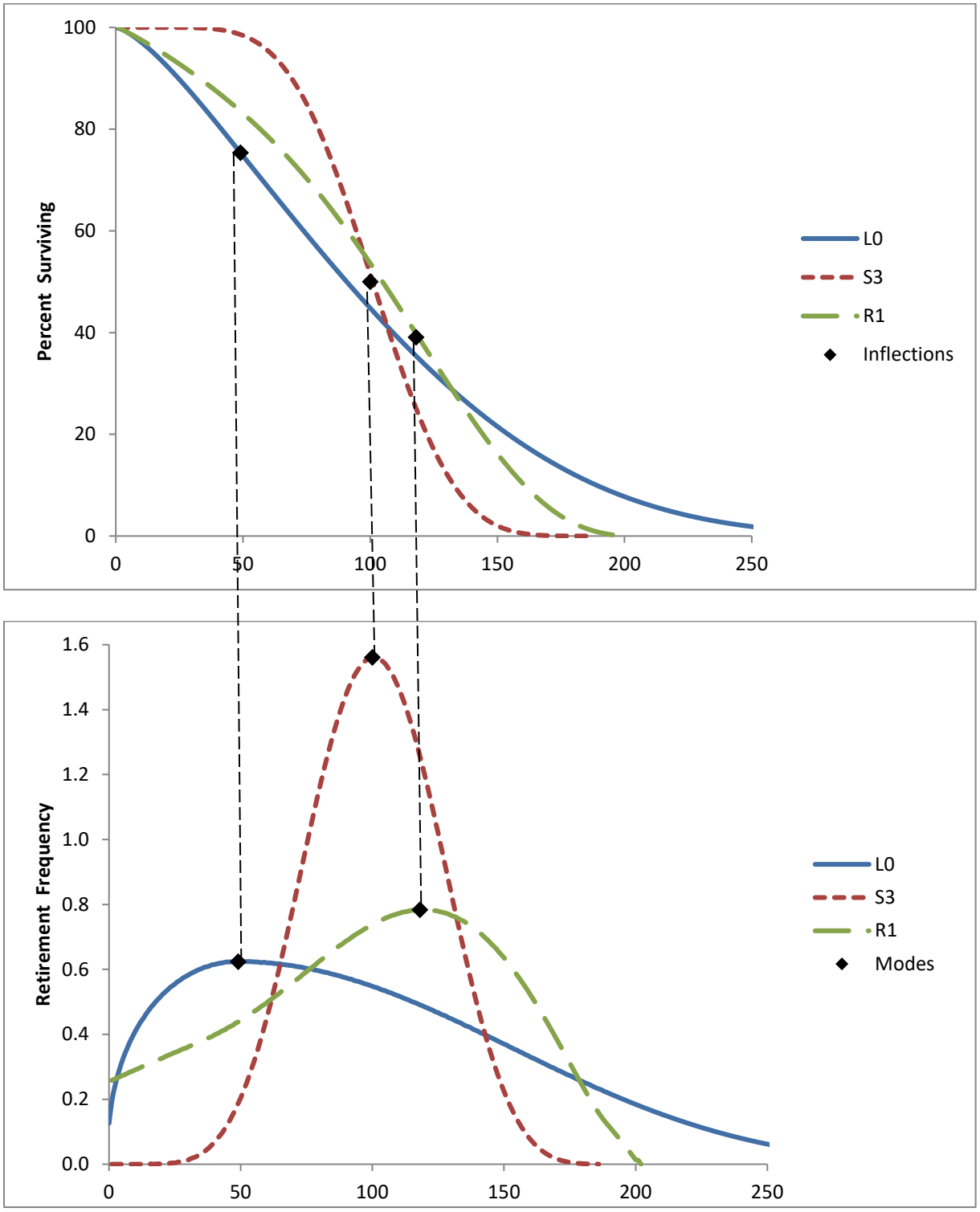
2. Classification

The Iowa curves are classified by three variables: modal location, average life, and variation of life. First, the mode is the percent life that results in the highest point of the frequency curve and the "inflection point" on the survivor curve. The modal age is the age at which the greatest rate of retirement occurs. As illustrated in the figure below, the modes appear at the steepest point of each survivor curve in the top graph, as well as the highest point of each corresponding frequency curve in the bottom graph.

The classification of the survivor curves was made according to whether the mode of the retirement frequency curves was to the left, to the right, or coincident with average service life. There are three modal "families" of curves: six left modal curves (L0, L1, L2, L3, L4, L5); five right modal curves (R1, R2, R3, R4, R5); and seven symmetrical curves (S0, S1, S2, S3, S4, S5, S6).[96] In the figure below, one curve from each family is shown: L0, S3 and R1, with average life at 100 on the x-axis. It is clear from the graphs that the modes for the L0 and R1 curves appear to the left and right of average life respectively, while the S3 mode is coincident with average life.

[96] In 1967, Harold A. Cowles added four origin-modal curves known as "O type" curves. There are also several "half" curves and a square curve, so the total amount of survivor curves commonly called "Iowa" curves is about 31 (see NARUC supra n. 10, at 68).

Figure 14:
Modal Age Illustration



The second Iowa curve classification variable is average life. The Iowa curves were designed using a single parameter of age expressed as a percent of average life instead of actual age. This was necessary for the curves to be of practical value. As Winfrey notes:

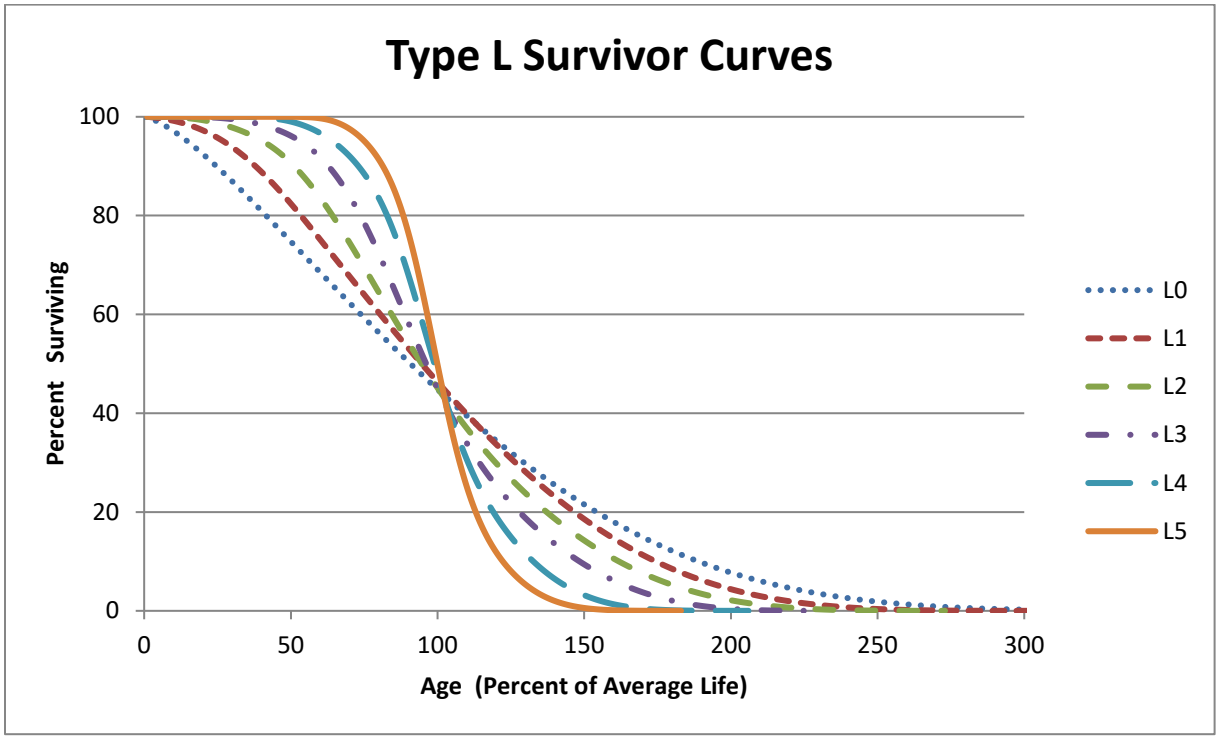
> Since the location of a particular survivor on a graph is affected by both its span in years and the shape of the curve, it is difficult to classify a group of curves unless one of these variables can be controlled. This is easily done by expressing the age in percent of average life."[97]

Because age is expressed in terms of percent of average life, any particular Iowa curve type can be modified to forecast property groups with various average lives.

The third variable, variation of life, is represented by the numbers next to each letter. A lower number (e.g., L1) indicates a relatively low mode, large variation, and large maximum life; a higher number (e.g., L5) indicates a relatively high mode, small variation, and small maximum life. All three classification variables – modal location, average life, and variation of life – are used to describe each Iowa curve. For example, a 13-L1 Iowa curve describes a group of property with a 13-year average life, with the greatest number of retirements occurring before (or to the left of) the average life, and a relatively low mode. The graphs below show these 18 survivor curves, organized by modal family.

[97] Winfrey *supra* n. 75, at 60.

Figure 15:
Type L Survivor and Frequency Curves



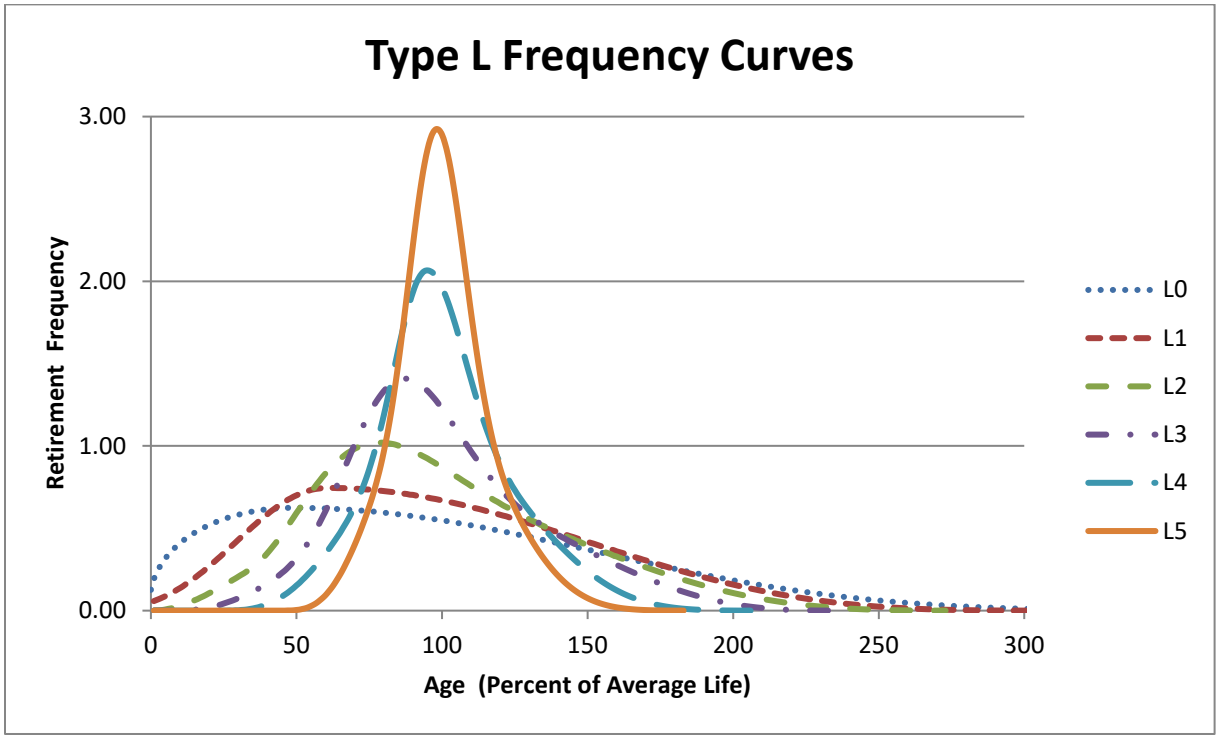
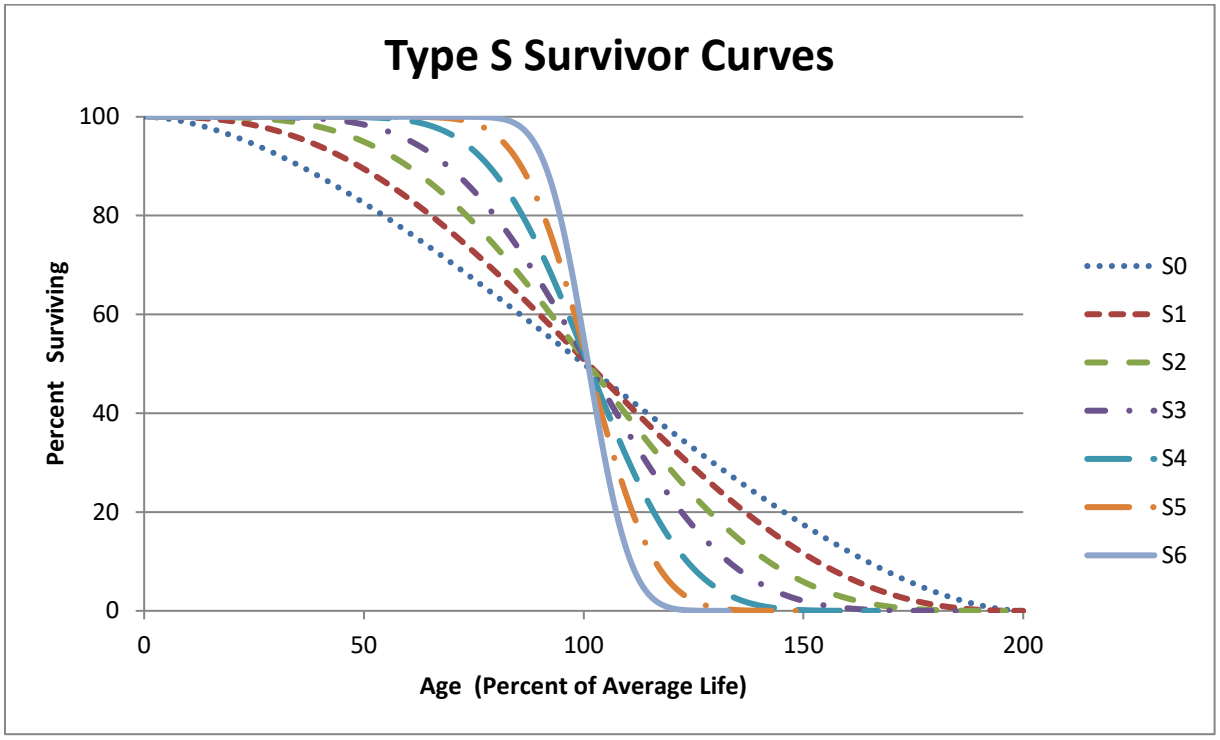


Figure 16:
Type S Survivor and Frequency Curves



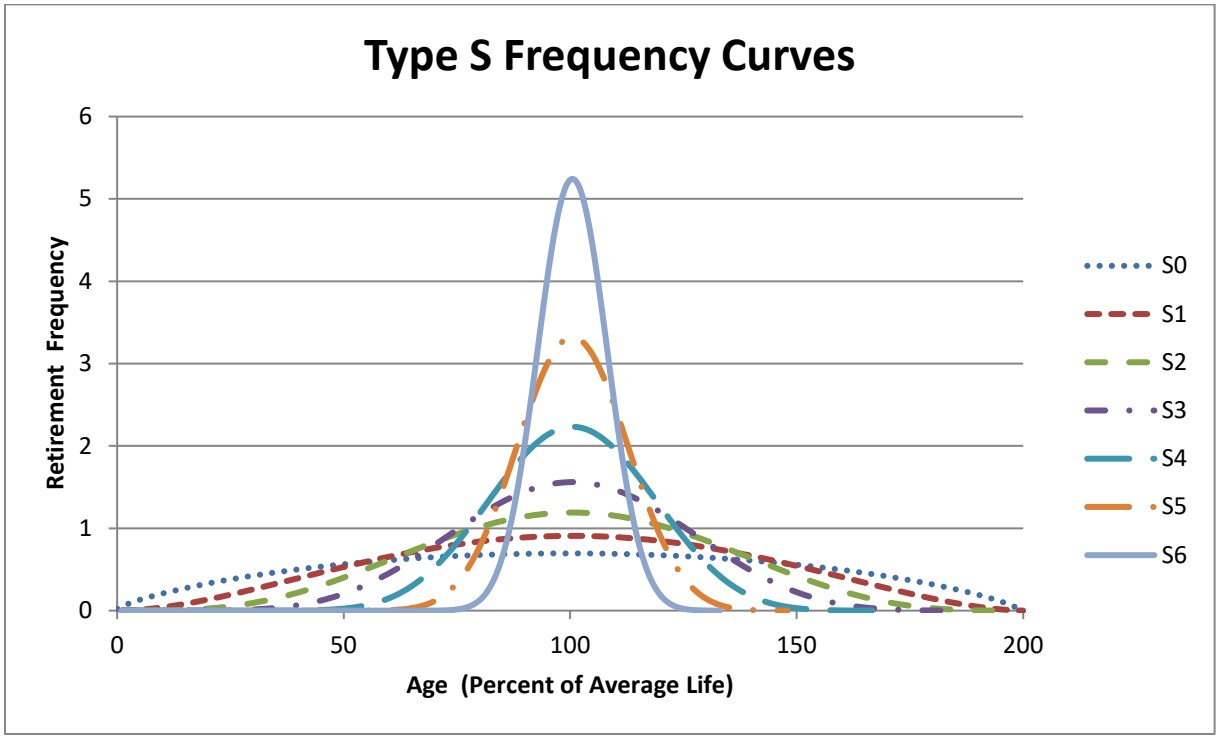
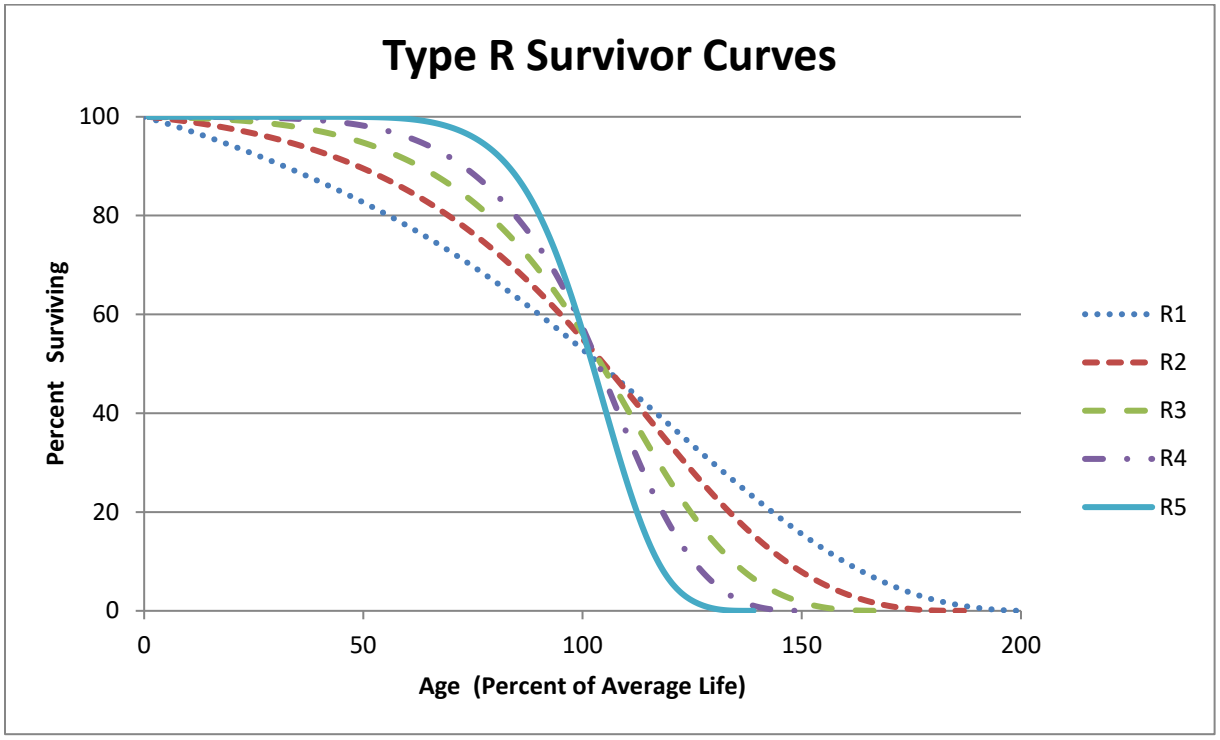
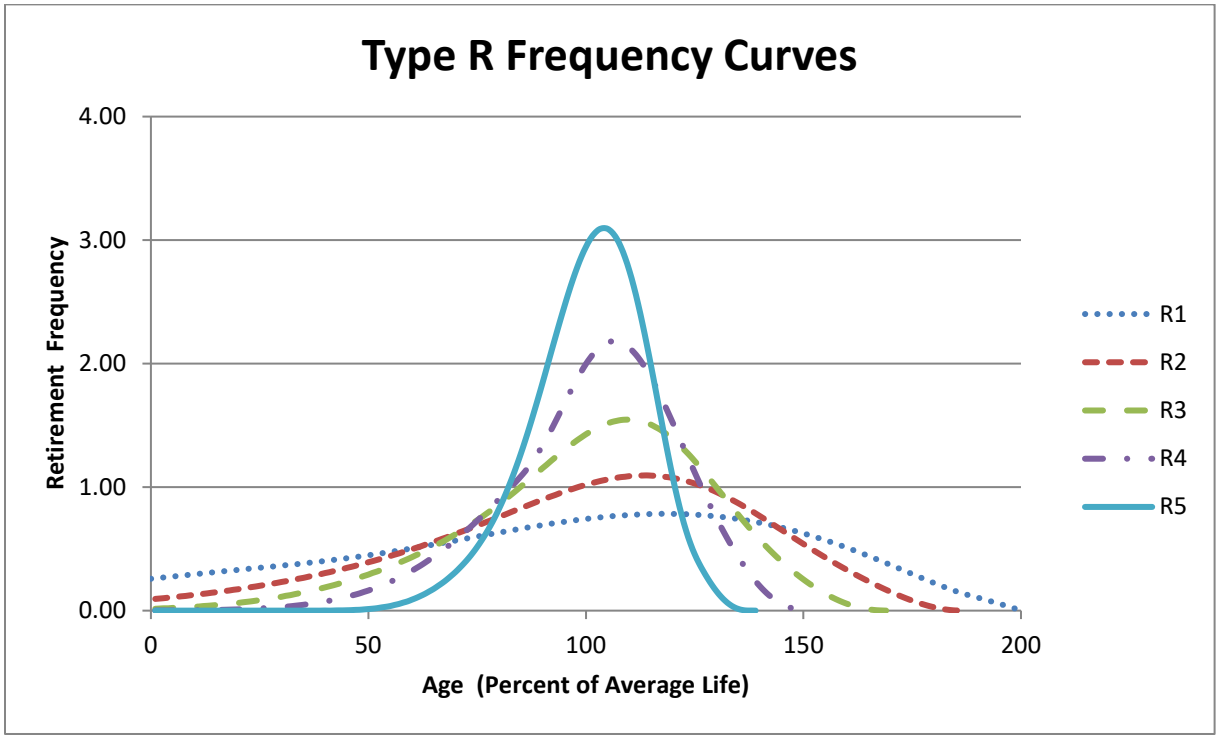


Figure 17:
Type R Survivor and Frequency Curves





As shown in the graphs above, the modes for the L family frequency curves occur to the left of average life (100% on the x-axis), while the S family modes occur at the average, and the R family modes occur after the average.

3. Types of Lives

Several other important statistical analyses and types of lives may be derived from an Iowa curve. These include: 1) average life; 2) realized life; 3) remaining life; and 4) probable life. The figure below illustrates these concepts. It shows the frequency curve, survivor curve, and probable life curve. Age M_x on the x-axis represents the modal age, while age AL_x represents the average age. Thus, this figure illustrates an "L type" Iowa curve since the mode occurs before the average.[98]

First, average life is the area under the survivor curve from age zero to maximum life. Because the survivor curve is measured in percent, the area under the curve must be divided by 100% to convert it from percent-years to years. The formula for average life is as follows:[99]

Equation 4:
Average Life

$$Average\ Life\ = \frac{Area\ Under\ Survivor\ Curve\ from\ Age\ 0\ to\ Max\ Life}{100\%}$$

Thus, average life may not be determined without a complete survivor curve. Many property groups being analyzed will not have experienced full retirement. This results in a "stub" survivor

[98] From age zero to age M_x on the survivor curve, it could be said that the percent surviving from this property group is decreasing at an increasing rate. Conversely, from point M_x to maximum on the survivor curve, the percent surviving is decreasing at a decreasing rate.

[99] *See* NARUC *supra* n. 10, at 71.

curve. Iowa curves are used to extend stub curves to maximum life in order for the average life calculation to be made (see Appendix C).

Realized life is similar to average life, except that realized life is the average years of service experienced to date from the vintage's original installations.[100] As shown in the figure below, realized life is the area under the survivor curve from zero to age RL_X. Likewise, unrealized life is the area under the survivor curve from age RL_X to maximum life. Thus, it could be said that average life equals realized life plus unrealized life.

Average remaining life represents the future years of service expected from the surviving property.[101] Remaining life is sometimes referred to as "average remaining life" and "life expectancy." To calculate average remaining life at age x, the area under the estimated future portion of the survivor curve is divided by the percent surviving at age x (denoted S_X). Thus, the average remaining life formula is:

Equation 5:
Average Remaining Life

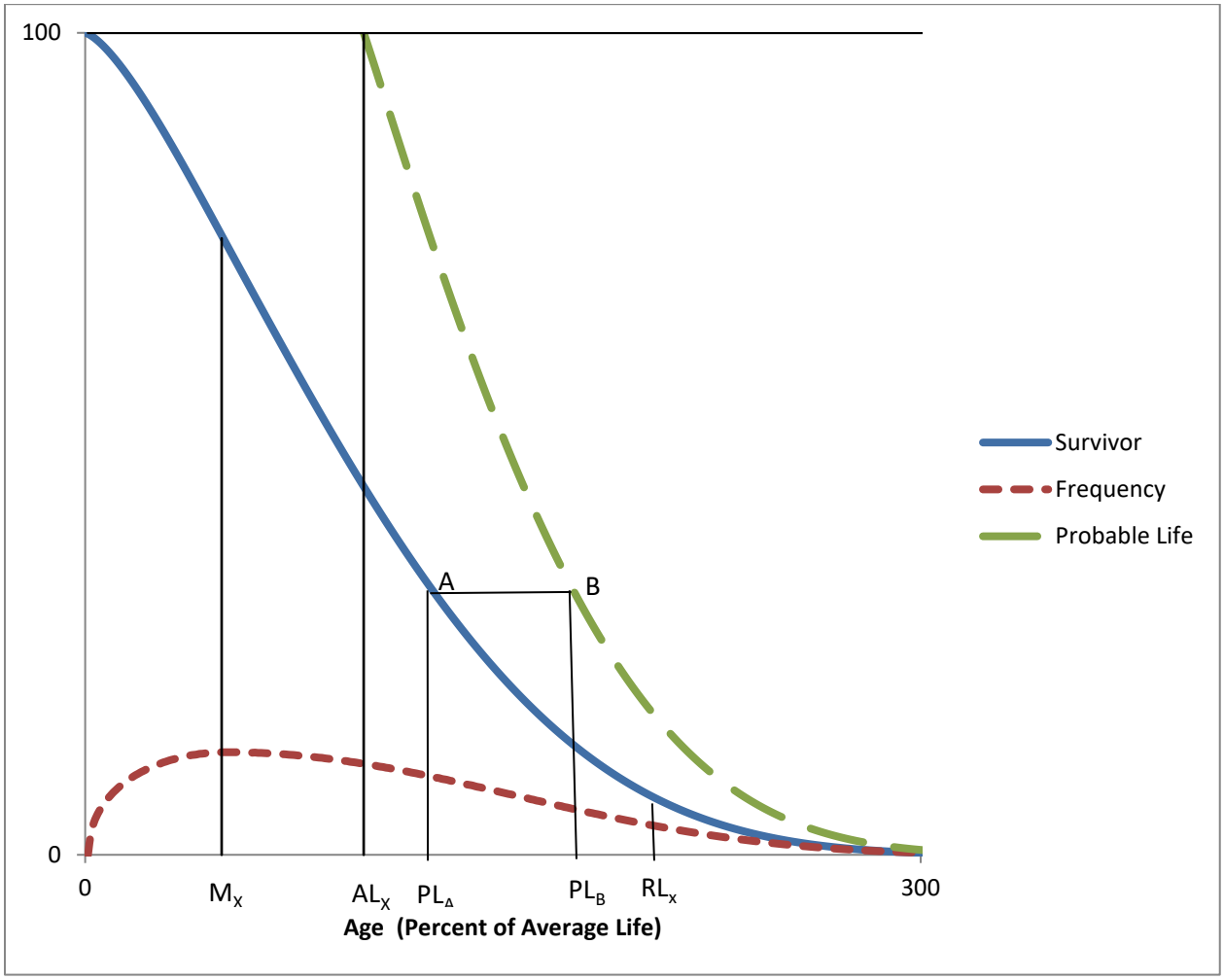
$$Average\ Remaining\ Life\ = \frac{Area\ Under\ Survivor\ Curve\ from\ Age\ x\ to\ Max\ Life}{S_X}$$

It is necessary to determine average remaining life to calculate the annual accrual under the remaining life technique.

[100] *Id*. at 73.

[101] *Id*. at 74.

Figure 18:
Iowa Curve Derivations



Finally, the probable life may also be determined from the Iowa curve. The probable life of a property group is the total life expectancy of the property surviving at any age and is equal to the remaining life plus the current age.[102] The probable life is also illustrated in this figure. The probable life at age PL_A is the age at point PL_B. Thus, to read the probable life at age PL_A, see the

[102] Wolf *supra* n. 9, at 28.

corresponding point on the survivor curve above at point “A,” then horizontally to point “B” on the probable life curve, and back down to the age corresponding to point “B.” It is no coincidence that the vertical line from AL_X connects at the top of the probable life curve. This is because at age zero, probable life equals average life.

APPENDIX C:

ACTUARIAL ANALYSIS

Actuarial science is a discipline that applies various statistical methods to assess risk probabilities and other related functions. Actuaries often study human mortality. The results from historical mortality data are used to predict how long similar groups of people who are alive today will live. Insurance companies rely on actuarial analysis in determining premiums for life insurance policies.

The study of human mortality is analogous to estimating service lives of industrial property groups. While some humans die solely from chance, most deaths are related to age; that is, death rates generally increase as age increases. Similarly, physical plant is also subject to forces of retirement. These forces include physical, functional, and contingent factors, as shown in the table below.[103]

Figure 19:
Forces of Retirement

Physical Factors	Functional Factors	Contingent Factors
Wear and tear Decay or deterioration Action of the elements	Inadequacy Obsolescence Changes in technology Regulations Managerial discretion	Casualties or disasters Extraordinary obsolescence

While actuaries study historical mortality data in order to predict how long a group of people will live, depreciation analysts must look at a utility's historical data in order to estimate the average lives of property groups. A utility's historical data is often contained in the Continuing Property Records ("CPR"). Generally, a CPR should contain 1) an inventory of property record

[103] NARUC *supra* n. 10, at 14-15.

units; 2) the association of costs with such units; and 3) the dates of installation and removal of plant. Since actuarial analysis includes the examination of historical data to forecast future retirements, the historical data used in the analysis should not contain events that are anomalous or unlikely to recur.[104] Historical data is used in the retirement rate actuarial method, which is discussed further below.

The Retirement Rate Method

There are several systematic actuarial methods that use historical data to calculate observed survivor curves for property groups. Of these methods, the retirement rate method is superior, and is widely employed by depreciation analysts.[105] The retirement rate method is ultimately used to develop an observed survivor curve, which can be fitted with an Iowa curve discussed in Appendix B to forecast average life. The observed survivor curve is calculated by using an observed life table ("OLT"). The figures below illustrate how the OLT is developed. First, historical property data are organized in a matrix format, with placement years on the left forming rows, and experience years on the top forming columns. The placement year (a.k.a. "vintage year" or "installation year") is the year of placement into service of a group of property. The experience year (a.k.a. "activity year") refers to the accounting data for a particular calendar year. The two matrices below use aged data – that is, data for which the dates of placements, retirements, transfers, and other transactions are known. Without aged data, the retirement rate actuarial method may not be employed. The first matrix is the exposure matrix, which shows the exposures

[104] *Id*. at 112-13.

[105] Anson Marston, Robley Winfrey & Jean C. Hempstead, *Engineering Valuation and Depreciation* 154 (2nd ed., McGraw-Hill Book Company, Inc. 1953).

at the beginning of each year.[106] An exposure is simply the depreciable property subject to retirement during a period. The second matrix is the retirement matrix, which shows the annual retirements during each year. Each matrix covers placement years 2003–2015, and experience years 2008-2015. In the exposure matrix, the number in the 2012 experience column and the 2003 placement row is $192,000. This means at the beginning of 2012, there was $192,000 still exposed to retirement from the vintage group placed in 2003. Likewise, in the retirement matrix, $19,000 of the dollars invested in 2003 were retired during 2012.

Figure 20:
Exposure Matrix

	Experience Years									
	Exposures at January 1 of Each Year (Dollars in 000's)									
Placement Years	2008	2009	2010	2011	2012	2013	2014	2015	Total at Start of Age Interval	Age Interval
2003	261	245	228	211	**192**	173	152	131	131	11.5 - 12.5
2004	267	252	236	220	202	**184**	165	145	297	10.5 - 11.5
2005	304	291	277	263	248	232	**216**	198	536	9.5 - 10.5
2006	345	334	322	310	298	284	270	**255**	**847**	8.5 - 9.5
2007	367	357	347	335	324	312	299	286	1,201	7.5 - 8.5
2008	375	366	357	347	336	325	314	302	1,581	6.5 - 7.5
2009		377	366	356	346	336	327	319	1,986	5.5 - 6.5
2010			381	369	358	347	336	327	2,404	4.5 - 5.5
2011				386	372	359	346	334	2,559	3.5 - 4.5
2012					395	380	366	352	2,722	2.5 - 3.5
2013						401	385	370	2,866	1.5 - 2.5
2014							410	393	2,998	0.5 - 1.5
2015								416	3,141	0.0 - 0.5
Total	1919	2222	2514	2796	3070	3333	3586	3827	23,268	

[106] Technically, the last numbers in each column are "gross additions" rather than exposures. Gross additions do not include adjustments and transfers applicable to plant placed in a previous year. Once retirements, adjustments, and transfers are factored in, the balance at the beginning of the next accounting period is called an "exposure" rather than an addition.

Figure 21:
Retirement Matrix

Placement Years	Experience Years: Retirments During the Year (Dollars in 000's) 2008	2009	2010	2011	2012	2013	2014	2015	Total During Age Interval	Age Interval
2003	16	17	18	19	**19**	20	21	23	23	11.5 - 12.5
2004	15	16	17	17	18	**19**	20	21	43	10.5 - 11.5
2005	13	14	14	15	16	17	**17**	18	59	9.5 - 10.5
2006	11	12	12	13	13	14	15	**15**	**71**	8.5 - 9.5
2007	10	11	11	12	12	13	13	14	82	7.5 - 8.5
2008	9	9	10	10	11	11	12	13	91	6.5 - 7.5
2009		11	10	10	9	9	9	8	95	5.5 - 6.5
2010			12	11	11	10	10	9	100	4.5 - 5.5
2011				14	13	13	12	11	93	3.5 - 4.5
2012					15	14	14	13	91	2.5 - 3.5
2013						16	15	14	93	1.5 - 2.5
2014							17	16	100	0.5 - 1.5
2015								18	112	0.0 - 0.5
Total	74	89	104	121	139	157	175	194	1,052	

These matrices help visualize how exposure and retirement data are calculated for each age interval. An age interval is typically one year. A common convention is to assume that any unit installed during the year is installed in the middle of the calendar year (i.e., July 1st). This convention is called the "half-year convention" and effectively assumes that all units are installed uniformly during the year.[107] Adoption of the half-year convention leads to age intervals of 0-0.5 years, 0.5-1.5 years, etc., as shown in the matrices.

The purpose of the matrices is to calculate the totals for each age interval, which are shown in the second column from the right in each matrix. This column is calculated by adding each number from the corresponding age interval in the matrix. For example, in the exposure matrix, the total amount of exposures at the beginning of the 8.5-9.5 age interval is $847,000. This number was calculated by adding the numbers shown on the "stairs" to the left (192+184+216+255=847).

[107] Wolf *supra* n. 9, at 22.

The same calculation is applied to each number in the column. The amounts retired during the year in the retirements matrix affect the exposures at the beginning of each year in the exposures matrix. For example, the amount exposed to retirement in 2008 from the 2003 vintage is $261,000. The amount retired during 2008 from the 2003 vintage is $16,000. Thus, the amount exposed to retirement at the beginning of 2009 from the 2003 vintage is $245,000 ($261,000 - $16,000). The company's property records may contain other transactions which affect the property, including sales, transfers, and adjusting entries. Although these transactions are not shown in the matrices above, they would nonetheless affect the amount exposed to retirement at the beginning of each year.

The totaled amounts for each age interval in both matrices are used to form the exposure and retirement columns in the OLT, as shown in the chart below. This chart also shows the retirement ratio and the survivor ratio for each age interval. The retirement ratio for an age interval is the ratio of retirements during the interval to the property exposed to retirement at the beginning of the interval. The retirement ratio represents the probability that the property surviving at the beginning of an age interval will be retired during the interval. The survivor ratio is simply the complement to the retirement ratio (1 – retirement ratio). The survivor ratio represents the probability that the property surviving at the beginning of an age interval will survive to the next age interval.

Figure 22:
Observed Life Table

Age at Start of Interval	Exposures at Start of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Start of Age Interval
A	B	C	D = C / B	E = 1 - D	F
0.0	3,141	112	0.036	0.964	**100.00**
0.5	2,998	100	0.033	0.967	**96.43**
1.5	2,866	93	0.032	0.968	**93.21**
2.5	2,722	91	0.033	0.967	**90.19**
3.5	2,559	93	0.037	0.963	**87.19**
4.5	2,404	100	0.042	0.958	**84.01**
5.5	1,986	95	0.048	0.952	**80.50**
6.5	1,581	91	0.058	0.942	**76.67**
7.5	1,201	82	0.068	0.932	**72.26**
8.5	847	71	0.084	0.916	**67.31**
9.5	536	59	0.110	0.890	**61.63**
10.5	297	43	0.143	0.857	**54.87**
11.5	131	23	0.172	0.828	**47.01**
					38.91
Total	23,268	1,052			

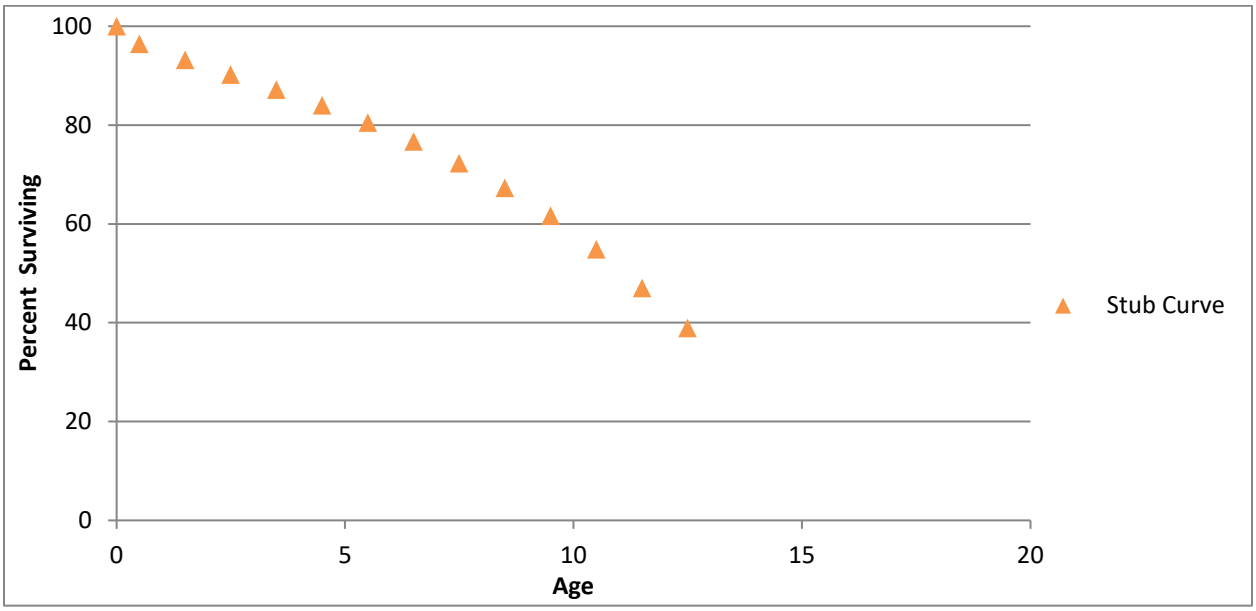
Column F on the right shows the percentages surviving at the beginning of each age interval. This column starts at 100% surviving. Each consecutive number below is calculated by multiplying the percent surviving from the previous age interval by the corresponding survivor ratio for that age interval. For example, the percent surviving at the start of age interval 1.5 is 93.21%, which was calculated by multiplying the percent surviving for age interval 0.5 (96.43%) by the survivor ratio for age interval 0.5 (0.967)[108].

The percentages surviving in Column F are the numbers that are used to form the original survivor curve. This particular curve starts at 100% surviving and ends at 38.91% surviving. An

[108] Multiplying 96.43 by 0.967 does not equal 93.21 exactly due to rounding.

observed survivor curve such as this that does not reach zero percent surviving is called a "stub" curve. The figure below illustrates the stub survivor curve derived from the OLT above.

Figure 23:
Original "Stub" Survivor Curve



The matrices used to develop the basic OLT and stub survivor curve provide a basic illustration of the retirement rate method in that only a few placement and experience years were used. In reality, analysts may have several decades of aged property data to analyze. In that case, it may be useful to use a technique called "banding" in order to identify trends in the data.

Banding

The forces of retirement and characteristics of industrial property are constantly changing. A depreciation analyst may examine the magnitude of these changes. Analysts often use a technique called "banding" to assist with this process. Banding refers to the merging of several years of data into a single data set for further analysis, and it is a common technique associated

with the retirement rate method.[109] There are three primary benefits of using bands in depreciation analysis:

1. Increasing the sample size. In statistical analyses, the larger the sample size in relation to the body of total data, the greater the reliability of the result;

2. Smooth the observed data. Generally, the data obtained from a single activity or vintage year will not produce an observed life table that can be easily fit; and

3. Identify trends. By looking at successive bands, the analyst may identify broad trends in the data that may be useful in projecting the future life characteristics of the property.[110]

Two common types of banding methods are the "placement band" method and the "experience band" method." A placement band, as the name implies, isolates selected placement years for analysis. The figure below illustrates the same exposure matrix shown above, except that only the placement years 2005-2008 are considered in calculating the total exposures at the beginning of each age interval.

[109] NARUC *supra* n. 10, at 113.

[110] *Id*.

Figure 24:
Placement Bands

Placement Years	Experience Years: Exposures at January 1 of Each Year (Dollars in 000's) 2008	2009	2010	2011	2012	2013	2014	2015	Total at Start of Age Interval	Age Interval
2003	261	245	228	211	192	173	152	131		11.5 - 12.5
2004	267	252	236	220	202	184	165	145		10.5 - 11.5
2005	304	291	277	263	248	232	216	198	198	9.5 - 10.5
2006	345	334	322	310	298	284	270	255	471	8.5 - 9.5
2007	367	357	347	335	324	312	299	286	788	7.5 - 8.5
2008	375	366	357	347	336	325	314	302	1,133	6.5 - 7.5
2009		377	366	356	346	336	327	319	1,186	5.5 - 6.5
2010			381	369	358	347	336	327	1,237	4.5 - 5.5
2011				386	372	359	346	334	1,285	3.5 - 4.5
2012					395	380	366	352	1,331	2.5 - 3.5
2013						401	385	370	1,059	1.5 - 2.5
2014							410	393	733	0.5 - 1.5
2015								416	375	0.0 - 0.5
Total	1919	2222	2514	2796	3070	3333	3586	3827	9,796	

The shaded cells within the placement band equal the total exposures at the beginning of age interval 4.5–5.5 ($1,237). The same placement band would be used for the retirement matrix covering the same placement years of 2005 – 2008. This of course would result in a different OLT and original stub survivor curve than those that were calculated above without the restriction of a placement band.

Analysts often use placement bands for comparing the survivor characteristics of properties with different physical characteristics.[111] Placement bands allow analysts to isolate the effects of changes in technology and materials that occur in successive generations of plant. For example, if in 2005 an electric utility began placing transmission poles into service with a special chemical treatment that extended the service lives of those poles, an analyst could use placement bands to isolate and analyze the effect of that change in the property group's physical characteristics. While

[111] Wolf *supra* n. 9, at 182.

placement bands are very useful in depreciation analysis, they also possess an intrinsic dilemma. A fundamental characteristic of placement bands is that they yield fairly complete survivor curves for older vintages. However, with newer vintages, which are arguably more valuable for forecasting, placement bands yield shorter survivor curves. Longer "stub" curves are considered more valuable for forecasting average life. Thus, an analyst must select a band width broad enough to provide confidence in the reliability of the resulting curve fit, yet narrow enough so that an emerging trend may be observed.[112]

Analysts also use "experience bands." Experience bands show the composite retirement history for all vintages during a select set of activity years. The figure below shows the same data presented in the previous exposure matrices, except that the experience band from 2011 – 2013 is isolated, resulting in different interval totals.

[112] NARUC *supra* n. 10, at 114.

Figure 25:
Experience Bands

	Experience Years									
	Exposures at January 1 of Each Year (Dollars in 000's)									
Placement Years	2008	2009	2010	2011	2012	2013	2014	2015	Total at Start of Age Interval	Age Interval
2003	261	245	228	211	192	173	152	131		11.5 - 12.5
2004	267	252	236	220	202	184	165	145		10.5 - 11.5
2005	304	291	277	263	248	232	216	198	173	9.5 - 10.5
2006	345	334	322	310	298	284	270	255	376	8.5 - 9.5
2007	367	357	347	335	324	312	299	286	645	7.5 - 8.5
2008	375	366	357	347	336	325	314	302	752	6.5 - 7.5
2009		377	366	356	346	336	327	319	872	5.5 - 6.5
2010			381	369	358	347	336	327	959	4.5 - 5.5
2011				386	372	359	346	334	1,008	3.5 - 4.5
2012					395	380	366	352	1,039	2.5 - 3.5
2013						401	385	370	1,072	1.5 - 2.5
2014							410	393	1,121	0.5 - 1.5
2015								416	1,182	0.0 - 0.5
Total	1919	2222	2514	2796	3070	3333	3586	3827	9,199	

The shaded cells within the experience band equal the total exposures at the beginning of age interval 4.5–5.5 ($1,237). The same experience band would be used for the retirement matrix covering the same experience years of 2011 – 2013. This of course would result in a different OLT and original stub survivor than if the band had not been used. Analysts often use experience bands to isolate and analyze the effects of an operating environment over time.[113] Likewise, the use of experience bands allows analysis of the effects of an unusual environmental event. For example, if an unusually severe ice storm occurred in 2013, destruction from that storm would affect an electric utility's line transformers of all ages. That is, each of the line transformers from each placement year would be affected, including those recently installed in 2012, as well as those installed in 2003. Using experience bands, an analyst could isolate or even eliminate the 2013 experience year from the analysis. In contrast, a placement band would not effectively isolate the

[113] *Id.*

ice storm's effect on life characteristics. Rather, the placement band would show an unusually large rate of retirement during 2013, making it more difficult to accurately fit the data with a smooth Iowa curve. Experience bands tend to yield the most complete stub curves for recent bands because they have the greatest number of vintages included. Longer stub curves are better for forecasting. The experience bands, however, may also result in more erratic retirement dispersion making the curve fitting process more difficult.

Depreciation analysts must use professional judgment in determining the types of bands to use and the band widths. In practice, analysts may use various combinations of placement and experience bands in order to increase the data sample size, identify trends and changes in life characteristics, and isolate unusual events. Regardless of which bands are used, observed survivor curves in depreciation analysis rarely reach zero percent. This is because, as seen in the OLT above, relatively newer vintage groups have not yet been fully retired at the time the property is studied. An analyst could confine the analysis to older, fully retired vintage groups to get complete survivor curves, but such analysis would ignore some of the property currently in service and would arguably not provide an accurate description of life characteristics for current plant in service. Because a complete curve is necessary to calculate the average life of the property group, however, curve fitting techniques using Iowa curves or other standardized curves may be employed in order to complete the stub curve.

Curve Fitting

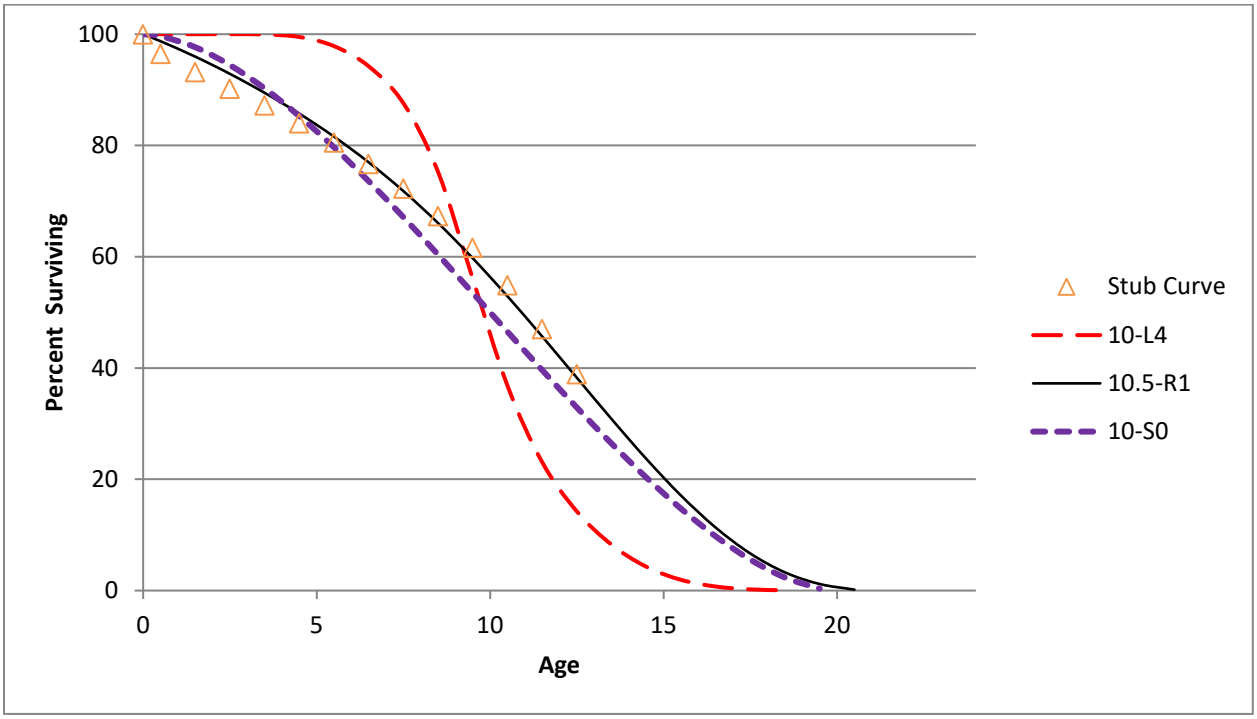
Depreciation analysts typically use the survivor curve rather than the frequency curve to fit the observed stub curves. The most commonly used generalized survivor curves in the curve fitting process are the Iowa curves discussed above. As Wolf notes, if "the Iowa curves are adopted

as a model, an underlying assumption is that the process describing the retirement pattern is one of the 22 [or more] processes described by the Iowa curves."[114]

Curve fitting may be done through visual matching or mathematical matching. In visual curve fitting, the analyst visually examines the plotted data to make an initial judgment about the Iowa curves that may be a good fit. The figure below illustrates the stub survivor curve shown above. It also shows three different Iowa curves: the 10-L4, the 10.5-R1, and the 10-S0. Visually, it is clear that the 10.5-R1 curve is a better fit than the other two curves.

[114] Wolf *supra* n. 9, at 46 (22 curves includes Winfrey's 18 original curves plus Cowles's four "O" type curves).

Figure 26:
Visual Curve Fitting



In mathematical fitting, the least squares method is used to calculate the best fit. This mathematical method would be excessively time consuming if done by hand. With the use of modern computer software however, mathematical fitting is an efficient and useful process. The typical logic for a computer program, as well as the software employed for the analysis in this testimony is as follows:

> First (an Iowa curve) curve is arbitrarily selected. . . . If the observed curve is a stub curve, . . . calculate the area under the curve and up to the age at final data point. Call this area the realized life. Then systematically vary the average life of the theoretical survivor curve and calculate its realized life at the age corresponding to the study date. This trial and error procedure ends when you find an average life such that the realized life of the theoretical curve equals the realized life of the observed curve. Call this the average life.
>
> Once the average life is found, calculate the difference between each percent surviving point on the observed survivor curve and the corresponding point on the Iowa curve. Square each difference and sum them. The sum of squares is used as a measure of goodness of fit for that particular Iowa type curve. This procedure is

> repeated for the remaining 21 Iowa type curves. The "best fit" is declared to be the type of curve that minimizes the sum of differences squared.[115]

Mathematical fitting requires less judgment from the analyst and is thus less subjective. Blind reliance on mathematical fitting, however, may lead to poor estimates. Thus, analysts should employ both mathematical and visual curve fitting in reaching their final estimates. This way, analysts may utilize the objective nature of mathematical fitting while still employing professional judgment. As Wolf notes: "The results of mathematical curve fitting serve as a guide for the analyst and speed the visual fitting process. But the results of the mathematical fitting should be checked visually, and the final determination of the best fit be made by the analyst."[116]

In the graph above, visual fitting was sufficient to determine that the 10.5-R1 Iowa curve was a better fit than the 10-L4 and the 10-S0 curves. Using the sum of least squares method, mathematical fitting confirms the same result. In the chart below, the percentages surviving from the OLT that formed the original stub curve are shown in the left column, while the corresponding percentages surviving for each age interval are shown for the three Iowa curves. The right portion of the chart shows the differences between the points on each Iowa curve and the stub curve. These differences are summed at the bottom. Curve 10.5-R1 is the best fit because the sum of the squared differences for this curve is less than the same sum for the other two curves. Curve 10-L4 is the worst fit, which was also confirmed visually.

---

[115] Wolf *supra* n. 9, at 47.

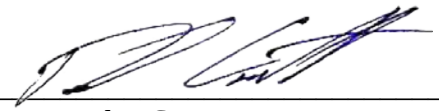
[116] *Id*. at 48.

Figure 27:
Mathematical Fitting

Age Interval	Stub Curve	Iowa Curves			Squared Differences		
		10-L4	10-S0	10.5-R1	10-L4	10-S0	10.5-R1
0.0	100.0	100.0	100.0	100.0	0.0	0.0	0.0
0.5	96.4	100.0	99.7	98.7	12.7	10.3	5.3
1.5	93.2	100.0	97.7	96.0	46.1	19.8	7.6
2.5	90.2	100.0	94.4	92.9	96.2	18.0	7.2
3.5	87.2	100.0	90.2	89.5	162.9	9.3	5.2
4.5	84.0	99.5	85.3	85.7	239.9	1.6	2.9
5.5	80.5	97.9	79.7	81.6	301.1	0.7	1.2
6.5	76.7	94.2	73.6	77.0	308.5	9.5	0.1
7.5	72.3	87.6	67.1	71.8	235.2	26.5	0.2
8.5	67.3	75.2	60.4	66.1	62.7	48.2	1.6
9.5	61.6	56.0	53.5	59.7	31.4	66.6	3.6
10.5	54.9	36.8	46.5	52.9	325.4	69.6	3.9
11.5	47.0	23.1	39.6	45.7	572.6	54.4	1.8
12.5	38.9	14.2	32.9	38.2	609.6	36.2	0.4
SUM					**3004.2**	**371.0**	**41.0**

AFFIRMATION

I affirm, under the penalties for perjury, that the foregoing representations are true.



By: David J. Garrett
Cause No. 45039
Indiana Office of
Utility Consumer Counselor

6-22-18

Date:

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EDUCATION

University of Oklahoma — Norman, OK
Master of Business Administration — 2014
Areas of Concentration: Finance, Energy

University of Oklahoma College of Law — Norman, OK
Juris Doctor — 2007
Member, American Indian Law Review

University of Oklahoma — Norman, OK
Bachelor of Business Administration — 2003
Major: Finance

PROFESSIONAL DESIGNATIONS

Society of Depreciation Professionals
Certified Depreciation Professional (CDP)

Society of Utility and Regulatory Financial Analysts
Certified Rate of Return Analyst (CRRA)

The Mediation Institute
Certified Civil / Commercial & Employment Mediator

WORK EXPERIENCE

Resolve Utility Consulting PLLC — Oklahoma City, OK
Managing Member — 2016 – Present
Provide expert analysis and testimony specializing in depreciation and cost of capital issues for clients in utility regulatory proceedings.

Oklahoma Corporation Commission — Oklahoma City, OK
Public Utility Regulatory Analyst — 2012 – 2016
Assistant General Counsel — 2011 – 2012
Represented commission staff in utility regulatory proceedings and provided legal opinions to commissioners. Provided expert analysis and testimony in depreciation, cost of capital, incentive compensation, payroll and other issues.

Perebus Counsel, PLLC — Oklahoma City, OK
Managing Member — 2009 – 2011
Represented clients in the areas of family law, estate planning, debt negotiations, business organization, and utility regulation.

Moricoli & Schovanec, P.C. — Oklahoma City, OK
Associate Attorney — 2007 – 2009
Represented clients in the areas of contracts, oil and gas, business structures and estate administration.

TEACHING EXPERIENCE

University of Oklahoma — Norman, OK
Adjunct Instructor – "Conflict Resolution" — 2014 – Present
Adjunct Instructor – "Ethics in Leadership"

Rose State College — Midwest City, OK
Adjunct Instructor – "Legal Research" — 2013 – 2015
Adjunct Instructor – "Oil & Gas Law"

PUBLICATIONS

American Indian Law Review — Norman, OK
"Vine of the Dead: Reviving Equal Protection Rites for Religious Drug Use" — 2006
(31 Am. Indian L. Rev. 143)

VOLUNTEER EXPERIENCE

Calm Waters — Oklahoma City, OK
Board Member — 2015 – Present
Participate in management of operations, attend meetings, review performance, compensation, and financial records. Assist in fundraising events.

Group Facilitator & Fundraiser — 2014 – Present
Facilitate group meetings designed to help children and families cope with divorce and tragic events. Assist in fundraising events.

St. Jude Children's Research Hospital — Oklahoma City, OK
Oklahoma Fundraising Committee — 2008 – 2010
Raised money for charity by organizing local fundraising events.

PROFESSIONAL ASSOCIATIONS

Oklahoma Bar Association 2007 – Present

Society of Depreciation Professionals 2014 – Present
Board Member – President 2017
Participate in management of operations, attend meetings, review performance, organize presentation agenda.

Society of Utility Regulatory Financial Analysts 2014 – Present

SELECTED CONTINUING PROFESSIONAL EDUCATION

Society of Depreciation Professionals — Austin, TX
"Life and Net Salvage Analysis" — 2015
Extensive instruction on utility depreciation, including actuarial and simulation life analysis modes, gross salvage, cost of removal, life cycle analysis, and technology forecasting.

Society of Depreciation Professionals — New Orleans, LA
"Introduction to Depreciation" and "Extended Training" — 2014
Extensive instruction on utility depreciation, including average lives and net salvage.

Society of Utility and Regulatory Financial Analysts — Indianapolis, IN
46th Financial Forum. "The Regulatory Compact: Is it Still Relevant?" — 2014
Forum discussions on current issues.

New Mexico State University, Center for Public Utilities — Santa Fe, NM
Current Issues 2012, "The Santa Fe Conference" — 2012
Forum discussions on various current issues in utility regulation.

Michigan State University, Institute of Public Utilities — Clearwater, FL
"39th Eastern NARUC Utility Rate School" — 2011
One-week, hands-on training emphasizing the fundamentals of the utility ratemaking process.

New Mexico State University, Center for Public Utilities — Albuquerque, NM
"The Basics: Practical Regulatory Training for the Changing Electric Industries" — 2010
One-week, hands-on training designed to provide a solid foundation in core areas of utility ratemaking.

The Mediation Institute — Oklahoma City, OK
"Civil / Commercial & Employment Mediation Training" — 2009
Extensive instruction and mock mediations designed to build foundations in conducting mediations in civil matters.

Utility Regulatory Proceedings

State	Regulatory Agency / Company-Applicant	Docket Number	Testimony / Analysis Issues	Type	Date
NM	New Mexico Public Regulation Commission Southwestern Public Service Company	17-00255-UT	Cost of capital, authorized ROE	Prefiled	4/13/2018
TX	Public Utility Commission of Texas Southwestern Public Service Company	PUC 47527	Depreciation rates	Prefiled	4/25/2018
MT	Public Service Commission of the State of Montana Montana-Dakota Utilities Co.	D2017.9.79	Depreciation rates, net salvage	Prefiled	2/6/2018
FL	Florida Public Service Commission Florida City Gas	20170179-GU	Cost of capital, authorized rate of return, and depreciation rates	Prefiled	2/1/2018
WA	Washington Utilities & Transportation Commission Avista Corporation	UE-170485 UG-170486	Cost of capital and authorized rate of return	Prefiled	10/27/2017
WY	Wyoming Public Services Commission Powder River Energy Corporation	PUD 201700151	Risk and credit analysis	Prefiled Live	8/28/2017 9/29/2017
OK	Oklahoma Corporation Commission Public Service Co. of Oklahoma	PUD 201700151	Depreciation rates, terminal salvage, risk analysis	Prefiled Live	9/21/2017 11/6/2017
TX	Public Utility Commission of Texas Oncor Electric Delivery Company	PUC 46957	Depreciation rates, simulated plant record analysis	Pending	
NV	Nevada Public Utilities Commission Nevada Power Company	17-06004 17-06006	Depreciation rates, net salvage	Prefiled	10/6/2017
TX	Public Utility Commission of Texas El Paso Electric Company	PUC 46831	Depreciation rates, interim retirements	Prefiled	6/23/2017
ID	Idaho Public Utilities Commission Idaho Power Company	IPC-E-16-24	Accelerated depreciation of North Valmy plant	Settled	5/31/2017
ID	Idaho Public Utilities Commission Idaho Power Company	IPC-E-16-23	Depreciation rates	Settled	5/31/2017
TX	Public Utility Commission of Texas	PUC 46449	Depreciation rates, decommissioning costs,	Prefiled	4/25/2017

Utility Regulatory Proceedings

State	Regulatory Agency / Company-Applicant	Docket Number	Testimony / Analysis Issues	Type	Date
	Southwestern Electric Power Company		terminal net salvage	Live	6/8/2017
MA	Massachusetts Department of Public Utilities Eversource Energy	D.P.U. 17-05	Cost of capital, capital structure, and rate of return	Prefiled	4/28/2017
TX	Railroad Commission of Texas Atmos Pipeline - Texas	GUD 10580	Depreciation rates, depreciation grouping procedure	Prefiled	3/22/2017
TX	Public Utility Commission of Texas Sharyland Utility Co.	PUC 45414	Depreciation rates, simulated and actuarial analysis	Prefiled	2/28/2017
OK	Oklahoma Corporation Commission Empire District Electric Co.	PUD 201600468	Cost of capital, depreciation rates, terminal salvage, lifespans	Prefiled Live	3/13/2017 5/11/2017
TX	Railroad Commission of Texas CenterPoint Energy Texas Gas	GUD 10567	Depreciation rates, simulated and actuarial analysis	Prefiled	2/21/2017
AR	Arkansas Public Service Commission Oklahoma Gas & Electric Co.	160-159-GU	Cost of capital, depreciation rates, terminal salvage, lifespans	Prefiled	1/31/2017
FL	Florida Public Service Commission Peoples Gas	16-159-GU	Depreciation rates	Report	11/4/2016
AZ	Arizona Corporation Commission Arizona Public Service Co.	E-01345A-16-0036	Cost of capital, depreciation rates, terminal salvage, lifespans	Pre-filed	12/28/2016
NV	Nevada Public Utilities Commission Sierra Pacific Power Co.	16-06008	Depreciation rates, terminal salvage, lifespans, theoretical reserve	Pre-filed	9/23/2016
OK	Oklahoma Corporation Commission Oklahoma Gas & Electric Co.	PUD 201500273	Cost of capital, depreciation rates, terminal salvage, lifespans	Pre-filed Live	3/21/2016 5/3/2016
OK	Oklahoma Corporation Commission Public Service Co. of Oklahoma	PUD 201500208	Cost of capital, depreciation rates, terminal salvage, lifespans	Pre-filed Live	10/14/2015 12/8/2015
OK	Oklahoma Corporation Commission Oklahoma Natural Gas Co.	PUD 201500213	Cost of capital and depreciation rates	Pre-filed	10/19/2015

Utility Regulatory Proceedings

State	Regulatory Agency / Company-Applicant	Docket Number	Testimony / Analysis		
			Issues	Type	Date
OK	Oklahoma Corporation Commission Oak Hills Water System	PUD 201500123	Cost of capital and depreciation rates	Pre-filed Live	7/8/2015 8/14/2015
OK	Oklahoma Corporation Commission CenterPoint Energy Oklahoma Gas	PUD 201400227	Fuel prudence review and fuel adjustment clause	Pre-filed Live	11/3/2014 2/10/2015
OK	Oklahoma Corporation Commission Public Service Co. of Oklahoma	PUD 201400233	Certificate of authority to issue new debt securities	Pre-filed Live	9/12/2014 9/25/2014
OK	Oklahoma Corporation Commission Empire District Electric Co.	PUD 201400226	Fuel prudence review and fuel adjustment clause	Pre-filed Live	12/9/2014 1/22/2015
OK	Oklahoma Corporation Commission Fort Cobb Fuel Authority	PUD 201400219	Fuel prudence review and fuel adjustment clause	Pre-filed Live	 1/29/2015
OK	Oklahoma Corporation Commission Fort Cobb Fuel Authority	PUD 201400140	Outside services, legislative advocacy, payroll expense, and insurance expense	Pre-filed	12/16/2014
OK	Oklahoma Corporation Commission Public Service Co. of Oklahoma	PUD 201300201	Authorization of standby and supplemental tariff	Pre-filed Live	12/9/2013 12/19/2013
OK	Oklahoma Corporation Commission Fort Cobb Fuel Authority	PUD 201300134	Fuel prudence review and fuel adjustment clause	Pre-filed Live	10/23/2013 1/30/2014
OK	Oklahoma Corporation Commission Empire District Electric Co.	PUD 201300131	Fuel prudence review and fuel adjustment clause	Pre-filed Live	11/21/2013 12/19/2013
OK	Oklahoma Corporation Commission CenterPoint Energy Oklahoma Gas	PUD 201300127	Fuel prudence review and fuel adjustment clause	Pre-filed Live	10/21/2013 1/23/2014
OK	Oklahoma Corporation Commission Oklahoma Gas & Electric Co.	PUD 201200185	Gas transportation contract extension	Pre-filed Live	9/20/2012 10/9/2012
OK	Oklahoma Corporation Commission Empire District Electric Co.	PUD 201200170	Fuel prudence review and fuel adjustment clause	Pre-filed Live	10/31/2012 12/13/2012

Utility Regulatory Proceedings

State	Regulatory Agency / Company-Applicant	Docket Number	Testimony / Analysis		
			Issues	Type	Date
OK	Oklahoma Corporation Commission Oklahoma Gas & Electric Co.	PUD 201200169	Fuel prudence review and fuel adjustment clause	Pre-filed Live	12/19/2012 4/4/2013

Summary Expense Adjustment

Attachment DJG-2

Utility	Depreciable Plant 9/30/2017	Current Parameters Rate	Current Parameters Expense	Company Proposal Rate	Company Proposal Expense	OUCC Proposal Rate	OUCC Proposal Expense	OUCC Adjustment Rate	OUCC Adjustment Expense
Shared Services	$ 92,586,871	12.75%	$ 11,808,035	8.40%	$ 7,781,015	5.27%	$ 4,879,277	-3.13%	$ (2,901,738)
Citizens Gas	714,261,153	2.86%	20,461,459	1.97%	14,064,970	1.95%	13,913,285	-0.02%	(151,685)
Citizens Thermal Steam	91,095,305	3.97%	3,617,389	3.92%	3,567,796	3.87%	3,521,049	-0.05%	(46,748)
Citizens Water	1,629,430,952	2.00%	32,588,619	1.18%	19,281,124	1.11%	18,006,049	-0.08%	(1,275,075)
CWA Authority	2,708,172,805	2.50%	67,704,320	1.73%	46,959,086	1.59%	42,952,758	-0.15%	(4,006,328)
Westfield Gas	11,353,188	3.22%	365,229	2.18%	248,048	2.18%	247,980	0.00%	(68)
Westfield Water	74,968,137	2.00%	1,499,363	1.84%	1,382,757	1.65%	1,233,605	-0.20%	(149,151)
Westfield Wastewater	108,014,462	2.50%	2,700,362	2.44%	2,630,974	2.18%	2,359,416	-0.25%	(271,557)
Total Plant Studied	$ 5,429,882,872	2.59%	$ 140,744,775	1.77%	$ 95,915,770	1.60%	$ 87,113,419	-0.16%	**$ (8,802,351)**

* See Exhibit DJG-3 for detailed calculations

Detailed Expense Adjustment

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Business Unit	**Account Description**	**Plant Balance 9/30/2017**	**Current Rate**	**Current Expense**	**CEG Rate**	**CEG Proposed Expense**	**OUCC Rate**	**OUCC Proposed Expense**	**OUCC Less Current Exp**	**OUCC Less CEG Proposed Exp**
Shared Services	GENERAL PLANT - LAND	$ 1,581,974								
Shared Services	GENERAL PLANT - STRUCTURES AND IMPROVEMENTS	47,343,259	3.02	$ 1,429,766	2.73	$ 1,292,471	2.72	$ 1,288,461	$ (141,305)	$ (4,010)
Shared Services	GENERAL PLANT - OFFICE FURNITURE	3,576,876	15.31	547,620	2.69	96,218	2.69	96,225	(451,394)	7
Shared Services	GENERAL PLANT - OFFICE MACHINES	1,827,145	1.77	32,340	6.50	118,764	6.50	118,854	86,513	89
Shared Services	GENERAL PLANT - COMPUTER EQUIPMENT	6,263,511	0.00	-	21.22	1,329,117	21.67	1,357,287	1,357,287	28,170
Shared Services	GENERAL PLANT - SOFTWARE	28,950,390	32.80	9,495,728	16.05	4,646,538	5.95	1,721,302	(7,774,426)	(2,925,236)
Shared Services	GENERAL PLANT - TRANSPORTATION EQUIPMENT	75,108	6.27	4,709	10.49	7,879	10.51	7,890	3,181	12
Shared Services	GENERAL PLANT - TOOL EQUIPMENT	19,606	4.19	821	5.03	986	5.03	986	165	0
Shared Services	GENERAL PLANT - GARAGE EQUIPMENT	21,259	4.19	891	5.03	1,069	5.03	1,069	179	0
Shared Services	GENERAL PLANT - COMMUNICATION EQUIPMENT	3,974,687	6.77	269,086	6.56	260,739	6.54	259,932	(9,154)	(807)
Shared Services	GENERAL PLANT - OTHER EQUIPMENT	535,030	5.06	27,073	5.09	27,233	5.10	27,270	197	37
Shared Services Total Plant in Service		94,168,845								
Shared Services Depreciable Plant in Service (excl. Land)		**92,586,871**	**12.75**	**11,808,035**	**8.40**	**7,781,015**	**5.27**	**4,879,277**	**(6,928,758)**	**(2,901,738)**
Citizens Gas	PRESSURE REGULATING - LAND	147,578								
Citizens Gas	PRESSURE REGULATING - STRUCTURES AND IMPROVEMENTS	530,574	1.38	7,322	1.05	5,571	1.05	5,592	(1,730)	21
Citizens Gas	PRESSURE REGULATING - PRESSURE REGULATING EQUIPMENT	1,993,407	4.04	80,534	3.01	60,002	3.00	59,888	(20,646)	(113)
Citizens Gas	UNDERGROUND STORAGE - LAND	20,500								
Citizens Gas	UNDERGROUND STORAGE - LEASEHOLDS	583,865	0.83	4,846	0.28	1,635	0.28	1,620	(3,226)	(15)
Citizens Gas	UNDERGROUND STORAGE - STRUCTURES AND IMPROVEMENTS	785,779	0.94	7,386	0.98	7,701	0.98	7,706	319	5
Citizens Gas	UNDERGROUND STORAGE - WELLS	11,558,237	0.74	85,531	0.60	69,349	0.59	68,124	(17,407)	(1,226)
Citizens Gas	UNDERGROUND STORAGE - NON-RECOVERABLE GAS	4,073,028	1.52	61,910	0.85	34,621	0.85	34,801	(27,109)	180
Citizens Gas	UNDERGROUND STORAGE - LINES	3,204,993	2.12	67,946	1.08	34,614	1.08	34,458	(33,488)	(156)
Citizens Gas	UNDERGROUND STORAGE - MEASURING AND REGULATING EQUIPMENT	916,068	5.18	47,452	4.59	42,048	4.60	42,127	(5,325)	80
Citizens Gas	UNDERGROUND STORAGE - PURIFICATION EQUIPMENT	4,504,424	1.44	64,864	1.63	73,422	1.55	69,774	4,910	(3,648)
Citizens Gas	UNDERGROUND STORAGE - OTHER EQUIPMENT	50,445	3.48	1,756	2.24	1,130	2.24	1,129	(627)	(1)
Citizens Gas	TRANSMISSION UGS - LAND	30,999								
Citizens Gas	TRANSMISSION UGS - RIGHT-OF-WAY	278,517	1.27	3,537	1.13	3,147	1.13	3,152	(385)	5
Citizens Gas	TRANSMISSION UGS - STRUCTURES AND IMPROVEMENTS	788,150	1.86	14,660	1.57	12,374	1.57	12,403	(2,257)	29
Citizens Gas	TRANSMISSION UGS - MAINS	8,937,585	1.14	101,888	1.52	135,851	1.47	131,258	29,370	(4,593)
Citizens Gas	TRANSMISSION UGS - COMPRESSOR STATION EQUIPMENT	2,097,727	0.83	17,411	1.08	22,655	1.08	22,733	5,322	78
Citizens Gas	TRANSMISSION UGS - MEASURING AND REGULATING EQUIPMENT	1,432,391	1.85	26,499	2.90	41,539	2.90	41,599	15,100	60
Citizens Gas	TRANSMISSION UGS - COMMUNICATION EQUIPMENT	448,419	2.16	9,686	1.96	8,789	1.97	8,816	(869)	27
Citizens Gas	TRANSMISSION MARION COUNTY - LAND	45,878								
Citizens Gas	TRANSMISSION MARION COUNTY - RIGHT-OF-WAY	772,529	1.54	11,897	1.50	11,588	1.50	11,583	(314)	(5)
Citizens Gas	TRANSMISSION MARION COUNTY - STRUCTURES AND IMPROVEMENTS	231,059	2.12	4,898	1.87	4,321	1.87	4,324	(574)	3
Citizens Gas	TRANSMISSION MARION COUNTY - MAINS	45,819,324	1.98	907,223	2.12	971,370	1.96	896,351	(10,872)	(75,019)
Citizens Gas	TRANSMISSION MARION COUNTY - MEASURING AND REGULATING EQUIPMENT	1,943,466	1.65	32,067	2.56	49,753	2.56	49,810	17,743	57
Citizens Gas	DISTRIBUTION - MAINS	306,265,143	2.52	7,717,882	1.53	4,685,857	1.52	4,642,754	(3,075,128)	(43,103)
Citizens Gas	DISTRIBUTION - SERVICES	253,812,775	3.14	7,969,721	2.33	5,913,838	2.33	5,921,610	(2,048,111)	7,773
Citizens Gas	DISTRIBUTION - METERS	33,471,146	2.84	950,581	2.39	799,960	2.39	798,464	(152,117)	(1,497)
Citizens Gas	DISTRIBUTION - METER INSTALLATIONS	5,762,436	2.65	152,705	1.59	91,623	1.59	91,834	(60,871)	211
Citizens Gas	DISTRIBUTION - HOUSE REGULATORS	4,623,134	2.74	126,674	1.43	66,111	1.43	66,260	(60,414)	149
Citizens Gas	DISTRIBUTION - HOUSE REGULATOR INSTALLATIONS	700,221	2.83	19,816	1.46	10,223	1.45	10,171	(9,646)	(53)
Citizens Gas	DISTRIBUTION - OTHER PROPERTY - CUSTOMER PREMISES	356,362	0.45	1,604	8.39	29,899	8.35	29,741	28,138	(157)
Citizens Gas	DISTRIBUTION - OTHER EQUIPMENT	165,536	0.00	-	5.86	9,700	5.85	9,691	9,691	(10)
Citizens Gas	GENERAL PLANT - STRUCTURES AND IMPROVEMENTS	133,156	3.02	4,021	4.38	5,832	4.38	5,831	1,810	(1)
Citizens Gas	GENERAL PLANT - OFFICE FURNITURE	261,863	15.31	40,091	0.00	-	0.00	-	(40,091)	-
Citizens Gas	GENERAL PLANT - COMPUTER EQUIPMENT	409,513	0.00	-	0.00	-	0.00	-	-	-
Citizens Gas	GENERAL PLANT - SOFTWARE	3,295,621	32.80	1,080,964	2.28	75,140	1.16	38,084	(1,042,879)	(37,056)
Citizens Gas	GENERAL PLANT - TRANSPORTATION EQUIPMENT	8,285,458	6.27	519,498	8.15	675,265	8.23	681,893	162,395	6,629
Citizens Gas	GENERAL PLANT - STORES EQUIPMENT	27,590	2.96	817	2.99	825	3.00	828	11	3
Citizens Gas	GENERAL PLANT - TOOL EQUIPMENT	1,450,037	4.19	60,757	0.87	12,615	0.87	12,579	(48,178)	(36)
Citizens Gas	GENERAL PLANT - GARAGE EQUIPMENT	11,447	4.19	480	0.87	100	0.87	99	(380)	(0)
Citizens Gas	GENERAL PLANT - CNG EQUIPMENT	570,015	4.19	23,884	0.87	4,959	0.87	4,945	(18,939)	(14)
Citizens Gas	GENERAL PLANT - POWER OPERATED EQUIPMENT	2,522,429	6.46	162,949	1.51	38,089	1.51	38,066	(124,883)	(23)
Citizens Gas	GENERAL PLANT - COMMUNICATION EQUIPMENT	563,049	6.77	38,118	3.74	21,058	3.73	20,998	(17,121)	(60)
Citizens Gas	GENERAL PLANT - OTHER EQUIPMENT	624,235	5.06	31,586	5.19	32,398	5.16	32,190	603	(208)
Citizens Gas Total Plant in Service		714,506,106								
Citizens Gas Depreciable Plant in Service (excl. Land)		**714,261,153**	**2.86**	**20,461,459**	**1.97**	**14,064,970**	**1.95**	**13,913,285**	**(6,548,174)**	**(151,685)**
Steam	PRODUCTION - LAND	47,847		-		-		-	-	-
Steam	PRODUCTION - STRUCTURES AND IMPROVEMENTS	11,171,235	3.72	415,570	3.83	427,858	3.82	426,672	11,102	(1,186)
Steam	PRODUCTION - BOILER PLANT EQUIPMENT	43,810,779	3.85	1,686,715	5.00	2,190,539	4.99	2,184,890	498,175	(5,648)
Steam	PRODUCTION - TURBOGENERATOR UNITS	1,810,310	2.94	53,223	2.56	46,344	2.56	46,334	(6,889)	(9)
Steam	PRODUCTION - ACCESSORY ELECTRIC EQUIPMENT	3,224,201	2.91	93,824	4.13	133,159	4.13	133,241	39,417	82
Steam	PRODUCTION - MISCELLANEOUS POWER PLANT EQUIPMENT	992,235	3.80	37,705	5.53	54,871	5.54	54,949	17,245	79
Steam	DISTRIBUTION - LAND RIGHTS	1,792	2.57	46	2.51	45	2.52	45	(1)	0
Steam	DISTRIBUTION - MAINS	22,686,947	2.84	644,309	1.93	437,858	1.78	404,791	(239,519)	(33,067)
Steam	DISTRIBUTION - SERVICES	4,059,115	4.55	184,690	2.63	106,755	2.46	99,676	(85,014)	(7,079)
Steam	DISTRIBUTION - METERS	555,677	3.55	19,727	2.32	12,892	2.31	12,845	(6,881)	(46)
Steam	GENERAL PLANT - OFFICE FURNITURE	82,540	4.81	3,970	0.00	-	0.00	-	(3,970)	-
Steam	GENERAL PLANT - OFFICE EQUIPMENT	6,370	8.40	535	0.00	-	0.00	-	(535)	-
Steam	GENERAL PLANT - COMPUTER EQUIPMENT PRE 2017	29,670	94.49	28,035	0.00	-	0.00	-	(28,035)	-
Steam	GENERAL PLANT - COMPUTER EQUIPMENT POST 2016	339,257	94.49	320,564	20.00	67,851	20.00	67,851	(252,712)	-
Steam	GENERAL PLANT - SOFTWARE PRE 2017	75,290	18.73	14,102	0.00	-	0.00	-	(14,102)	-
Steam	GENERAL PLANT - SOFTWARE POST 2016	22,000	18.73	4,121	20.00	4,400	20.00	4,400	279	-
Steam	GENERAL PLANT - TRANSPORTATION EQUIPMENT	972,354	4.24	41,228	1.78	17,308	1.78	17,307	(23,921)	(1)
Steam	GENERAL PLANT - STORES EQUIPMENT	77,421	3.64	2,818	3.41	2,640	3.41	2,641	(178)	1
Steam	GENERAL PLANT - TOOLS, SHOP, GARAGE EQUIPMENT	301,117	3.65	10,991	2.95	8,883	2.95	8,883	(2,107)	1
Steam	GENERAL PLANT - LABORATORY EQUIPMENT	95,811	6.70	6,419	3.58	3,430	3.58	3,431	(2,988)	1

Detailed Expense Adjustment

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Business Unit	**Account Description**	**Plant Balance 9/30/2017**	**Current Rate**	**Current Expense**	**CEG Rate**	**CEG Proposed Expense**	**OUCC Rate**	**OUCC Proposed Expense**	**OUCC Less Current Exp**	**OUCC Less CEG Proposed Exp**
Steam	GENERAL PLANT - POWER OPERATED EQUIPMENT	421,395	5.89	24,820	8.98	37,841	9.00	37,926	13,106	85
Steam	GENERAL PLANT - COMMUNICATION EQUIPMENT	15,097	8.13	1,227	15.46	2,334	15.66	2,365	1,137	31
Steam	GENERAL PLANT - MISCELLANEOUS EQUIPMENT	344,692	6.60	22,750	3.71	12,788	3.71	12,800	(9,949)	12
Steam Total Plant in Service		91,143,152								
Steam Depreciable Plant in Service (excl. Land)		**91,095,305**	**3.97**	**3,617,389**	**3.92**	**3,567,796**	**3.87**	**3,521,049**	**(96,340)**	**(46,748)**
Citizens Water	SUPPLY & PUMPING - LAND	22,247,515								
Citizens Water	SUPPLY & PUMPING - STRUCTURES AND IMPROVEMENTS	25,616,842	2.00	512,337	2.31	591,749	2.32	593,469	81,133	1,720
Citizens Water	SUPPLY & PUMPING - COLLECTING AND IMPOUNDING RESERVOIRS	53,429,789	2.00	1,068,596	1.29	689,244	1.29	686,883	(381,713)	(2,362)
Citizens Water	SUPPLY & PUMPING - LAKE, RIVER AND INTAKES	6,716,526	2.00	134,331	1.93	129,629	1.93	129,549	(4,781)	(79)
Citizens Water	SUPPLY & PUMPING - WELLS AND SPRINGS	34,298,899	2.00	685,978	2.28	782,015	2.28	781,355	95,377	(660)
Citizens Water	SUPPLY & PUMPING - PUMPING EQUIPMENT	59,693,440	2.00	1,193,869	2.85	1,701,263	2.85	1,701,253	507,384	(10)
Citizens Water	SUPPLY & PUMPING - OTHER MISCELLANEOUS EQUIPMENT	4,536,324	2.00	90,726	4.01	181,907	4.01	181,725	90,999	(182)
Citizens Water	TREATMENT - LAND	9,171,858								-
Citizens Water	TREATMENT - STRUCTURES AND IMPROVEMENTS	196,363,313	2.00	3,927,266	1.42	2,788,359	1.42	2,785,149	(1,142,117)	(3,210)
Citizens Water	TREATMENT - WATER TREATMENT EQUIPMENT	176,355,364	2.00	3,527,107	2.24	3,950,360	2.24	3,948,902	421,795	(1,458)
Citizens Water	DISTRIBUTION - LAND	1,066,387								-
Citizens Water	DISTRIBUTION - RESERVOIRS AND STANDPIPES	15,191,206	2.00	303,824	1.82	276,480	1.82	276,454	(27,370)	(26)
Citizens Water	DISTRIBUTION - MAINS TRANSMISSION AND DISTRIBUTION	801,497,185	2.00	16,029,944	0.55	4,408,235	0.44	3,552,511	(12,477,433)	(855,724)
Citizens Water	DISTRIBUTION- CIAC MAINS TRANSMISSION AND DISTRIBUTION	23,516,128	2.00	470,323	0.55	129,339	0.00	1,042	(469,280)	(128,296)
Citizens Water	DISTRIBUTION - SERVICES	97,804,452	2.00	1,956,089	1.15	1,124,751	1.16	1,130,031	(826,058)	5,280
Citizens Water	DISTRIBUTION - SERVICES (SYSTEM 2)	5,935,456	2.00	118,709	1.15	68,258	1.16	68,578	(50,131)	320
Citizens Water	DISTRIBUTION - CIAC SERVICES	1,369,271	2.00	27,385	1.15	15,747	1.16	15,821	(11,565)	74
Citizens Water	DISTRIBUTION - METERS/INSTALLATIONS	66,367,970	2.00	1,327,359	0.42	278,745	0.41	274,502	(1,052,857)	(4,243)
Citizens Water	DISTRIBUTION - HYDRANTS	41,231,272	2.00	824,625	1.10	453,544	1.14	469,930	(354,695)	16,386
Citizens Water	DISTRIBUTION - CIAC HYDRANTS	3,261,242	2.00	65,225	1.10	35,874	1.14	37,170	(28,055)	1,296
Citizens Water	DISTRIBUTION - OTHER MISCELLANEOUS EQUIPMENT	2,917,635	2.00	58,353	2.30	67,106	2.29	66,847	8,494	(259)
Citizens Water	GENERAL PLANT - OFFICE FURNITURE	131,351	2.00	2,627	4.38	5,753	4.38	5,752	3,125	(1)
Citizens Water	GENERAL PLANT - COMPUTER EQUIPMENT	645,747	2.00	12,915	42.95	277,348	43.36	280,014	267,099	2,665
Citizens Water	GENERAL PLANT - SOFTWARE	1,894,049	2.00	37,881	27.63	523,326	11.34	214,731	176,850	(308,595)
Citizens Water	GENERAL PLANT - TRANSPORTATION EQUIPMENT	7,222,406	2.00	144,448	8.57	618,960	8.59	620,642	476,194	1,682
Citizens Water	GENERAL PLANT - TOOLS, SHOP AND GARAGE EQUIPMENT	124,888	2.00	2,498	5.39	6,731	5.40	6,750	4,252	18
Citizens Water	GENERAL PLANT - LABORATORY EQUIPMENT	684,250	2.00	13,685	8.13	55,630	8.13	55,603	41,918	(26)
Citizens Water	GENERAL PLANT - POWER OPERATED EQUIPMENT	2,505,967	2.00	50,119	4.58	114,773	4.60	115,386	65,267	613
Citizens Water	GENERAL PLANT - MISCELLANEOUS EQUIPMENT	119,983	2.00	2,400	5.00	5,999	5.00	5,999	3,599	-
Citizens Water Total Plant in Service		1,661,916,712								
Citizens Water Depreciable Plant in Service (excl. Land)		**1,629,430,952**	**2.00**	**32,588,619**	**1.18**	**19,281,124**	**1.11**	**18,006,049**	**(14,582,570)**	**(1,275,075)**
CWA Authority	COLLECTION - LAND	88,982								
CWA Authority	COLLECTION - STRUCTURES AND IMPROVEMENTS	708,797	2.50	17,720	3.16	22,398	3.16	22,398	4,678	-
CWA Authority	COLLECTION - COLLECTING SEWERS FORCE	21,129,121	2.50	528,228	2.17	458,502	2.18	459,860	(68,368)	1,358
CWA Authority	COLLECTION - CIAC FORCE SEWERS	118,836	2.50	2,971	2.17	2,579	2.18	2,586	(385)	8
CWA Authority	COLLECTION - COLLECTING SEWERS GRAVITY	1,149,112,345	2.50	28,727,809	1.19	13,674,437	1.20	13,733,427	(14,994,382)	58,990
CWA Authority	COLLECTION - CIAC GRAVITY SEWERS	6,304,102	2.50	157,603	1.19	75,019	1.20	75,342	(82,260)	324
CWA Authority	COLLECTION - SPECIAL COLLECTING STRUCTS	169,154,756	2.50	4,228,869	1.36	2,300,505	1.36	2,308,308	(1,920,560)	7,804
CWA Authority	COLLECTION - SPECIAL COLLECTING STRUCTS - DROP SHAFTS	33,115,926	2.50	827,898	2.45	811,340	2.45	811,513	(16,385)	173
CWA Authority	COLLECTION - FLOW MEASURING DEVICES	272,216	2.50	6,805	4.02	10,943	4.02	10,943	4,138	-
CWA Authority	GENERAL PLANT - OFFICE FURNITURE	150,921	2.50	3,773	4.22	6,369	4.21	6,359	2,586	(10)
CWA Authority	GENERAL PLANT - COMPUTER EQUIPMENT	3,727,058	2.50	93,176	36.86	1,373,794	36.35	1,354,720	1,261,543	(19,074)
CWA Authority	GENERAL PLANT - SOFTWARE	1,224,874	2.50	30,622	63.99	783,797	16.12	197,426	166,804	(586,371)
CWA Authority	GENERAL PLANT - TRANSPORTATION EQUIPMENT	4,869,351	2.50	121,734	11.39	554,619	11.46	557,971	436,237	3,352
CWA Authority	GENERAL PLANT - POWER OPERATED EQUIPMENT	182,776	2.50	4,569	9.56	17,473	9.59	17,535	12,965	61
CWA Authority	GENERAL PLANT - MISCELLANEOUS EQUIPMENT	103,654	2.50	2,591	5.00	5,183	5.00	5,183	2,591	-
CWA Authority	SYSTEM PUMPING - LAND	12,202								-
CWA Authority	SYSTEM PUMPING - STRUCTURES AND IMPROVEMENTS	72,070,713	2.50	1,801,768	1.76	1,268,445	1.77	1,273,735	(528,033)	5,290
CWA Authority	SYSTEM PUMPING - PUMPING EQUIPMENT	82,664,385	2.50	2,066,610	2.49	2,058,343	2.14	1,766,459	(300,150)	(291,884)
CWA Authority	TREATMENT - LAND	2,442,687								-
CWA Authority	TREATMENT - STRUCTURES AND IMPROVEMENTS	488,532,408	2.50	12,213,310	1.71	8,353,904	1.60	7,802,935	(4,410,375)	(550,969)
CWA Authority	TREATMENT - TREATMENT AND DISPOSAL EQUIPMENT	674,730,568	2.50	16,868,264	2.25	15,181,438	1.86	12,546,058	(4,322,206)	(2,635,380)
CWA Authority Total Plant in Service		2,710,716,677								
CWA Authority Depreciable Plant in Service (excl. Land)		**2,708,172,805**	**2.50**	**67,704,320**	**1.73**	**46,959,086**	**1.59**	**42,952,758**	**(24,751,562)**	**(4,006,328)**
Westfield Gas	DISTRIBUTION - LAND	46,086								
Westfield Gas	DISTRIBUTION - STRUCTURES AND IMPROVEMENTS	28,305	1.45	410	2.34	662	2.34	662	251	(1)
Westfield Gas	DISTRIBUTION - MAINS	8,022,505	2.94	235,862	1.96	157,241	1.96	157,307	(78,554)	66
Westfield Gas	DISTRIBUTION - MEASURING AND REGULATING EQUIPMENT	10,754	3.31	356	2.14	230	2.14	230	(126)	0
Westfield Gas	DISTRIBUTION - MEASURING AND REGULATING EQUIPMENT GCCS	92,124	3.30	3,040	3.27	3,012	3.27	3,012	(28)	(1)
Westfield Gas	DISTRIBUTION - SERVICES	2,431,691	3.98	96,781	2.77	67,358	2.77	67,267	(29,514)	(91)
Westfield Gas	DISTRIBUTION - METERS	631,795	3.74	23,629	2.70	17,058	2.69	17,023	(6,607)	(36)
Westfield Gas	DISTRIBUTION - METER INSTALLATIONS	16,798	3.40	571	1.74	292	1.75	293	(278)	1
Westfield Gas	DISTRIBUTION - HOUSE REGULATORS	86,663	3.95	3,423	2.14	1,855	2.13	1,849	(1,574)	(5)
Westfield Gas	DISTRIBUTION - INDUSTRIAL MEASURING & REGULATING EQUIPMENT	32,553	3.55	1,156	1.04	339	1.04	337	(819)	(2)
Westfield Gas Total Plant in Service		11,399,274								
Westfield Gas Depreciable Plant in Service (excl. Land)		**11,353,188**	**3.22**	**365,229**	**2.18**	**248,048**	**2.18**	**247,980**	**(117,248)**	**(68)**
Westfield Water	SUPPLY & PUMPING - LAND	1,461,607								
Westfield Water	SUPPLY & PUMPING - STRUCTURES AND IMPROVEMENTS	445,325	2.00	8,907	1.81	8,060	1.81	8,044	(863)	(17)
Westfield Water	SUPPLY & PUMPING - WELLS AND SPRINGS	2,694,434	2.00	53,889	1.34	36,105	1.33	35,944	(17,945)	(161)
Westfield Water	SUPPLY & PUMPING - SUPPLY MAINS	5,021,845	2.00	100,437	2.61	131,070	2.61	131,006	30,569	(65)
Westfield Water	SUPPLY & PUMPING - PUMPING EQUIPMENT	933,482	2.00	18,670	2.52	23,524	2.52	23,534	4,865	11
Westfield Water	SUPPLY & PUMPING - OTHER MISCELLANEOUS EQUIPMENT	69,093	2.00	1,382	2.36	1,631	2.37	1,635	253	5

Detailed Expense Adjustment

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Business Unit	**Account Description**	**Plant Balance 9/30/2017**	**Current Rate**	**Current Expense**	**CEG Rate**	**CEG Proposed Expense**	**OUCC Rate**	**OUCC Proposed Expense**	**OUCC Less Current Exp**	**OUCC Less CEG Proposed Exp**
Westfield Water	TREATMENT - LAND	119,398								
Westfield Water	TREATMENT - STRUCTURES AND IMPROVEMENTS	8,314,105	2.00	166,282	1.79	148,822	1.78	148,375	(17,907)	(447)
Westfield Water	TREATMENT - WATER TREATMENT EQUIPMENT	3,633,329	2.00	72,667	2.55	92,650	2.55	92,732	20,066	83
Westfield Water	TREATMENT - OTHER MISCELLANEOUS EQUIPMENT	116,676	2.00	2,334	3.55	4,142	3.55	4,142	1,808	-
Westfield Water	DISTRIBUTION - LAND	501,644								
Westfield Water	DISTRIBUTION - RESERVOIRS AND STANDPIPES	2,511,680	2.00	50,234	2.23	56,010	2.23	55,937	5,704	(73)
Westfield Water	DISTRIBUTION & TRANS - CIAC RESERVOIR & STANDPIPES	113,104	2.00	2,262	2.23	2,522	2.23	2,519	257	(3)
Westfield Water	DISTRIBUTION - MAINS TRANSMISSION AND DISTRIBUTION	11,305,806	2.00	226,116	0.97	109,666	0.97	110,116	(116,000)	450
Westfield Water	DISTRIBUTION- CIAC MAINS TRANSMISSION AND DISTRIBUTION	28,481,582	2.00	569,632	0.97	276,271	0.97	277,405	(292,227)	1,134
Westfield Water	DISTRIBUTION - SERVICES	49,731	2.00	995	2.33	1,159	2.33	1,160	165	1
Westfield Water	DISTRIBUTION - SERVICES (SYSTEM 2)	562,017	2.00	11,240	2.33	13,095	2.33	13,106	1,865	11
Westfield Water	DISTRIBUTION - CIAC SERVICES	1,299,819	2.00	25,996	2.33	30,286	2.33	30,311	4,314	25
Westfield Water	DISTRIBUTION - METERS/INSTALLATIONS	4,187,327	2.00	83,747	2.73	114,314	2.65	110,823	27,077	(3,491)
Westfield Water	DISTRIBUTION - HYDRANTS	234,275	2.00	4,686	2.17	5,084	1.88	4,397	(288)	(687)
Westfield Water	DISTRIBUTION - CIAC HYDRANTS	3,583,851	2.00	71,677	2.17	77,770	1.88	67,264	(4,413)	(10,506)
Westfield Water	DISTRIBUTION - OTHER MISCELLANEOUS EQUIPMENT	26,492	2.00	530	2.93	776	2.93	776	247	0
Westfield Water	GENERAL PLANT - COMPUTER EQUIPMENT	135,150	2.00	2,703	21.25	28,719	21.25	28,716	26,013	(3)
Westfield Water	GENERAL PLANT - SOFTWARE	693,656	2.00	13,873	30.43	211,080	10.91	75,648	61,774	(135,432)
Westfield Water	GENERAL PLANT - TRANSPORTATION EQUIPMENT	296,896	2.00	5,938	1.27	3,771	1.28	3,804	(2,134)	33
Westfield Water	GENERAL PLANT - TOOLS, SHOP AND GARAGE EQU. PRE-2017	18,474	2.00	369	0.00	-	0.00	-	(369)	-
Westfield Water	GENERAL PLANT - TOOLS, SHOP AND GARAGE EQU. POST-2016	26,690	2.00	534	5.00	1,335	5.00	1,335	801	-
Westfield Water	GENERAL PLANT - LABORATORY EQUIPMENT	28,511	2.00	570	1.99	567	1.99	568	(3)	0
Westfield Water	GENERAL PLANT - POWER OPERATED EQUIPMENT	48,781	2.00	976	3.02	1,473	2.99	1,457	482	(16)
Westfield Water	GENERAL PLANT - COMMUNICATION EQUIPMENT PRE-2017	20,563	2.00	411	0.00	-	0.00	-	(411)	-
Westfield Water	GENERAL PLANT - COMMUNICATION EQUIPMENT POST-2016	8,595	2.00	172	6.67	573	6.67	573	401	-
Westfield Water	GENERAL PLANT - MISCELLANEOUS EQUIPMENT	101,364	2.00	2,027	2.18	2,210	2.18	2,207	180	(2)
Westfield Water	GENERAL PLANT - OTHER EQUIPMENT	5,484	2.00	110	1.29	71	1.30	71	(38)	1
Westfield Water Total Plant in Service		77,050,786								
Westfield Water Depreciable Plant in Service (excl. Land)		**74,968,137**	**2.00**	**1,499,363**	**1.84**	**1,382,757**	**1.65**	**1,233,605**	**(265,758)**	**(149,151)**
Westfield Wastewater	COLLECTION - LAND	992,148								
Westfield Wastewater	COLLECTION - STRUCTURES AND IMPROVEMENTS	647	2.50	16	0.15	1	0.16	1	(15)	0
Westfield Wastewater	COLLECTION - COLLECTING SEWERS FORCE	6,386,947	2.50	159,674	1.97	125,823	1.97	125,830	(33,844)	7
Westfield Wastewater	COLLECTION - CIAC FORCE SEWERS	977,466	2.50	24,437	1.97	19,256	1.97	19,257	(5,180)	1
Westfield Wastewater	COLLECTION - COLLECTING SEWERS GRAVITY	33,845,321	2.50	846,133	2.12	717,521	2.12	717,932	(128,201)	412
Westfield Wastewater	COLLECTION - CIAC GRAVITY SEWERS	34,119,655	2.50	852,991	2.12	723,337	2.12	723,752	(129,240)	415
Westfield Wastewater	COLLECTION - SERVICES	28,023	2.50	701	2.44	684	2.44	683	(18)	(1)
Westfield Wastewater	COLLECTION - FLOW MEASURING DEVICES	1,326,434	2.50	33,161	3.65	48,415	3.65	48,366	15,205	(49)
Westfield Wastewater	GENERAL PLANT - OFFICE FURNITURE	26,666	2.50	667	0.00	-	0.00	-	(667)	-
Westfield Wastewater	GENERAL PLANT - OFFICE MACHINERY	24,322	2.50	608	0.00	-	0.00	-	(608)	-
Westfield Wastewater	GENERAL PLANT - COMPUTER EQUIPMENT	229,387	2.50	5,735	15.02	34,454	14.86	34,097	28,362	(357)
Westfield Wastewater	GENERAL PLANT - SOFTWARE	771,327	2.50	19,283	31.41	242,274	10.12	78,025	58,742	(164,249)
Westfield Wastewater	GENERAL PLANT - TRANSPORTATION EQUIPMENT	297,809	2.50	7,445	4.22	12,568	4.25	12,659	5,214	91
Westfield Wastewater	GENERAL PLANT - TOOLS, SHOP AND GARAGE EQUIPMENT	61,373	2.50	1,534	0.12	74	0.12	75	(1,459)	2
Westfield Wastewater	GENERAL PLANT - LABORATORY EQUIPMENT	38,004	2.50	950	0.36	137	0.36	138	(813)	1
Westfield Wastewater	GENERAL PLANT - POWER OPERATED EQUIPMENT	165,927	2.50	4,148	0.00	-	0.00	-	(4,148)	-
Westfield Wastewater	GENERAL PLANT - COMMUNICATION EQUIPMENT	21,151	2.50	529	0.00	-	0.00	-	(529)	-
Westfield Wastewater	GENERAL PLANT - MISCELLANEOUS EQUIPMENT	63,619	2.50	1,590	0.00	-	0.00	-	(1,590)	-
Westfield Wastewater	GENERAL PLANT - OTHER EQUIPMENT	145,914	2.50	3,648	5.82	8,492	5.81	8,477	4,829	(15)
Westfield Wastewater	SYSTEM PUMPING - LAND	81,580								
Westfield Wastewater	SYSTEM PUMPING - STRUCTURES AND IMPROVEMENTS	1,796,821	2.50	44,921	2.20	39,530	2.20	39,499	(5,422)	(31)
Westfield Wastewater	SYSTEM PUMPING - PUMPING EQUIPMENT	3,474,853	2.50	86,871	3.61	125,442	2.75	95,689	8,817	(29,754)
Westfield Wastewater	SYSTEM PUMPING - CIAC PUMPING EQUIPMENT	155,234	2.50	3,881	3.61	5,604	2.75	4,275	394	(1,329)
Westfield Wastewater	TREATMENT - LAND	210,269								
Westfield Wastewater	TREATMENT - STRUCTURES AND IMPROVEMENTS	16,819,637	2.50	420,491	1.81	304,435	1.70	285,172	(135,319)	(19,264)
Westfield Wastewater	TREATMENT - TREATMENT AND DISPOSAL EQUIPMENT	7,237,924	2.50	180,948	3.08	222,928	2.29	165,491	(15,457)	(57,437)
Westfield Wastewater Total Plant in Service		109,298,458								
Westfield Wastewater Depreciable Plant in Service (excl. Land)		**$ 108,014,462**	**2.50**	**$ 2,700,362**	**2.44**	**$ 2,630,974**	**2.18**	**$ 2,359,416**	**$ (340,945)**	**$ (271,557)**
TOTAL PLANT STUDIED		**$ 5,429,882,872**	**2.59**	**$ 140,744,775**	**1.77**	**$ 95,915,770**	**1.60**	**$ 87,113,419**	**$ (53,631,355)**	**$ (8,802,351)**

[1], [2], [3], [4], [5], [6], [7] See Attachment SEK-1
[8] See Exhibit DJG-5
[9] = [3] * [8] / 100
[10] = [9] - [5]
[11] = [9] - [7]

Detailed Rate Comparison

Account No.	Description	[1] Plant 12/31/2016	[2] CEG Proposal Rate	[2] CEG Proposal Annual Accrual	[3] OUCC Proposal Rate	[3] OUCC Proposal Annual Accrual	[4] OUCC Adjustment Rate	[4] OUCC Adjustment Annual Accrual
	GAS OPERATIONS							
	PRESSURE REGULATING							
305.30	STRUCTURES AND IMPROVEMENTS	530,574	1.05%	5,584	1.05%	5,592	0.00%	8
319.00	PRESSURE REGULATING EQUIPMENT	1,993,407	3.01%	59,916	3.00%	59,888	-0.01%	-28
	TOTAL PRESSURE REGULATING	2,523,980	2.60%	65,500	2.59%	65,480	0.00%	-20
	UNDERGROUND STORAGE PLANT							
350.20	LEASEHOLDS	583,865	0.28%	1,622	0.28%	1,620	0.00%	-2
351.00	STRUCTURES AND IMPROVEMENTS	785,779	0.98%	7,715	0.98%	7,706	0.00%	-9
352.00	WELLS	11,558,237	0.60%	68,810	0.59%	68,124	-0.01%	-686
352.30	NON-RECOVERABLE GAS	4,073,028	0.85%	34,709	0.85%	34,801	0.00%	92
353.00	LINES	3,157,718	1.08%	34,029	1.08%	33,949	0.00%	-80
355.00	MEASURING AND REGULATING EQUIPMENT	839,372	4.59%	38,519	4.60%	38,600	0.01%	81
356.00	PURIFICATION EQUIPMENT	4,504,424	1.63%	73,523	1.55%	69,774	-0.08%	-3,749
357.00	OTHER EQUIPMENT	50,445	2.24%	1,130	2.24%	1,129	0.00%	-1
	TOTAL UNDERGROUND STORAGE PLANT	25,552,869	1.02%	260,057	1.00%	255,703	-0.02%	-4,354
	TRANSMISSION PLANT - U.G.S.							
365.20	RIGHTS OF WAY	278,517	1.13%	3,147	1.13%	3,152	0.00%	5
366.10	STRUCTURES AND IMPROVEMENTS	788,150	1.57%	12,392	1.57%	12,403	0.00%	11
367.10	MAINS	8,937,585	1.52%	136,271	1.47%	131,258	-0.05%	-5,013
368.00	COMPRESSOR STATION EQUIPMENT	2,097,727	1.08%	22,745	1.08%	22,733	0.00%	-12
369.10	MEASURING AND REGULATING EQUIPMENT	1,438,708	2.90%	41,770	2.90%	41,782	0.00%	12
370.00	COMMUNICATION EQUIPMENT	329,229	1.96%	6,443	1.97%	6,473	0.01%	30
	TOTAL TRANSMISSION - U.G.S.	13,869,916	1.61%	222,768	1.57%	217,802	-0.04%	-4,966
	TRANSMISSION PLANT - MARION COUNTY							
365.40	RIGHTS OF WAY	772,529	1.50%	11,592	1.50%	11,583	0.00%	-9
366.00	STRUCTURES AND IMPROVEMENTS	231,059	1.87%	4,326	1.87%	4,324	0.00%	-2
367.00	MAINS	44,168,438	2.12%	935,923	1.96%	864,055	-0.16%	-71,868
369.00	MEASURING AND REGULATING EQUIPMENT	1,943,466	2.56%	49,804	2.56%	49,810	0.00%	6
	TOTAL TRANSMISSION PLANT- MARION COUNTY	47,115,492	2.13%	1,001,645	1.97%	929,773	-0.15%	-71,872
	DISTRIBUTION PLANT							
376.10	VALVES, VALVE PITS, ETC.	8,327,142	2.13%	177,457	2.13%	177,595	0.00%	138
376.20	STEEL INSTALLED PRIOR TO 1955	258,340	0.00%	0	0.00%	0	0.00%	0
376.21	STEEL AND PLASTIC INSTALLED SUBSEQUENT TO 1954	291,795,386	1.52%	4,421,821	1.52%	4,423,403	0.00%	1,582

Detailed Rate Comparison

Account No.	Description	[1] Plant 12/31/2016	[2] CEG Proposal Rate	[2] CEG Proposal Annual Accrual	[3] OUCC Proposal Rate	[3] OUCC Proposal Annual Accrual	[4] OUCC Adjustment Rate	[4] OUCC Adjustment Annual Accrual
376.70	CAST IRON AND WROUGHT IRON	1,128,297	0.00%	0	0.00%	0	0.00%	0
380.00	SERVICES	248,358,721	2.33%	5,784,897	2.33%	5,794,364	0.00%	9,467
381.00	METERS	31,719,431	2.39%	757,348	2.39%	756,676	0.00%	-672
382.00	METER INSTALLATIONS	5,804,410	1.59%	92,559	1.59%	92,503	0.00%	-56
383.00	HOUSE REGULATORS	4,623,134	1.43%	66,119	1.43%	66,260	0.00%	141
384.00	HOUSE REGULATOR INSTALLATIONS	700,221	1.46%	10,195	1.45%	10,171	-0.01%	-24
386.00	OTHER PROPERTY - CUSTOMER PREMISES	356,362	8.39%	29,914	8.35%	29,741	-0.04%	-173
387.00	OTHER EQUIPMENT	165,536	5.86%	9,702	5.85%	9,691	-0.01%	-11
	TOTAL DISTRIBUTION PLANT	593,236,982	1.91%	11,350,012	1.91%	11,360,403	0.00%	10,391
	GENERAL PLANT							
390.00	STRUCTURES AND IMPROVEMENTS	88,254	4.38%	3,863	4.38%	3,865	0.00%	2
391.40	OFFICE FURNITURE	306,670	0.00%	0	0.00%	0	0.00%	0
391.50	OFFICE MACHINES	10,612	0.00%	0	0.00%	0	0.00%	0
391.60	COMPUTER EQUIPMENT	629,506	0.00%	0	0.00%	0	0.00%	0
391.70	SOFTWARE	3,505,874	2.28%	79,986	1.16%	40,514	-1.12%	-39,472
392.10	TRANSPORTATION EQUIPMENT	7,866,007	8.15%	641,236	8.23%	647,373	0.08%	6,137
393.10	STORES EQUIPMENT	28,893	2.99%	865	3.00%	867	0.01%	2
394.10	TOOLS, SHOP AND GARAGE EQUIPMENT	2,052,543	0.87%	17,813	0.87%	17,806	0.00%	-7
396.10	POWER OPERATED EQUIPMENT	2,158,963	1.51%	32,598	1.51%	32,581	0.00%	-17
397.10	COMMUNICATION EQUIPMENT	584,483	3.74%	21,840	3.73%	21,797	-0.01%	-43
398.10	MISCELLANEOUS EQUIPMENT	629,816	5.19%	32,678	5.16%	32,477	-0.03%	-201
	TOTAL GENERAL PLANT	17,861,619	4.65%	830,879	4.46%	797,279	-0.19%	-33,600
	NONDEPRECIABLE PLANT							
304.30	PRESSURE REGULATING - LAND	147,578						
350.00	UNDERGROUND STORAGE - LAND	20,500						
360.10	PEAK SHAVING LNG - LAND	0						
365.10	TRANSMISSION - U.G.S. - LAND	30,999						
365.30	TRANSMISSION - MARION COUNTY - LAND	45,878						
	TOTAL NONDEPRECIABLE PLANT	244,954						
	TOTAL GAS OPERATIONS	**700,405,813**	**1.96%**	**13,730,861**	**1.95%**	**13,626,440**	**-0.01%**	**-104,421**
	THERMAL							
	STEAM DIVISION							
	PRODUCTION PLANT							

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311.00	STRUCTURES AND IMPROVEMENTS	10,857,472	3.83%	415,621	3.82%	414,688	-0.01%	-933
312.00	BOILER PLANT EQUIPMENT	44,298,688	5.00%	2,214,625	4.99%	2,209,223	-0.01%	-5,402
314.00	TURBOGENERATOR UNITS	2,412,277	2.56%	61,807	2.56%	61,742	0.00%	-65
315.00	ACCESSORY ELECTRIC EQUIPMENT	3,134,757	4.13%	129,382	4.13%	129,545	0.00%	163
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	946,913	5.53%	52,336	5.54%	52,440	0.01%	104
	TOTAL PRODUCTION PLANT	61,650,107	4.66%	2,873,771	4.65%	2,867,638	-0.01%	-6,133
	DISTRIBUTION PLANT							
360.00	LAND RIGHTS	1,792	2.51%	45	2.52%	45	0.01%	0
366.00	MAINS	22,347,601	1.93%	431,206	1.78%	398,736	-0.15%	-32,470
369.00	SERVICES	3,837,815	2.63%	101,076	2.46%	94,242	-0.17%	-6,834
370.00	METERS	555,677	2.32%	12,866	2.31%	12,845	-0.01%	-21
	TOTAL DISTRUBUTION PLANT	26,742,885	2.04%	545,193	1.89%	505,868	-0.15%	-39,325
	GENERAL PLANT							
391.10	OFFICE FURNITURE	82,540	0.00%	0	0.00%	0	0.00%	0
391.20	OFFICE EQUIPMENT	6,370	0.00%	0	0.00%	0	0.00%	0
391.30	COMPUTER EQUIPMENT	29,670	0.00%	0	0.00%	0	0.00%	0
391.40	SOFTWARE	148,946	0.00%	0	0.00%	0	0.00%	0
392.00	TRANSPORTATION EQUIPMENT	972,354	1.78%	17,315	1.78%	17,307	0.00%	-8
393.00	STORES EQUIPMENT	77,421	3.41%	2,637	3.41%	2,641	0.00%	4
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	304,495	2.95%	8,991	2.95%	8,983	0.00%	-8
395.00	LABORATORY EQUIPMENT	106,276	3.58%	3,808	3.58%	3,806	0.00%	-2
396.00	POWER OPERATED EQUIPMENT	355,208	8.98%	31,898	9.00%	31,969	0.02%	71
397.00	COMMUNICATION EQUIPMENT	15,097	15.46%	2,334	15.66%	2,365	0.20%	31
398.00	MISCELLANEOUS EQUIPMENT	305,878	3.71%	11,349	3.71%	11,359	0.00%	10
	TOTAL PRODUCTION PLANT	2,404,254	3.26%	78,332	3.26%	78,428	0.00%	96
	NONDEPRECIABLE PLANT							
370.00	LAND	47,847						
	TOTAL NONDEPRECIABLE PLANT	47,847						
	TOTAL STEAM DIVISION	90,845,093	3.85%	3,497,296	3.80%	3,451,934	-0.05%	-45,362
	CHILLED WATER DIVISION							
	PRODUCTION PLANT							
311.00	STRUCTURES AND IMPROVEMENTS	13,966,500	1.79%	249,503	1.79%	249,745	0.00%	242

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312.00	BOILER PLANT EQUIPMENT	34,788,154	2.13%	739,527	2.12%	739,162	-0.01%	-365
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	981,925	3.35%	32,919	3.36%	32,966	0.01%	47
	TOTAL PRODUCTION PLANT	49,736,579	2.05%	1,021,949	2.05%	1,021,873	0.00%	-76
	DISTRIBUTION PLANT							
366.00	MAINS	26,313,267	2.92%	768,453	2.59%	680,399	-0.33%	-88,054
369.00	SERVICES	9,214,946	3.19%	293,827	2.90%	267,417	-0.29%	-26,410
370.00	METERS	860,279	2.97%	25,545	2.97%	25,571	0.00%	26
	TOTAL DISTRUBUTION PLANT	36,388,492	2.99%	1,087,825	2.67%	973,386	-0.31%	-114,439
	GENERAL PLANT							
391.10	OFFICE FURNITURE	15,946	0.00%	0	0.00%	0	0.00%	0
391.30	COMPUTER EQUIPMENT	38,149	0.00%	0	0.00%	0	0.00%	0
391.40	SOFTWARE	124,575	0.00%	0	0.00%	0	0.00%	0
392.00	TRANSPORTATION EQUIPMENT	269,725	3.27%	8,812	3.26%	8,785	-0.01%	-27
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	243,929	3.83%	9,346	3.84%	9,373	0.01%	27
397.00	COMMUNICATION EQUIPMENT	412,646	6.39%	26,369	6.41%	26,458	0.02%	89
	TOTAL GENERAL PLANT	1,104,970	4.03%	44,527	4.04%	44,615	0.01%	88
	NONDEPRECIABLE PLANT							
370.00	LAND	915,614						
	TOTAL NONDEPRECIABLE PLANT	915,614						
	TOTAL CHILLED WATER DIVISION	88,145,656	2.44%	2,154,301	2.31%	2,039,874	-0.13%	-114,427
	TOTAL THERMAL PLANT	**178,990,748**	**3.16%**	**5,651,597**	**3.07%**	**5,491,809**	**-0.09%**	**-159,788**
	CITIZENS GAS OF WESTFIELD							
	DISTRIBUTION PLANT							
375.00	STRUCTURES AND IMPROVEMENTS	28,305	2.34%	662	2.34%	662	0.00%	0
376.00	MAINS	7,610,508	1.96%	149,195	1.96%	149,229	0.00%	34
378.00	MEASURING AND REGULATING EQUIPMENT - GENERAL	10,754	2.14%	230	2.14%	230	0.00%	0
379.00	MEASURING AND REGULATING EQUIPMENT - GCCS	92,124	3.27%	3,008	3.27%	3,012	0.00%	4
380.00	SERVICES	2,255,573	2.77%	62,410	2.77%	62,395	0.00%	-15

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381.00	METERS	633,993	2.70%	17,113	2.69%	17,082	-0.01%	-31
382.00	METER INSTALLATIONS	16,927	1.74%	295	1.75%	296	0.01%	1
383.00	HOUSE REGULATORS	86,663	2.14%	1,853	2.13%	1,849	-0.01%	-4
385.00	INDUSTRIAL MEASURING AND REGULATING EQUIPMENT	32,553	1.04%	337	1.04%	337	0.00%	0
	TOTAL DISTRIBUTION PLANT	10,767,399	2.18%	235,103	2.18%	235,091	0.00%	-12
	NONDEPRECIABLE PLANT							
370.00	LAND	46,086						
	TOTAL NONDEPRECIABLE PLANT	46,086						
	TOTAL CITIZENS GAS OF WESTFIELD	**10,813,485**	**2.17%**	**235,103**	**2.17%**	**235,091**	**0.00%**	**-12**
	WATER PLANT							
	CITIZENS WATER							
	SOURCE OF SUPPLY AND PUMPING PLANT							
304.20	STRUCTURES AND IMPROVEMENTS	25,467,134	2.31%	589,350	2.32%	590,001	0.00%	651
305.20	COLLECTING AND IMPOUNDING RESERVOIRS	53,429,789	1.29%	686,631	1.29%	686,883	0.00%	252
306.20	LAKE, RIVER AND OTHER INTAKES	2,946,467	1.93%	56,781	1.93%	56,832	0.00%	51
307.20	WELLS AND SPRINGS	33,826,192	2.28%	771,067	2.28%	770,587	0.00%	-480
311.20	PUMPING EQUIPMENT	55,892,133	2.85%	1,595,332	2.85%	1,592,917		
339.20	OTHER MISCELLANEOUS EQUIPMENT	4,430,135	4.01%	177,612	4.01%	177,471	0.00%	-141
	TOTAL SOURCE OF SUPPLY AND PUMPING EQUIPMENT	175,991,851	2.20%	3,876,773	2.20%	3,874,690	0.00%	-2,083
	TREATMENT PLANT							
304.30	STRUCTURES AND IMPROVEMENTS	192,720,165	1.42%	2,735,762	1.42%	2,733,476	0.00%	-2,286
320.30	WATER TREATMENT EQUIPMENT	172,816,446	2.24%	3,875,685	2.24%	3,869,660	0.00%	-6,025
	TOTAL TREATMENT PLANT	365,536,611	1.81%	6,611,447	1.81%	6,603,136	0.00%	-8,311
	DISTRIBUTION PLANT							
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES	15,191,206	1.82%	276,702	1.82%	276,454	0.00%	-248
331.40	TRANSMISSION AND DISTRIBUTION MAINS	814,152,967	0.55%	4,472,595	0.44%	3,608,606	-0.11%	-863,989
333.40	SERVICES	103,194,099	1.15%	1,191,749	1.16%	1,192,303	0.00%	554
334.40	METERS AND METER INSTALLATIONS	67,806,374	0.42%	282,207	0.41%	280,452	0.00%	-1,755
335.40	HYDRANTS	42,226,328	1.10%	464,447	1.14%	481,271	0.04%	16,824

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339.40	OTHER MISCELLANEOUS EQUIPMENT	2,917,635	2.30%	66,960	2.29%	66,847	0.00%	-113
	TOTAL DISTRIBUTION PLANT	1,045,488,609	0.65%	6,754,660	0.56%	5,905,932	-0.08%	-848,728
	GENERAL PLANT							
340.51	OFFICE FURNITURE	131,351	4.38%	5,751	4.38%	5,752	0.00%	1
340.53	COMPUTER EQUIPMENT	645,747	42.95%	277,373	43.36%	280,014	0.41%	2,641
340.54	SOFTWARE	1,894,049	27.63%	523,296	11.34%	214,731	-16.29%	-308,565
341.50	TRANSPORTATION EQUIPMENT	6,848,470	8.57%	586,597	8.59%	588,508	0.03%	1,911
343.50	TOOLS, SHOP AND GARAGE EQUIPMENT	80,154	5.39%	4,323	5.40%	4,332	0.01%	9
344.50	LABORATORY EQUIPMENT	406,980	8.13%	33,087	8.13%	33,072		
345.50	POWER OPERATED EQUIPMENT	2,511,081	4.58%	114,949	4.60%	115,622	0.03%	673
	TOTAL GENERAL PLANT	12,517,831	12.35%	1,545,376	9.92%	1,242,030	-2.42%	-303,346
	NONDEPRECIABLE PLANT							
303.20	LAND AND LAND RIGHTS - PUMPING	22,247,515						
303.30	LAND AND LAND RIGHTS - TREATMENT	9,171,858						
303.40	LAND AND LAND RIGHTS - DISTRIBUTION	1,066,387						
	TOTAL NONDEPRECIABLE PLANT	32,485,760						
	TOTAL CITIZENS WATER	1,632,020,663	1.15%	18,788,256	1.08%	17,625,789	-0.07%	-8,424
	WESTFIELD WATER							
	SOURCE OF SUPPLY AND PUMPING PLANT							
304.20	STRUCTURES AND IMPROVEMENTS	405,037	1.81%	7,319	1.81%	7,316	0.00%	-3
307.20	WELLS AND SPRINGS	2,580,270	1.34%	34,458	1.33%	34,421	0.00%	-37
309.20	SUPPLY MAINS	5,021,845	2.61%	131,198	2.61%	131,006	0.00%	-192
311.20	PUMPING EQUIPMENT	923,141	2.52%	23,292	2.52%	23,274	0.00%	-18
339.20	OTHER MISCELLANEOUS EQUIPMENT	13,066	2.36%	309	2.37%	309	0.00%	0
	TOTAL SOURCE OF SUPPLY AND PUMPING EQUIPMENT	8,943,360	2.20%	196,576	2.20%	196,326	0.00%	-250
	TREATMENT PLANT							
304.30	STRUCTURES AND IMPROVEMENTS	8,197,053	1.79%	146,326	1.78%	146,286	0.00%	-40
320.30	WATER TREATMENT EQUIPMENT	3,536,004	2.55%	90,323	2.55%	90,248	0.00%	-75
	TOTAL TREATMENT PLANT	11,733,057	2.02%	236,649	2.02%	236,535	0.00%	-114

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	DISTRIBUTION PLANT							
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES	2,607,539	2.23%	58,091	2.23%	58,072	0.00%	-19
331.40	TRANSMISSION AND DISTRIBUTION MAINS	34,063,610	0.97%	331,768	0.97%	331,773	0.00%	5
333.40	SERVICES	920,688	2.33%	21,471	2.33%	21,470	0.00%	-1
334.40	METERS AND METER INSTALLATIONS	3,987,870	2.73%	108,993	2.65%	105,545	-0.09%	-3,448
335.40	HYDRANTS	2,617,375	2.17%	56,869	1.88%	49,125	-0.30%	-7,744
339.40	OTHER MISCELLANEOUS EQUIPMENT	25,718	2.93%	754	2.93%	754	0.00%	0
	TOTAL DISTRIBUTION PLANT	44,222,801	1.31%	577,946	1.28%	566,737	-0.03%	-11,209
	GENERAL PLANT							
340.53	COMPUTER EQUIPMENT	135,150	21.25%	28,716	21.25%	28,716	0.00%	0
340.54	SOFTWARE	658,000	30.43%	200,222	10.91%	71,759	-19.52%	-128,463
341.50	TRANSPORTATION EQUIPMENT	210,045	1.27%	2,678	1.28%	2,691	0.01%	13
343.50	TOOLS, SHOP AND GARAGE EQUIPMENT	18,474	0.00%	0	0.00%	0	0.00%	0
344.50	LABORATORY EQUIPMENT	28,511	1.99%	567	1.99%	568	0.00%	1
345.50	POWER OPERATED EQUIPMENT	48,781	3.02%	1,471	2.99%	1,457	-0.03%	-14
346.50	COMMUNICATION EQUIPMENT	20,563	0.00%	0	0.00%	0	0.00%	0
347.50	MISCELLANEOUS EQUIPMENT	101,364	2.18%	2,211	2.18%	2,207	0.00%	-4
348.50	OTHER TANGIBLE EQUIPMENT	5,484	1.29%	71	1.30%	71	0.00%	0
	TOTAL GENERAL PLANT	1,226,371	19.24%	235,936	8.76%	107,470	-10.48%	-128,466
	NONDEPRECIABLE PLANT							
303.20	LAND AND LAND RIGHTS - PUMPING	1,461,607						
303.30	LAND AND LAND RIGHTS - TREATMENT	119,398						
303.40	LAND AND LAND RIGHTS - DISTRIBUTION	501,644						
	TOTAL NONDEPRECIABLE PLANT	2,082,649						
	TOTAL WESTFIELD WATER	68,208,238	1.83%	1,247,107	1.62%	1,107,067	-0.21%	-115
	TOTAL WATER PLANT	**1,700,228,901**	**1.18%**	**20,035,363**	**1.10%**	**18,732,856**	**-0.08%**	**-115**
	WASTEWATER PLANT							
	CITIZENS WASTEWATER							
	COLLECTION PLANT							
360.20	COLLECTING SEWERS - FORCE	14,501,739	2.17%	315,265	2.18%	315,620	0.00%	355

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361.20	COLLECTING SEWERS - GRAVITY	1,121,230,973	1.19%	13,398,100	1.20%	13,400,207	0.00%	2,107
362.20	SPECIAL COLLECTING STRUCTURES	155,215,961	1.36%	2,117,498	1.36%	2,118,098	0.00%	600
362.22	SPECIAL COLLECTING STRUCTURES - DROP SHAFTS	33,115,926	2.45%	810,951	2.45%	811,513	0.00%	562
	TOTAL COLLECTION PLANT	1,324,064,599	1.26%	16,641,814	1.26%	16,645,437	0.00%	3,623
	PUMPING PLANT							
354.30	STRUCTURES AND IMPROVEMENTS	66,901,633	1.76%	1,180,727	1.77%	1,182,379	0.00%	1,652
371.30	PUMPING EQUIPMENT	80,479,604	2.49%	2,005,660	2.14%	1,719,773	-0.36%	-285,887
	TOTAL PUMPING EQUIPMENT	147,381,238	2.16%	3,186,387	1.97%	2,902,152	-0.19%	-284,235
	TREATMENT PLANT							
354.40	STRUCTURES AND IMPROVEMENTS	480,980,986	1.71%	8,245,158	1.60%	7,682,322	-0.12%	-562,836
380.40	TREATMENT AND DISPOSAL EQUIPMENT	673,089,057	2.55%	15,118,468	1.86%	12,515,535	-0.69%	-2,602,933
	TOTAL TREATMENT PLANT	1,154,070,042	2.02%	23,363,626	1.75%	20,197,858	-0.27%	-3,165,768
	GENERAL PLANT							
390.71	OFFICE FURNITURE	150,921	4.22%	6,372	4.21%	6,359	-0.01%	-13
390.73	COMPUTER EQUIPMENT	3,377,670	36.86%	1,244,845	36.35%	1,227,723	-0.51%	-17,122
390.74	SOFTWARE	713,636	63.99%	456,630	16.12%	115,024	-47.87%	-341,606
391.70	TRANSPORTATION EQUIPMENT	4,639,911	11.39%	528,625	11.46%	531,680	0.07%	3,055
395.70	POWER OPERATED EQUIPMENT	97,576	9.56%	9,327	9.59%	9,361	0.03%	34
	TOTAL GENERAL PLANT	8,979,714	25.01%	2,245,799	21.05%	1,890,148	-3.96%	-355,651
	NONDEPRECIABLE PLANT							
353.20	LAND AND LAND RIGHTS - COLLECTION	52,482						
353.30	LAND AND LAND RIGHTS - PUMPING	12,202						
353.40	LAND AND LAND RIGHTS - TREATMENT	2,442,687						
	TOTAL NONDEPRECIABLE PLANT	2,507,372						
	TOTAL CITIZENS WASTEWATER	2,637,002,965	1.72%	45,437,626	1.58%	41,635,595	-0.14%	3,623
	WESTFIELD WASTEWATER							
	COLLECTION PLANT							
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	647	0.15%	1	0.16%	1	0.00%	0

Detailed Rate Comparison

Account No.	Description	[1] Plant 12/31/2016	[2] CEG Proposal Rate	[2] CEG Proposal Annual Accrual	[3] OUCC Proposal Rate	[3] OUCC Proposal Annual Accrual	[4] OUCC Adjustment Rate	[4] OUCC Adjustment Annual Accrual
360.20	COLLECTING SEWERS - FORCE	7,057,903	1.97%	139,136	1.97%	139,048	0.00%	-88
361.20	COLLECTING SEWERS - GRAVITY	62,411,132	2.12%	1,324,890	2.12%	1,323,875	0.00%	-1,015
363.20	SERVICES	28,023	2.44%	683	2.44%	683	0.00%	0
364.20	FLOW MEASURING DEVICES	1,303,276	3.65%	47,534	3.65%	47,522	0.00%	-12
	TOTAL COLLECTION PLANT	70,800,981	2.14%	1,512,244	2.13%	1,511,129	0.00%	-1,115
	PUMPING PLANT							
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1,795,756	2.20%	39,432	2.20%	39,476	0.00%	44
371.30	PUMPING EQUIPMENT	3,608,510	3.61%	130,368	2.75%	99,369	-0.86%	-30,999
	TOTAL PUMPING EQUIPMENT	5,404,266	3.14%	169,800	2.57%	138,845	-0.57%	-30,955
	TREATMENT PLANT							
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	16,819,637	1.81%	304,400	1.70%	285,172	-0.11%	-19,228
380.40	TREATMENT AND DISPOSAL EQUIPMENT	7,198,134	3.08%	221,720	2.29%	164,582	-0.79%	-57,138
	TOTAL TREATMENT PLANT	24,017,771	2.19%	526,120	1.87%	449,753	-0.32%	-76,367
	GENERAL PLANT							
390.71	OFFICE FURNITURE	26,666	0.00%	0	0.00%	0	0.00%	0
390.72	OFFICE MACHINES	24,322	0.00%	0	0.00%	0	0.00%	0
390.73	COMPUTER EQUIPMENT	229,387	15.02%	34,458	14.86%	34,097	-0.16%	-361
390.74	SOFTWARE	747,354	31.41%	234,767	10.12%	75,600	-21.30%	-159,167
391.70	TRANSPORTATION EQUIPMENT	230,064	4.22%	9,713	4.25%	9,779	0.03%	66
393.70	TOOLS, SHOP AND GARAGE EQUIPMENT	61,373	0.12%	75	0.12%	75	0.00%	0
394.70	LABORATORY EQUIPMENT	38,004	0.36%	138	0.36%	138	0.00%	0
395.70	POWER OPERATED EQUIPMENT	165,927	0.00%	0	0.00%	0	0.00%	0
396.70	COMMUNICATION EQUIPMENT	21,151	0.00%	0	0.00%	0	0.00%	0
397.70	MISCELLANEOUS EQUIPMENT	63,619	0.00%	0	0.00%	0	0.00%	0
398.70	OTHER EQUIPMENT	145,914	5.82%	8,486	5.81%	8,477	-0.01%	-9
	TOTAL GENERAL PLANT	1,753,781	16.40%	287,637	7.31%	128,165	-9.09%	-159,472
	NONDEPRECIABLE PLANT							
353.20	LAND AND LAND RIGHTS - COLLECTION	1,003,473						
353.30	LAND AND LAND RIGHTS - PUMPING	81,580						
353.40	LAND AND LAND RIGHTS - TREATMENT	210,269						
	TOTAL NONDEPRECIABLE PLANT	1,295,322						
	TOTAL WESTFIELD WASTEWATER	103,272,121	2.42%	2,495,801	2.16%	2,227,892	-0.26%	-107,365

Detailed Rate Comparison

Account No.	Description	[1] Plant 12/31/2016	[2] CEG Proposal Rate	[2] CEG Proposal Annual Accrual	[3] OUCC Proposal Rate	[3] OUCC Proposal Annual Accrual	[4] OUCC Adjustment Rate	[4] OUCC Adjustment Annual Accrual
	TOTAL WASTEWATER PLANT	**2,740,275,086**	**1.75%**	**47,933,427**	**1.60%**	**43,863,487**	**-0.15%**	**-107,365**
	SHARED SERVICES							
	DEPRECIABLE PLANT							
390.00	STRUCTURES AND IMPROVEMENTS	45,195,069	2.73%	1,231,876	2.72%	1,229,998	0.00%	-1,878
391.40	OFFICE FURNITURE	3,176,034	2.69%	85,471	2.69%	85,442	0.00%	-29
391.50	OFFICE MACHINES	1,428,878	6.50%	92,814	6.50%	92,947	0.01%	133
391.60	COMPUTER EQUIPMENT	6,148,499	21.22%	1,304,706	21.67%	1,332,364	0.45%	27,658
391.70	SOFTWARE	27,031,684	16.05%	4,338,543	5.95%	1,607,221	-10.10%	-2,731,322
392.10	TRANSPORTATION EQUIPMENT	75,108	10.49%	7,878	10.51%	7,890	0.02%	12
394.10	TOOLS, SHOP AND GARAGE EQUIPMENT	19,606	5.03%	986	5.03%	986	0.00%	0
397.10	COMMUNICATION EQUIPMENT	3,958,858	6.56%	259,786	6.54%	258,897	-0.02%	-889
398.10	OTHER EQUIPMENT	425,435	5.09%	21,636	5.10%	21,684	0.01%	48
	TOTAL DEPRECIABLE PLANT	87,459,170	8.40%	7,343,696	5.30%	4,637,429	-3.09%	-2,706,267
	NONDEPRECIABLE PLANT							
389.00	LAND	1,581,974						
	TOTAL NONDEPRECIABLE PLANT	1,581,974						
	TOTAL SHARED SERVICES	**89,041,144**	**8.25%**	**7,343,696**	**5.21%**	**4,637,429**	**-3.04%**	**-2,706,267**
	TOTAL PLANT STUDIED	**5,419,755,177**	**1.75%**	**94,930,047**	**1.60%**	**86,587,111**	**-0.15%**	**-8,342,936**

[1], [2] See Company depreciation study
[3] Exhibit DJG-5
[4] = [3] - [2]

Depreciation Rate Development

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
	GAS OPERATIONS														
	PRESSURE REGULATING														
305.30	STRUCTURES AND IMPROVEMENTS	530,574	R2.5	65	0%	530,574	361,143	169,431	30.30	5,592	1.05%	0	0.00%	5,592	**1.05%**
319.00	PRESSURE REGULATING EQUIPMENT	1,993,407	L2	27	0%	1,993,407	1,178,929	814,478	13.60	59,888	3.00%	0	0.00%	59,888	**3.00%**
	TOTAL PRESSURE REGULATING	2,523,980				2,523,980	1,540,072	983,908	15.03	65,480	2.59%	0	0.00%	65,480	**2.59%**
	UNDERGROUND STORAGE PLANT														
350.20	LEASEHOLDS	583,865	S0	40	0%	583,865	547,894	35,971	22.20	1,620	0.28%	0	0.00%	1,620	**0.28%**
351.00	STRUCTURES AND IMPROVEMENTS	785,779	R2	50	0%	785,779	575,411	210,368	27.30	7,706	0.98%	0	0.00%	7,706	**0.98%**
352.00	WELLS	11,558,237	R2.5	62	-5%	12,136,148	10,584,976	1,551,172	22.77	42,743	0.37%	25,380	0.22%	68,124	**0.59%**
352.30	NON-RECOVERABLE GAS	4,073,028	R2	40	0%	4,073,028	3,690,220	382,808	11.00	34,801	0.85%	0	0.00%	34,801	**0.85%**
353.00	LINES	3,157,718	S2.5	38	0%	3,157,718	2,672,244	485,474	14.30	33,949	1.08%	0	0.00%	33,949	**1.08%**
355.00	MEASURING AND REGULATING EQUIPMENT	839,372	L2.5	25	-5%	881,341	329,358	551,983	14.30	35,665	4.25%	2,935	0.35%	38,600	**4.60%**
356.00	PURIFICATION EQUIPMENT	4,504,424	R2.5	60	-5%	4,729,645	2,399,200	2,330,445	33.40	63,031	1.40%	6,743	0.15%	69,774	**1.55%**
357.00	OTHER EQUIPMENT	50,445	R2.5	40	0%	50,445	22,674	27,771	24.60	1,129	2.24%	0	0.00%	1,129	**2.24%**
	TOTAL UNDERGROUND STORAGE PLANT	25,552,869				26,397,971	20,821,977	5,575,994	21.81	220,644	0.86%	35,058	0.14%	255,703	**1.00%**
	TRANSMISSION PLANT - U.G.S.														
365.20	RIGHTS OF WAY	278,517	S4	60	0%	278,517	192,153	86,364	27.40	3,152	1.13%	0	0.00%	3,152	**1.13%**
366.10	STRUCTURES AND IMPROVEMENTS	788,150	R2.5	50	-5%	827,558	508,800	318,758	25.70	10,870	1.38%	1,533	0.19%	12,403	**1.57%**
367.10	MAINS	8,937,585	S0.5	60	-10%	9,831,343	5,782,033	4,049,310	30.85	102,287	1.14%	28,971	0.32%	131,258	**1.47%**
368.00	COMPRESSOR STATION EQUIPMENT	2,097,727	S2.5	45	-5%	2,202,614	1,757,038	445,576	19.60	17,382	0.83%	5,351	0.26%	22,733	**1.08%**
369.10	MEASURING AND REGULATING EQUIPMENT	1,438,708	S1.5	35	-5%	1,510,643	679,172	831,471	19.90	38,168	2.65%	3,615	0.25%	41,782	**2.90%**
370.00	COMMUNICATION EQUIPMENT	329,229	S2	25	0%	329,229	267,088	62,141	9.60	6,473	1.97%	0	0.00%	6,473	**1.97%**
	TOTAL TRANSMISSION - U.G.S.	13,869,916				14,979,904	9,186,284	5,793,620	26.60	178,331	1.29%	39,471	0.28%	217,802	**1.57%**
	TRANSMISSION PLANT - MARION COUNTY														
365.40	RIGHTS OF WAY	772,529	S4	60	0%	772,529	466,728	305,801	26.40	11,583	1.50%	0	0.00%	11,583	**1.50%**
366.00	STRUCTURES AND IMPROVEMENTS	231,059	R2.5	50	-5%	242,612	118,075	124,537	28.80	3,923	1.70%	401	0.17%	4,324	**1.87%**
367.00	MAINS	44,168,438	S0.5	60	-10%	48,585,282	17,470,664	31,114,618	36.01	741,399	1.68%	122,656	0.28%	864,055	**1.96%**
369.00	MEASURING AND REGULATING EQUIPMENT	1,943,466	S1.5	35	-5%	2,040,640	969,724	1,070,916	21.50	45,290	2.33%	4,520	0.23%	49,810	**2.56%**
	TOTAL TRANSMISSION PLANT- MARION COUNTY	47,115,492				51,641,062	19,025,191	32,615,871	35.08	802,196	1.70%	127,577	0.27%	929,773	**1.97%**
	DISTRIBUTION PLANT														
376.10	VALVES, VALVE PITS, ETC.	8,327,142	R2	55	-30%	10,825,285	4,378,578	6,446,707	36.30	108,776	1.31%	68,819	0.83%	177,595	**2.13%**
376.20	STEEL INSTALLED PRIOR TO 1955	258,340	L1.5	33	-30%	335,842	335,842							0	**0.00%**
376.21	STEEL AND PLASTIC INSTALLED SUBSEQUENT TO 1954	291,795,386	R2.5	75	-30%	379,334,002	158,606,188	220,727,814	49.90	2,669,122	0.91%	1,754,281	0.60%	4,423,403	**1.52%**
376.70	CAST IRON AND WROUGHT IRON	1,128,297	L1	43	-30%	1,466,787	1,466,787							0	**0.00%**
380.00	SERVICES	248,358,721	R2	49	-45%	360,120,146	196,719,085	163,401,061	28.20	1,831,193	0.74%	3,963,171	1.60%	5,794,364	**2.33%**
381.00	METERS	31,719,431	R1	35	0%	31,719,431	16,585,914	15,133,517	20.00	756,676	2.39%	0	0.00%	756,676	**2.39%**
382.00	METER INSTALLATIONS	5,804,410	R1	35	0%	5,804,410	4,111,611	1,692,799	18.30	92,503	1.59%	0	0.00%	92,503	**1.59%**
383.00	HOUSE REGULATORS	4,623,134	R1	35	0%	4,623,134	3,410,577	1,212,557	18.30	66,260	1.43%	0	0.00%	66,260	**1.43%**
384.00	HOUSE REGULATOR INSTALLATIONS	700,221	R1	35	0%	700,221	497,827	202,394	19.90	10,171	1.45%	0	0.00%	10,171	**1.45%**
386.00	OTHER PROPERTY - CUSTOMER PREMISES	356,362	S4	20	0%	356,362	207,655	148,707	5.00	29,741	8.35%	0	0.00%	29,741	**8.35%**
387.00	OTHER EQUIPMENT	165,536	L1	15	0%	165,536	81,226	84,310	8.70	9,691	5.85%	0	0.00%	9,691	**5.85%**
	TOTAL DISTRIBUTION PLANT	593,236,982				795,451,156	386,401,290	409,049,866	36.01	5,574,132	0.94%	5,786,271	0.98%	11,360,403	**1.91%**
	GENERAL PLANT														
390.00	STRUCTURES AND IMPROVEMENTS	88,254	S0	36	-5%	92,667	7,643	85,024	22.00	3,664	4.15%	201	0.23%	3,865	**4.38%**
391.40	OFFICE FURNITURE	306,670	SQ	25	0%	306,670	306,670							0	**0.00%**

Depreciation Rate Development

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
391.50	OFFICE MACHINES	10,612	SQ	15	0%	10,612	10,612							0	**0.00%**
391.60	COMPUTER EQUIPMENT	629,506	SQ	5	0%	629,506	629,506							0	**0.00%**
391.70	SOFTWARE	3,505,874	SQ	10	0%	3,505,874	3,225,922	279,952	6.91	40,514	1.16%	0	0.00%	40,514	**1.16%**
392.10	TRANSPORTATION EQUIPMENT	7,866,007	L2.5	10	15%	6,686,106	3,578,717	3,107,389	4.80	893,185	11.36%	-245,813	-3.13%	647,373	**8.23%**
393.10	STORES EQUIPMENT	28,893	SQ	30	0%	28,893	19,964	8,929	10.30	867	3.00%	0	0.00%	867	**3.00%**
394.10	TOOLS, SHOP AND GARAGE EQUIPMENT	2,052,543	SQ	20	0%	2,052,543	1,742,723	309,820	17.40	17,806	0.87%	0	0.00%	17,806	**0.87%**
396.10	POWER OPERATED EQUIPMENT	2,158,963	L1.5	14	20%	1,727,170	1,437,201	289,969	8.90	81,097	3.76%	-48,516	-2.25%	32,581	**1.51%**
397.10	COMMUNICATION EQUIPMENT	584,483	SQ	15	0%	584,483	468,958	115,525	5.30	21,797	3.73%	0	0.00%	21,797	**3.73%**
398.10	MISCELLANEOUS EQUIPMENT	629,816	SQ	20	0%	629,816	373,244	256,572	7.90	32,477	5.16%	0	0.00%	32,477	**5.16%**
	TOTAL GENERAL PLANT	17,861,619				16,254,338	11,801,160	4,453,179	5.59	1,091,408	6.11%	-294,128	-1.65%	797,279	**4.46%**
	NONDEPRECIABLE PLANT														
304.30	PRESSURE REGULATING - LAND	147,578													
350.00	UNDERGROUND STORAGE - LAND	20,500													
360.10	PEAK SHAVING LNG - LAND	0													
365.10	TRANSMISSION - U.G.S. - LAND	30,999													
365.30	TRANSMISSION - MARION COUNTY - LAND	45,878													
	TOTAL NONDEPRECIABLE PLANT	244,954													
	TOTAL GAS OPERATIONS	**700,405,813**				**907,248,412**	**448,775,974**	**458,472,439**	**33.65**	**7,932,191**	**1.13%**	**5,694,249**	**0.81%**	**13,626,440**	**1.95%**
	THERMAL														
	STEAM DIVISION														
	PRODUCTION PLANT														
311.00	STRUCTURES AND IMPROVEMENTS	10,857,472	S1	50	0%	10,857,472	2,812,516	8,044,956	19.40	414,688	3.82%	0	0.00%	414,688	**3.82%**
312.00	BOILER PLANT EQUIPMENT	44,298,688	S0	46	0%	44,298,688	5,637,285	38,661,403	17.50	2,209,223	4.99%	0	0.00%	2,209,223	**4.99%**
314.00	TURBOGENERATOR UNITS	2,412,277	S2	60	0%	2,412,277	1,140,398	1,271,879	20.60	61,742	2.56%	0	0.00%	61,742	**2.56%**
315.00	ACCESSORY ELECTRIC EQUIPMENT	3,134,757	R1.5	60	0%	3,134,757	699,315	2,435,442	18.80	129,545	4.13%	0	0.00%	129,545	**4.13%**
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	946,913	R1.5	35	0%	946,913	113,124	833,789	15.90	52,440	5.54%	0	0.00%	52,440	**5.54%**
	TOTAL PRODUCTION PLANT	61,650,107				61,650,107	10,402,638	51,247,469	17.87	2,867,638	4.65%	0	0.00%	2,867,638	**4.65%**
	DISTRIBUTION PLANT														
360.00	LAND RIGHTS	1,792	R4	65	0%	1,792	814	978	21.70	45	2.52%	0	0.00%	45	**2.52%**
366.00	MAINS	22,347,601	R2	69	-5%	23,464,981	5,306,548	18,158,433	45.54	374,200	1.67%	24,536	0.11%	398,736	**1.78%**
369.00	SERVICES	3,837,815	R1.5	53	-15%	4,413,487	1,243,194	3,170,293	33.64	77,129	2.01%	17,113	0.45%	94,242	**2.46%**
370.00	METERS	555,677	R3	45	0%	555,677	266,657	289,020	22.50	12,845	2.31%	0	0.00%	12,845	**2.31%**
	TOTAL DISTRUBUTION PLANT	26,742,885				28,435,937	6,817,213	21,618,724	42.74	464,219	1.74%	41,649	0.16%	505,868	**1.89%**
	GENERAL PLANT														
391.10	OFFICE FURNITURE	82,540	SQ	25	0%	82,540	82,540							0	**0.00%**
391.20	OFFICE EQUIPMENT	6,370	SQ	15	0%	6,370	6,370							0	**0.00%**
391.30	COMPUTER EQUIPMENT	29,670	SQ	5	0%	29,670	29,670							0	**0.00%**
391.40	SOFTWARE	148,946	SQ	10	0%	148,946	148,946							0	**0.00%**
392.00	TRANSPORTATION EQUIPMENT	972,354	S2	19	15%	826,501	589,401	237,100	13.70	27,953	2.87%	-10,646	-1.09%	17,307	**1.78%**
393.00	STORES EQUIPMENT	77,421	SQ	30	0%	77,421	9,822	67,599	25.60	2,641	3.41%	0	0.00%	2,641	**3.41%**
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	304,495	SQ	20	0%	304,495	218,257	86,238	9.60	8,983	2.95%	0	0.00%	8,983	**2.95%**
395.00	LABORATORY EQUIPMENT	106,276	SQ	15	0%	106,276	61,748	44,528	11.70	3,806	3.58%	0	0.00%	3,806	**3.58%**
396.00	POWER OPERATED EQUIPMENT	355,208	S2.5	11	20%	284,166	124,321	159,845	5.00	46,177	13.00%	-14,208	-4.00%	31,969	**9.00%**
397.00	COMMUNICATION EQUIPMENT	15,097	SQ	15	0%	15,097	10,131	4,966	2.10	2,365	15.66%	0	0.00%	2,365	**15.66%**

Depreciation Rate Development

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
398.00	MISCELLANEOUS EQUIPMENT	305,878	SQ	20	0%	305,878	141,175	164,703	14.50	11,359	3.71%	0	0.00%	11,359	**3.71%**
	TOTAL PRODUCTION PLANT	2,404,254				2,187,359	1,422,381	764,978	9.75	103,283	4.30%	-24,855	-1.03%	78,428	**3.26%**
	NONDEPRECIABLE PLANT														
370.00	LAND	47,847													
	TOTAL NONDEPRECIABLE PLANT	47,847													
	TOTAL STEAM DIVISION	90,845,093				92,273,403	18,642,232	73,631,171	21.33	3,435,140	3.78%	16,794	0.02%	3,451,934	**3.80%**
	CHILLED WATER DIVISION														
	PRODUCTION PLANT														
311.00	STRUCTURES AND IMPROVEMENTS	13,966,500	R3	60	0%	13,966,500	2,578,137	11,388,363	45.60	249,745	1.79%	0	0.00%	249,745	**1.79%**
312.00	BOILER PLANT EQUIPMENT	34,788,154	R3	50	0%	34,788,154	7,882,657	26,905,497	36.40	739,162	2.12%	0	0.00%	739,162	**2.12%**
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	981,925	S1.5	35	0%	981,925	134,700	847,225	25.70	32,966	3.36%	0	0.00%	32,966	**3.36%**
	TOTAL PRODUCTION PLANT	49,736,579				49,736,579	10,595,494	39,141,085	38.30	1,021,873	2.05%	0	0.00%	1,021,873	**2.05%**
	DISTRIBUTION PLANT														
366.00	MAINS	26,313,267	R2	69	-60%	42,101,227	10,333,391	31,767,836	46.69	342,255	1.30%	338,144	1.29%	680,399	**2.59%**
369.00	SERVICES	9,214,946	R1.5	53	-45%	13,361,672	4,047,548	9,314,124	34.83	148,361	1.61%	119,056	1.29%	267,417	**2.90%**
370.00	METERS	860,279	S1	40	0%	860,279	195,445	664,834	26.00	25,571	2.97%	0	0.00%	25,571	**2.97%**
	TOTAL DISTRUBUTION PLANT	36,388,492				56,323,178	14,576,384	41,746,794	42.89	516,186	1.42%	457,201	1.26%	973,386	**2.67%**
	GENERAL PLANT														
391.10	OFFICE FURNITURE	15,946	SQ	25	0%	15,946	15,946							0	**0.00%**
391.30	COMPUTER EQUIPMENT	38,149	SQ	5	0%	38,149	38,149							0	**0.00%**
391.40	SOFTWARE	124,575	SQ	10	0%	124,575	124,575							0	**0.00%**
392.00	TRANSPORTATION EQUIPMENT	269,725	L3	18	15%	229,266	123,850	105,416	12.00	12,156	4.51%	-3,372	-1.25%	8,785	**3.26%**
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	243,929	SQ	20	0%	243,929	119,272	124,657	13.30	9,373	3.84%	0	0.00%	9,373	**3.84%**
397.00	COMMUNICATION EQUIPMENT	412,646	SQ	15	0%	412,646	92,505	320,141	12.10	26,458	6.41%	0	0.00%	26,458	**6.41%**
	TOTAL GENERAL PLANT	1,104,970				1,064,512	514,297	550,214	12.33	47,987	4.34%	-3,372	-0.31%	44,615	**4.04%**
	NONDEPRECIABLE PLANT														
370.00	LAND	915,614													
	TOTAL NONDEPRECIABLE PLANT	915,614													
	TOTAL CHILLED WATER DIVISION	88,145,656				107,124,269	25,686,175	81,438,093	39.92	1,586,046	1.80%	453,829	0.51%	2,039,874	**2.31%**
	TOTAL THERMAL PLANT	**178,990,748**				**199,397,672**	**44,328,407**	**155,069,264**	**28.24**	**5,021,185**	**2.81%**	**470,623**	**0.26%**	**5,491,809**	**3.07%**
	CITIZENS GAS OF WESTFIELD														
	DISTRIBUTION PLANT														

Depreciation Rate Development

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
375.00	STRUCTURES AND IMPROVEMENTS	28,305	R3	50	0%	28,305	1,181	27,124	41.00	662	2.34%	0	0.00%	662	**2.34%**
376.00	MAINS	7,610,508	S1.5	65	-20%	9,132,610	2,297,926	6,834,684	45.80	115,995	1.52%	33,234	0.44%	149,229	**1.96%**
378.00	MEASURING AND REGULATING EQUIPMENT - GENERAL	10,754	R2.5	40	-10%	11,829	6,946	4,883	21.20	180	1.67%	51	0.47%	230	**2.14%**
379.00	MEASURING AND REGULATING EQUIPMENT - GCCS	92,124	R2.5	40	-10%	101,336	11,884	89,452	29.70	2,702	2.93%	310	0.34%	3,012	**3.27%**
380.00	SERVICES	2,255,573	R2	50	-40%	3,157,802	1,142,439	2,015,363	32.30	34,462	1.53%	27,933	1.24%	62,395	**2.77%**
381.00	METERS	633,993	S0	35	0%	633,993	295,774	338,219	19.80	17,082	2.69%	0	0.00%	17,082	**2.69%**
382.00	METER INSTALLATIONS	16,927	S2.5	35	0%	16,927	11,990	4,937	16.70	296	1.75%	0	0.00%	296	**1.75%**
383.00	HOUSE REGULATORS	86,663	S2.5	40	0%	86,663	49,126	37,537	20.30	1,849	2.13%	0	0.00%	1,849	**2.13%**
385.00	INDUSTRIAL MEASURING AND REGULATING EQUIPMENT	32,553	S2	35	0%	32,553	27,498	5,055	15.00	337	1.04%	0	0.00%	337	**1.04%**
	TOTAL DISTRIBUTION PLANT	10,767,399				13,202,017	3,844,764	9,357,253	39.80	173,564	1.61%	61,527	0.57%	235,091	**2.18%**
	NONDEPRECIABLE PLANT														
370.00	LAND	46,086													
	TOTAL NONDEPRECIABLE PLANT	46,086													
	TOTAL CITIZENS GAS OF WESTFIELD	**10,813,485**				**13,202,017**	**3,844,764**	**9,357,253**	**39.80**	**173,564**	**1.61%**	**61,527**	**0.57%**	**235,091**	2.17%
	WATER PLANT														
	CITIZENS WATER														
	SOURCE OF SUPPLY AND PUMPING PLANT														
304.20	STRUCTURES AND IMPROVEMENTS	25,467,134	R3	50	-5%	26,740,491	11,459,460	15,281,031	25.90	540,837	2.12%	49,164	0.19%	590,001	**2.32%**
305.20	COLLECTING AND IMPOUNDING RESERVOIRS	53,429,789	R2.5	75	0%	53,429,789	30,968,730	22,461,059	32.70	686,883	1.29%	0	0.00%	686,883	**1.29%**
306.20	LAKE, RIVER AND OTHER INTAKES	2,946,467	S1.5	60	0%	2,946,467	389,029	2,557,438	45.00	56,832	1.93%	0	0.00%	56,832	**1.93%**
307.20	WELLS AND SPRINGS	33,826,192	R3	55	-5%	35,517,501	4,539,914	30,977,587	40.20	728,514	2.15%	42,072	0.12%	770,587	**2.28%**
311.20	PUMPING EQUIPMENT	55,892,133	S1.5	40	-10%	61,481,347	22,614,182	38,867,165	24.40	1,363,850	2.44%	229,066	0.41%	1,592,917	**2.85%**
339.20	OTHER MISCELLANEOUS EQUIPMENT	4,430,135	R3	30	0%	4,430,135	330,553	4,099,582	23.10	177,471	4.01%	0	0.00%	177,471	**4.01%**
	TOTAL SOURCE OF SUPPLY AND PUMPING EQUIPMENT	175,991,851				184,545,731	70,301,868	114,243,863	29.48	3,554,387	2.02%	320,303	0.18%	3,874,690	**2.20%**
	TREATMENT PLANT														
304.30	STRUCTURES AND IMPROVEMENTS	192,720,165	R2.5	65	-10%	211,992,182	113,860,382	98,131,800	35.90	2,196,651	1.14%	536,825	0.28%	2,733,476	**1.42%**
320.30	WATER TREATMENT EQUIPMENT	172,816,446	R2.5	40	-5%	181,457,268	81,233,082	100,224,186	25.90	3,536,037	2.05%	333,622	0.19%	3,869,660	**2.24%**
	TOTAL TREATMENT PLANT	365,536,611				393,449,450	195,093,464	198,355,986	30.04	5,732,689	1.57%	870,447	0.24%	6,603,136	**1.81%**
	DISTRIBUTION PLANT														
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES	15,191,206	R4	55	-10%	16,710,327	6,647,400	10,062,927	36.40	234,720	1.55%	41,734	0.27%	276,454	**1.82%**
331.40	TRANSMISSION AND DISTRIBUTION MAINS	814,152,967	R3	125	-5%	854,860,615	515,290,820	339,569,795	94.10	3,176,006	0.39%	432,600	0.05%	3,608,606	**0.44%**
333.40	SERVICES	103,194,099	R4	70	-50%	154,791,149	88,618,336	66,172,813	55.50	262,626	0.25%	929,677	0.90%	1,192,303	**1.16%**
334.40	METERS AND METER INSTALLATIONS	67,806,374	L0	49	0%	67,806,374	60,424,887	7,381,487	26.32	280,452	0.41%	0	0.00%	280,452	**0.41%**
335.40	HYDRANTS	42,226,328	L2	73	-10%	46,448,961	24,305,666	22,143,295	46.01	389,495	0.92%	91,776	0.22%	481,271	**1.14%**
339.40	OTHER MISCELLANEOUS EQUIPMENT	2,917,635	R3	40	0%	2,917,635	1,045,923	1,871,712	28.00	66,847	2.29%	0	0.00%	66,847	**2.29%**
	TOTAL DISTRIBUTION PLANT	1,045,488,609				1,143,535,060	696,333,032	447,202,028	75.72	4,410,146	0.42%	1,495,787	0.14%	5,905,932	**0.56%**
	GENERAL PLANT														
340.51	OFFICE FURNITURE	131,351	SQ	25	0%	131,351	9,415	121,936	21.20	5,752	4.38%	0	0.00%	5,752	**4.38%**
340.53	COMPUTER EQUIPMENT	645,747	SQ	5	0%	645,747	29,717	616,030	2.20	280,014	43.36%	0	0.00%	280,014	**43.36%**
340.54	SOFTWARE	1,894,049	SQ	10	0%	1,894,049	70,986	1,823,063	8.49	214,731	11.34%	0	0.00%	214,731	**11.34%**

Depreciation Rate Development

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
341.50	TRANSPORTATION EQUIPMENT	6,848,470	S3	12	20%	5,478,776	2,241,980	3,236,796	5.50	837,544	12.23%	-249,035	-3.64%	588,508	**8.59%**
343.50	TOOLS, SHOP AND GARAGE EQUIPMENT	80,154	SQ	20	0%	80,154	3,913	76,241	17.60	4,332	5.40%	0	0.00%	4,332	**5.40%**
344.50	LABORATORY EQUIPMENT	406,980	SQ	15	0%	406,980	26,652	380,328	11.50	33,072	8.13%	0	0.00%	33,072	**8.13%**
345.50	POWER OPERATED EQUIPMENT	2,511,081	L1.5	12	20%	2,008,865	1,384,507	624,358	5.40	208,625	8.31%	-93,003	-3.70%	115,622	**4.60%**
	TOTAL GENERAL PLANT	12,517,831				10,645,921	3,767,170	6,878,751	5.54	1,584,068	12.65%	-342,038	-2.73%	1,242,030	**9.92%**
	NONDEPRECIABLE PLANT														
303.20	LAND AND LAND RIGHTS - PUMPING	22,247,515													
303.30	LAND AND LAND RIGHTS - TREATMENT	9,171,858													
303.40	LAND AND LAND RIGHTS - DISTRIBUTION	1,066,387													
	TOTAL NONDEPRECIABLE PLANT	32,485,760													
	TOTAL CITIZENS WATER	1,632,020,663				1,732,176,162	965,495,534	766,680,628	43.50	15,281,290	0.94%	2,344,499	0.14%	17,625,789	**1.08%**
	WESTFIELD WATER														
	SOURCE OF SUPPLY AND PUMPING PLANT														
304.20	STRUCTURES AND IMPROVEMENTS	405,037	R3	50	-5%	425,289	200,693	224,596	30.70	6,656	1.64%	660	0.16%	7,316	**1.81%**
307.20	WELLS AND SPRINGS	2,580,270	R3	55	-5%	2,709,284	1,249,827	1,459,457	42.40	31,378	1.22%	3,043	0.12%	34,421	**1.33%**
309.20	SUPPLY MAINS	5,021,845	R2.5	50	-15%	5,775,122	2,237,970	3,537,152	27.00	103,106	2.05%	27,899	0.56%	131,006	**2.61%**
311.20	PUMPING EQUIPMENT	923,141	S1.5	40	-10%	1,015,455	389,392	626,063	26.90	19,842	2.15%	3,432	0.37%	23,274	**2.52%**
339.20	OTHER MISCELLANEOUS EQUIPMENT	13,066	R3	30	0%	13,066	5,490	7,576	24.50	309	2.37%	0	0.00%	309	**2.37%**
	TOTAL SOURCE OF SUPPLY AND PUMPING EQUIPMENT	8,943,360				9,938,216	4,083,372	5,854,844	29.82	161,292	1.80%	35,033	0.39%	196,326	**2.20%**
	TREATMENT PLANT														
304.30	STRUCTURES AND IMPROVEMENTS	8,197,053	R2.5	65	-10%	9,016,758	2,580,170	6,436,588	44.00	127,656	1.56%	18,630	0.23%	146,286	**1.78%**
320.30	WATER TREATMENT EQUIPMENT	3,536,004	R2.5	40	-5%	3,712,804	1,095,600	2,617,204	29.00	84,152	2.38%	6,097	0.17%	90,248	**2.55%**
	TOTAL TREATMENT PLANT	11,733,057				12,729,562	3,675,770	9,053,792	38.28	211,808	1.81%	24,726	0.21%	236,535	**2.02%**
	DISTRIBUTION PLANT														
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES	2,607,539	R4	55	-10%	2,868,293	1,021,601	1,846,692	31.80	49,872	1.91%	8,200	0.31%	58,072	**2.23%**
331.40	TRANSMISSION AND DISTRIBUTION MAINS	34,063,610	R3	125	-15%	39,173,152	5,863,163	33,309,989	100.40	280,881	0.82%	50,892	0.15%	331,773	**0.97%**
333.40	SERVICES	920,688	R4	70	-50%	1,381,032	17,716	1,363,316	63.50	14,220	1.54%	7,250	0.79%	21,470	**2.33%**
334.40	METERS AND METER INSTALLATIONS	3,987,870	L0	49	0%	3,987,870	1,259,544	2,728,326	25.85	105,545	2.65%	0	0.00%	105,545	**2.65%**
335.40	HYDRANTS	2,617,375	L2	73	-10%	2,879,112	145,824	2,733,288	55.64	44,420	1.70%	4,704	0.18%	49,125	**1.88%**
339.40	OTHER MISCELLANEOUS EQUIPMENT	25,718	R3	40	0%	25,718	771	24,947	33.10	754	2.93%	0	0.00%	754	**2.93%**
	TOTAL DISTRIBUTION PLANT	44,222,801				50,315,178	8,308,619	42,006,559	74.12	495,692	1.12%	71,045	0.16%	566,737	**1.28%**
	GENERAL PLANT														
340.53	COMPUTER EQUIPMENT	135,150	SQ	5	0%	135,150	63,360	71,790	2.50	28,716	21.25%	0	0.00%	28,716	**21.25%**
340.54	SOFTWARE	658,000	SQ	10	0%	658,000	32,261	625,739	8.72	71,759	10.91%	0	0.00%	71,759	**10.91%**
341.50	TRANSPORTATION EQUIPMENT	210,045	S3	12	20%	168,036	143,280	24,756	9.20	7,257	3.46%	-4,566	-2.17%	2,691	**1.28%**
343.50	TOOLS, SHOP AND GARAGE EQUIPMENT	18,474	SQ	20	0%	18,474	18,474							0	**0.00%**
344.50	LABORATORY EQUIPMENT	28,511	SQ	15	0%	28,511	21,303	7,208	12.70	568	1.99%	0	0.00%	568	**1.99%**
345.50	POWER OPERATED EQUIPMENT	48,781	L1.5	12	20%	39,025	32,612	6,413	4.40	3,675	7.53%	-2,217	-4.55%	1,457	**2.99%**
346.50	COMMUNICATION EQUIPMENT	20,563	SQ	15	0%	20,563	20,563							0	**0.00%**
347.50	MISCELLANEOUS EQUIPMENT	101,364	SQ	20	0%	101,364	58,540	42,824	19.40	2,207	2.18%	0	0.00%	2,207	**2.18%**
348.50	OTHER TANGIBLE EQUIPMENT	5,484	SQ	20	0%	5,484	4,757	727	10.20	71	1.30%	0	0.00%	71	**1.30%**
	TOTAL GENERAL PLANT	1,226,371				1,174,606	395,150	779,457	7.25	114,253	9.32%	-6,784	-0.55%	107,470	**8.76%**

Depreciation Rate Development

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
	NONDEPRECIABLE PLANT														
303.20	LAND AND LAND RIGHTS - PUMPING	1,461,607													
303.30	LAND AND LAND RIGHTS - TREATMENT	119,398													
303.40	LAND AND LAND RIGHTS - DISTRIBUTION	501,644													
	TOTAL NONDEPRECIABLE PLANT	2,082,649													
	TOTAL WESTFIELD WATER	68,208,238				74,157,562	16,462,911	57,694,652	52.11	983,046	1.44%	124,021	0.18%	1,107,067	**1.62%**
	TOTAL WATER PLANT	**1,700,228,901**				**1,806,333,725**	**981,958,445**	**824,375,280**	**44.01**	**16,264,335**	**0.96%**	**2,468,520**	**0.15%**	**18,732,856**	**1.10%**
	WASTEWATER PLANT														
	CITIZENS WASTEWATER														
	COLLECTION PLANT														
360.20	COLLECTING SEWERS - FORCE	14,501,739	R2.5	60	-10%	15,951,913	2,979,933	12,971,980	41.10	280,336	1.93%	35,284	0.24%	315,620	**2.18%**
361.20	COLLECTING SEWERS - GRAVITY	1,121,230,973	S1.5	60	-10%	1,233,354,070	784,447,134	448,906,936	33.50	10,053,249	0.90%	3,346,958	0.30%	13,400,207	**1.20%**
362.20	SPECIAL COLLECTING STRUCTURES	155,215,961	S2.5	45	0%	155,215,961	89,131,310	66,084,651	31.20	2,118,098	1.36%	0	0.00%	2,118,098	**1.36%**
362.22	SPECIAL COLLECTING STRUCTURES - DROP SHAFTS	33,115,926	S2.5	45	0%	33,115,926	1,953,838	31,162,088	38.40	811,513	2.45%	0	0.00%	811,513	**2.45%**
	TOTAL COLLECTION PLANT	1,324,064,599				1,437,637,870	878,512,215	559,125,655	33.59	13,263,195	1.00%	3,382,242	0.26%	16,645,437	**1.26%**
	PUMPING PLANT														
354.30	STRUCTURES AND IMPROVEMENTS	66,901,633	R2.5	55	-5%	70,246,715	35,484,760	34,761,955	29.40	1,068,601	1.60%	113,778	0.17%	1,182,379	**1.77%**
371.30	PUMPING EQUIPMENT	80,479,604	L2	48	-10%	88,527,565	41,956,121	46,571,444	27.08	1,422,581	1.77%	297,192	0.37%	1,719,773	**2.14%**
	TOTAL PUMPING EQUIPMENT	147,381,238				158,774,280	77,440,881	81,333,399	28.03	2,491,182	1.69%	410,970	0.28%	2,902,152	**1.97%**
	TREATMENT PLANT														
354.40	STRUCTURES AND IMPROVEMENTS	480,980,986	R2.5	65	-5%	505,030,035	180,067,800	324,962,235	42.30	7,113,787	1.48%	568,535	0.12%	7,682,322	**1.60%**
380.40	TREATMENT AND DISPOSAL EQUIPMENT	673,089,057	S0.5	44	-5%	706,743,510	405,619,729	301,123,781	24.06	11,116,763	1.65%	1,398,772	0.21%	12,515,535	**1.86%**
	TOTAL TREATMENT PLANT	1,154,070,042				1,211,773,544	585,687,529	626,086,015	31.00	18,230,550	1.58%	1,967,307	0.17%	20,197,858	**1.75%**
	GENERAL PLANT														
390.71	OFFICE FURNITURE	150,921	SQ	25	0%	150,921	10,391	140,530	22.10	6,359	4.21%	0	0.00%	6,359	**4.21%**
390.73	COMPUTER EQUIPMENT	3,377,670	SQ	5	0%	3,377,670	62,817	3,314,853	2.70	1,227,723	36.35%	0	0.00%	1,227,723	**36.35%**
390.74	SOFTWARE	713,636	SQ	10	0%	713,636	76,401	637,235	5.54	115,024	16.12%	0	0.00%	115,024	**16.12%**
391.70	TRANSPORTATION EQUIPMENT	4,639,911	L3	10	20%	3,711,929	309,177	3,402,752	6.40	676,677	14.58%	-144,997	-3.13%	531,680	**11.46%**
395.70	POWER OPERATED EQUIPMENT	97,576	L1.5	12	20%	78,061	2,236	75,825	8.10	11,770	12.06%	-2,409	-2.47%	9,361	**9.59%**
	TOTAL GENERAL PLANT	8,979,714				8,032,217	461,022	7,571,195	4.01	2,037,554	22.69%	-147,407	-1.64%	1,890,148	**21.05%**
	NONDEPRECIABLE PLANT														
353.20	LAND AND LAND RIGHTS - COLLECTION	52,482													
353.30	LAND AND LAND RIGHTS - PUMPING	12,202													
353.40	LAND AND LAND RIGHTS - TREATMENT	2,442,687													
	TOTAL NONDEPRECIABLE PLANT	2,507,372													

Depreciation Rate Development

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
	TOTAL CITIZENS WASTEWATER	2,637,002,965				2,816,217,911	1,542,101,647	1,274,116,264	30.60	36,022,481	1.37%	5,613,113	0.21%	41,635,595	**1.58%**
	WESTFIELD WASTEWATER														
	COLLECTION PLANT														
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	647	R2.5	45	-5%	679	642	37	37.00	0	0.02%	1	0.14%	1	**0.16%**
360.20	COLLECTING SEWERS - FORCE	7,057,903	R2.5	60	-10%	7,763,693	2,424,243	5,339,450	38.40	120,668	1.71%	18,380	0.26%	139,048	**1.97%**
361.20	COLLECTING SEWERS - GRAVITY	62,411,132	S1.5	60	-10%	68,652,245	11,460,846	57,191,399	43.20	1,179,405	1.89%	144,470	0.23%	1,323,875	**2.12%**
363.20	SERVICES	28,023	R2.5	55	-20%	33,627	15,122	18,505	27.10	476	1.70%	207	0.74%	683	**2.44%**
364.20	FLOW MEASURING DEVICES	1,303,276	S1.5	30	0%	1,303,276	552,432	750,844	15.80	47,522	3.65%	0	0.00%	47,522	**3.65%**
	TOTAL COLLECTION PLANT	70,800,981				77,753,522	14,453,285	63,300,237	41.89	1,348,071	1.90%	163,058	0.23%	1,511,129	**2.13%**
	PUMPING PLANT														
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1,795,756	R2.5	55	-5%	1,885,544	369,681	1,515,863	38.40	37,137	2.07%	2,338	0.13%	39,476	**2.20%**
371.30	PUMPING EQUIPMENT	3,608,510	L2	48	-10%	3,969,361	767,689	3,201,672	32.22	88,169	2.44%	11,200	0.31%	99,369	**2.75%**
	TOTAL PUMPING EQUIPMENT	5,404,266				5,854,905	1,137,370	4,717,535	33.98	125,307	2.32%	13,538	0.25%	138,845	**2.57%**
	TREATMENT PLANT														
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	16,819,637	R2.5	65	-5%	17,660,619	5,312,680	12,347,939	43.30	265,750	1.58%	19,422	0.12%	285,172	**1.70%**
380.40	TREATMENT AND DISPOSAL EQUIPMENT	7,198,134	S0.5	44	-5%	7,558,041	3,351,334	4,206,707	25.56	150,501	2.09%	14,081	0.20%	164,582	**2.29%**
	TOTAL TREATMENT PLANT	24,017,771				25,218,659	8,664,014	16,554,645	36.81	416,250	1.73%	33,503	0.14%	449,753	**1.87%**
	GENERAL PLANT														
390.71	OFFICE FURNITURE	26,666	SQ	25	0%	26,666	26,666							0	**0.00%**
390.72	OFFICE MACHINES	24,322	SQ	15	0%	24,322	24,322							0	**0.00%**
390.73	COMPUTER EQUIPMENT	229,387	SQ	5	0%	229,387	89,590	139,797	4.10	34,097	14.86%	0	0.00%	34,097	**14.86%**
390.74	SOFTWARE	747,354	SQ	10	0%	747,354	125,168	622,186	8.23	75,600	10.12%	0	0.00%	75,600	**10.12%**
391.70	TRANSPORTATION EQUIPMENT	230,064	L3	10	20%	184,051	126,354	57,697	5.90	17,578	7.64%	-7,799	-3.39%	9,779	**4.25%**
393.70	TOOLS, SHOP AND GARAGE EQUIPMENT	61,373	SQ	20	0%	61,373	60,140	1,233	16.40	75	0.12%	0	0.00%	75	**0.12%**
394.70	LABORATORY EQUIPMENT	38,004	SQ	15	0%	38,004	36,697	1,307	9.50	138	0.36%	0	0.00%	138	**0.36%**
395.70	POWER OPERATED EQUIPMENT	165,927	L1.5	12	20%	132,741	132,741							0	**0.00%**
396.70	COMMUNICATION EQUIPMENT	21,151	SQ	15	0%	21,151	21,151							0	**0.00%**
397.70	MISCELLANEOUS EQUIPMENT	63,619	SQ	20	0%	63,619	63,619							0	**0.00%**
398.70	OTHER EQUIPMENT	145,914	SQ	20	0%	145,914	57,754	88,160	10.40	8,477	5.81%	0	0.00%	8,477	**5.81%**
	TOTAL GENERAL PLANT	1,753,781				1,674,583	764,202	910,380	7.10	135,964	7.75%	-7,799	-0.44%	128,165	**7.31%**
	NONDEPRECIABLE PLANT														
353.20	LAND AND LAND RIGHTS - COLLECTION	1,003,473													
353.30	LAND AND LAND RIGHTS - PUMPING	81,580													
353.40	LAND AND LAND RIGHTS - TREATMENT	210,269													
	TOTAL NONDEPRECIABLE PLANT	1,295,322													
	TOTAL WESTFIELD WASTEWATER	103,272,121				110,501,669	25,018,871	85,482,798	38.37	2,025,592	1.96%	202,300	0.20%	2,227,892	**2.16%**
	TOTAL WASTEWATER PLANT	**2,740,275,086**				**2,926,719,580**	**1,567,120,518**	**1,359,599,062**	**31.00**	**38,048,074**	**1.39%**	**5,815,413**	**0.21%**	**43,863,487**	**1.60%**

Depreciation Rate Development

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
	SHARED SERVICES														
	DEPRECIABLE PLANT														
390.00	STRUCTURES AND IMPROVEMENTS	45,195,069	S1.5	25	-5%	47,454,822	25,437,863	22,016,959	17.90	1,103,755	2.44%	126,243	0.28%	1,229,998	**2.72%**
391.40	OFFICE FURNITURE	3,176,034	SQ	25	0%	3,176,034	1,253,591	1,922,443	22.50	85,442	2.69%	0	0.00%	85,442	**2.69%**
391.50	OFFICE MACHINES	1,428,878	SQ	15	0%	1,428,878	322,812	1,106,066	11.90	92,947	6.50%	0	0.00%	92,947	**6.50%**
391.60	COMPUTER EQUIPMENT	6,148,499	SQ	5	0%	6,148,499	3,350,535	2,797,964	2.10	1,332,364	21.67%	0	0.00%	1,332,364	**21.67%**
391.70	SOFTWARE	27,031,684	SQ	10	0%	27,031,684	15,684,700	11,346,984	7.06	1,607,221	5.95%	0	0.00%	1,607,221	**5.95%**
392.10	TRANSPORTATION EQUIPMENT	75,108	L3	10	15%	63,841	13,343	50,498	6.40	9,651	12.85%	-1,760	-2.34%	7,890	**10.51%**
394.10	TOOLS, SHOP AND GARAGE EQUIPMENT	19,606	SQ	20	0%	19,606	2,346	17,260	17.50	986	5.03%	0	0.00%	986	**5.03%**
397.10	COMMUNICATION EQUIPMENT	3,958,858	SQ	15	0%	3,958,858	852,095	3,106,763	12.00	258,897	6.54%	0	0.00%	258,897	**6.54%**
398.10	OTHER EQUIPMENT	425,435	SQ	20	0%	425,435	93,675	331,760	15.30	21,684	5.10%	0	0.00%	21,684	**5.10%**
	TOTAL DEPRECIABLE PLANT	87,459,170				89,707,657	47,010,960	42,696,697	9.21	4,512,946	5.16%	124,483	0.14%	4,637,429	**5.30%**
	NONDEPRECIABLE PLANT														
389.00	LAND	1,581,974													
	TOTAL NONDEPRECIABLE PLANT	1,581,974													
	TOTAL SHARED SERVICES	**89,041,144**				**89,707,657**	**47,010,960**	**42,696,697**	**9.21**	**4,512,946**	**5.07%**	**124,483**	**0.14%**	**4,637,429**	**5.21%**
	TOTAL PLANT STUDIED	**5,419,755,177**				**5,942,609,064**	**3,093,039,068**	**2,849,569,996**	**32.91**	**71,952,295**	**1.33%**	**14,634,816**	**0.27%**	**86,587,111**	**1.60%**

[1] See Company depreciation study
[2] Average life and Iowa curve shape developed through actuarial analysis and professional judgment
[3] Weighted net salvage for life span accounts from weighted net salvage exhibit; net salvage for mass accounts developed through statistical analysis and professional judgment
[4] = [1]*(1-[3])
[5] See Company depreciation study
[6] = [4] - [5]
[7] Composite remaining life based on Iowa cuve in [2]; see remaining life exhibit for detailed calculations
[8] = ([1] - [5]) / [7]
[9] = [8] / [1]
[10] = [12] - [8]
[11] = [13] - [9]
[12] = [6] / [7]
[13] = [12] / [1]

Gas Operations Account 353 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2-55**	**OUCC R2.5-62**	**CEG SSD**	**OUCC SSD**
0.0	14,117,921	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	14,213,182	100.00%	99.91%	99.96%	0.0000	0.0000
1.5	13,685,679	100.00%	99.73%	99.86%	0.0000	0.0000
2.5	13,568,243	99.95%	99.54%	99.76%	0.0000	0.0000
3.5	13,488,977	99.92%	99.34%	99.66%	0.0000	0.0000
4.5	13,479,115	99.85%	99.12%	99.54%	0.0001	0.0000
5.5	13,409,169	99.36%	98.89%	99.42%	0.0000	0.0000
6.5	13,317,053	99.29%	98.65%	99.29%	0.0000	0.0000
7.5	13,299,479	99.16%	98.39%	99.15%	0.0001	0.0000
8.5	13,289,245	99.08%	98.12%	99.01%	0.0001	0.0000
9.5	12,982,454	96.79%	97.83%	98.85%	0.0001	0.0004
10.5	12,923,053	96.74%	97.53%	98.68%	0.0001	0.0004
11.5	12,901,830	96.63%	97.21%	98.51%	0.0000	0.0004
12.5	12,756,511	96.37%	96.87%	98.32%	0.0000	0.0004
13.5	12,729,422	96.17%	96.52%	98.11%	0.0000	0.0004
14.5	12,706,027	95.99%	96.14%	97.90%	0.0000	0.0004
15.5	12,690,984	95.88%	95.75%	97.67%	0.0000	0.0003
16.5	12,644,501	95.64%	95.33%	97.43%	0.0000	0.0003
17.5	12,620,581	95.46%	94.89%	97.17%	0.0000	0.0003
18.5	12,596,863	95.29%	94.43%	96.90%	0.0001	0.0003
19.5	12,392,173	93.74%	93.95%	96.61%	0.0000	0.0008
20.5	12,283,786	92.92%	93.44%	96.30%	0.0000	0.0011
21.5	12,244,904	92.62%	92.91%	95.98%	0.0000	0.0011
22.5	11,553,022	88.87%	92.35%	95.63%	0.0012	0.0046
23.5	11,128,399	88.83%	91.76%	95.27%	0.0009	0.0041
24.5	11,106,718	88.81%	91.15%	94.88%	0.0005	0.0037
25.5	10,703,298	88.81%	90.50%	94.47%	0.0003	0.0032
26.5	10,698,503	88.77%	89.83%	94.04%	0.0001	0.0028
27.5	10,698,503	88.77%	89.13%	93.59%	0.0000	0.0023
28.5	10,552,931	87.71%	88.39%	93.11%	0.0000	0.0029
29.5	10,239,800	87.44%	87.62%	92.60%	0.0000	0.0027
30.5	10,126,257	87.07%	86.81%	92.07%	0.0000	0.0025
31.5	10,082,918	87.07%	85.97%	91.51%	0.0001	0.0020
32.5	10,057,545	87.03%	85.10%	90.92%	0.0004	0.0015
33.5	9,784,750	86.94%	84.18%	90.30%	0.0008	0.0011
34.5	9,601,855	86.93%	83.23%	89.65%	0.0014	0.0007
35.5	9,598,930	86.90%	82.24%	88.96%	0.0022	0.0004
36.5	9,312,484	86.80%	81.20%	88.25%	0.0031	0.0002
37.5	8,945,822	86.79%	80.13%	87.49%	0.0044	0.0000
38.5	8,935,369	86.78%	79.01%	86.70%	0.0060	0.0000
39.5	8,611,553	86.76%	77.85%	85.87%	0.0079	0.0001
40.5	8,564,273	86.74%	76.64%	85.00%	0.0102	0.0003
41.5	8,264,536	86.70%	75.39%	84.10%	0.0128	0.0007
42.5	8,033,006	86.70%	74.09%	83.14%	0.0159	0.0013
43.5	7,081,053	86.68%	72.75%	82.15%	0.0194	0.0021
44.5	6,166,748	86.68%	71.36%	81.11%	0.0235	0.0031
45.5	6,060,988	86.68%	69.92%	80.02%	0.0281	0.0044
46.5	6,058,778	86.68%	68.43%	78.89%	0.0333	0.0061
47.5	5,636,500	86.68%	66.90%	77.70%	0.0391	0.0081

Gas Operations Account 353 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2-55**	**OUCC R2.5-62**	**CEG SSD**	**OUCC SSD**
48.5	5,636,110	86.68%	65.32%	76.46%	0.0456	0.0104
49.5	5,636,110	86.68%	63.70%	75.17%	0.0528	0.0132
50.5	4,891,454	86.68%	62.03%	73.83%	0.0608	0.0165
51.5	3,637,575	86.68%	60.32%	72.43%	0.0695	0.0203
52.5	2,318,190	86.68%	58.57%	70.97%	0.0790	0.0247
53.5	1,743,059	86.68%	56.78%	69.46%	0.0894	0.0296
54.5		86.68%	54.95%	67.89%		
Sum of Squared Differences				[8]	0.6096	0.1823

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Gas Operations Account 353 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2.5-55**	**OUCC R2.5-60**	**CEG SSD**	**OUCC SSD**
0.0	4,811,233	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	4,894,037	100.00%	99.95%	99.95%	0.0000	0.0000
1.5	4,852,265	99.68%	99.84%	99.86%	0.0000	0.0000
2.5	4,615,728	99.66%	99.73%	99.75%	0.0000	0.0000
3.5	4,027,423	99.65%	99.61%	99.64%	0.0000	0.0000
4.5	3,959,473	99.60%	99.47%	99.53%	0.0000	0.0000
5.5	3,884,260	99.16%	99.33%	99.40%	0.0000	0.0000
6.5	3,716,498	98.47%	99.18%	99.26%	0.0001	0.0001
7.5	3,702,903	98.11%	99.01%	99.12%	0.0001	0.0001
8.5	3,555,523	98.11%	98.84%	98.96%	0.0001	0.0001
9.5	3,436,640	98.11%	98.65%	98.80%	0.0000	0.0000
10.5	3,378,611	98.11%	98.44%	98.62%	0.0000	0.0000
11.5	3,336,472	97.68%	98.22%	98.43%	0.0000	0.0001
12.5	3,309,520	97.68%	97.99%	98.23%	0.0000	0.0000
13.5	3,293,576	97.68%	97.74%	98.02%	0.0000	0.0000
14.5	3,301,296	97.64%	97.47%	97.79%	0.0000	0.0000
15.5	3,294,530	97.64%	97.18%	97.55%	0.0000	0.0000
16.5	3,251,129	96.78%	96.87%	97.29%	0.0000	0.0000
17.5	3,147,264	96.72%	96.54%	97.02%	0.0000	0.0000
18.5	3,139,111	96.47%	96.19%	96.72%	0.0000	0.0000
19.5	3,123,091	95.98%	95.81%	96.41%	0.0000	0.0000
20.5	3,079,047	94.63%	95.41%	96.08%	0.0001	0.0002
21.5	2,963,555	93.08%	94.99%	95.73%	0.0004	0.0007
22.5	2,904,466	92.62%	94.53%	95.36%	0.0004	0.0008
23.5	2,846,423	92.14%	94.05%	94.97%	0.0004	0.0008
24.5	2,646,922	90.69%	93.53%	94.55%	0.0008	0.0015
25.5	2,581,118	90.69%	92.99%	94.11%	0.0005	0.0012
26.5	2,469,755	90.21%	92.41%	93.64%	0.0005	0.0012
27.5	2,295,672	90.21%	91.80%	93.15%	0.0003	0.0009
28.5	2,176,309	90.12%	91.14%	92.63%	0.0001	0.0006
29.5	1,875,800	90.12%	90.46%	92.08%	0.0000	0.0004
30.5	1,656,428	90.12%	89.73%	91.50%	0.0000	0.0002
31.5	1,588,288	90.11%	88.96%	90.89%	0.0001	0.0001
32.5	1,557,285	88.35%	88.15%	90.25%	0.0000	0.0004
33.5	1,556,774	88.35%	87.29%	89.57%	0.0001	0.0001
34.5	1,536,233	88.35%	86.38%	88.86%	0.0004	0.0000
35.5	1,530,397	88.34%	85.43%	88.11%	0.0008	0.0000
36.5	1,487,046	88.34%	84.42%	87.32%	0.0015	0.0001
37.5	1,342,413	88.24%	83.36%	86.50%	0.0024	0.0003
38.5	1,335,277	87.84%	82.25%	85.63%	0.0031	0.0005
39.5	1,320,360	87.38%	81.08%	84.72%	0.0040	0.0007
40.5	1,283,728	86.00%	79.85%	83.77%	0.0038	0.0005
41.5	1,266,116	84.82%	78.56%	82.77%	0.0039	0.0004
42.5	1,261,020	84.81%	77.20%	81.72%	0.0058	0.0010
43.5	1,190,054	83.52%	75.78%	80.62%	0.0060	0.0008
44.5	1,099,871	83.25%	74.29%	79.48%	0.0080	0.0014
45.5	1,083,768	82.85%	72.73%	78.28%	0.0102	0.0021
46.5	1,077,404	82.36%	71.09%	77.02%	0.0127	0.0028
47.5	1,068,029	81.64%	69.39%	75.72%	0.0150	0.0035

Gas Operations Account 353 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2.5-55**	**OUCC R2.5-60**	**CEG SSD**	**OUCC SSD**
48.5	1,059,936	81.64%	67.62%	74.35%	0.0197	0.0053
49.5	889,308	81.64%	65.77%	72.92%	0.0252	0.0076
50.5	602,005	81.64%	63.85%	71.44%	0.0317	0.0104
51.5	418,036	81.64%	61.86%	69.90%	0.0391	0.0138
52.5	254,584	81.64%	59.80%	68.29%	0.0477	0.0178
53.5	158,823	81.64%	57.68%	66.63%	0.0574	0.0225
54.5	17,816	81.64%	55.50%	64.90%	0.0684	0.0280
55.5	17,816	81.64%	53.26%	63.11%	0.0806	0.0343
56.5	17,816	81.64%	50.97%	61.27%	0.0941	0.0415
57.5	17,816	81.64%	48.64%	59.36%	0.1089	0.0496
58.5	17,816	81.64%	46.28%	57.41%	0.1250	0.0587
59.5	17,816	81.64%	43.90%	55.40%	0.1424	0.0688
60.5	17,816	81.64%	41.51%	53.35%	0.1611	0.0800
61.5	17,816	81.64%	39.11%	51.26%	0.1809	0.0923
62.5	17,816	81.64%	36.73%	49.13%	0.2017	0.1057
63.5	17,816	81.64%	34.37%	46.97%	0.2234	0.1202
64.5	17,816	81.64%	32.05%	44.80%	0.2460	0.1358
65.5		81.64%	29.77%	42.60%		
Sum of Squared Differences				[8]	1.9347	0.9161
Up to 1% of Beginning Exposures				[9]	0.3024	0.1011

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Gas Operations Accounts 367 and 367.1 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG S0.5-55**	**OUCC S0.5-60**	**CEG SSD**	**OUCC SSD**
0.0	58,851,161	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	57,958,508	100.00%	99.99%	99.99%	0.0000	0.0000
1.5	53,477,909	99.94%	99.94%	99.94%	0.0000	0.0000
2.5	53,035,595	99.52%	99.84%	99.86%	0.0000	0.0000
3.5	52,067,017	99.36%	99.71%	99.75%	0.0000	0.0000
4.5	44,172,035	99.30%	99.54%	99.61%	0.0000	0.0000
5.5	36,807,614	99.21%	99.34%	99.44%	0.0000	0.0000
6.5	36,508,606	99.18%	99.10%	99.23%	0.0000	0.0000
7.5	33,290,373	99.16%	98.82%	99.00%	0.0000	0.0000
8.5	33,028,138	99.07%	98.51%	98.74%	0.0000	0.0000
9.5	32,963,894	98.88%	98.16%	98.44%	0.0001	0.0000
10.5	32,750,433	98.88%	97.78%	98.12%	0.0001	0.0001
11.5	32,750,433	98.88%	97.36%	97.76%	0.0002	0.0001
12.5	32,744,795	98.87%	96.90%	97.37%	0.0004	0.0002
13.5	32,385,530	97.78%	96.40%	96.96%	0.0002	0.0001
14.5	32,319,909	97.58%	95.87%	96.51%	0.0003	0.0001
15.5	30,919,022	93.66%	95.30%	96.03%	0.0003	0.0006
16.5	26,088,355	83.31%	94.70%	95.52%	0.0130	0.0149
17.5	25,766,476	83.15%	94.06%	94.98%	0.0119	0.0140
18.5	25,312,570	83.09%	93.38%	94.41%	0.0106	0.0128
19.5	25,303,820	83.07%	92.67%	93.81%	0.0092	0.0115
20.5	24,768,240	83.01%	91.92%	93.18%	0.0079	0.0103
21.5	22,860,263	83.01%	91.14%	92.51%	0.0066	0.0090
22.5	22,608,113	82.40%	90.32%	91.82%	0.0063	0.0089
23.5	20,759,219	82.40%	89.47%	91.10%	0.0050	0.0076
24.5	20,355,800	82.22%	88.58%	90.35%	0.0040	0.0066
25.5	19,720,518	81.73%	87.66%	89.57%	0.0035	0.0062
26.5	19,004,696	81.71%	86.71%	88.77%	0.0025	0.0050
27.5	14,578,508	81.70%	85.73%	87.94%	0.0016	0.0039
28.5	13,623,100	81.70%	84.72%	87.07%	0.0009	0.0029
29.5	13,215,961	81.70%	83.68%	86.19%	0.0004	0.0020
30.5	12,917,708	81.67%	82.60%	85.27%	0.0001	0.0013
31.5	12,763,749	81.15%	81.50%	84.33%	0.0000	0.0010
32.5	12,701,397	81.15%	80.38%	83.37%	0.0001	0.0005
33.5	12,659,979	81.05%	79.22%	82.38%	0.0003	0.0002
34.5	12,232,443	80.75%	78.04%	81.36%	0.0007	0.0000
35.5	11,849,376	80.75%	76.84%	80.33%	0.0015	0.0000
36.5	11,817,765	80.68%	75.61%	79.27%	0.0026	0.0002
37.5	11,817,765	80.68%	74.35%	78.19%	0.0040	0.0006
38.5	11,775,384	80.68%	73.08%	77.09%	0.0058	0.0013
39.5	11,748,140	80.61%	71.79%	75.97%	0.0078	0.0022
40.5	11,725,895	80.46%	70.47%	74.83%	0.0100	0.0032
41.5	11,500,065	78.97%	69.14%	73.67%	0.0097	0.0028
42.5	11,487,822	78.97%	67.80%	72.49%	0.0125	0.0042
43.5	11,480,804	78.92%	66.43%	71.30%	0.0156	0.0058
44.5	10,658,249	78.76%	65.05%	70.09%	0.0188	0.0075
45.5	10,575,344	78.66%	63.66%	68.86%	0.0225	0.0096
46.5	10,524,028	78.66%	62.25%	67.63%	0.0269	0.0122
47.5	10,301,919	78.40%	60.84%	66.37%	0.0308	0.0145

Gas Operations Accounts 367 and 367.1 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG S0.5-55**	**OUCC S0.5-60**	**CEG SSD**	**OUCC SSD**
48.5	9,827,936	77.86%	59.41%	65.11%	0.0340	0.0163
49.5	8,437,567	77.68%	57.98%	63.83%	0.0388	0.0192
50.5	7,908,307	77.25%	56.54%	62.55%	0.0429	0.0216
51.5	7,511,115	77.17%	55.09%	61.25%	0.0487	0.0253
52.5	7,058,378	76.41%	53.64%	59.95%	0.0518	0.0271
53.5	6,744,450	76.41%	52.19%	58.64%	0.0587	0.0316
54.5	2,873,456	76.41%	50.73%	57.32%	0.0660	0.0364
55.5	2,748,931	74.65%	49.27%	56.00%	0.0644	0.0348
56.5	1,193,177	74.65%	47.81%	54.67%	0.0720	0.0399
57.5	1,193,177	74.65%	46.36%	53.34%	0.0800	0.0454
58.5	1,192,756	74.65%	44.91%	52.00%	0.0885	0.0513
59.5	1,189,900	74.65%	43.46%	50.67%	0.0973	0.0575
60.5	1,129,484	74.65%	42.02%	49.33%	0.1065	0.0641
61.5	1,129,368	74.65%	40.59%	48.00%	0.1160	0.0710
62.5	1,129,368	74.65%	39.16%	46.66%	0.1259	0.0783
63.5	1,124,684	74.34%	37.75%	45.33%	0.1339	0.0841
64.5	921,753	63.50%	36.34%	44.00%	0.0738	0.0380
65.5		63.50%	34.95%	42.68%		
Sum of Squared Differences				[8]	1.5540	0.9259

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Citizens Thermal Steam Account 366 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2-65**	**OUCC R2-69**	**CEG SSD**	**OUCC SSD**
0.0	15,397,452	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	13,037,292	100.00%	99.93%	99.93%	0.0000	0.0000
1.5	12,322,910	99.64%	99.78%	99.79%	0.0000	0.0000
2.5	11,284,451	99.64%	99.62%	99.64%	0.0000	0.0000
3.5	9,951,561	99.56%	99.45%	99.48%	0.0000	0.0000
4.5	8,657,741	99.54%	99.27%	99.32%	0.0000	0.0000
5.5	7,080,501	99.42%	99.09%	99.15%	0.0000	0.0000
6.5	6,542,310	97.95%	98.89%	98.97%	0.0001	0.0001
7.5	5,973,479	97.88%	98.69%	98.78%	0.0001	0.0001
8.5	5,730,834	97.63%	98.47%	98.58%	0.0001	0.0001
9.5	4,234,373	96.07%	98.25%	98.37%	0.0005	0.0005
10.5	5,452,372	95.96%	98.01%	98.16%	0.0004	0.0005
11.5	4,478,856	95.73%	97.77%	97.93%	0.0004	0.0005
12.5	4,597,163	95.59%	97.51%	97.70%	0.0004	0.0004
13.5	4,693,496	95.42%	97.24%	97.45%	0.0003	0.0004
14.5	4,674,943	94.95%	96.95%	97.19%	0.0004	0.0005
15.5	4,841,931	94.39%	96.66%	96.92%	0.0005	0.0006
16.5	4,882,832	93.86%	96.35%	96.64%	0.0006	0.0008
17.5	5,023,198	93.70%	96.02%	96.35%	0.0005	0.0007
18.5	5,029,965	93.33%	95.68%	96.05%	0.0006	0.0007
19.5	5,024,838	93.14%	95.33%	95.73%	0.0005	0.0007
20.5	4,935,449	92.70%	94.96%	95.40%	0.0005	0.0007
21.5	4,853,456	92.60%	94.58%	95.05%	0.0004	0.0006
22.5	4,652,406	92.51%	94.17%	94.69%	0.0003	0.0005
23.5	4,348,749	92.30%	93.75%	94.32%	0.0002	0.0004
24.5	2,699,384	91.90%	93.32%	93.93%	0.0002	0.0004
25.5	2,480,847	91.63%	92.86%	93.53%	0.0002	0.0004
26.5	2,187,354	91.54%	92.39%	93.11%	0.0001	0.0002
27.5	2,025,706	91.19%	91.90%	92.67%	0.0001	0.0002
28.5	1,888,774	91.12%	91.39%	92.22%	0.0000	0.0001
29.5	1,676,583	91.04%	90.85%	91.75%	0.0000	0.0001
30.5	1,616,458	90.53%	90.30%	91.26%	0.0000	0.0001
31.5	1,560,280	90.43%	89.72%	90.76%	0.0000	0.0000
32.5	1,439,782	90.22%	89.13%	90.23%	0.0001	0.0000
33.5	1,245,616	90.11%	88.50%	89.69%	0.0003	0.0000
34.5	1,072,484	89.48%	87.86%	89.13%	0.0003	0.0000
35.5	957,458	89.07%	87.19%	88.54%	0.0004	0.0000
36.5	840,212	88.89%	86.50%	87.94%	0.0006	0.0001
37.5	669,621	88.21%	85.78%	87.31%	0.0006	0.0001
38.5	594,529	85.40%	85.03%	86.66%	0.0000	0.0002
39.5	650,536	84.80%	84.26%	85.99%	0.0000	0.0001
40.5	615,808	84.41%	83.45%	85.29%	0.0001	0.0001
41.5	551,669	83.92%	82.62%	84.57%	0.0002	0.0000
42.5	460,001	83.03%	81.77%	83.83%	0.0002	0.0001
43.5	432,277	82.13%	80.88%	83.06%	0.0002	0.0001
44.5	292,395	80.51%	79.96%	82.27%	0.0000	0.0003
45.5	197,847	79.94%	79.01%	81.45%	0.0001	0.0002
46.5	172,776	79.43%	78.03%	80.60%	0.0002	0.0001
47.5	173,896	79.04%	77.02%	79.73%	0.0004	0.0000
48.5	189,449	78.80%	75.97%	78.83%	0.0008	0.0000
49.5	191,469	78.61%	74.89%	77.90%	0.0014	0.0001
50.5	191,127	78.58%	73.78%	76.94%	0.0023	0.0003
51.5	194,138	78.47%	72.64%	75.96%	0.0034	0.0006

Citizens Thermal Steam Account 366 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2-65**	**OUCC R2-69**	**CEG SSD**	**OUCC SSD**
52.5	194,300	78.09%	71.46%	74.94%	0.0044	0.0010
53.5	80,308	78.06%	70.25%	73.90%	0.0061	0.0017
54.5	66,299	77.94%	69.01%	72.83%	0.0080	0.0026
55.5	59,053	76.84%	67.73%	71.72%	0.0083	0.0026
56.5	59,566	76.48%	66.42%	70.59%	0.0101	0.0035
57.5	56,460	75.81%	65.07%	69.43%	0.0115	0.0041
58.5	52,324	75.27%	63.70%	68.23%	0.0134	0.0050
59.5	51,169	75.05%	62.29%	67.01%	0.0163	0.0065
60.5	49,289	75.00%	60.85%	65.76%	0.0200	0.0085
61.5	46,264	74.95%	59.38%	64.48%	0.0242	0.0110
62.5	25,778	74.94%	57.88%	63.17%	0.0291	0.0139
63.5	17,722	74.81%	56.36%	61.84%	0.0340	0.0168
64.5	17,242	74.70%	54.81%	60.47%	0.0396	0.0202
65.5	12,777	74.57%	53.23%	59.08%	0.0455	0.0240
66.5	10,951	74.14%	51.64%	57.66%	0.0506	0.0271
67.5	24,738	74.14%	50.02%	56.23%	0.0582	0.0321
68.5	24,208	73.91%	48.38%	54.76%	0.0652	0.0367
69.5	18,308	73.91%	46.73%	53.28%	0.0739	0.0426
70.5	16,275	71.28%	45.07%	51.78%	0.0687	0.0380
71.5	15,605	68.64%	43.40%	50.25%	0.0637	0.0338
72.5	15,414	67.79%	41.72%	48.72%	0.0680	0.0364
73.5	15,393	67.70%	40.03%	47.16%	0.0765	0.0422
74.5	15,388	67.68%	38.35%	45.60%	0.0860	0.0488
75.5	15,245	67.05%	36.67%	44.03%	0.0923	0.0530
76.5	15,211	66.90%	35.00%	42.45%	0.1018	0.0598
77.5	15,140	66.59%	33.34%	40.86%	0.1106	0.0662
78.5	14,579	64.12%	31.69%	39.28%	0.1052	0.0617
79.5	12,444	64.12%	30.06%	37.69%	0.1160	0.0698
80.5	12,444	64.12%	28.46%	36.11%	0.1272	0.0784
81.5		64.12%	26.88%	34.54%		
Sum of Squared Differences				[8]	1.5531	0.8608
Up to 1% of Beginning Exposures				[9]	0.0231	0.0138

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Citizens Thermal Steam Account 369 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2.5-45**	**OUCC R1.5-53**	**CEG SSD**	**OUCC SSD**
0.0	3,029,867	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	3,098,218	100.00%	99.94%	99.83%	0.0000	0.0000
1.5	2,166,586	100.00%	99.81%	99.49%	0.0000	0.0000
2.5	2,166,586	100.00%	99.66%	99.14%	0.0000	0.0001
3.5	2,088,062	100.00%	99.50%	98.77%	0.0000	0.0002
4.5	1,741,110	100.00%	99.33%	98.39%	0.0000	0.0003
5.5	1,771,914	100.00%	99.14%	97.99%	0.0001	0.0004
6.5	1,791,941	100.00%	98.94%	97.59%	0.0001	0.0006
7.5	1,772,282	99.95%	98.71%	97.16%	0.0002	0.0008
8.5	1,545,621	99.48%	98.47%	96.73%	0.0001	0.0008
9.5	1,034,761	99.25%	98.20%	96.28%	0.0001	0.0009
10.5	785,097	98.07%	97.91%	95.81%	0.0000	0.0005
11.5	800,136	97.78%	97.59%	95.33%	0.0000	0.0006
12.5	582,530	97.18%	97.25%	94.83%	0.0000	0.0006
13.5	546,720	96.90%	96.87%	94.31%	0.0000	0.0007
14.5	350,526	95.21%	96.47%	93.78%	0.0002	0.0002
15.5	364,828	93.77%	96.02%	93.23%	0.0005	0.0000
16.5	273,917	91.90%	95.55%	92.67%	0.0013	0.0001
17.5	268,621	91.09%	95.03%	92.09%	0.0016	0.0001
18.5	257,469	89.99%	94.48%	91.48%	0.0020	0.0002
19.5	259,978	89.10%	93.88%	90.86%	0.0023	0.0003
20.5	264,264	88.29%	93.23%	90.22%	0.0024	0.0004
21.5	273,504	87.33%	92.54%	89.56%	0.0027	0.0005
22.5	245,642	86.88%	91.80%	88.87%	0.0024	0.0004
23.5	248,685	86.38%	90.99%	88.16%	0.0021	0.0003
24.5	233,244	85.38%	90.14%	87.43%	0.0023	0.0004
25.5	207,113	84.23%	89.22%	86.68%	0.0025	0.0006
26.5	185,864	83.99%	88.24%	85.90%	0.0018	0.0004
27.5	167,005	83.55%	87.19%	85.09%	0.0013	0.0002
28.5	155,297	82.98%	86.07%	84.25%	0.0010	0.0002
29.5	135,006	81.29%	84.87%	83.39%	0.0013	0.0004
30.5	112,751	78.79%	83.60%	82.50%	0.0023	0.0014
31.5	100,815	77.80%	82.25%	81.57%	0.0020	0.0014
32.5	101,870	77.66%	80.81%	80.62%	0.0010	0.0009
33.5	86,708	77.09%	79.28%	79.63%	0.0005	0.0006
34.5	53,812	76.11%	77.66%	78.62%	0.0002	0.0006
35.5	48,425	75.77%	75.94%	77.57%	0.0000	0.0003
36.5	47,179	75.62%	74.12%	76.48%	0.0002	0.0001
37.5	43,338	73.78%	72.19%	75.36%	0.0003	0.0002
38.5	41,015	72.94%	70.16%	74.20%	0.0008	0.0002
39.5	35,176	72.43%	68.02%	73.01%	0.0019	0.0000
40.5	32,465	69.50%	65.77%	71.79%	0.0014	0.0005
41.5	31,669	69.29%	63.41%	70.52%	0.0035	0.0002
42.5	27,597	68.09%	60.95%	69.22%	0.0051	0.0001
43.5	27,028	67.28%	58.39%	67.89%	0.0079	0.0000
44.5	25,911	66.88%	55.74%	66.51%	0.0124	0.0000
45.5	8,822	66.77%	53.00%	65.10%	0.0189	0.0003
46.5	7,659	65.39%	50.20%	63.66%	0.0231	0.0003
47.5	7,017	65.15%	47.33%	62.18%	0.0317	0.0009
48.5	5,587	64.32%	44.43%	60.66%	0.0396	0.0013
49.5	4,757	63.88%	41.51%	59.11%	0.0501	0.0023

Citizens Thermal Steam Account 369 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2.5-45**	**OUCC R1.5-53**	**CEG SSD**	**OUCC SSD**
50.5	4,426	62.76%	38.58%	57.54%	0.0585	0.0027
51.5	3,240	62.35%	35.68%	55.93%	0.0711	0.0041
52.5	3,062	59.08%	32.82%	54.29%	0.0690	0.0023
53.5	2,398	56.40%	30.02%	52.62%	0.0696	0.0014
54.5	2,055	53.69%	27.30%	50.94%	0.0696	0.0008
55.5	1,936	52.30%	24.69%	49.23%	0.0762	0.0009
56.5	1,794	51.24%	22.20%	47.50%	0.0843	0.0014
57.5	1,345	31.47%	19.84%	45.75%	0.0135	0.0204
58.5	1,337	31.27%	17.62%	44.00%	0.0186	0.0162
59.5	988	23.10%	15.56%	42.24%	0.0057	0.0366
60.5	840	19.65%	13.65%	40.47%	0.0036	0.0433
61.5	978	18.17%	11.89%	38.70%	0.0039	0.0422
62.5	978	18.17%	10.29%	36.94%	0.0062	0.0352
63.5	1,205	18.17%	8.83%	35.18%	0.0087	0.0289
64.5	995	15.00%	7.52%	33.44%	0.0056	0.0340
65.5	1,566	3.42%	6.35%	31.71%	0.0009	0.0800
66.5	1,942	3.42%	5.31%	30.01%	0.0004	0.0707
67.5	603	1.06%	4.40%	28.33%	0.0011	0.0743
68.5	1,266	1.06%	3.61%	26.68%	0.0006	0.0656
69.5	1,266	1.06%	2.92%	25.06%	0.0003	0.0576
70.5	1,142	0.96%	2.34%	23.48%	0.0002	0.0507
71.5	918	0.77%	1.84%	21.95%	0.0001	0.0448
72.5	918	0.77%	1.43%	20.45%	0.0000	0.0387
73.5	913	0.77%	1.09%	19.01%	0.0000	0.0333
74.5	542	0.46%	0.82%	17.61%	0.0000	0.0294
75.5	534	0.45%	0.59%	16.27%	0.0000	0.0250
76.5		0.00%	0.41%	14.98%		
Sum of Squared Differences				[8]	0.7991	0.8636
Up to 1% of Beginning Exposures				[9]	0.0424	0.0174

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Citizens Water Account 334.4 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG S0-43**	**OUCC L0-49**	**CEG SSD**	**OUCC SSD**
0.0	10,632,272	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	10,849,025	100.00%	99.97%	99.87%	0.0000	0.0000
1.5	14,064,027	99.90%	99.81%	99.44%	0.0000	0.0000
2.5	13,687,894	99.70%	99.54%	98.86%	0.0000	0.0001
3.5	15,387,573	99.13%	99.18%	98.18%	0.0000	0.0001
4.5	19,628,884	98.65%	98.74%	97.43%	0.0000	0.0001
5.5	22,198,982	97.99%	98.22%	96.60%	0.0000	0.0002
6.5	24,704,005	97.49%	97.63%	95.71%	0.0000	0.0003
7.5	21,356,140	96.51%	96.98%	94.78%	0.0000	0.0003
8.5	22,060,860	95.62%	96.26%	93.79%	0.0000	0.0003
9.5	19,861,122	94.73%	95.49%	92.77%	0.0001	0.0004
10.5	17,110,280	93.42%	94.66%	91.71%	0.0002	0.0003
11.5	15,403,190	92.27%	93.77%	90.62%	0.0002	0.0003
12.5	14,328,162	90.74%	92.84%	89.50%	0.0004	0.0002
13.5	14,429,055	88.97%	91.86%	88.35%	0.0008	0.0000
14.5	12,055,325	87.74%	90.83%	87.18%	0.0010	0.0000
15.5	11,104,388	85.99%	89.76%	85.99%	0.0014	0.0000
16.5	9,016,049	84.89%	88.65%	84.79%	0.0014	0.0000
17.5	6,769,039	83.45%	87.50%	83.56%	0.0016	0.0000
18.5	5,436,637	82.00%	86.31%	82.33%	0.0019	0.0000
19.5	5,172,477	80.62%	85.09%	81.08%	0.0020	0.0000
20.5	5,535,562	78.58%	83.83%	79.82%	0.0028	0.0002
21.5	6,261,953	77.40%	82.55%	78.56%	0.0026	0.0001
22.5	7,452,538	76.44%	81.23%	77.29%	0.0023	0.0001
23.5	7,785,420	75.46%	79.88%	76.02%	0.0020	0.0000
24.5	7,790,235	74.48%	78.51%	74.74%	0.0016	0.0000
25.5	6,927,498	73.69%	77.11%	73.47%	0.0012	0.0000
26.5	6,004,358	72.86%	75.68%	72.20%	0.0008	0.0000
27.5	4,952,309	71.79%	74.24%	70.92%	0.0006	0.0001
28.5	3,774,856	70.58%	72.77%	69.65%	0.0005	0.0001
29.5	4,569,965	68.98%	71.28%	68.39%	0.0005	0.0000
30.5	5,509,521	67.73%	69.78%	67.12%	0.0004	0.0000
31.5	5,407,972	65.92%	68.26%	65.86%	0.0005	0.0000
32.5	5,729,692	64.12%	66.72%	64.60%	0.0007	0.0000
33.5	5,412,348	63.53%	65.17%	63.35%	0.0003	0.0000
34.5	4,944,649	63.18%	63.61%	62.10%	0.0000	0.0001
35.5	3,222,024	61.45%	62.03%	60.85%	0.0000	0.0000
36.5	1,626,553	59.17%	60.45%	59.62%	0.0002	0.0000
37.5	1,189,275	57.82%	58.86%	58.38%	0.0001	0.0000
38.5	423,931	56.33%	57.26%	57.16%	0.0001	0.0001
39.5	246,000	54.24%	55.65%	55.94%	0.0002	0.0003
40.5	213,828	52.98%	54.04%	54.73%	0.0001	0.0003
41.5	176,619	52.22%	52.42%	53.53%	0.0000	0.0002
42.5	137,005	51.12%	50.81%	52.34%	0.0000	0.0001
43.5	97,830	50.22%	49.19%	51.15%	0.0001	0.0001
44.5	86,886	48.65%	47.58%	49.98%	0.0001	0.0002
45.5	115,994	48.04%	45.96%	48.81%	0.0004	0.0001
46.5	127,155	47.22%	44.35%	47.66%	0.0008	0.0000
47.5	170,490	46.00%	42.74%	46.51%	0.0011	0.0000
48.5	158,672	45.12%	41.14%	45.38%	0.0016	0.0000
49.5	151,449	44.00%	39.55%	44.26%	0.0020	0.0000
50.5	125,188	43.30%	37.97%	43.15%	0.0028	0.0000
51.5	80,980	42.24%	36.39%	42.05%	0.0034	0.0000
52.5	62,159	41.33%	34.83%	40.97%	0.0042	0.0000
53.5	5,912	39.43%	33.28%	39.90%	0.0038	0.0000

Citizens Water Account 334.4 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG S0-43**	**OUCC L0-49**	**CEG SSD**	**OUCC SSD**
54.5	6,131	39.43%	31.74%	38.84%	0.0059	0.0000
55.5	6,568	38.03%	30.22%	37.79%	0.0061	0.0000
56.5	6,130	38.03%	28.72%	36.76%	0.0087	0.0002
57.5	5,471	36.67%	27.23%	35.74%	0.0089	0.0001
58.5	4,595	36.67%	25.76%	34.74%	0.0119	0.0004
59.5	4,376	36.67%	24.32%	33.75%	0.0153	0.0009
60.5	5,031	36.67%	22.89%	32.78%	0.0190	0.0015
61.5	3,937	36.67%	21.49%	31.82%	0.0230	0.0024
62.5	4,593	36.67%	20.12%	30.87%	0.0274	0.0034
63.5	4,376	36.67%	18.77%	29.95%	0.0320	0.0045
64.5	4,594	36.67%	17.45%	29.03%	0.0369	0.0058
65.5	3,500	33.18%	16.17%	28.13%	0.0290	0.0025
66.5	2,188	31.10%	14.91%	27.25%	0.0262	0.0015
67.5	1,969	31.10%	13.69%	26.39%	0.0303	0.0022
68.5	1,312	31.10%	12.50%	25.54%	0.0346	0.0031
69.5	874	31.10%	11.35%	24.70%	0.0390	0.0041
70.5	874	31.10%	10.24%	23.89%	0.0435	0.0052
71.5	1,093	31.10%	9.17%	23.09%	0.0481	0.0064
72.5	1,530	31.10%	8.14%	22.30%	0.0527	0.0077
73.5	1,530	31.10%	7.16%	21.53%	0.0573	0.0091
74.5	2,187	31.10%	6.23%	20.78%	0.0619	0.0106
75.5	2,187	31.10%	5.34%	20.05%	0.0663	0.0122
76.5	1,968	31.10%	4.51%	19.33%	0.0707	0.0139
77.5	1,530	31.10%	3.74%	18.63%	0.0749	0.0156
78.5	1,093	31.10%	3.02%	17.94%	0.0788	0.0173
79.5	1,093	31.10%	2.37%	17.27%	0.0826	0.0191
80.5	436	31.10%	1.78%	16.62%	0.0860	0.0210
81.5	436	31.10%	1.26%	15.99%	0.0890	0.0228
82.5	218	31.10%	0.82%	15.37%	0.0917	0.0248
83.5	218	31.10%	0.46%	14.76%	0.0939	0.0267
84.5	218	31.10%	0.19%	14.17%	0.0955	0.0286
85.5		31.10%	0.03%	13.60%		
Sum of Squared Differences				[8]	1.4961	0.2786
Up to 1% of Beginning Exposures				[9]	0.0375	0.0050

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Citizens Water Account 335.4 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2.5-65**	**OUCC L2-73**	**CEG SSD**	**OUCC SSD**
0.0	18,208,545	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	18,258,428	100.00%	99.96%	100.00%	0.0000	0.0000
1.5	16,577,725	99.86%	99.87%	100.00%	0.0000	0.0000
2.5	12,407,299	99.66%	99.78%	100.00%	0.0000	0.0000
3.5	8,674,461	99.27%	99.67%	99.99%	0.0000	0.0001
4.5	4,333,280	98.24%	99.57%	99.97%	0.0002	0.0003
5.5	3,003,079	98.04%	99.45%	99.95%	0.0002	0.0004
6.5	2,803,122	97.98%	99.33%	99.92%	0.0002	0.0004
7.5	3,207,001	97.96%	99.20%	99.88%	0.0002	0.0004
8.5	3,688,538	97.80%	99.07%	99.83%	0.0002	0.0004
9.5	4,149,931	97.73%	98.92%	99.77%	0.0001	0.0004
10.5	4,165,527	97.67%	98.77%	99.69%	0.0001	0.0004
11.5	4,281,200	97.58%	98.60%	99.60%	0.0001	0.0004
12.5	4,524,243	97.53%	98.43%	99.49%	0.0001	0.0004
13.5	4,474,855	97.46%	98.24%	99.36%	0.0001	0.0004
14.5	4,160,978	97.35%	98.05%	99.22%	0.0000	0.0004
15.5	3,966,673	97.27%	97.84%	99.07%	0.0000	0.0003
16.5	4,094,694	97.21%	97.62%	98.89%	0.0000	0.0003
17.5	3,761,971	97.12%	97.38%	98.70%	0.0000	0.0002
18.5	3,272,636	97.03%	97.13%	98.48%	0.0000	0.0002
19.5	3,051,687	96.90%	96.87%	98.25%	0.0000	0.0002
20.5	3,173,209	96.69%	96.59%	98.00%	0.0000	0.0002
21.5	3,237,544	96.57%	96.30%	97.73%	0.0000	0.0001
22.5	2,977,604	96.21%	95.99%	97.44%	0.0000	0.0002
23.5	3,018,545	95.95%	95.66%	97.13%	0.0000	0.0001
24.5	2,958,759	95.60%	95.32%	96.79%	0.0000	0.0001
25.5	2,898,323	95.16%	94.95%	96.44%	0.0000	0.0002
26.5	2,666,977	94.73%	94.57%	96.05%	0.0000	0.0002
27.5	2,306,311	94.39%	94.16%	95.64%	0.0000	0.0002
28.5	2,001,532	94.20%	93.74%	95.19%	0.0000	0.0001
29.5	1,881,960	93.77%	93.29%	94.71%	0.0000	0.0001
30.5	1,713,000	93.16%	92.81%	94.18%	0.0000	0.0001
31.5	1,667,510	92.73%	92.32%	93.62%	0.0000	0.0001
32.5	1,644,766	91.83%	91.80%	93.00%	0.0000	0.0001
33.5	1,639,567	90.45%	91.25%	92.35%	0.0001	0.0004
34.5	1,802,029	89.99%	90.67%	91.64%	0.0000	0.0003
35.5	1,635,668	89.01%	90.07%	90.88%	0.0001	0.0004
36.5	1,697,404	88.62%	89.44%	90.08%	0.0001	0.0002
37.5	1,695,454	87.74%	88.77%	89.22%	0.0001	0.0002
38.5	1,764,338	86.83%	88.08%	88.32%	0.0002	0.0002
39.5	1,893,008	86.26%	87.35%	87.37%	0.0001	0.0001
40.5	1,727,297	85.67%	86.59%	86.37%	0.0001	0.0000
41.5	1,741,593	84.63%	85.80%	85.33%	0.0001	0.0000
42.5	1,779,284	83.81%	84.97%	84.25%	0.0001	0.0000
43.5	1,857,916	82.80%	84.10%	83.13%	0.0002	0.0000
44.5	1,679,858	81.99%	83.20%	81.97%	0.0001	0.0000
45.5	1,475,805	81.17%	82.25%	80.77%	0.0001	0.0000
46.5	1,457,609	80.24%	81.26%	79.54%	0.0001	0.0000
47.5	1,401,723	79.45%	80.23%	78.28%	0.0001	0.0001
48.5	1,403,672	78.82%	79.16%	76.99%	0.0000	0.0003
49.5	1,364,031	78.13%	78.04%	75.68%	0.0000	0.0006
50.5	1,349,085	77.28%	76.88%	74.34%	0.0000	0.0009
51.5	1,369,880	76.01%	75.66%	72.99%	0.0000	0.0009
52.5	1,342,586	74.78%	74.40%	71.63%	0.0000	0.0010
53.5	1,275,652	73.70%	73.09%	70.25%	0.0000	0.0012
54.5	1,139,834	72.27%	71.73%	68.87%	0.0000	0.0012
55.5	933,182	70.87%	70.32%	67.47%	0.0000	0.0012
56.5	859,099	69.39%	68.85%	66.08%	0.0000	0.0011
57.5	707,035	67.45%	67.34%	64.68%	0.0000	0.0008
58.5	609,558	65.46%	65.77%	63.28%	0.0000	0.0005
59.5	547,822	64.35%	64.15%	61.89%	0.0000	0.0006
60.5	485,437	62.82%	62.48%	60.50%	0.0000	0.0005
61.5	489,336	60.80%	60.76%	59.12%	0.0000	0.0003
62.5	510,781	58.06%	58.99%	57.75%	0.0001	0.0000
63.5	562,769	55.91%	57.18%	56.39%	0.0002	0.0000
64.5	569,267	53.59%	55.32%	55.05%	0.0003	0.0002
65.5	553,671	51.76%	53.43%	53.71%	0.0003	0.0004
66.5	454,244	49.63%	51.50%	52.39%	0.0003	0.0008
67.5	350,918	47.71%	49.54%	51.10%	0.0003	0.0011
68.5	241,094	45.86%	47.56%	49.81%	0.0003	0.0016

Citizens Water Account 335.4 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2.5-65**	**OUCC L2-73**	**CEG SSD**	**OUCC SSD**
69.5	192,355	44.37%	45.55%	48.55%	0.0001	0.0017
70.5	196,904	43.77%	43.53%	47.30%	0.0000	0.0012
71.5	198,854	43.34%	41.51%	46.08%	0.0003	0.0007
72.5	235,895	42.63%	39.48%	44.87%	0.0010	0.0005
73.5	277,485	41.93%	37.46%	43.69%	0.0020	0.0003
74.5	289,182	41.63%	35.46%	42.52%	0.0038	0.0001
75.5	262,539	40.60%	33.47%	41.38%	0.0051	0.0001
76.5	226,147	39.80%	31.51%	40.26%	0.0069	0.0000
77.5	181,308	38.31%	29.59%	39.16%	0.0076	0.0001
78.5	152,714	37.63%	27.71%	38.08%	0.0098	0.0000
79.5	114,373	34.90%	25.88%	37.02%	0.0081	0.0005
80.5	160,512	33.71%	24.11%	35.99%	0.0092	0.0005
81.5	234,595	33.30%	22.39%	34.97%	0.0119	0.0003
82.5	260,589	32.84%	20.73%	33.98%	0.0147	0.0001
83.5	299,580	32.27%	19.14%	33.00%	0.0172	0.0001
84.5	307,378	31.08%	17.62%	32.05%	0.0181	0.0001
85.5	382,111	30.62%	16.18%	31.12%	0.0209	0.0000
86.5	369,114	29.84%	14.80%	30.20%	0.0226	0.0000
87.5	326,874	29.52%	13.51%	29.31%	0.0256	0.0000
88.5	348,968	29.23%	12.28%	28.43%	0.0287	0.0001
89.5	356,767	28.74%	11.13%	27.57%	0.0310	0.0001
90.5	353,517	28.37%	10.05%	26.73%	0.0335	0.0003
91.5	275,536	28.06%	9.05%	25.91%	0.0361	0.0005
92.5	217,049	27.13%	8.11%	25.11%	0.0362	0.0004
93.5	196,904	26.81%	7.24%	24.32%	0.0383	0.0006
94.5	153,364	26.19%	6.44%	23.55%	0.0390	0.0007
95.5	105,925	26.08%	5.70%	22.80%	0.0415	0.0011
96.5	71,483	25.28%	5.02%	22.06%	0.0410	0.0010
97.5	61,736	24.59%	4.40%	21.34%	0.0408	0.0011
98.5	58,486	24.33%	3.84%	20.64%	0.0420	0.0014
99.5	31,843	24.06%	3.33%	19.95%	0.0430	0.0017
100.5	12,347	22.10%	2.87%	19.27%	0.0370	0.0008
101.5	7,798	22.10%	2.46%	18.61%	0.0386	0.0012
102.5	9,098	18.41%	2.10%	17.97%	0.0266	0.0000
103.5	7,798	15.78%	1.77%	17.34%	0.0196	0.0002
104.5	9,098	15.78%	1.49%	16.72%	0.0204	0.0001
105.5	8,448	14.66%	1.24%	16.12%	0.0180	0.0002
106.5	5,199	12.40%	1.02%	15.53%	0.0129	0.0010
107.5	4,549	9.30%	0.84%	14.96%	0.0072	0.0032
108.5	634,252	9.30%	0.67%	14.40%	0.0074	0.0026
109.5	632,302	9.28%	0.53%	13.85%	0.0077	0.0021
110.5	632,302	9.28%	0.41%	13.32%	0.0079	0.0016
111.5	614,107	9.01%	0.31%	12.80%	0.0076	0.0014
112.5	592,662	8.72%	0.22%	12.30%	0.0072	0.0013
113.5	588,113	8.66%	0.16%	11.80%	0.0072	0.0010
114.5		8.60%	0.10%	11.32%		
Sum of Squared Differences				[8]	0.8668	0.0564

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

CWA Account 371.3 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2-40**	**OUCC L2-48**	**CEG SSD**	**OUCC SSD**
0.0	12,005,354	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	12,127,771	100.00%	99.88%	100.00%	0.0000	0.0000
1.5	13,041,087	100.00%	99.63%	100.00%	0.0000	0.0000
2.5	8,910,497	100.00%	99.35%	99.98%	0.0000	0.0000
3.5	8,312,416	100.00%	99.05%	99.96%	0.0001	0.0000
4.5	6,293,121	100.00%	98.73%	99.91%	0.0002	0.0000
5.5	2,441,594	100.00%	98.38%	99.84%	0.0003	0.0000
6.5	2,244,177	96.93%	98.00%	99.74%	0.0001	0.0008
7.5	2,621,432	96.93%	97.59%	99.60%	0.0000	0.0007
8.5	5,984,330	94.86%	97.15%	99.44%	0.0005	0.0021
9.5	5,984,330	94.86%	96.67%	99.23%	0.0003	0.0019
10.5	5,649,206	94.86%	96.16%	98.99%	0.0002	0.0017
11.5	9,450,419	94.86%	95.62%	98.70%	0.0001	0.0015
12.5	10,788,884	94.86%	95.03%	98.37%	0.0000	0.0012
13.5	8,558,451	94.86%	94.40%	97.99%	0.0000	0.0010
14.5	7,774,325	94.86%	93.73%	97.57%	0.0001	0.0007
15.5	13,422,782	94.86%	93.01%	97.10%	0.0003	0.0005
16.5	13,407,782	94.76%	92.24%	96.58%	0.0006	0.0003
17.5	18,973,695	94.76%	91.42%	96.01%	0.0011	0.0002
18.5	23,822,747	94.76%	90.54%	95.36%	0.0018	0.0000
19.5	25,834,903	94.76%	89.61%	94.63%	0.0026	0.0000
20.5	26,060,362	94.52%	88.62%	93.80%	0.0035	0.0001
21.5	24,454,970	94.43%	87.57%	92.88%	0.0047	0.0002
22.5	26,127,568	94.43%	86.45%	91.84%	0.0064	0.0007
23.5	20,446,583	94.43%	85.27%	90.70%	0.0084	0.0014
24.5	14,259,066	94.43%	84.01%	89.44%	0.0109	0.0025
25.5	12,431,849	93.44%	82.68%	88.06%	0.0116	0.0029
26.5	9,506,743	93.44%	81.27%	86.58%	0.0148	0.0047
27.5	5,678,678	93.44%	79.78%	84.99%	0.0187	0.0071
28.5	4,006,080	93.44%	78.22%	83.30%	0.0232	0.0103
29.5	334,939	85.53%	76.56%	81.53%	0.0080	0.0016
30.5	334,939	85.53%	74.83%	79.68%	0.0115	0.0034
31.5		66.52%	73.00%	77.76%		
32.5			71.09%			
33.5			69.09%			
34.5			67.00%			
35.5			64.82%			
36.5			62.56%			
37.5			60.21%			
38.5			57.79%			
39.5			55.30%			
40.5			52.74%			
41.5			50.12%			
42.5			47.46%			
43.5			44.75%			
44.5			42.03%			
45.5			39.30%			
46.5			36.57%			
47.5			33.86%			

CWA Account 371.3 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG R2-40**	**OUCC L2-48**	**CEG SSD**	**OUCC SSD**
48.5			31.18%			
49.5			28.56%			
50.5			26.00%			
51.5			23.52%			
52.5			21.14%			
53.5			18.87%			
54.5			16.73%			
55.5			14.71%			
56.5			12.82%			
57.5			11.07%			
58.5			9.47%			
59.5			8.01%			
60.5			6.69%			
61.5			5.50%			
62.5			4.45%			
63.5			3.53%			
64.5			2.73%			
65.5			2.05%			
66.5			1.48%			
67.5			1.02%			
68.5			0.66%			
69.5			0.39%			
70.5			0.20%			
71.5			0.08%			
72.5			0.02%			
Sum of Squared Differences				[8]	0.1300	0.0476

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

CWA Account 380.4 Curve Fitting

[1]	[2]	[3]	[4]	[5]	[6]	[7]
Age (Years)	**Exposures (Dollars)**	**Observed Life Table (OLT)**	**CEG S1-35**	**OUCC S0.5-44**	**CEG SSD**	**OUCC SSD**
0.0	166,759,423	100.00%	100.00%	100.00%	0.0000	0.0000
0.5	110,589,897	100.00%	100.00%	99.99%	0.0000	0.0000
1.5	60,179,476	100.00%	99.98%	99.90%	0.0000	0.0000
2.5	63,830,477	100.00%	99.94%	99.76%	0.0000	0.0000
3.5	60,125,269	99.97%	99.84%	99.57%	0.0000	0.0000
4.5	61,844,243	99.97%	99.68%	99.31%	0.0000	0.0000
5.5	70,792,983	99.97%	99.45%	99.00%	0.0000	0.0001
6.5	73,812,483	99.26%	99.14%	98.63%	0.0000	0.0000
7.5	79,113,162	99.26%	98.74%	98.21%	0.0000	0.0001
8.5	65,613,162	99.26%	98.24%	97.73%	0.0001	0.0002
9.5	61,655,947	99.25%	97.65%	97.19%	0.0003	0.0004
10.5	51,257,259	93.89%	96.94%	96.59%	0.0009	0.0007
11.5	46,854,740	93.89%	96.13%	95.94%	0.0005	0.0004
12.5	43,331,240	93.89%	95.21%	95.23%	0.0002	0.0002
13.5	36,922,792	91.24%	94.17%	94.46%	0.0009	0.0010
14.5	32,422,792	91.24%	93.03%	93.64%	0.0003	0.0006
15.5	196,149,549	90.61%	91.77%	92.76%	0.0001	0.0005
16.5	179,585,899	90.61%	90.40%	91.82%	0.0000	0.0001
17.5	164,471,757	90.46%	88.92%	90.83%	0.0002	0.0000
18.5	164,471,757	90.46%	87.33%	89.79%	0.0010	0.0000
19.5	163,661,757	90.46%	85.64%	88.69%	0.0023	0.0003
20.5	163,661,757	90.46%	83.85%	87.55%	0.0044	0.0008
21.5		90.46%	81.96%	86.35%		
Sum of Squared Differences				[8]	0.0113	0.0057

[1] Age in years using half-year convention

[2] Dollars exposed to retirement at the beginning of each age interval

[3] Observed life table based on the Company's property records. These numbers form the original survivor curve.

[4] The Company's selected Iowa curve to be fitted to the OLT.

[5] My selected Iowa curve to be fitted to the OLT.

[6] = ([4] - [3])^2. This is the squared difference between each point on the Company's curve and the observed survivor curve.

[7] = ([5] - [3])^2. This is the squared difference between each point on my curve and the observed survivor curve.

[8] = Sum of squared differences. The smallest SSD represents the best mathematical fit.

Gas Operations
Gas Division
352.00 Wells

Observed Life Table
Retirement Expr. 1966 TO 2016
Placement Years 1962 TO 2010

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
0.0 - 0.5	$7,564,900.61	$0.00	0.00000	100.00
0.5 - 1.5	$9,029,230.35	$0.00	0.00000	100.00
1.5 - 2.5	$10,539,235.90	$7,459.45	0.00071	100.00
2.5 - 3.5	$11,188,914.67	$3,236.33	0.00029	99.93
3.5 - 4.5	$13,484,910.44	$9,862.02	0.00073	99.90
4.5 - 5.5	$13,409,489.02	$65,664.03	0.00490	99.83
5.5 - 6.5	$13,343,824.99	$10,128.96	0.00076	99.34
6.5 - 7.5	$13,317,268.55	$17,573.73	0.00132	99.26
7.5 - 8.5	$13,299,694.82	$10,234.36	0.00077	99.13
8.5 - 9.5	$13,237,024.55	$306,790.36	0.02318	99.06
9.5 - 10.5	$12,930,234.19	$6,966.01	0.00054	96.76
10.5 - 11.5	$12,842,030.15	$14,625.18	0.00114	96.71
11.5 - 12.5	$12,820,807.78	$34,201.05	0.00267	96.60
12.5 - 13.5	$12,756,726.58	$27,088.65	0.00212	96.34
13.5 - 14.5	$12,729,637.93	$23,395.00	0.00184	96.14
14.5 - 15.5	$12,706,242.93	$15,042.87	0.00118	95.96
15.5 - 16.5	$12,691,200.06	$31,293.03	0.00247	95.85
16.5 - 17.5	$12,644,716.45	$23,919.94	0.00189	95.61
17.5 - 18.5	$12,620,796.51	$23,181.96	0.00184	95.43
18.5 - 19.5	$12,597,079.08	$204,690.12	0.01625	95.25
19.5 - 20.5	$12,392,388.96	$108,387.45	0.00875	93.70
20.5 - 21.5	$12,284,001.51	$38,881.77	0.00317	92.89
21.5 - 22.5	$12,245,119.74	$496,906.02	0.04058	92.59
22.5 - 23.5	$11,553,237.87	$5,172.65	0.00045	88.83
23.5 - 24.5	$11,128,614.23	$1,825.65	0.00016	88.79
24.5 - 25.5	$11,106,934.07	$0.00	0.00000	88.78
25.5 - 26.5	$10,703,513.83	$4,794.82	0.00045	88.78
26.5 - 27.5	$10,698,719.01	$0.00	0.00000	88.74
27.5 - 28.5	$10,698,719.01	$128,161.55	0.01198	88.74
28.5 - 29.5	$10,553,146.41	$32,699.54	0.00310	87.68
29.5 - 30.5	$10,240,015.27	$42,747.12	0.00417	87.41
30.5 - 31.5	$10,126,472.86	$0.00	0.00000	87.04
31.5 - 32.5	$10,083,133.89	$5,151.64	0.00051	87.04
32.5 - 33.5	$10,057,760.44	$10,418.42	0.00104	87.00
33.5 - 34.5	$9,784,965.52	$716.83	0.00007	86.91
34.5 - 35.5	$9,602,070.39	$2,925.00	0.00030	86.90
35.5 - 36.5	$9,599,145.39	$11,548.80	0.00120	86.87

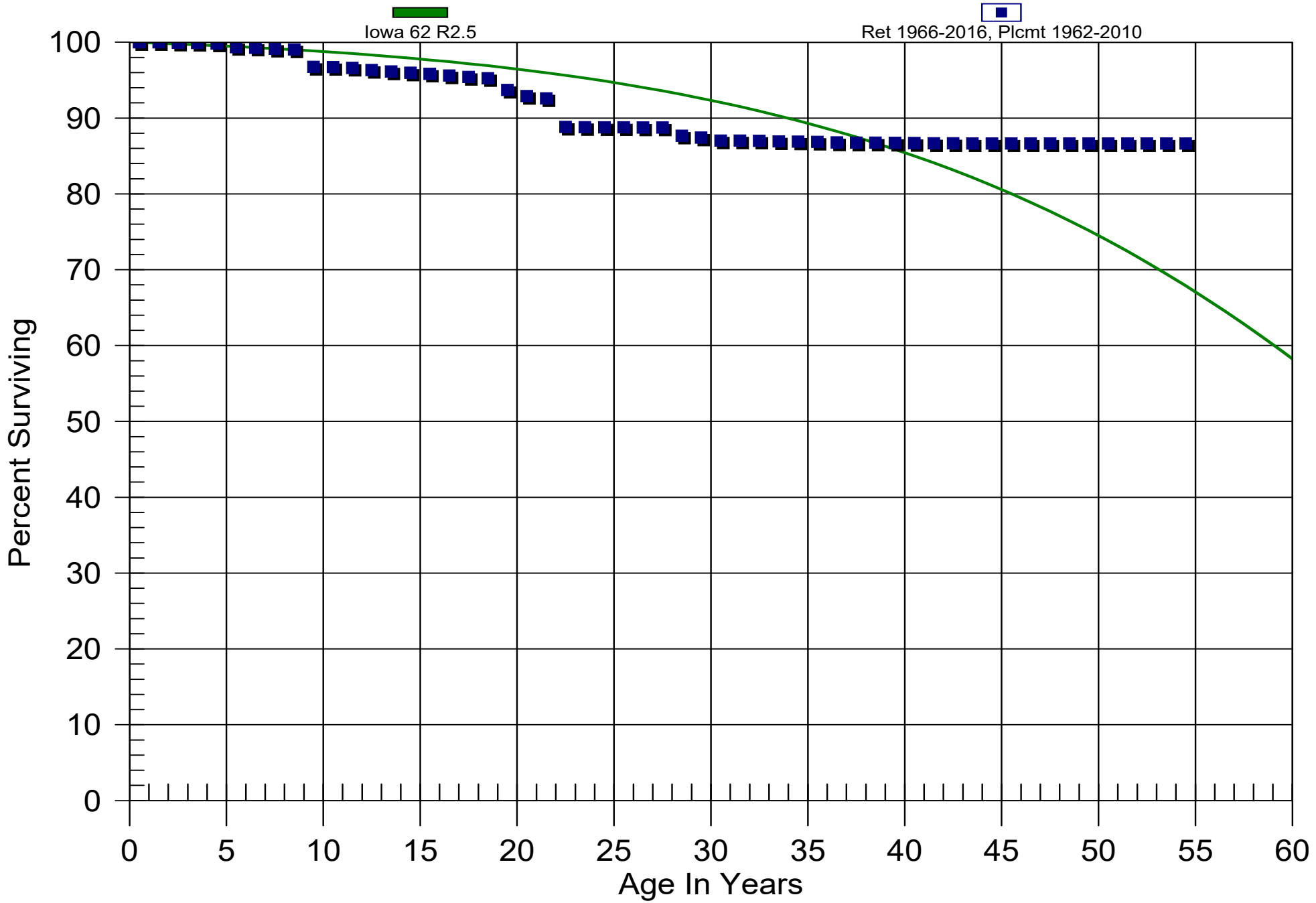
Gas Operations
Gas Division
352.00 Wells

Observed Life Table
Retirement Expr. 1966 TO 2016
Placement Years 1962 TO 2010

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
36.5 - 37.5	$9,312,699.67	$1,100.00	0.00012	86.77
37.5 - 38.5	$8,946,037.97	$780.00	0.00009	86.76
38.5 - 39.5	$8,935,584.27	$2,145.00	0.00024	86.75
39.5 - 40.5	$8,611,768.99	$2,270.41	0.00026	86.73
40.5 - 41.5	$8,564,272.77	$3,363.95	0.00039	86.71
41.5 - 42.5	$8,264,535.89	$0.00	0.00000	86.67
42.5 - 43.5	$8,033,006.43	$1,840.37	0.00023	86.67
43.5 - 44.5	$7,081,052.80	$730.62	0.00010	86.65
44.5 - 45.5	$6,166,747.83	$0.00	0.00000	86.64
45.5 - 46.5	$6,060,987.93	$0.00	0.00000	86.64
46.5 - 47.5	$6,058,777.56	$0.00	0.00000	86.64
47.5 - 48.5	$5,636,499.64	$0.00	0.00000	86.64
48.5 - 49.5	$5,636,109.64	$0.00	0.00000	86.64
49.5 - 50.5	$5,636,109.64	$0.00	0.00000	86.64
50.5 - 51.5	$4,891,453.56	$0.00	0.00000	86.64
51.5 - 52.5	$3,637,574.79	$0.00	0.00000	86.64
52.5 - 53.5	$2,318,189.78	$0.00	0.00000	86.64
53.5 - 54.5	$1,743,058.51	$0.00	0.00000	86.64

Gas Operations

Gas Division
352.00 Wells
Original And Smooth Survivor Curves



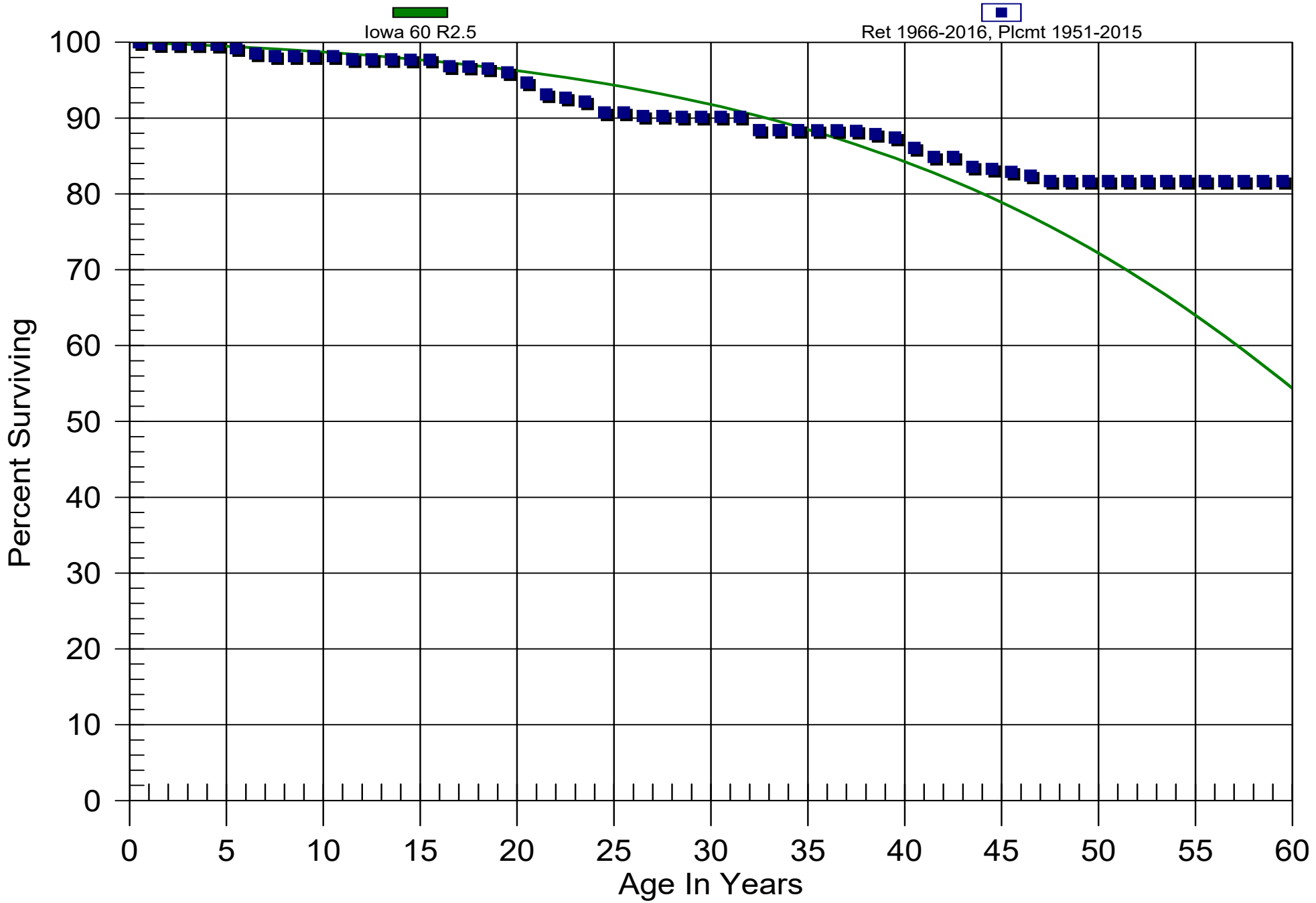
Gas Operations
Gas Division
356.00 Purification Equipment
Observed Life Table
Retirement Expr. 1966 TO 2016
Placement Years 1951 TO 2015

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
0.0 - 0.5	$4,028,347.91	$0.00	0.00000	100.00
0.5 - 1.5	$4,333,436.41	$11,731.50	0.00271	100.00
1.5 - 2.5	$4,441,761.94	$1,102.75	0.00025	99.73
2.5 - 3.5	$4,339,509.97	$0.00	0.00000	99.70
3.5 - 4.5	$4,027,423.32	$2,002.77	0.00050	99.70
4.5 - 5.5	$3,959,472.82	$17,341.87	0.00438	99.65
5.5 - 6.5	$3,884,259.90	$27,144.55	0.00699	99.22
6.5 - 7.5	$3,716,498.17	$13,595.07	0.00366	98.53
7.5 - 8.5	$3,702,903.10	$0.00	0.00000	98.16
8.5 - 9.5	$3,555,522.99	$0.00	0.00000	98.16
9.5 - 10.5	$3,436,639.80	$0.00	0.00000	98.16
10.5 - 11.5	$3,370,047.20	$14,728.17	0.00437	98.16
11.5 - 12.5	$3,327,908.63	$0.00	0.00000	97.74
12.5 - 13.5	$3,300,956.17	$0.00	0.00000	97.74
13.5 - 14.5	$3,285,012.80	$1,533.07	0.00047	97.74
14.5 - 15.5	$3,301,296.17	$0.00	0.00000	97.69
15.5 - 16.5	$3,294,529.71	$28,861.82	0.00876	97.69
16.5 - 17.5	$3,251,128.95	$2,000.00	0.00062	96.83
17.5 - 18.5	$3,147,263.69	$8,153.11	0.00259	96.77
18.5 - 19.5	$3,139,110.58	$16,019.51	0.00510	96.52
19.5 - 20.5	$3,123,091.07	$44,043.82	0.01410	96.03
20.5 - 21.5	$3,079,047.25	$50,440.04	0.01638	94.68
21.5 - 22.5	$2,963,555.06	$14,647.25	0.00494	93.13
22.5 - 23.5	$2,904,466.49	$14,949.61	0.00515	92.67
23.5 - 24.5	$2,846,422.55	$44,776.81	0.01573	92.19
24.5 - 25.5	$2,646,921.57	$0.00	0.00000	90.74
25.5 - 26.5	$2,581,117.62	$13,743.36	0.00532	90.74
26.5 - 27.5	$2,469,755.13	$0.00	0.00000	90.26
27.5 - 28.5	$2,295,671.50	$2,270.15	0.00099	90.26
28.5 - 29.5	$2,176,309.43	$0.00	0.00000	90.17
29.5 - 30.5	$1,875,800.36	$0.00	0.00000	90.17
30.5 - 31.5	$1,656,427.72	$113.14	0.00007	90.17
31.5 - 32.5	$1,588,287.68	$31,002.96	0.01952	90.16
32.5 - 33.5	$1,557,284.72	$0.00	0.00000	88.40
33.5 - 34.5	$1,556,774.32	$0.00	0.00000	88.40
34.5 - 35.5	$1,536,233.11	$232.78	0.00015	88.40
35.5 - 36.5	$1,530,397.27	$0.00	0.00000	88.39

Gas Operations
Gas Division
356.00 Purification Equipment
Observed Life Table
Retirement Expr. 1966 TO 2016
Placement Years 1951 TO 2015

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
36.5 - 37.5	$1,487,045.55	$1,602.64	0.00108	88.39
37.5 - 38.5	$1,342,412.53	$6,109.46	0.00455	88.29
38.5 - 39.5	$1,335,277.15	$7,044.90	0.00528	87.89
39.5 - 40.5	$1,320,359.80	$20,829.64	0.01578	87.43
40.5 - 41.5	$1,283,727.69	$17,611.95	0.01372	86.05
41.5 - 42.5	$1,266,115.74	$116.71	0.00009	84.87
42.5 - 43.5	$1,261,019.90	$19,193.35	0.01522	84.86
43.5 - 44.5	$1,190,053.66	$3,899.03	0.00328	83.57
44.5 - 45.5	$1,099,871.38	$5,291.20	0.00481	83.29
45.5 - 46.5	$1,083,768.43	$6,364.68	0.00587	82.89
46.5 - 47.5	$1,077,403.75	$9,375.16	0.00870	82.41
47.5 - 48.5	$1,068,028.59	$0.00	0.00000	81.69
48.5 - 49.5	$1,059,935.72	$0.00	0.00000	81.69
49.5 - 50.5	$889,307.56	$0.00	0.00000	81.69
50.5 - 51.5	$602,005.38	$0.00	0.00000	81.69
51.5 - 52.5	$418,036.24	$0.00	0.00000	81.69
52.5 - 53.5	$254,583.86	$0.00	0.00000	81.69
53.5 - 54.5	$158,823.21	$0.00	0.00000	81.69
54.5 - 55.5	$17,816.44	$0.00	0.00000	81.69
55.5 - 56.5	$17,816.44	$0.00	0.00000	81.69
56.5 - 57.5	$17,816.44	$0.00	0.00000	81.69
57.5 - 58.5	$17,816.44	$0.00	0.00000	81.69
58.5 - 59.5	$17,816.44	$0.00	0.00000	81.69
59.5 - 60.5	$17,816.44	$0.00	0.00000	81.69
60.5 - 61.5	$17,816.44	$0.00	0.00000	81.69
61.5 - 62.5	$17,816.44	$0.00	0.00000	81.69
62.5 - 63.5	$17,816.44	$0.00	0.00000	81.69
63.5 - 64.5	$17,816.44	$0.00	0.00000	81.69
64.5 - 65.5	$17,816.44	$0.00	0.00000	81.69

Gas Operations
Gas Division
356.00 Purification Equipment
Original And Smooth Survivor Curves



Gas Operations
Gas Division
367.00 367 and 367.10 Mains
Observed Life Table
Retirement Expr. 1966 TO 2016
Placement Years 1951 TO 2016

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
0.0 - 0.5	$46,718,736.81	$0.00	0.00000	100.00
0.5 - 1.5	$46,121,717.85	$10,289.29	0.00022	100.00
1.5 - 2.5	$41,301,750.31	$226,736.34	0.00549	99.98
2.5 - 3.5	$40,218,852.29	$52,508.23	0.00131	99.43
3.5 - 4.5	$39,632,322.00	$31,579.52	0.00080	99.30
4.5 - 5.5	$31,895,137.23	$0.00	0.00000	99.22
5.5 - 6.5	$29,275,378.02	$11,869.36	0.00041	99.22
6.5 - 7.5	$28,975,923.08	$8,203.25	0.00028	99.18
7.5 - 8.5	$25,826,811.78	$30,672.44	0.00119	99.15
8.5 - 9.5	$25,798,995.38	$60,495.13	0.00234	99.03
9.5 - 10.5	$25,795,479.64	$1,653.71	0.00006	98.80
10.5 - 11.5	$25,580,503.38	$0.00	0.00000	98.80
11.5 - 12.5	$25,580,503.38	$4,007.14	0.00016	98.80
12.5 - 13.5	$25,576,496.24	$359,264.70	0.01405	98.78
13.5 - 14.5	$25,655,397.33	$65,621.49	0.00256	97.39
14.5 - 15.5	$26,673,912.17	$1,298,741.84	0.04869	97.14
15.5 - 16.5	$25,273,025.66	$3,417,412.19	0.13522	92.41
16.5 - 17.5	$20,457,921.95	$50,780.09	0.00248	79.92
17.5 - 18.5	$20,136,042.40	$16,513.67	0.00082	79.72
18.5 - 19.5	$19,682,136.60	$8,749.65	0.00044	79.65
19.5 - 20.5	$19,673,386.95	$16,279.50	0.00083	79.62
20.5 - 21.5	$19,137,806.41	$976.66	0.00005	79.55
21.5 - 22.5	$17,229,829.56	$167,455.51	0.00972	79.55
22.5 - 23.5	$16,977,680.36	$0.00	0.00000	78.77
23.5 - 24.5	$15,157,853.98	$44,763.79	0.00295	78.77
24.5 - 25.5	$14,754,434.60	$121,078.49	0.00821	78.54
25.5 - 26.5	$14,128,084.77	$6,673.14	0.00047	77.90
26.5 - 27.5	$13,412,262.64	$2,177.28	0.00016	77.86
27.5 - 28.5	$9,015,026.19	$0.00	0.00000	77.85
28.5 - 29.5	$8,059,617.41	$0.00	0.00000	77.85
29.5 - 30.5	$7,942,727.34	$3,709.44	0.00047	77.85
30.5 - 31.5	$7,653,494.89	$82,434.60	0.01077	77.81
31.5 - 32.5	$7,499,536.58	$0.00	0.00000	76.97
32.5 - 33.5	$7,437,184.40	$16,250.78	0.00219	76.97
33.5 - 34.5	$7,395,766.45	$46,541.11	0.00629	76.81
34.5 - 35.5	$6,968,230.49	$384.96	0.00006	76.32
35.5 - 36.5	$6,585,163.00	$10,692.36	0.00162	76.32

Gas Operations
Gas Division
367.00 367 and 367.10 Mains
Observed Life Table
Retirement Expr. 1966 TO 2016
Placement Years 1951 TO 2016

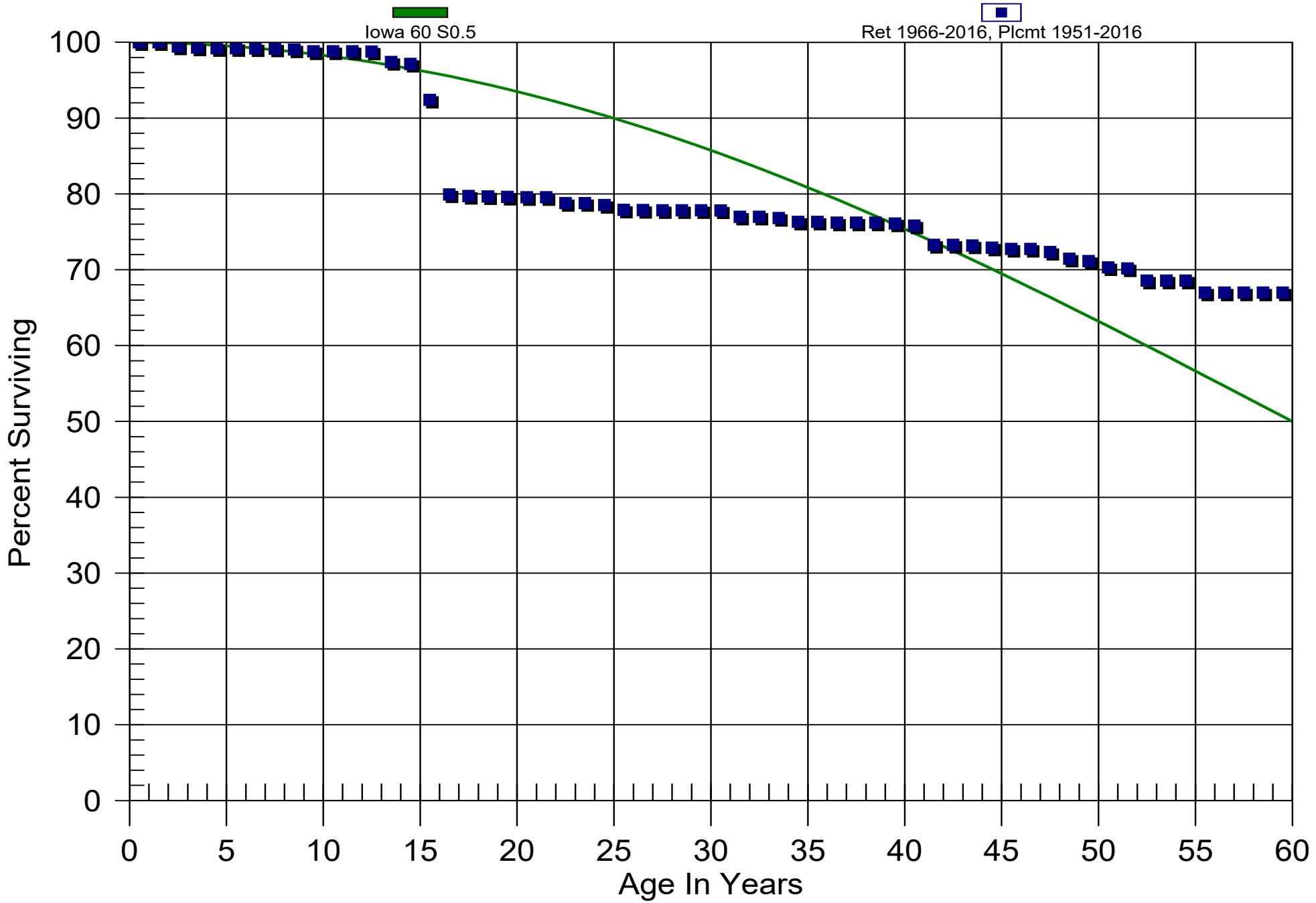
Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
36.5 - 37.5	$6,553,551.81	$0.00	0.00000	76.19
37.5 - 38.5	$6,553,551.81	$0.00	0.00000	76.19
38.5 - 39.5	$6,511,170.82	$9,761.08	0.00150	76.19
39.5 - 40.5	$6,483,926.82	$22,244.41	0.00343	76.08
40.5 - 41.5	$6,461,682.41	$216,731.76	0.03354	75.82
41.5 - 42.5	$6,240,472.64	$0.00	0.00000	73.28
42.5 - 43.5	$6,228,229.84	$6,829.59	0.00110	73.28
43.5 - 44.5	$6,221,211.79	$23,659.67	0.00380	73.20
44.5 - 45.5	$6,161,147.22	$13,676.11	0.00222	72.92
45.5 - 46.5	$6,078,241.59	$0.00	0.00000	72.76
46.5 - 47.5	$6,026,925.42	$34,841.49	0.00578	72.76
47.5 - 48.5	$5,805,560.88	$71,303.20	0.01228	72.33
48.5 - 49.5	$5,331,578.56	$22,452.82	0.00421	71.45
49.5 - 50.5	$3,941,209.25	$46,603.34	0.01182	71.15
50.5 - 51.5	$3,662,091.26	$7,729.26	0.00211	70.30
51.5 - 52.5	$3,284,241.15	$73,955.70	0.02252	70.16
52.5 - 53.5	$3,173,633.00	$0.00	0.00000	68.58
53.5 - 54.5	$2,859,704.32	$0.00	0.00000	68.58
54.5 - 55.5	$2,848,499.23	$66,330.32	0.02329	68.58
55.5 - 56.5	$2,748,931.33	$0.00	0.00000	66.98
56.5 - 57.5	$1,193,177.48	$0.00	0.00000	66.98
57.5 - 58.5	$1,193,177.48	$0.00	0.00000	66.98
58.5 - 59.5	$1,192,755.78	$0.00	0.00000	66.98
59.5 - 60.5	$1,189,899.74	$0.00	0.00000	66.98
60.5 - 61.5	$1,129,483.61	$0.00	0.00000	66.98
61.5 - 62.5	$1,129,367.97	$0.00	0.00000	66.98
62.5 - 63.5	$1,129,367.97	$4,684.17	0.00415	66.98
63.5 - 64.5	$1,124,683.80	$163,949.70	0.14577	66.70
64.5 - 65.5	$921,752.53	$0.00	0.00000	56.98

Gas Operations

Gas Division

367.00 367 and 367.10 Mains

Original And Smooth Survivor Curves



CEG Steam
Steam Division
366.00 Mains
Observed Life Table
Retirement Expr. 2003 TO 2016
Placement Years 1935 TO 2016

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
0.0 - 0.5	$15,397,452.24	$0.00	0.00000	100.00
0.5 - 1.5	$13,037,292.07	$47,042.40	0.00361	100.00
1.5 - 2.5	$12,322,909.69	$0.00	0.00000	99.64
2.5 - 3.5	$11,284,450.93	$9,385.54	0.00083	99.64
3.5 - 4.5	$9,951,561.44	$2,003.45	0.00020	99.56
4.5 - 5.5	$8,657,740.87	$9,946.30	0.00115	99.54
5.5 - 6.5	$7,080,500.75	$105,075.32	0.01484	99.42
6.5 - 7.5	$6,542,310.32	$4,463.63	0.00068	97.95
7.5 - 8.5	$5,973,478.78	$15,490.15	0.00259	97.88
8.5 - 9.5	$5,730,834.30	$91,516.26	0.01597	97.63
9.5 - 10.5	$4,234,373.28	$4,539.57	0.00107	96.07
10.5 - 11.5	$5,452,371.89	$13,251.42	0.00243	95.96
11.5 - 12.5	$4,478,855.89	$6,448.18	0.00144	95.73
12.5 - 13.5	$4,597,162.68	$8,322.27	0.00181	95.59
13.5 - 14.5	$4,693,495.69	$23,317.56	0.00497	95.42
14.5 - 15.5	$4,674,942.52	$27,504.06	0.00588	94.95
15.5 - 16.5	$4,841,931.42	$27,192.89	0.00562	94.39
16.5 - 17.5	$4,882,832.38	$8,297.40	0.00170	93.86
17.5 - 18.5	$5,023,197.52	$19,876.28	0.00396	93.70
18.5 - 19.5	$5,029,965.15	$10,159.32	0.00202	93.33
19.5 - 20.5	$5,024,837.71	$23,426.82	0.00466	93.14
20.5 - 21.5	$4,935,448.53	$5,585.92	0.00113	92.70
21.5 - 22.5	$4,853,456.17	$4,731.72	0.00097	92.60
22.5 - 23.5	$4,652,405.51	$10,471.52	0.00225	92.51
23.5 - 24.5	$4,348,748.70	$18,792.21	0.00432	92.30
24.5 - 25.5	$2,699,384.32	$8,129.16	0.00301	91.90
25.5 - 26.5	$2,480,846.69	$2,241.53	0.00090	91.63
26.5 - 27.5	$2,187,354.29	$8,425.37	0.00385	91.54
27.5 - 28.5	$2,025,706.04	$1,601.72	0.00079	91.19
28.5 - 29.5	$1,888,773.54	$1,685.20	0.00089	91.12
29.5 - 30.5	$1,676,583.32	$9,253.81	0.00552	91.04
30.5 - 31.5	$1,616,458.41	$1,842.24	0.00114	90.53
31.5 - 32.5	$1,560,279.95	$3,716.46	0.00238	90.43
32.5 - 33.5	$1,439,782.15	$1,737.63	0.00121	90.22
33.5 - 34.5	$1,245,615.81	$8,722.57	0.00700	90.11
34.5 - 35.5	$1,072,483.84	$4,822.25	0.00450	89.48
35.5 - 36.5	$957,457.70	$1,957.83	0.00204	89.07

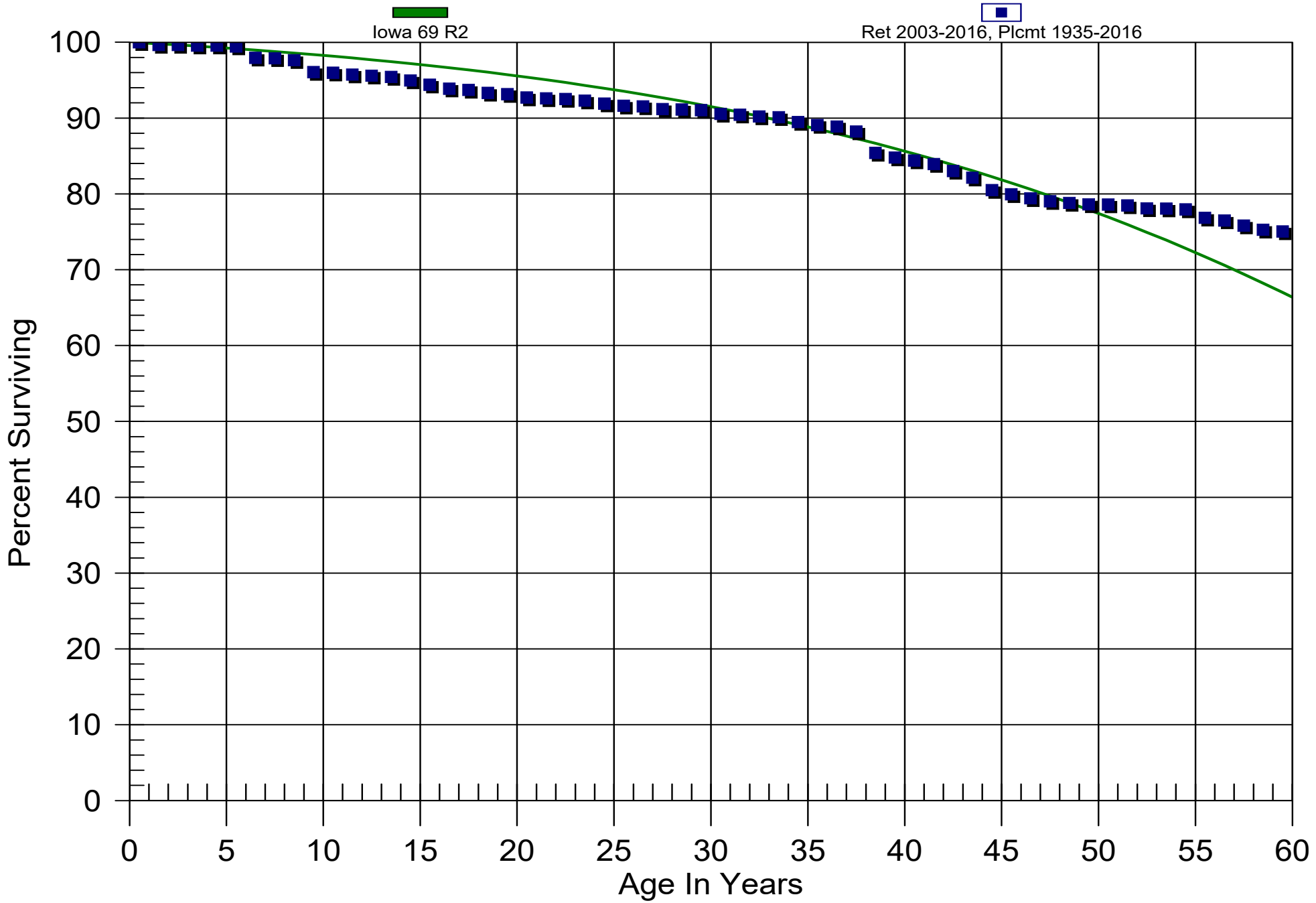
CEG Steam
Steam Division
366.00 Mains
Observed Life Table
Retirement Expr. 2003 TO 2016
Placement Years 1935 TO 2016

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
36.5 - 37.5	$840,211.97	$6,454.04	0.00768	88.89
37.5 - 38.5	$669,621.34	$21,329.54	0.03185	88.21
38.5 - 39.5	$594,529.40	$4,164.02	0.00700	85.40
39.5 - 40.5	$650,535.68	$3,017.97	0.00464	84.80
40.5 - 41.5	$615,807.73	$3,530.57	0.00573	84.41
41.5 - 42.5	$551,668.63	$5,884.41	0.01067	83.92
42.5 - 43.5	$460,000.61	$4,961.37	0.01079	83.03
43.5 - 44.5	$432,276.75	$8,546.37	0.01977	82.13
44.5 - 45.5	$292,394.99	$2,047.05	0.00700	80.51
45.5 - 46.5	$197,847.13	$1,276.58	0.00645	79.94
46.5 - 47.5	$172,775.51	$849.62	0.00492	79.43
47.5 - 48.5	$173,895.57	$518.87	0.00298	79.04
48.5 - 49.5	$189,449.35	$457.64	0.00242	78.80
49.5 - 50.5	$191,469.03	$73.76	0.00039	78.61
50.5 - 51.5	$191,127.07	$281.66	0.00147	78.58
51.5 - 52.5	$194,137.89	$926.25	0.00477	78.47
52.5 - 53.5	$194,300.28	$82.74	0.00043	78.09
53.5 - 54.5	$80,307.93	$126.04	0.00157	78.06
54.5 - 55.5	$66,298.60	$930.90	0.01404	77.94
55.5 - 56.5	$59,053.33	$277.60	0.00470	76.84
56.5 - 57.5	$59,566.02	$521.47	0.00875	76.48
57.5 - 58.5	$56,460.24	$402.27	0.00712	75.81
58.5 - 59.5	$52,323.85	$154.70	0.00296	75.27
59.5 - 60.5	$51,169.49	$29.57	0.00058	75.05
60.5 - 61.5	$49,288.63	$33.56	0.00068	75.00
61.5 - 62.5	$46,264.46	$10.59	0.00023	74.95
62.5 - 63.5	$25,778.47	$44.97	0.00174	74.94
63.5 - 64.5	$17,722.35	$25.29	0.00143	74.81
64.5 - 65.5	$17,241.80	$28.75	0.00167	74.70
65.5 - 66.5	$12,777.19	$74.76	0.00585	74.57
66.5 - 67.5	$10,950.55	$0.30	0.00003	74.14
67.5 - 68.5	$24,738.09	$74.28	0.00300	74.14
68.5 - 69.5	$24,207.65	$0.00	0.00000	73.91
69.5 - 70.5	$18,308.07	$653.53	0.03570	73.91
70.5 - 71.5	$16,275.14	$602.45	0.03702	71.28
71.5 - 72.5	$15,605.13	$191.56	0.01228	68.64
72.5 - 73.5	$15,413.57	$20.36	0.00132	67.79

CEG Steam
Steam Division
366.00 Mains
Observed Life Table
Retirement Expr. 2003 TO 2016
Placement Years 1935 TO 2016

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
73.5 - 74.5	$15,393.21	$5.30	0.00034	67.70
74.5 - 75.5	$15,387.91	$143.11	0.00930	67.68
75.5 - 76.5	$15,244.80	$33.71	0.00221	67.05
76.5 - 77.5	$15,211.09	$71.19	0.00468	66.90
77.5 - 78.5	$15,139.90	$561.33	0.03708	66.59
78.5 - 79.5	$14,578.57	$0.00	0.00000	64.12
79.5 - 80.5	$12,443.77	$0.00	0.00000	64.12
80.5 - 81.5	$12,443.77	$0.00	0.00000	64.12

CEG Steam
Steam Division
366.00 Mains
Original And Smooth Survivor Curves



CEG Steam
Steam Division
369.00 Services
Observed Life Table
Retirement Expr. 2004 TO 2016
Placement Years 1935 TO 2015

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
0.0 - 0.5	$3,029,866.63	$0.00	0.00000	100.00
0.5 - 1.5	$3,098,218.12	$0.00	0.00000	100.00
1.5 - 2.5	$2,166,585.59	$0.00	0.00000	100.00
2.5 - 3.5	$2,166,585.59	$0.00	0.00000	100.00
3.5 - 4.5	$2,088,061.83	$0.00	0.00000	100.00
4.5 - 5.5	$1,741,110.32	$0.00	0.00000	100.00
5.5 - 6.5	$1,771,914.45	$0.00	0.00000	100.00
6.5 - 7.5	$1,791,941.24	$910.05	0.00051	100.00
7.5 - 8.5	$1,772,281.74	$8,376.27	0.00473	99.95
8.5 - 9.5	$1,545,620.78	$3,578.57	0.00232	99.48
9.5 - 10.5	$1,034,761.10	$12,281.77	0.01187	99.25
10.5 - 11.5	$785,097.16	$2,323.26	0.00296	98.07
11.5 - 12.5	$800,135.95	$4,898.90	0.00612	97.78
12.5 - 13.5	$582,529.55	$1,696.53	0.00291	97.18
13.5 - 14.5	$546,720.31	$9,490.70	0.01736	96.90
14.5 - 15.5	$350,526.12	$5,333.79	0.01522	95.21
15.5 - 16.5	$364,827.74	$7,274.06	0.01994	93.77
16.5 - 17.5	$273,917.27	$2,417.68	0.00883	91.90
17.5 - 18.5	$268,621.39	$3,214.96	0.01197	91.09
18.5 - 19.5	$257,468.58	$2,572.85	0.00999	89.99
19.5 - 20.5	$259,977.96	$2,344.52	0.00902	89.10
20.5 - 21.5	$264,263.76	$2,871.56	0.01087	88.29
21.5 - 22.5	$273,503.98	$1,402.74	0.00513	87.33
22.5 - 23.5	$245,641.57	$1,436.87	0.00585	86.88
23.5 - 24.5	$248,684.83	$2,857.58	0.01149	86.38
24.5 - 25.5	$233,243.60	$3,143.36	0.01348	85.38
25.5 - 26.5	$207,112.74	$590.33	0.00285	84.23
26.5 - 27.5	$185,864.23	$970.79	0.00522	83.99
27.5 - 28.5	$167,005.21	$1,156.64	0.00693	83.55
28.5 - 29.5	$155,296.85	$3,152.01	0.02030	82.98
29.5 - 30.5	$135,006.25	$4,155.96	0.03078	81.29
30.5 - 31.5	$112,751.33	$1,416.32	0.01256	78.79
31.5 - 32.5	$100,814.61	$177.98	0.00177	77.80
32.5 - 33.5	$101,869.75	$750.06	0.00736	77.66
33.5 - 34.5	$86,708.43	$1,103.86	0.01273	77.09
34.5 - 35.5	$53,811.75	$241.24	0.00448	76.11
35.5 - 36.5	$48,424.76	$94.93	0.00196	75.77

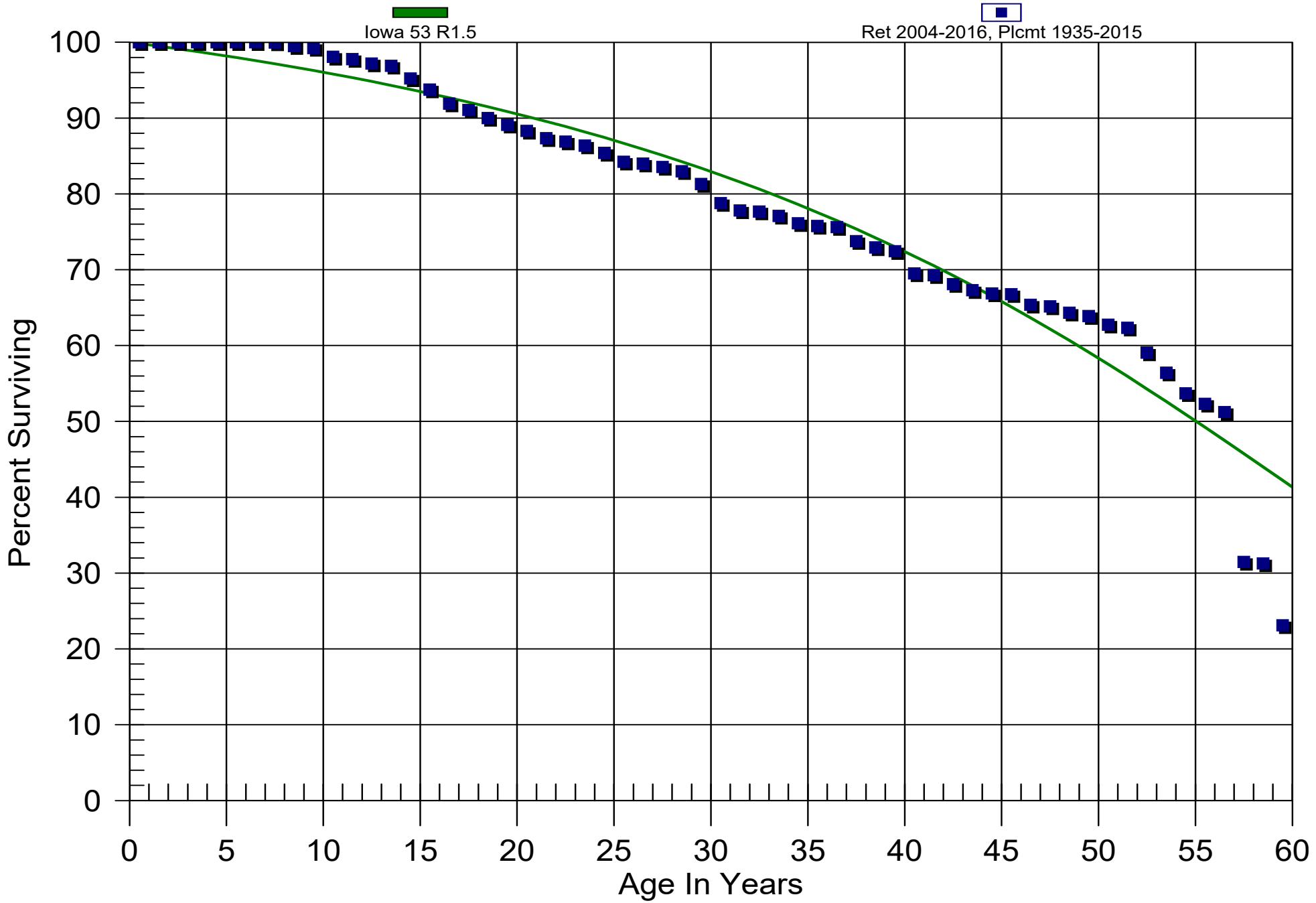
CEG Steam
Steam Division
369.00 Services
Observed Life Table
Retirement Expr. 2004 TO 2016
Placement Years 1935 TO 2015

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
36.5 - 37.5	$47,178.98	$1,149.89	0.02437	75.62
37.5 - 38.5	$43,337.94	$488.39	0.01127	73.78
38.5 - 39.5	$41,015.11	$286.74	0.00699	72.94
39.5 - 40.5	$35,176.21	$1,426.96	0.04057	72.43
40.5 - 41.5	$32,465.18	$98.08	0.00302	69.50
41.5 - 42.5	$31,669.19	$548.20	0.01731	69.29
42.5 - 43.5	$27,596.70	$327.48	0.01187	68.09
43.5 - 44.5	$27,027.68	$160.59	0.00594	67.28
44.5 - 45.5	$25,911.37	$42.61	0.00164	66.88
45.5 - 46.5	$8,821.52	$182.64	0.02070	66.77
46.5 - 47.5	$7,658.88	$27.26	0.00356	65.39
47.5 - 48.5	$7,017.21	$89.89	0.01281	65.15
48.5 - 49.5	$5,586.50	$38.03	0.00681	64.32
49.5 - 50.5	$4,757.05	$83.33	0.01752	63.88
50.5 - 51.5	$4,426.00	$29.36	0.00663	62.76
51.5 - 52.5	$3,240.25	$169.87	0.05242	62.35
52.5 - 53.5	$3,062.25	$138.87	0.04535	59.08
53.5 - 54.5	$2,398.32	$115.10	0.04799	56.40
54.5 - 55.5	$2,055.23	$53.32	0.02594	53.69
55.5 - 56.5	$1,936.04	$39.03	0.02016	52.30
56.5 - 57.5	$1,794.49	$692.57	0.38594	51.24
57.5 - 58.5	$1,345.41	$8.43	0.00627	31.47
58.5 - 59.5	$1,336.98	$349.43	0.26136	31.27
59.5 - 60.5	$987.55	$147.44	0.14930	23.10
60.5 - 61.5	$840.11	$63.10	0.07511	19.65
61.5 - 62.5	$978.14	$0.00	0.00000	18.17
62.5 - 63.5	$978.14	$0.00	0.00000	18.17
63.5 - 64.5	$1,205.21	$210.27	0.17447	18.17
64.5 - 65.5	$994.94	$767.87	0.77178	15.00
65.5 - 66.5	$1,566.43	$0.00	0.00000	3.42
66.5 - 67.5	$1,942.33	$1,339.36	0.68956	3.42
67.5 - 68.5	$602.97	$0.00	0.00000	1.06
68.5 - 69.5	$1,265.74	$0.00	0.00000	1.06
69.5 - 70.5	$1,265.74	$123.53	0.09760	1.06
70.5 - 71.5	$1,142.21	$224.07	0.19617	0.96
71.5 - 72.5	$918.14	$0.00	0.00000	0.77
72.5 - 73.5	$918.14	$5.26	0.00573	0.77

CEG Steam
Steam Division
369.00 Services
Observed Life Table
Retirement Expr. 2004 TO 2016
Placement Years 1935 TO 2015

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
73.5 - 74.5	$912.88	$370.64	0.40601	0.77
74.5 - 75.5	$542.24	$8.21	0.01514	0.46

CEG Steam
Steam Division
369.00 Services
Original And Smooth Survivor Curves



Citizens Water
Water Division
334.40 Meters and Meter Installations
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1909 TO 2016

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
0.0 - 0.5	$10,632,272.18	$0.00	0.00000	100.00
0.5 - 1.5	$10,849,025.48	$11,291.31	0.00104	100.00
1.5 - 2.5	$14,064,027.18	$27,214.69	0.00194	99.90
2.5 - 3.5	$13,687,893.76	$78,182.03	0.00571	99.70
3.5 - 4.5	$15,387,573.27	$75,190.48	0.00489	99.13
4.5 - 5.5	$19,628,884.05	$131,704.42	0.00671	98.65
5.5 - 6.5	$22,198,981.57	$112,439.28	0.00507	97.99
6.5 - 7.5	$24,704,004.67	$249,498.00	0.01010	97.49
7.5 - 8.5	$21,356,139.82	$195,877.94	0.00917	96.51
8.5 - 9.5	$22,060,860.16	$204,631.88	0.00928	95.62
9.5 - 10.5	$19,861,122.33	$274,886.05	0.01384	94.73
10.5 - 11.5	$17,110,280.43	$211,416.33	0.01236	93.42
11.5 - 12.5	$15,403,190.13	$255,406.31	0.01658	92.27
12.5 - 13.5	$14,328,161.59	$279,480.71	0.01951	90.74
13.5 - 14.5	$14,429,054.59	$198,941.81	0.01379	88.97
14.5 - 15.5	$12,055,325.24	$240,305.86	0.01993	87.74
15.5 - 16.5	$11,104,387.70	$142,039.02	0.01279	85.99
16.5 - 17.5	$9,016,049.28	$153,418.85	0.01702	84.89
17.5 - 18.5	$6,769,039.09	$117,089.14	0.01730	83.45
18.5 - 19.5	$5,436,636.52	$92,138.47	0.01695	82.00
19.5 - 20.5	$5,172,476.50	$130,877.39	0.02530	80.62
20.5 - 21.5	$5,535,562.10	$82,728.22	0.01494	78.58
21.5 - 22.5	$6,261,952.85	$77,913.29	0.01244	77.40
22.5 - 23.5	$7,452,537.76	$94,984.59	0.01275	76.44
23.5 - 24.5	$7,785,420.49	$101,112.50	0.01299	75.46
24.5 - 25.5	$7,790,234.61	$83,165.87	0.01068	74.48
25.5 - 26.5	$6,927,498.19	$77,694.56	0.01122	73.69
26.5 - 27.5	$6,004,357.53	$88,637.61	0.01476	72.86
27.5 - 28.5	$4,952,308.58	$82,946.89	0.01675	71.79
28.5 - 29.5	$3,774,855.95	$86,010.96	0.02279	70.58
29.5 - 30.5	$4,569,965.37	$82,728.02	0.01810	68.98
30.5 - 31.5	$5,509,520.60	$147,071.96	0.02669	67.73
31.5 - 32.5	$5,407,972.41	$147,948.22	0.02736	65.92
32.5 - 33.5	$5,729,691.85	$52,088.90	0.00909	64.12
33.5 - 34.5	$5,412,348.07	$30,202.39	0.00558	63.53
34.5 - 35.5	$4,944,648.76	$135,035.18	0.02731	63.18
35.5 - 36.5	$3,222,023.68	$119,496.15	0.03709	61.45

Citizens Water
Water Division
334.40 Meters and Meter Installations
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1909 TO 2016

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
36.5 - 37.5	$1,626,553.27	$37,205.93	0.02287	59.17
37.5 - 38.5	$1,189,275.40	$30,639.99	0.02576	57.82
38.5 - 39.5	$423,930.70	$15,757.76	0.03717	56.33
39.5 - 40.5	$245,999.57	$5,690.29	0.02313	54.24
40.5 - 41.5	$213,827.99	$3,064.03	0.01433	52.98
41.5 - 42.5	$176,619.01	$3,720.71	0.02107	52.22
42.5 - 43.5	$137,005.21	$2,407.57	0.01757	51.12
43.5 - 44.5	$97,830.35	$3,064.02	0.03132	50.22
44.5 - 45.5	$86,886.31	$1,094.46	0.01260	48.65
45.5 - 46.5	$115,993.85	$1,970.01	0.01698	48.04
46.5 - 47.5	$127,154.74	$3,282.81	0.02582	47.22
47.5 - 48.5	$170,489.77	$3,282.96	0.01926	46.00
48.5 - 49.5	$158,671.94	$3,939.49	0.02483	45.12
49.5 - 50.5	$151,449.21	$2,407.33	0.01590	44.00
50.5 - 51.5	$125,187.87	$3,064.02	0.02448	43.30
51.5 - 52.5	$80,979.70	$1,750.72	0.02162	42.24
52.5 - 53.5	$62,158.97	$2,845.43	0.04578	41.33
53.5 - 54.5	$5,912.00	$0.00	0.00000	39.43
54.5 - 55.5	$6,131.00	$219.00	0.03572	39.43
55.5 - 56.5	$6,568.00	$0.00	0.00000	38.03
56.5 - 57.5	$6,130.00	$219.00	0.03573	38.03
57.5 - 58.5	$5,471.00	$0.00	0.00000	36.67
58.5 - 59.5	$4,595.00	$0.00	0.00000	36.67
59.5 - 60.5	$4,376.00	$0.00	0.00000	36.67
60.5 - 61.5	$5,031.00	$0.00	0.00000	36.67
61.5 - 62.5	$3,937.00	$0.00	0.00000	36.67
62.5 - 63.5	$4,593.00	$0.00	0.00000	36.67
63.5 - 64.5	$4,376.00	$0.00	0.00000	36.67
64.5 - 65.5	$4,594.00	$437.25	0.09518	36.67
65.5 - 66.5	$3,500.25	$219.00	0.06257	33.18
66.5 - 67.5	$2,188.00	$0.00	0.00000	31.10
67.5 - 68.5	$1,969.00	$0.00	0.00000	31.10
68.5 - 69.5	$1,312.00	$0.00	0.00000	31.10
69.5 - 70.5	$874.00	$0.00	0.00000	31.10
70.5 - 71.5	$874.00	$0.00	0.00000	31.10
71.5 - 72.5	$1,093.00	$0.00	0.00000	31.10
72.5 - 73.5	$1,530.00	$0.00	0.00000	31.10

Citizens Water
Water Division
334.40 Meters and Meter Installations
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1909 TO 2016

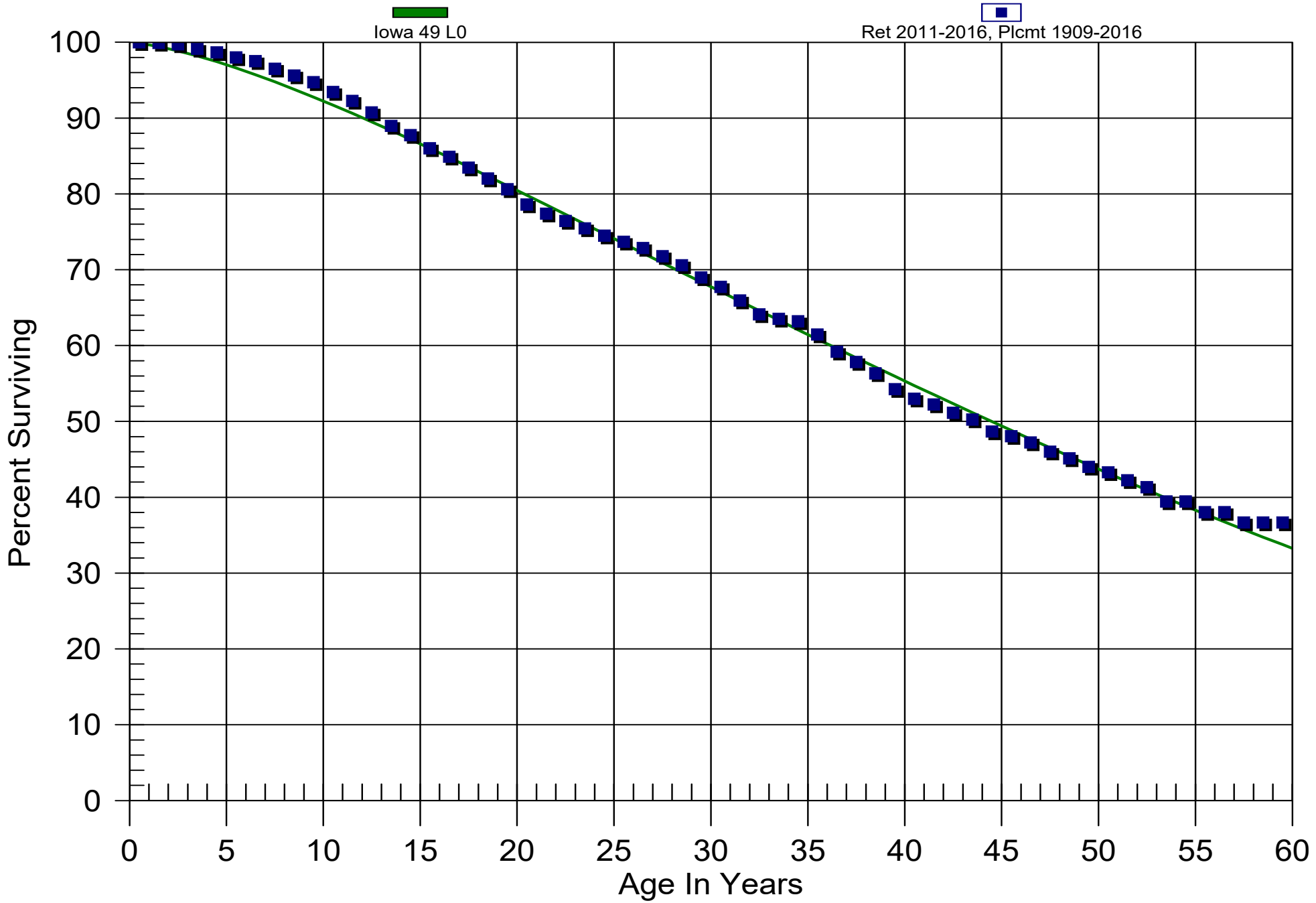
Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
73.5 - 74.5	$1,530.00	$0.00	0.00000	31.10
74.5 - 75.5	$2,187.00	$0.00	0.00000	31.10
75.5 - 76.5	$2,187.00	$0.00	0.00000	31.10
76.5 - 77.5	$1,968.00	$0.00	0.00000	31.10
77.5 - 78.5	$1,530.00	$0.00	0.00000	31.10
78.5 - 79.5	$1,093.00	$0.00	0.00000	31.10
79.5 - 80.5	$1,093.00	$0.00	0.00000	31.10
80.5 - 81.5	$436.00	$0.00	0.00000	31.10
81.5 - 82.5	$436.00	$0.00	0.00000	31.10
82.5 - 83.5	$218.00	$0.00	0.00000	31.10
83.5 - 84.5	$218.00	$0.00	0.00000	31.10
84.5 - 85.5	$218.00	$0.00	0.00000	31.10
85.5 - 86.5	$218.00	$0.00	0.00000	31.10
86.5 - 87.5	$0.00	$0.00	0.00000	31.10
87.5 - 88.5	$0.00	$0.00	0.00000	31.10
88.5 - 89.5	$0.00	$0.00	0.00000	31.10
89.5 - 90.5	$27,357.00	$0.00	0.00000	31.10
90.5 - 91.5	$27,576.00	$0.00	0.00000	31.10
91.5 - 92.5	$27,576.00	$0.00	0.00000	31.10
92.5 - 93.5	$27,576.00	$0.00	0.00000	31.10
93.5 - 94.5	$27,576.00	$0.00	0.00000	31.10
94.5 - 95.5	$27,576.00	$0.00	0.00000	31.10
95.5 - 96.5	$219.00	$0.00	0.00000	31.10
96.5 - 97.5	$0.00	$0.00	0.00000	31.10
97.5 - 98.5	$219.00	$0.00	0.00000	31.10
98.5 - 99.5	$219.00	$0.00	0.00000	31.10
99.5 - 100.5	$219.00	$0.00	0.00000	31.10
100.5 - 101.5	$438.00	$0.00	0.00000	31.10
101.5 - 102.5	$876.00	$0.00	0.00000	31.10
102.5 - 103.5	$876.00	$0.00	0.00000	31.10
103.5 - 104.5	$657.00	$0.00	0.00000	31.10
104.5 - 105.5	$657.00	$0.00	0.00000	31.10
105.5 - 106.5	$657.00	$0.00	0.00000	31.10
106.5 - 107.5	$438.00	$0.00	0.00000	31.10

Citizens Water

Water Division

334.40 Meters and Meter Installations

Original And Smooth Survivor Curves



Citizens Water
Water Division
335.40 Hydrants
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1902 TO 2016

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
0.0 - 0.5	$18,244,637.34	$0.00	0.00000	100.00
0.5 - 1.5	$18,262,111.88	$26,273.65	0.00144	100.00
1.5 - 2.5	$16,569,024.56	$33,270.53	0.00201	99.86
2.5 - 3.5	$12,407,298.55	$47,477.41	0.00383	99.66
3.5 - 4.5	$8,674,461.06	$90,418.27	0.01042	99.27
4.5 - 5.5	$4,333,279.78	$8,872.61	0.00205	98.24
5.5 - 6.5	$3,003,079.39	$1,778.85	0.00059	98.04
6.5 - 7.5	$2,803,122.45	$649.85	0.00023	97.98
7.5 - 8.5	$3,207,000.92	$5,198.79	0.00162	97.96
8.5 - 9.5	$3,688,538.44	$2,599.40	0.00070	97.80
9.5 - 10.5	$4,149,930.66	$2,599.40	0.00063	97.73
10.5 - 11.5	$4,165,527.02	$3,899.10	0.00094	97.67
11.5 - 12.5	$4,281,200.00	$1,949.55	0.00046	97.58
12.5 - 13.5	$4,524,243.22	$3,249.25	0.00072	97.53
13.5 - 14.5	$4,474,854.76	$5,198.79	0.00116	97.46
14.5 - 15.5	$4,160,978.08	$3,249.25	0.00078	97.35
15.5 - 16.5	$3,966,673.46	$2,599.40	0.00066	97.27
16.5 - 17.5	$4,094,693.56	$3,899.09	0.00095	97.21
17.5 - 18.5	$3,761,971.27	$3,249.24	0.00086	97.12
18.5 - 19.5	$3,272,635.59	$4,548.94	0.00139	97.03
19.5 - 20.5	$3,051,687.20	$6,498.50	0.00213	96.90
20.5 - 21.5	$3,173,208.80	$3,899.10	0.00123	96.69
21.5 - 22.5	$3,237,543.76	$12,347.13	0.00381	96.57
22.5 - 23.5	$2,977,604.48	$7,798.20	0.00262	96.20
23.5 - 24.5	$3,018,544.92	$11,047.44	0.00366	95.95
24.5 - 25.5	$2,958,758.87	$13,646.83	0.00461	95.60
25.5 - 26.5	$2,898,322.98	$12,996.98	0.00448	95.16
26.5 - 27.5	$2,666,977.02	$9,747.72	0.00365	94.73
27.5 - 28.5	$2,306,311.29	$4,548.95	0.00197	94.39
28.5 - 29.5	$2,001,532.48	$9,097.90	0.00455	94.20
29.5 - 30.5	$1,881,960.40	$12,347.14	0.00656	93.77
30.5 - 31.5	$1,712,999.85	$7,798.20	0.00455	93.16
31.5 - 32.5	$1,667,510.47	$16,246.21	0.00974	92.73
32.5 - 33.5	$1,644,765.80	$24,694.24	0.01501	91.83
33.5 - 34.5	$1,639,567.03	$8,448.04	0.00515	90.45
34.5 - 35.5	$1,802,029.08	$19,495.48	0.01082	89.99
35.5 - 36.5	$1,635,667.91	$7,148.34	0.00437	89.01

Citizens Water
Water Division
335.40 Hydrants
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1902 TO 2016

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
36.5 - 37.5	$1,697,403.50	$16,896.08	0.00995	88.62
37.5 - 38.5	$1,695,453.94	$17,545.92	0.01035	87.74
38.5 - 39.5	$1,764,337.85	$11,697.29	0.00663	86.83
39.5 - 40.5	$1,893,007.80	$12,997.00	0.00687	86.26
40.5 - 41.5	$1,727,296.50	$20,795.18	0.01204	85.67
41.5 - 42.5	$1,741,593.15	$16,896.08	0.00970	84.63
42.5 - 43.5	$1,779,284.34	$21,445.04	0.01205	83.81
43.5 - 44.5	$1,857,915.95	$18,195.79	0.00979	82.80
44.5 - 45.5	$1,679,857.55	$16,896.08	0.01006	81.99
45.5 - 46.5	$1,475,805.23	$16,896.08	0.01145	81.17
46.5 - 47.5	$1,457,609.49	$14,296.69	0.00981	80.24
47.5 - 48.5	$1,401,722.54	$11,047.44	0.00788	79.45
48.5 - 49.5	$1,403,672.10	$12,347.13	0.00880	78.82
49.5 - 50.5	$1,364,031.37	$14,946.53	0.01096	78.13
50.5 - 51.5	$1,349,084.86	$22,094.88	0.01638	77.28
51.5 - 52.5	$1,369,879.98	$22,094.88	0.01613	76.01
52.5 - 53.5	$1,342,586.34	$19,495.47	0.01452	74.78
53.5 - 54.5	$1,275,651.97	$24,694.27	0.01936	73.70
54.5 - 55.5	$1,139,833.72	$22,094.88	0.01938	72.27
55.5 - 56.5	$933,181.99	$19,495.48	0.02089	70.87
56.5 - 57.5	$859,099.29	$24,044.42	0.02799	69.39
57.5 - 58.5	$707,034.81	$20,795.18	0.02941	67.45
58.5 - 59.5	$609,557.57	$10,397.58	0.01706	65.46
59.5 - 60.5	$547,822.01	$12,996.98	0.02372	64.35
60.5 - 61.5	$485,436.59	$15,596.37	0.03213	62.82
61.5 - 62.5	$489,335.68	$22,094.85	0.04515	60.80
62.5 - 63.5	$510,780.68	$18,845.63	0.03690	58.06
63.5 - 64.5	$562,768.51	$23,394.56	0.04157	55.91
64.5 - 65.5	$569,266.98	$19,495.48	0.03425	53.59
65.5 - 66.5	$553,670.62	$22,744.71	0.04108	51.75
66.5 - 67.5	$454,243.86	$17,545.93	0.03863	49.63
67.5 - 68.5	$350,917.99	$13,646.83	0.03889	47.71
68.5 - 69.5	$241,093.65	$7,798.19	0.03235	45.86
69.5 - 70.5	$192,355.04	$2,599.40	0.01351	44.37
70.5 - 71.5	$196,903.99	$1,949.55	0.00990	43.77
71.5 - 72.5	$198,853.53	$3,249.25	0.01634	43.34
72.5 - 73.5	$235,894.88	$3,899.10	0.01653	42.63

Citizens Water
Water Division
335.40 Hydrants
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1902 TO 2016

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
73.5 - 74.5	$277,485.16	$1,949.55	0.00703	41.93
74.5 - 75.5	$289,182.43	$7,148.34	0.02472	41.63
75.5 - 76.5	$262,538.66	$5,198.79	0.01980	40.60
76.5 - 77.5	$226,147.18	$8,448.04	0.03736	39.80
77.5 - 78.5	$181,307.64	$3,249.25	0.01792	38.31
78.5 - 79.5	$152,714.31	$11,047.43	0.07234	37.63
79.5 - 80.5	$114,373.27	$3,899.10	0.03409	34.90
80.5 - 81.5	$160,512.49	$1,949.55	0.01215	33.71
81.5 - 82.5	$234,595.19	$3,249.25	0.01385	33.30
82.5 - 83.5	$260,589.11	$4,548.94	0.01746	32.84
83.5 - 84.5	$299,580.01	$11,047.44	0.03688	32.27
84.5 - 85.5	$307,378.17	$4,548.95	0.01480	31.08
85.5 - 86.5	$382,110.71	$9,747.75	0.02551	30.62
86.5 - 87.5	$369,113.74	$3,899.10	0.01056	29.84
87.5 - 88.5	$326,873.61	$3,249.25	0.00994	29.52
88.5 - 89.5	$348,968.46	$5,848.64	0.01676	29.23
89.5 - 90.5	$356,766.65	$4,548.95	0.01275	28.74
90.5 - 91.5	$353,517.41	$3,899.10	0.01103	28.37
91.5 - 92.5	$275,535.62	$9,097.89	0.03302	28.06
92.5 - 93.5	$217,049.28	$2,599.40	0.01198	27.13
93.5 - 94.5	$196,903.99	$4,548.95	0.02310	26.81
94.5 - 95.5	$153,364.16	$649.85	0.00424	26.19
95.5 - 96.5	$105,925.26	$3,249.25	0.03067	26.08
96.5 - 97.5	$71,483.30	$1,949.55	0.02727	25.28
97.5 - 98.5	$61,735.58	$649.85	0.01053	24.59
98.5 - 99.5	$58,486.34	$649.85	0.01111	24.33
99.5 - 100.5	$31,842.56	$2,599.39	0.08163	24.06
100.5 - 101.5	$12,347.12	$0.00	0.00000	22.10
101.5 - 102.5	$7,798.18	$1,299.70	0.16667	22.10
102.5 - 103.5	$9,097.87	$1,299.69	0.14286	18.41
103.5 - 104.5	$7,798.18	$0.00	0.00000	15.78
104.5 - 105.5	$9,097.88	$649.85	0.07143	15.78
105.5 - 106.5	$8,448.03	$1,299.70	0.15385	14.66
106.5 - 107.5	$5,198.78	$1,299.70	0.25000	12.40
107.5 - 108.5	$4,548.93	$0.00	0.00000	9.30
108.5 - 109.5	$634,251.86	$1,299.70	0.00205	9.30
109.5 - 110.5	$632,302.31	$0.00	0.00000	9.28

Citizens Water
Water Division
335.40 Hydrants
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1902 TO 2016

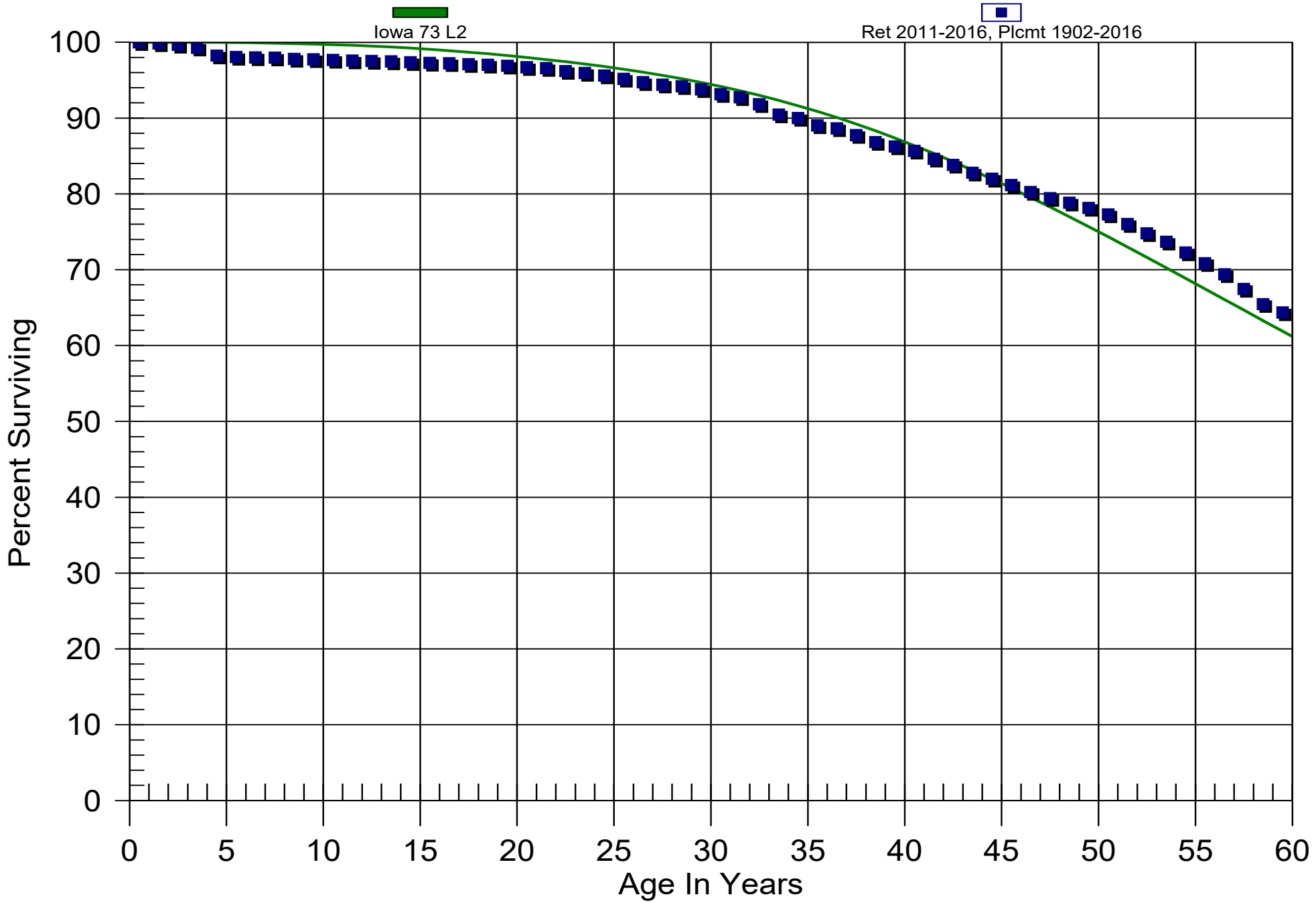
Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
110.5 - 111.5	$632,302.31	$18,195.75	0.02878	9.28
111.5 - 112.5	$614,106.56	$20,145.31	0.03280	9.01
112.5 - 113.5	$592,661.56	$3,899.10	0.00658	8.72
113.5 - 114.5	$588,112.61	$3,899.10	0.00663	8.66

Citizens Water

Water Division

335.40 Hydrants

Original And Smooth Survivor Curves



Citizens Wastewater
Wastewater Division
371.30 Pumping Equipment
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1977 TO 2015

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
0.0 - 0.5	$12,005,354.03	$0.00	0.00000	100.00
0.5 - 1.5	$12,127,770.73	$0.00	0.00000	100.00
1.5 - 2.5	$13,041,087.19	$0.00	0.00000	100.00
2.5 - 3.5	$24,437,773.58	$0.00	0.00000	100.00
3.5 - 4.5	$23,839,693.41	$0.00	0.00000	100.00
4.5 - 5.5	$6,293,121.09	$0.00	0.00000	100.00
5.5 - 6.5	$2,441,593.70	$75,000.00	0.03072	100.00
6.5 - 7.5	$2,244,177.00	$0.00	0.00000	96.93
7.5 - 8.5	$2,621,432.00	$55,875.00	0.02131	96.93
8.5 - 9.5	$5,984,330.00	$0.00	0.00000	94.86
9.5 - 10.5	$5,984,330.00	$0.00	0.00000	94.86
10.5 - 11.5	$5,649,206.00	$0.00	0.00000	94.86
11.5 - 12.5	$9,450,419.00	$0.00	0.00000	94.86
12.5 - 13.5	$10,788,884.00	$0.00	0.00000	94.86
13.5 - 14.5	$8,558,451.00	$0.00	0.00000	94.86
14.5 - 15.5	$7,774,325.00	$0.00	0.00000	94.86
15.5 - 16.5	$13,422,782.00	$15,000.00	0.00112	94.86
16.5 - 17.5	$13,407,782.00	$0.00	0.00000	94.76
17.5 - 18.5	$18,973,695.00	$0.00	0.00000	94.76
18.5 - 19.5	$23,822,747.00	$0.00	0.00000	94.76
19.5 - 20.5	$25,834,903.00	$65,000.00	0.00252	94.76
20.5 - 21.5	$26,060,362.00	$24,375.00	0.00094	94.52
21.5 - 22.5	$24,454,970.00	$0.00	0.00000	94.43
22.5 - 23.5	$26,127,568.00	$0.00	0.00000	94.43
23.5 - 24.5	$20,446,583.00	$0.00	0.00000	94.43
24.5 - 25.5	$14,259,066.00	$150,000.00	0.01052	94.43
25.5 - 26.5	$12,431,849.00	$0.00	0.00000	93.44
26.5 - 27.5	$9,506,743.00	$0.00	0.00000	93.44
27.5 - 28.5	$5,678,678.00	$0.00	0.00000	93.44
28.5 - 29.5	$4,006,080.00	$339,054.40	0.08463	93.44
29.5 - 30.5	$334,939.00	$0.00	0.00000	85.53
30.5 - 31.5	$334,939.00	$74,430.89	0.22222	85.53
31.5 - 32.5	$0.00	$0.00	0.00000	66.52
32.5 - 33.5	$0.00	$0.00	0.00000	66.52
33.5 - 34.5	$2,098,479.00	$0.00	0.00000	66.52
34.5 - 35.5	$2,098,479.00	$0.00	0.00000	66.52
35.5 - 36.5	$2,098,479.00	$0.00	0.00000	66.52

Citizens Wastewater
Wastewater Division
371.30 Pumping Equipment
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1977 TO 2015

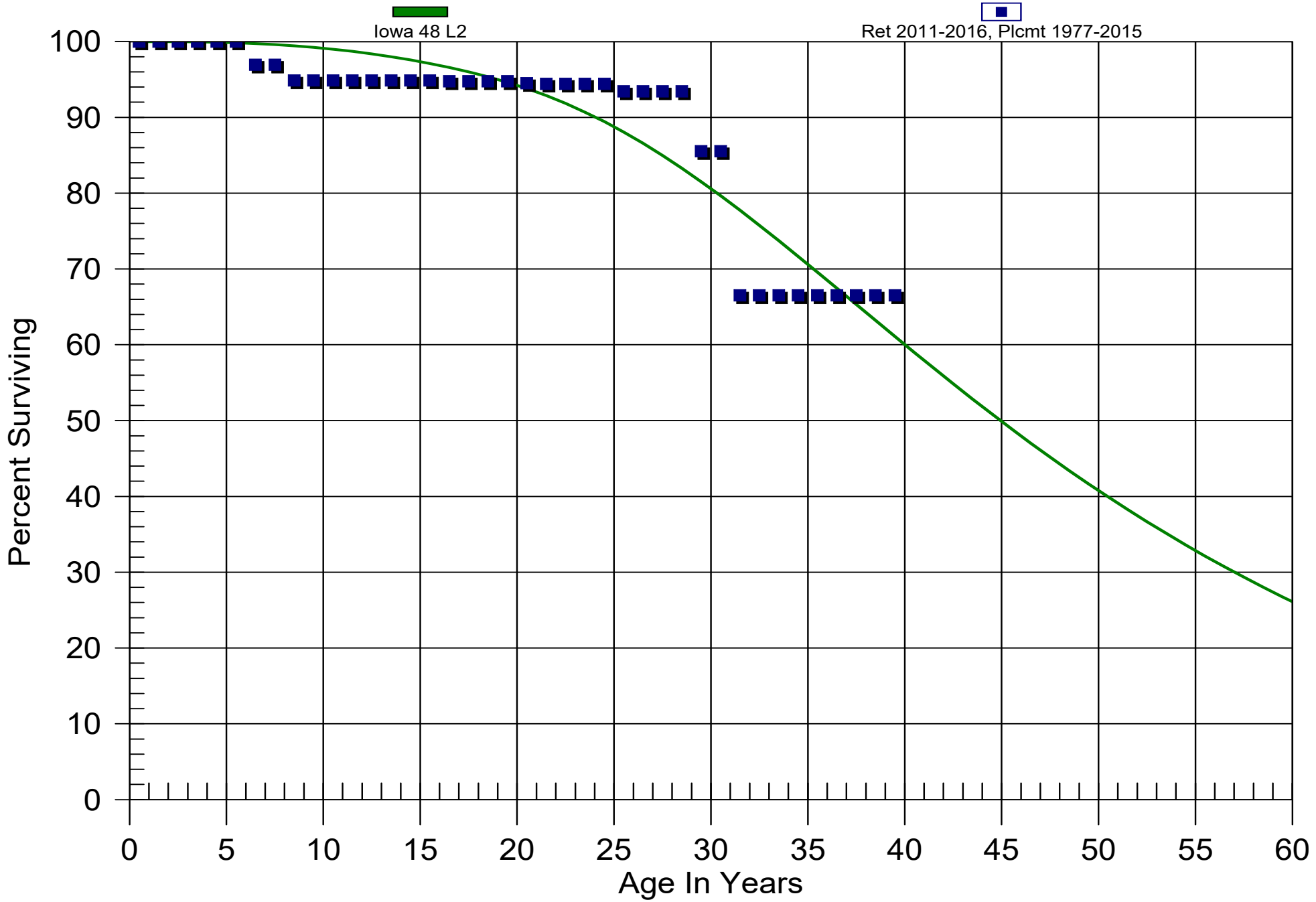
Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
36.5 - 37.5	$2,098,479.00	$0.00	0.00000	66.52
37.5 - 38.5	$2,098,479.00	$0.00	0.00000	66.52
38.5 - 39.5	$2,098,479.00	$0.00	0.00000	66.52

Citizens Wastewater

Wastewater Division

371.30 Pumping Equipment

Original And Smooth Survivor Curves



Citizens Wastewater
Wastewater Division
380.40 Treatment and Disposal Equipment
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1955 TO 2016

Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
0.0 - 0.5	$166,759,422.77	$0.00	0.00000	100.00
0.5 - 1.5	$110,589,896.77	$0.00	0.00000	100.00
1.5 - 2.5	$40,599,475.95	$0.00	0.00000	100.00
2.5 - 3.5	$44,250,476.87	$20,000.00	0.00045	100.00
3.5 - 4.5	$40,545,269.06	$0.00	0.00000	99.95
4.5 - 5.5	$61,844,242.76	$0.00	0.00000	99.95
5.5 - 6.5	$70,792,983.00	$504,000.00	0.00712	99.95
6.5 - 7.5	$73,812,483.00	$0.00	0.00000	99.24
7.5 - 8.5	$79,113,162.00	$0.00	0.00000	99.24
8.5 - 9.5	$65,613,162.00	$5,000.00	0.00008	99.24
9.5 - 10.5	$61,655,947.00	$3,327,586.00	0.05397	99.24
10.5 - 11.5	$51,257,259.00	$0.00	0.00000	93.88
11.5 - 12.5	$46,854,740.00	$0.00	0.00000	93.88
12.5 - 13.5	$43,331,240.00	$1,225,000.00	0.02827	93.88
13.5 - 14.5	$36,922,792.00	$0.00	0.00000	91.23
14.5 - 15.5	$32,422,792.00	$225,000.00	0.00694	91.23
15.5 - 16.5	$196,149,549.00	$0.00	0.00000	90.59
16.5 - 17.5	$179,585,899.00	$290,000.00	0.00161	90.59
17.5 - 18.5	$164,471,757.00	$0.00	0.00000	90.45
18.5 - 19.5	$164,471,757.00	$0.00	0.00000	90.45
19.5 - 20.5	$163,661,757.00	$0.00	0.00000	90.45
20.5 - 21.5	$163,661,757.00	$0.00	0.00000	90.45
21.5 - 22.5	$0.00	$0.00	0.00000	90.45
22.5 - 23.5	$0.00	$0.00	0.00000	90.45
23.5 - 24.5	$31,593,108.00	$0.00	0.00000	90.45
24.5 - 25.5	$31,593,108.00	$400,000.00	0.01266	90.45
25.5 - 26.5	$32,447,712.00	$3,514,340.00	0.10831	89.30
26.5 - 27.5	$28,933,372.00	$2,000,000.00	0.06912	79.63
27.5 - 28.5	$26,933,372.00	$30,960.00	0.00115	74.12
28.5 - 29.5	$173,199,017.00	$0.00	0.00000	74.04
29.5 - 30.5	$147,551,209.00	$0.00	0.00000	74.04
30.5 - 31.5	$156,575,470.00	$0.00	0.00000	74.04
31.5 - 32.5	$182,183,640.00	$35,000.00	0.00019	74.04
32.5 - 33.5	$182,148,640.00	$5,138,000.00	0.02821	74.03
33.5 - 34.5	$177,010,640.00	$1,600,806.00	0.00904	71.94
34.5 - 35.5	$29,226,229.00	$0.00	0.00000	71.29
35.5 - 36.5	$29,226,229.00	$2,000,000.00	0.06843	71.29

Citizens Wastewater
Wastewater Division
380.40 Treatment and Disposal Equipment
Observed Life Table
Retirement Expr. 2011 TO 2016
Placement Years 1955 TO 2016

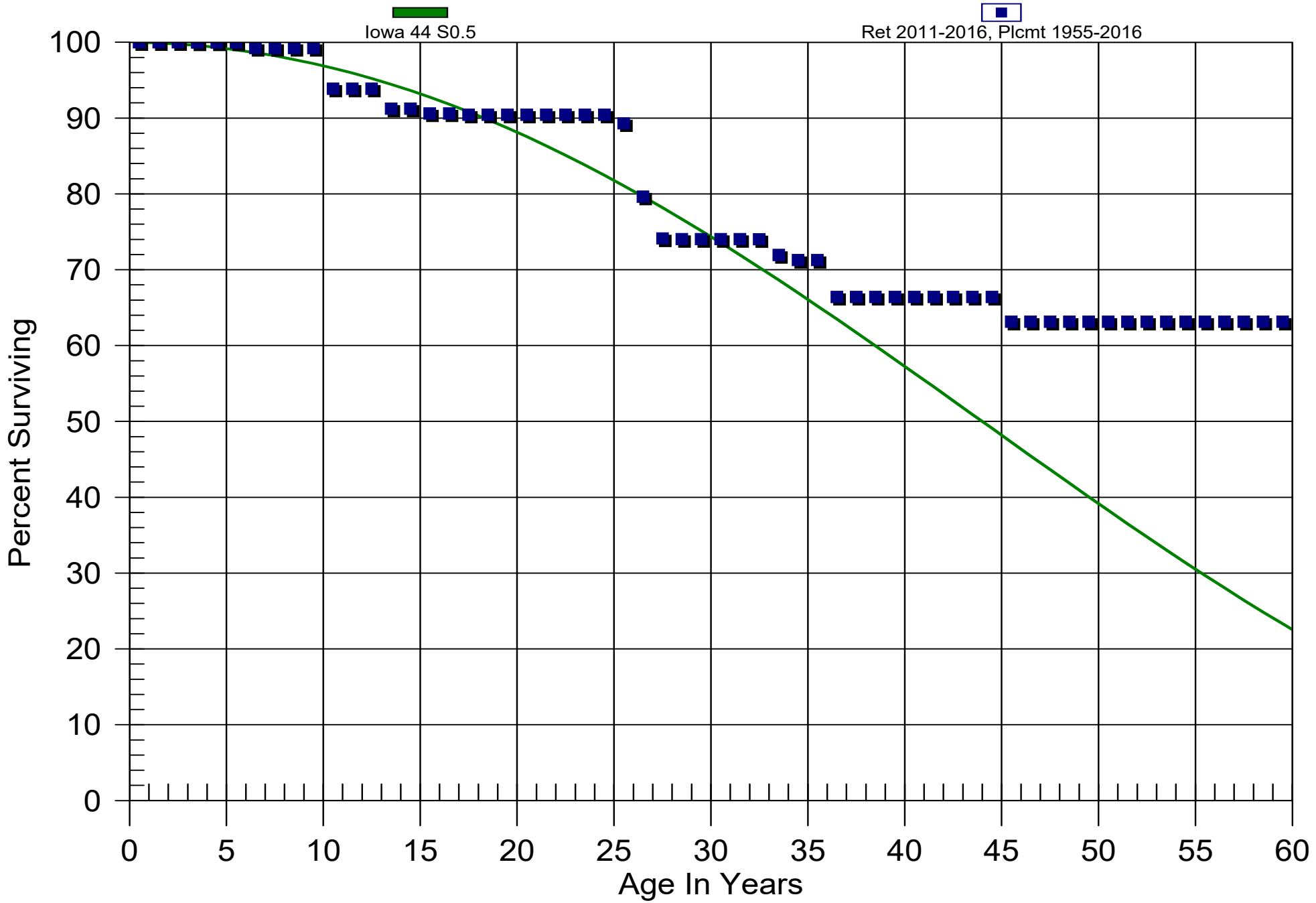
Age Interval	*$ Surviving At Beginning of Age Interval*	*$ Retired During The Age Interval*	*Retirement Ratio*	*% Surviving At Beginning of Age Interval*
36.5 - 37.5	$18,201,968.00	$0.00	0.00000	66.41
37.5 - 38.5	$0.00	$0.00	0.00000	66.41
38.5 - 39.5	$0.00	$0.00	0.00000	66.41
39.5 - 40.5	$0.00	$0.00	0.00000	66.41
40.5 - 41.5	$11,628,711.00	$0.00	0.00000	66.41
41.5 - 42.5	$11,628,711.00	$0.00	0.00000	66.41
42.5 - 43.5	$17,857,455.00	$0.00	0.00000	66.41
43.5 - 44.5	$17,857,455.00	$0.00	0.00000	66.41
44.5 - 45.5	$24,890,555.00	$1,225,000.00	0.04922	66.41
45.5 - 46.5	$23,665,555.00	$0.00	0.00000	63.14
46.5 - 47.5	$13,261,844.00	$0.00	0.00000	63.14
47.5 - 48.5	$13,261,844.00	$0.00	0.00000	63.14
48.5 - 49.5	$7,033,100.00	$0.00	0.00000	63.14
49.5 - 50.5	$7,033,100.00	$0.00	0.00000	63.14
50.5 - 51.5	$0.00	$0.00	0.00000	63.14
51.5 - 52.5	$0.00	$0.00	0.00000	63.14
52.5 - 53.5	$0.00	$0.00	0.00000	63.14
53.5 - 54.5	$0.00	$0.00	0.00000	63.14
54.5 - 55.5	$0.00	$0.00	0.00000	63.14
55.5 - 56.5	$2,191,353.00	$0.00	0.00000	63.14
56.5 - 57.5	$2,191,353.00	$0.00	0.00000	63.14
57.5 - 58.5	$2,191,353.00	$0.00	0.00000	63.14
58.5 - 59.5	$2,191,353.00	$0.00	0.00000	63.14
59.5 - 60.5	$2,191,353.00	$0.00	0.00000	63.14
60.5 - 61.5	$2,191,353.00	$0.00	0.00000	63.14

Citizens Wastewater

Wastewater Division

380.40 Treatment and Disposal Equipment

Original And Smooth Survivor Curves



Gas Operations
Gas Division
352.00 Wells

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***62*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1962	1,743,058.51	71.61	24,342.37	17.11	416,399.11
1963	575,131.27	71.09	8,090.51	17.59	142,288.77
1964	1,319,385.01	70.58	18,693.84	18.08	337,958.40
1965	1,253,878.77	70.08	17,892.29	18.58	332,425.75
1966	744,656.08	69.59	10,700.67	19.09	204,272.10
1968	390.00	68.64	5.68	20.14	114.42
1969	422,277.92	68.17	6,194.19	20.67	128,054.10
1970	2,210.37	67.72	32.64	21.22	692.55
1971	105,759.90	67.27	1,572.20	21.77	34,224.94
1972	913,574.35	66.83	13,670.50	22.33	305,237.28
1973	950,113.26	66.39	14,310.24	22.89	327,617.74
1974	231,529.46	65.97	3,509.80	23.47	82,363.14
1975	296,372.93	65.55	4,521.64	24.05	108,724.76
1976	45,010.19	65.13	691.08	24.63	17,021.51
1977	321,670.28	64.72	4,970.08	25.22	125,352.22
1978	9,673.70	64.32	150.41	25.82	3,883.09
1979	365,561.70	63.92	5,719.12	26.42	151,094.59
1980	274,896.92	63.53	4,327.32	27.03	116,949.84
1982	182,178.30	62.75	2,903.06	28.25	82,022.75
1983	262,376.50	62.37	4,206.48	28.87	121,459.34
1984	20,221.81	62.00	326.16	29.50	9,621.56
1985	43,338.97	61.63	703.23	30.13	21,187.28
1986	70,795.29	61.26	1,155.63	30.76	35,548.65

Gas Operations
Gas Division
352.00 Wells

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***62*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1987	280,431.60	60.90	4,604.93	31.40	144,586.02
1988	17,411.05	60.54	287.61	32.04	9,214.27
1991	403,420.24	59.48	6,782.89	33.98	230,456.55
1992	19,854.51	59.13	335.79	34.63	11,627.63
1993	419,450.99	58.78	7,135.83	35.28	251,758.97
1994	194,975.85	58.44	3,336.57	35.94	119,903.12
1998	535.47	57.07	9.38	38.57	361.88
2000	15,190.58	56.38	269.44	39.88	10,744.86
2004	29,880.15	54.97	543.61	42.47	23,085.03
2005	6,597.19	54.60	120.83	43.10	5,207.61
2010	16,427.48	52.53	312.73	46.03	14,394.74
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	11,558,236.60	67.03	172,428.75	22.77	3,925,854.55
Total ALL	11,558,236.60	67.03	172,428.75	22.77	3,925,854.55
Less F.Y.	0.00				
12/31/2016	11,558,236.60				

Gas Operations
Gas Division
356.00 Purification Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***60*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1951	17,816.44	76.94	231.57	11.44	2,648.57
1962	141,006.77	70.24	2,007.42	15.74	31,602.31
1963	95,760.65	69.70	1,373.80	16.20	22,262.18
1964	163,452.38	69.18	2,362.78	16.68	39,406.68
1965	183,969.14	68.66	2,679.35	17.16	45,982.67
1966	287,302.18	68.16	4,215.38	17.66	74,425.61
1967	170,628.16	67.66	2,521.85	18.16	45,796.55
1968	8,092.87	67.17	120.48	18.67	2,249.72
1971	10,811.75	65.77	164.39	20.27	3,331.82
1972	86,283.25	65.31	1,321.03	20.81	27,497.24
1973	51,772.89	64.87	798.09	21.37	17,055.81
1974	4,979.13	64.43	77.28	21.93	1,694.92
1976	15,802.47	63.58	248.55	23.08	5,736.39
1977	7,872.45	63.16	124.64	23.66	2,949.27
1978	1,025.92	62.75	16.35	24.25	396.49
1979	143,030.38	62.35	2,294.12	24.85	57,000.88
1980	43,351.72	61.95	699.82	25.45	17,808.24
1981	5,603.06	61.55	91.03	26.05	2,371.52
1982	20,541.21	61.16	335.84	26.66	8,954.64
1983	510.40	60.78	8.40	27.28	229.08
1985	68,026.90	60.02	1,133.34	28.52	32,326.81
1986	219,372.64	59.65	3,677.52	29.15	107,208.42
1987	300,509.07	59.29	5,068.88	29.79	150,976.99

Gas Operations
Gas Division
356.00 Purification Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***60*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1988	117,091.92	58.92	1,987.24	30.42	60,455.57
1989	174,083.63	58.56	2,972.64	31.06	92,336.10
1990	97,619.13	58.21	1,677.15	31.71	53,174.59
1991	65,803.95	57.85	1,137.45	32.35	36,798.89
1992	154,724.17	57.50	2,690.80	33.00	88,799.65
1993	43,094.33	57.15	754.02	33.65	25,374.86
1994	46,856.53	56.81	824.84	34.31	28,297.63
1995	65,052.15	56.46	1,152.13	34.96	40,281.30
1999	101,865.26	55.09	1,848.99	37.59	69,507.93
2000	19,632.83	54.75	358.60	38.25	13,715.99
2001	6,766.46	54.40	124.37	38.90	4,838.65
2003	15,943.37	53.70	296.88	40.20	11,935.49
2004	26,952.46	53.35	505.25	40.85	20,636.88
2005	27,410.40	52.98	517.38	41.48	21,460.59
2006	66,592.60	52.61	1,265.89	42.11	53,300.74
2007	118,883.19	52.22	2,276.65	42.72	97,254.97
2008	147,380.11	51.82	2,844.34	43.32	123,203.26
2010	140,617.18	50.94	2,760.39	44.44	122,674.67
2011	57,871.05	50.45	1,147.04	44.95	51,562.36
2012	65,947.73	49.91	1,321.26	45.41	60,002.07
2013	521,668.82	49.30	10,582.54	45.80	484,629.94
2014	313,061.04	48.55	6,447.81	46.05	296,941.52
2015	61,983.69	47.58	1,302.71	46.08	60,029.63

Gas Operations
Gas Division
356.00 Purification Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***60*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	4,504,423.83	57.48	78,368.25	33.40	2,617,126.07
Total ALL	4,504,423.83	57.48	78,368.25	33.40	2,617,126.07
Less F.Y.	0.00				
12/31/2016	4,504,423.83				

Gas Operations
Gas Division
367.00 Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***60*** ***Survivor Curve:*** ***S0.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1951	921,752.53	83.22	11,076.41	17.72	196,247.84
1952	38,981.57	82.54	472.29	18.04	8,518.77
1955	115.64	80.50	1.44	19.00	27.30
1956	60,416.13	79.82	756.86	19.32	14,626.06
1957	2,856.04	79.15	36.08	19.65	709.02
1958	421.70	78.47	5.37	19.97	107.34
1960	1,555,753.85	77.13	20,170.78	20.63	416,104.58
1961	33,237.58	76.46	434.72	20.96	9,110.83
1962	11,205.09	75.79	147.85	21.29	3,147.42
1963	313,928.68	75.12	4,179.04	21.62	90,350.04
1964	36,652.45	74.45	492.29	21.95	10,807.12
1965	370,120.85	73.79	5,016.09	22.29	111,792.42
1966	232,514.65	73.12	3,179.81	22.62	71,934.41
1967	1,367,916.49	72.46	18,878.43	22.96	433,434.31
1968	402,679.12	71.80	5,608.53	23.30	130,665.35
1969	186,523.05	71.14	2,622.01	23.64	61,977.54
1970	51,316.17	70.48	728.11	23.98	17,459.18
1971	69,229.52	69.82	991.52	24.32	24,115.48
1972	36,404.90	69.17	526.34	24.67	12,982.82
1973	188.46	68.51	2.75	25.01	68.80
1974	12,242.80	67.86	180.41	25.36	4,575.31
1975	4,478.01	67.21	66.63	25.71	1,712.98
1977	17,482.92	65.91	265.24	26.41	7,006.08

Gas Operations
Gas Division
367.00 Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***60*** ***Survivor Curve:*** ***S0.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1978	42,380.99	65.27	649.32	26.77	17,381.98
1980	20,918.83	63.99	326.93	27.49	8,985.77
1981	382,682.53	63.35	6,041.18	27.85	168,220.49
1982	380,994.85	62.71	6,075.65	28.21	171,384.87
1983	25,167.17	62.07	405.44	28.57	11,584.82
1984	62,352.18	61.44	1,014.85	28.94	29,369.60
1985	71,523.71	60.81	1,176.20	29.31	34,473.32
1986	285,523.01	60.18	4,744.48	29.68	140,816.41
1987	116,890.07	59.55	1,962.79	30.05	58,987.90
1988	955,408.78	58.93	16,212.93	30.43	493,340.36
1989	4,395,059.17	58.31	75,378.50	30.81	2,322,150.32
1990	709,148.99	57.69	12,293.19	31.19	383,379.51
1991	505,271.34	57.07	8,853.72	31.57	279,501.59
1992	358,655.59	56.45	6,353.12	31.95	203,004.09
1993	1,818,826.38	55.84	32,572.01	32.34	1,053,384.08
1994	84,693.69	55.23	1,533.48	32.73	50,190.36
1995	1,907,000.19	54.62	34,913.14	33.12	1,156,367.64
1996	519,301.04	54.01	9,614.02	33.51	322,213.57
1998	437,392.13	52.81	8,282.38	34.31	284,168.04
1999	271,099.46	52.21	5,192.45	34.71	180,231.62
2000	1,397,691.52	51.61	27,079.96	35.11	950,872.12
2001	103,710.57	51.02	2,032.81	35.52	72,201.98
2006	211,807.99	48.07	4,406.66	37.57	165,538.09

Gas Operations
Gas Division
367.00 Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***60*** ***Survivor Curve:*** ***S0.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2007	3,524.55	47.48	74.24	37.98	2,819.30
2009	3,141,380.15	46.30	67,852.63	38.80	2,632,485.44
2010	286,667.57	45.70	6,272.39	39.20	245,897.01
2011	4,348,291.04	45.10	96,407.39	39.60	3,818,050.40
2012	7,741,365.42	44.50	173,973.30	40.00	6,958,485.55
2013	886,277.56	43.88	20,198.78	40.38	815,581.85
2014	1,224,556.07	43.24	28,321.80	40.74	1,153,751.56
2015	4,854,059.96	42.57	114,034.09	41.07	4,683,008.82
2016	892,397.30	41.82	21,337.55	41.32	881,728.52
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	44,168,438.00	50.69	871,426.39	36.01	31,377,038.01
Total ALL	44,168,438.00	50.69	871,426.39	36.01	31,377,038.01
Less F.Y.	0.00				
12/31/2016	44,168,438.00				

Gas Operations
Gas Division
367.10 Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***60*** ***Survivor Curve:*** ***S0.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1961	24,956.62	76.46	326.41	20.96	6,840.91
1962	3,859,788.57	75.79	50,928.53	21.29	1,084,183.50
1964	342,128.74	74.45	4,595.25	21.95	100,877.97
1965	19,341.54	73.79	262.13	22.29	5,841.98
1966	250,142.42	73.12	3,420.88	22.62	77,388.01
1969	744.31	71.14	10.46	23.64	247.32
1972	762,489.83	69.17	11,024.01	24.67	271,921.29
1975	4,620.69	67.21	68.75	25.71	1,767.56
1986	9,020.98	60.18	149.90	29.68	4,449.04
1987	290,248.40	59.55	4,873.77	30.05	146,472.19
1989	28,950.93	58.31	496.53	30.81	15,296.36
1991	8,932.12	57.07	156.51	31.57	4,940.99
1993	30,067.96	55.84	538.46	32.34	17,414.04
2000	13,997.82	51.61	271.20	35.11	9,522.94
2008	230,643.91	46.89	4,919.12	38.39	188,831.41
2011	2,962,672.56	45.10	65,686.39	39.60	2,601,397.43
2012	98,837.58	44.50	2,221.20	40.00	88,842.19
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	8,937,584.98	59.60	149,949.51	30.85	4,626,235.13
Total ALL	8,937,584.98	59.60	149,949.51	30.85	4,626,235.13
Less F.Y.	0.00				
12/31/2016	8,937,584.98				

Gas Operations
Gas Division
391.70 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***10*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2011	112,792.29	10.00	11,279.23	4.50	50,756.53
2012	1,702,453.71	10.00	170,245.37	5.50	936,349.54
2014	10,397.67	10.00	1,039.77	7.50	7,798.25
2015	1,680,229.97	10.00	168,023.00	8.50	1,428,195.47
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	3,505,873.64	10.00	350,587.36	6.91	2,423,099.80
Total ALL	3,505,873.64	10.00	350,587.36	6.91	2,423,099.80
Less F.Y.	0.00				
12/31/2016	3,505,873.64				

CEG Steam
Steam Division
366.00 Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** *And Subsequent*

Average Service Life: ***69*** *Survivor Curve:* ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1935	12,443.77	94.68	131.43	13.18	1,732.00
1937	2,134.80	93.33	22.87	13.83	316.43
1945	67.56	88.20	0.77	16.70	12.79
1946	1,379.40	87.59	15.75	17.09	269.10
1947	5,899.58	86.98	67.83	17.48	1,185.58
1948	456.16	86.38	5.28	17.88	94.42
1949	107.77	85.78	1.26	18.28	22.97
1950	1,751.88	85.20	20.56	18.70	384.45
1951	7,352.10	84.61	86.89	19.11	1,660.84
1952	578.80	84.04	6.89	19.54	134.57
1953	8,079.77	83.47	96.80	19.97	1,933.03
1954	20,475.40	82.91	246.97	20.41	5,039.76
1955	2,990.61	82.35	36.32	20.85	757.17
1956	1,851.29	81.80	22.63	21.30	482.03
1957	999.66	81.25	12.30	21.75	267.63
1958	3,734.12	80.71	46.26	22.21	1,027.67
1959	2,652.84	80.18	33.09	22.68	750.38
1960	682.11	79.65	8.56	23.15	198.26
1961	12,600.77	79.13	159.25	23.63	3,762.65
1962	14,345.62	78.61	182.49	24.11	4,399.89
1963	114,123.76	78.10	1,461.29	24.60	35,944.66
1964	1,967.11	77.59	25.35	25.09	636.11
1965	4,328.58	77.09	56.15	25.59	1,436.80

CEG Steam
Steam Division
366.00 Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** *And Subsequent*

Average Service Life: ***69*** *Survivor Curve:* ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1966	914.92	76.59	11.95	26.09	311.67
1967	6,599.01	76.10	86.72	26.60	2,306.46
1968	4,872.00	75.61	64.44	27.11	1,746.80
1969	1,056.00	75.12	14.06	27.62	388.31
1970	25,667.60	74.64	343.87	28.14	9,677.80
1971	93,744.33	74.17	1,263.95	28.67	36,234.54
1972	135,372.99	73.70	1,836.93	29.20	53,629.64
1973	25,749.21	73.23	351.64	29.73	10,452.95
1974	86,992.28	72.76	1,195.59	30.26	36,179.81
1975	80,260.80	72.30	1,110.12	30.80	34,190.81
1976	53,628.26	71.84	746.49	31.34	23,395.26
1977	63,615.95	71.38	891.18	31.88	28,414.48
1978	56,915.21	70.93	802.40	32.43	26,022.62
1979	170,501.87	70.48	2,419.15	32.98	79,783.66
1980	119,695.03	70.03	1,709.16	33.53	57,310.52
1981	135,345.55	69.58	1,945.04	34.08	66,296.52
1982	172,608.36	69.14	2,496.50	34.64	86,478.99
1983	194,895.47	68.70	2,837.03	35.20	99,854.99
1984	149,097.69	68.26	2,184.41	35.76	78,104.52
1985	153,928.24	67.81	2,269.83	36.31	82,428.60
1986	188,275.55	67.38	2,794.43	36.88	103,045.34
1987	236,468.18	66.94	3,532.76	37.44	132,251.84
1988	223,783.44	66.50	3,365.32	38.00	127,871.76

CEG Steam
Steam Division
366.00 Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** *And Subsequent*

Average Service Life: ***69*** *Survivor Curve:* ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1989	249,000.25	66.06	3,769.44	38.56	145,340.52
1990	346,194.77	65.62	5,275.92	39.12	206,382.83
1991	277,395.66	65.18	4,256.03	39.68	168,866.80
1992	1,688,699.76	64.74	26,086.32	40.24	1,049,584.88
1993	466,185.55	64.29	7,251.15	40.79	295,783.46
1994	319,035.65	63.85	4,997.03	41.35	206,602.38
1995	215,979.83	63.40	3,406.84	41.90	142,732.80
1996	251,382.58	62.94	3,993.81	42.44	169,509.51
1997	193,287.17	62.49	3,093.29	42.99	132,968.05
1998	134,752.06	62.02	2,172.60	43.52	94,558.96
1999	28,224.64	61.55	458.53	44.05	20,200.39
2000	125,933.75	61.08	2,061.83	44.58	91,913.52
2001	55,853.46	60.59	921.77	45.09	41,566.06
2002	224,009.96	60.10	3,727.37	45.60	169,963.09
2003	181,480.95	59.59	3,045.42	46.09	140,367.83
2004	239,670.06	59.07	4,057.38	46.57	188,952.75
2005	1,270,043.96	58.53	21,698.59	47.03	1,020,510.21
2006	487,811.36	57.97	8,414.64	47.47	399,457.66
2007	1,875,824.05	57.39	32,687.35	47.89	1,565,294.26
2008	557,194.69	56.77	9,814.73	48.27	473,769.45
2009	784,971.13	56.12	13,988.26	48.62	680,059.22
2010	721,330.20	55.41	13,017.47	48.91	636,716.62
2011	1,782,973.61	54.64	32,629.76	49.14	1,603,509.96

CEG Steam
Steam Division
366.00 Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***69*** ***Survivor Curve:*** ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2012	1,433,278.92	53.78	26,648.75	49.28	1,313,359.52
2013	1,351,877.25	52.80	25,605.57	49.30	1,262,257.76
2014	1,176,854.39	51.60	22,805.05	49.10	1,119,841.76
2015	723,193.44	50.04	14,451.78	48.54	701,515.77
2016	2,584,170.13	47.53	54,365.83	47.03	2,556,987.22
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	22,347,600.63	57.05	391,722.48	45.54	17,837,400.27
Total ALL	22,347,600.63	57.05	391,722.48	45.54	17,837,400.27
Less F.Y.	0.00				
12/31/2016	22,347,600.63				

CEG Steam
Steam Division
369.00 Services
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***53*** ***Survivor Curve:*** ***R1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1959	664.37	71.46	9.30	13.96	129.78
1960	102.52	70.81	1.45	14.31	20.72
1961	65.87	70.18	0.94	14.68	13.78
1962	227.99	69.54	3.28	15.04	49.32
1963	588.86	68.92	8.54	15.42	131.75
1964	156.46	68.30	2.29	15.80	36.20
1965	1,443.11	67.69	21.32	16.19	345.20
1966	247.72	67.09	3.69	16.59	61.25
1967	1,465.58	66.49	22.04	16.99	374.52
1968	1,475.22	65.90	22.39	17.40	389.53
1969	614.41	65.32	9.41	17.82	167.60
1970	1,052.84	64.74	16.26	18.24	296.62
1971	17,171.54	64.17	267.61	18.67	4,995.44
1972	1,840.28	63.60	28.93	19.10	552.68
1973	366.33	63.04	5.81	19.54	113.55
1974	3,602.86	62.49	57.66	19.99	1,152.37
1975	1,026.69	61.94	16.58	20.44	338.77
1976	2,169.32	61.39	35.34	20.89	738.23
1977	5,731.48	60.85	94.19	21.35	2,011.09
1978	3,472.46	60.32	57.57	21.82	1,255.99
1979	2,969.98	59.78	49.68	22.28	1,107.06
1980	3,381.77	59.26	57.07	22.76	1,298.73
1981	7,754.40	58.73	132.03	23.23	3,067.38

CEG Steam
Steam Division
369.00 Services
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***53*** ***Survivor Curve:*** ***R1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1982	32,630.02	58.21	560.54	23.71	13,291.30
1983	15,565.82	57.69	269.80	24.19	6,527.40
1984	18,290.23	57.18	319.89	24.68	7,893.91
1985	12,669.16	56.66	223.59	25.16	5,626.14
1986	18,931.72	56.15	337.16	25.65	8,648.25
1987	22,101.19	55.64	397.23	26.14	10,382.86
1988	15,414.91	55.13	279.63	26.63	7,445.50
1989	21,773.37	54.61	398.67	27.11	10,809.84
1990	27,329.95	54.10	505.16	27.60	13,943.26
1991	26,827.30	53.59	500.62	28.09	14,061.41
1992	15,727.55	53.07	296.34	28.57	8,467.11
1993	1,296.71	52.55	24.67	29.05	716.86
1994	36,390.28	52.03	699.41	29.53	20,653.61
1995	22,752.92	51.50	441.78	30.00	13,254.59
1996	10,805.27	50.97	212.00	30.47	6,459.34
1997	14,930.30	50.43	296.07	30.93	9,156.97
1998	23,933.85	49.88	479.83	31.38	15,057.00
1999	24,507.43	49.32	496.89	31.82	15,811.84
2000	107,617.02	48.75	2,207.43	32.25	71,194.41
2002	212,509.82	47.57	4,467.08	33.07	147,737.16
2003	68,351.49	46.96	1,455.61	33.46	48,700.81
2004	251,850.17	46.32	5,436.93	33.82	183,888.51
2006	239,196.44	44.98	5,318.25	34.48	183,354.87

CEG Steam
Steam Division
369.00 Services
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***53*** ***Survivor Curve:*** ***R1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2007	548,743.10	44.26	12,399.02	34.76	430,952.41
2008	253,263.81	43.50	5,822.46	35.00	203,772.90
2009	31,863.89	42.69	746.40	35.19	26,265.89
2012	372,068.41	39.82	9,343.92	35.32	330,020.78
2013	188,738.46	38.61	4,887.83	35.11	171,631.04
2015	1,144,142.35	35.32	32,392.40	33.82	1,095,553.74
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	3,837,815.00	41.65	92,139.99	33.64	3,099,927.24
Total ALL	3,837,815.00	41.65	92,139.99	33.64	3,099,927.24
Less F.Y.	0.00				
12/31/2016	3,837,815.00				

Citizens Water
Water Division
334.40 Meters and Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***49*** ***Survivor Curve:*** ***L0***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1909	438.00	121.47	3.61	13.97	50.38
1910	219.00	120.62	1.82	14.12	25.63
1913	219.00	118.07	1.85	14.57	27.02
1920	219.00	112.13	1.95	15.63	30.52
1921	27,357.00	111.28	245.84	15.78	3,879.45
1930	218.00	103.69	2.10	17.19	36.13
1934	218.00	100.32	2.17	17.82	38.73
1936	875.00	98.64	8.87	18.14	160.95
1938	437.00	96.97	4.51	18.47	83.23
1939	438.00	96.13	4.56	18.63	84.88
1940	437.00	95.29	4.59	18.79	86.18
1942	218.00	93.62	2.33	19.12	44.52
1945	219.00	91.11	2.40	19.61	47.13
1946	437.00	90.27	4.84	19.77	95.72
1947	438.00	89.44	4.90	19.94	97.64
1948	875.00	88.60	9.88	20.10	198.52
1949	219.00	87.77	2.50	20.27	50.57
1950	1,093.25	86.93	12.58	20.43	256.95
1951	875.50	86.10	10.17	20.60	209.44
1952	219.00	85.26	2.57	20.76	53.33
1953	655.00	84.43	7.76	20.93	162.36
1954	219.00	83.59	2.62	21.09	55.26
1955	1,313.00	82.76	15.87	21.26	337.27

Citizens Water
Water Division
334.40 Meters and Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***49*** ***Survivor Curve:*** ***L0***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1956	876.00	81.92	10.69	21.42	229.08
1957	1,313.00	81.09	16.19	21.59	349.56
1958	1,095.00	80.25	13.64	21.75	296.81
1959	1,095.00	79.42	13.79	21.92	302.20
1960	657.00	78.58	8.36	22.08	184.62
1961	657.00	77.75	8.45	22.25	188.00
1962	657.00	76.91	8.54	22.41	191.44
1963	54,714.54	76.07	719.22	22.57	16,236.03
1964	18,165.01	75.24	241.44	22.74	5,489.62
1965	43,115.15	74.40	579.51	22.90	13,270.60
1966	24,511.01	73.56	333.20	23.06	7,684.23
1967	3,940.24	72.72	54.18	23.22	1,258.25
1968	9,191.87	71.88	127.87	23.38	2,990.05
1969	15,100.16	71.04	212.55	23.54	5,003.97
1970	8,098.10	70.20	115.36	23.70	2,734.03
1971	17,728.00	69.36	255.60	23.86	6,098.14
1972	36,987.02	68.51	539.85	24.01	12,963.88
1973	41,364.29	67.67	611.28	24.17	14,773.78
1974	46,398.09	66.82	694.35	24.32	16,888.05
1975	51,214.95	65.97	776.29	24.47	18,998.72
1976	35,236.29	65.12	541.07	24.62	13,322.99
1977	181,433.37	64.27	2,822.93	24.77	69,927.83
1978	777,819.71	63.42	12,265.11	24.92	305,612.85

Citizens Water
Water Division
334.40 Meters and Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***49*** ***Survivor Curve:*** ***L0***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1979	448,220.94	62.56	7,164.57	25.06	179,549.71
1980	1,527,187.26	61.70	24,751.08	25.20	623,772.82
1981	1,645,151.90	60.84	27,040.55	25.34	685,212.27
1982	477,766.92	59.98	7,966.03	25.48	202,938.90
1983	476,233.88	59.11	8,057.06	25.61	206,322.52
1984	352,142.34	58.24	6,046.78	25.74	155,621.90
1985	473,607.23	57.36	8,256.59	25.86	213,524.70
1986	728,576.75	56.48	12,899.32	25.98	335,147.43
1987	991,643.62	55.60	17,835.99	26.10	465,481.99
1988	1,642,963.74	54.71	30,030.91	26.21	787,082.92
1989	1,497,642.34	53.81	27,829.51	26.31	732,330.90
1990	1,250,771.10	52.91	23,637.43	26.41	624,379.12
1991	1,327,808.55	52.01	25,530.68	26.51	676,776.26
1992	713,038.38	51.09	13,955.19	26.59	371,136.12
1993	665,982.68	50.17	13,273.55	26.67	354,054.22
1994	510,594.80	49.24	10,368.58	26.74	277,301.76
1995	795,983.03	48.31	16,477.56	26.81	441,715.48
1996	853,981.01	47.36	18,031.06	26.86	484,344.25
1997	1,594,595.55	46.41	34,360.37	26.91	924,568.42
1998	2,048,286.43	45.45	45,070.97	26.95	1,214,473.51
1999	2,822,823.34	44.47	63,470.34	26.97	1,712,092.44
2000	2,517,080.40	43.49	57,871.83	26.99	1,562,195.17
2001	1,576,867.68	42.50	37,100.03	27.00	1,001,817.23

Citizens Water
Water Division
334.40 Meters and Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***49*** ***Survivor Curve:*** ***L0***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2002	3,116,968.54	41.50	75,105.90	27.00	2,027,933.03
2003	1,418,197.29	40.49	35,029.00	26.99	945,305.77
2004	3,125,504.23	39.46	79,211.31	26.96	2,135,362.91
2005	4,642,405.97	38.41	120,853.79	26.91	3,252,587.37
2006	5,238,812.85	37.35	140,259.51	26.85	3,766,088.01
2007	3,806,588.95	36.27	104,959.58	26.77	2,809,472.90
2008	2,356,220.72	35.16	67,016.86	26.66	1,786,577.42
2009	4,603,450.85	34.02	135,315.08	26.52	3,588,587.75
2010	628,413.62	32.85	19,132.50	26.35	504,052.35
2011	2,100,589.06	31.62	66,422.54	26.12	1,735,265.10
2012	1,175,749.74	30.34	38,746.71	25.84	1,001,389.56
2013	2,277,130.46	28.98	78,566.46	25.48	2,002,147.86
2014	2,878,474.73	27.50	104,655.58	25.00	2,616,835.79
2015	1,644,382.99	25.83	63,662.61	24.33	1,548,889.07
2016	445,310.71	23.73	18,763.83	23.23	435,928.80
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	67,806,374.13	39.74	1,706,056.96	26.32	44,909,370.29
Total ALL	67,806,374.13	39.74	1,706,056.96	26.32	44,909,370.29
Less F.Y.	0.00				
12/31/2016	67,806,374.13				

Citizens Water
Water Division
335.40 Hydrants
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***73*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1902	584,213.51	131.63	4,438.26	17.13	76,032.25
1903	649.85	130.83	4.97	17.33	86.07
1904	1,299.69	130.03	10.00	17.53	175.18
1907	649.85	127.62	5.09	18.12	92.26
1908	649.84	126.82	5.12	18.32	93.86
1910	4,548.94	125.21	36.33	18.71	679.82
1913	649.85	122.80	5.29	19.30	102.16
1915	4,548.94	121.20	37.53	19.70	739.32
1916	21,444.99	120.39	178.12	19.89	3,543.49
1917	27,943.47	119.59	233.67	20.09	4,693.77
1918	3,249.24	118.78	27.35	20.28	554.80
1919	8,448.02	117.97	71.61	20.47	1,466.14
1920	34,441.95	117.17	293.96	20.67	6,074.82
1921	51,987.84	116.36	446.80	20.86	9,318.38
1922	61,735.57	115.54	534.30	21.04	11,243.97
1923	48,088.76	114.73	419.14	21.23	8,898.99
1924	53,287.54	113.92	467.78	21.42	10,018.27
1925	83,180.56	113.10	735.46	21.60	15,885.90
1926	35,741.64	112.28	318.32	21.78	6,933.61
1927	43,539.81	111.46	390.63	21.96	8,578.63
1928	44,189.66	110.64	399.41	22.14	8,842.09
1929	88,379.34	109.81	804.82	22.31	17,958.02
1930	65,634.65	108.99	602.23	22.49	13,541.54

Citizens Water
Water Division
335.40 Hydrants
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***73*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1931	7,798.17	108.16	72.10	22.66	1,633.51
1932	19,495.44	107.32	181.65	22.82	4,145.91
1933	7,148.32	106.49	67.13	22.99	1,543.15
1934	20,145.29	105.65	190.68	23.15	4,414.41
1935	22,744.68	104.81	217.01	23.31	5,058.66
1936	25,344.07	103.97	243.77	23.47	5,720.77
1937	38,990.88	103.12	378.10	23.62	8,931.98
1938	46,139.22	102.28	451.13	23.78	10,725.84
1939	45,489.37	101.43	448.50	23.93	10,730.69
1940	54,587.23	100.57	542.76	24.07	13,066.28
1941	52,637.69	99.72	527.86	24.22	12,784.44
1942	16,896.05	98.86	170.90	24.36	4,163.81
1943	5,198.78	98.01	53.05	24.51	1,299.93
1944	9,747.71	97.15	100.34	24.65	2,473.02
1945	42,240.13	96.29	438.69	24.79	10,873.49
1946	53,287.53	95.42	558.43	24.92	13,918.46
1947	98,776.91	94.56	1,044.57	25.06	26,179.10
1948	114,373.26	93.70	1,220.64	25.20	30,759.63
1949	93,578.12	92.84	1,007.98	25.34	25,539.26
1950	89,679.01	91.97	975.04	25.47	24,839.02
1951	40,940.41	91.11	449.33	25.61	11,509.08
1952	37,691.18	90.25	417.61	25.75	10,755.01
1953	40,940.43	89.40	457.97	25.90	11,859.27

Citizens Water
Water Division
335.40 Hydrants
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***73*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1954	92,278.43	88.54	1,042.23	26.04	27,138.77
1955	101,376.31	87.69	1,156.14	26.19	30,273.82
1956	163,761.72	86.84	1,885.89	26.34	49,665.12
1957	114,373.26	85.99	1,330.10	26.49	35,232.25
1958	130,619.46	85.15	1,534.06	26.65	40,876.73
1959	182,607.31	84.31	2,165.94	26.81	58,065.83
1960	159,862.63	83.48	1,915.06	26.98	51,661.81
1961	306,728.31	82.65	3,711.14	27.15	100,759.94
1962	293,081.48	81.83	3,581.52	27.33	97,888.38
1963	173,509.45	81.02	2,141.57	27.52	58,935.39
1964	154,663.85	80.22	1,928.10	27.72	53,438.68
1965	163,761.73	79.42	2,061.95	27.92	57,571.15
1966	180,007.93	78.63	2,289.16	28.13	64,405.41
1967	365,214.67	77.86	4,690.71	28.36	133,024.67
1968	309,977.56	77.09	4,020.75	28.59	114,971.29
1969	229,396.39	76.34	3,004.89	28.84	86,663.96
1970	170,910.04	75.60	2,260.72	29.10	65,786.60
1971	361,965.41	74.87	4,834.45	29.37	141,998.04
1972	348,968.44	74.16	4,705.78	29.66	139,561.05
1973	284,633.49	73.46	3,874.80	29.96	116,079.86
1974	270,986.68	72.77	3,723.70	30.27	112,729.34
1975	207,951.40	72.10	2,884.03	30.60	88,264.26
1976	340,520.43	71.45	4,765.66	30.95	147,511.21

Citizens Water
Water Division
335.40 Hydrants
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***73*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1977	248,891.84	70.82	3,514.51	31.32	110,068.57
1978	283,333.80	70.20	4,036.00	31.70	127,947.91
1979	277,485.17	69.60	3,986.60	32.10	127,987.61
1980	219,648.68	69.02	3,182.16	32.52	103,499.75
1981	367,164.23	68.47	5,362.72	32.97	176,787.77
1982	192,355.06	67.93	2,831.75	33.43	94,659.58
1983	240,443.81	67.41	3,566.97	33.91	120,950.33
1984	305,428.64	66.91	4,564.76	34.41	157,073.81
1985	323,624.39	66.43	4,871.55	34.93	170,170.66
1986	380,161.19	65.97	5,762.45	35.47	204,406.45
1987	520,528.40	65.53	7,943.05	36.03	286,208.31
1988	495,184.32	65.11	7,605.38	36.61	278,431.03
1989	606,308.36	64.70	9,370.48	37.20	348,620.04
1990	530,276.12	64.31	8,245.10	37.81	311,780.94
1991	376,911.95	63.94	5,895.17	38.44	226,585.24
1992	436,048.14	63.57	6,859.45	39.07	267,991.50
1993	486,086.44	63.21	7,689.93	39.71	305,373.14
1994	751,874.36	62.86	11,961.37	40.36	482,743.61
1995	554,320.52	62.51	8,867.36	41.01	363,672.17
1996	413,953.31	62.17	6,658.28	41.67	277,458.67
1997	598,510.20	61.84	9,678.94	42.34	409,770.80
1998	925,383.83	61.51	15,044.75	43.01	647,055.95
1999	821,408.14	61.19	13,424.46	43.69	586,480.06

Citizens Water
Water Division
335.40 Hydrants
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***73*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2000	638,800.78	60.88	10,493.64	44.38	465,655.67
2001	749,924.83	60.57	12,380.71	45.07	558,023.75
2002	725,880.44	60.28	12,042.30	45.78	551,267.14
2003	646,598.96	59.99	10,777.64	46.49	501,100.84
2004	686,239.71	59.72	11,490.49	47.22	542,608.54
2005	705,735.15	59.46	11,868.60	47.96	569,246.20
2006	624,504.12	59.22	10,546.12	48.72	513,769.89
2007	287,232.91	58.98	4,869.73	49.48	240,970.52
2008	241,743.53	58.77	4,113.62	50.27	206,777.77
2009	245,969.74	58.57	4,199.77	51.07	214,471.44
2010	885,717.50	58.38	15,170.57	51.88	787,108.81
2011	2,033,561.42	58.22	34,928.44	52.72	1,841,454.98
2012	4,877,216.68	58.08	83,977.07	53.58	4,499,319.89
2013	3,972,592.99	57.96	68,544.89	54.46	3,732,685.86
2014	4,380,848.56	57.86	75,716.12	55.36	4,191,558.25
2015	1,929,099.11	57.78	33,384.20	56.28	1,879,022.81
2016	879,800.66	57.74	15,238.09	57.24	872,181.61
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	42,226,327.76	63.32	666,855.00	46.01	30,683,929.48
Total ALL	42,226,327.76	63.32	666,855.00	46.01	30,683,929.48
Less F.Y.	0.00				
12/31/2016	42,226,327.76				

Citizens Water
Water Division
340.54 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***10*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2013	4,000.00	10.00	400.00	6.50	2,600.00
2014	9,602.69	10.00	960.27	7.50	7,202.02
2015	1,880,445.92	10.00	188,044.59	8.50	1,598,379.03
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	1,894,048.61	10.00	189,404.86	8.49	1,608,181.05
Total ALL	1,894,048.61	10.00	189,404.86	8.49	1,608,181.05
Less F.Y.	0.00				
12/31/2016	1,894,048.61				

Westfield Water
Water Division
334.40 Meters and Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** *And Subsequent*

Average Service Life: ***49*** *Survivor Curve:* ***L0***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1960	7,784.08	78.58	99.06	22.08	2,187.42
1980	3,694.97	61.70	59.88	25.20	1,509.19
1981	2,549.32	60.84	41.90	25.34	1,061.80
1982	4,709.50	59.98	78.52	25.48	2,000.43
1983	460.00	59.11	7.78	25.61	199.29
1984	4,911.00	58.24	84.33	25.74	2,170.31
1985	2,820.00	57.36	49.16	25.86	1,271.39
1986	3,600.00	56.48	63.74	25.98	1,656.01
1987	7,366.13	55.60	132.49	26.10	3,457.69
1988	42,473.41	54.71	776.35	26.21	20,347.43
1989	36,763.74	53.81	683.15	26.31	17,977.07
1990	36,114.45	52.91	682.50	26.41	18,028.17
1991	37,373.40	52.01	718.60	26.51	19,049.00
1992	34,707.26	51.09	679.27	26.59	18,065.11
1993	45,434.94	50.17	905.55	26.67	24,154.43
1994	59,054.59	49.24	1,199.21	26.74	32,072.28
1995	64,334.99	48.31	1,331.79	26.81	35,701.47
1996	53,656.83	47.36	1,132.92	26.86	30,432.03
1997	71,345.70	46.41	1,537.36	26.91	41,367.22
1998	122,430.05	45.45	2,693.98	26.95	72,591.44
1999	199,611.90	44.47	4,488.21	26.97	121,068.16
2000	165,240.96	43.49	3,799.16	26.99	102,554.78
2001	113,797.55	42.50	2,677.39	27.00	72,297.98

Westfield Water
Water Division
334.40 Meters and Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***49*** ***Survivor Curve:*** ***L0***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2002	104,005.31	41.50	2,506.09	27.00	67,666.97
2003	126,985.19	40.49	3,136.49	26.99	84,642.55
2004	280,259.65	39.46	7,102.77	26.96	191,475.04
2005	251,490.10	38.41	6,546.94	26.91	176,200.34
2006	316,717.83	37.35	8,479.53	26.85	227,682.73
2007	216,024.96	36.27	5,956.48	26.77	159,438.35
2008	20,129.55	35.16	572.54	26.66	15,263.00
2009	14,885.06	34.02	437.54	26.52	11,603.54
2011	47,517.00	31.62	1,502.53	26.12	39,253.08
2012	58,638.85	30.34	1,932.44	25.84	49,942.88
2013	391,176.95	28.98	13,496.54	25.48	343,939.05
2014	476,835.05	27.50	17,336.77	25.00	433,493.13
2015	431,168.21	25.83	16,692.76	24.33	406,129.07
2016	131,801.88	23.73	5,553.67	23.23	129,025.05
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	3,987,870.36	34.62	115,175.41	25.85	2,976,974.91
Total ALL	3,987,870.36	34.62	115,175.41	25.85	2,976,974.91
Less F.Y.	0.00				
12/31/2016	3,987,870.36				

Westfield Water
Water Division
335.40 Hydrants

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***73*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1930	1,760.00	108.99	16.15	22.49	363.12
1946	110.00	95.42	1.15	24.92	28.73
1956	750.00	86.84	8.64	26.34	227.46
1957	1,050.00	85.99	12.21	26.49	323.45
1961	450.00	82.65	5.44	27.15	147.82
1963	2,000.00	81.02	24.69	27.52	679.33
1966	1,650.00	78.63	20.98	28.13	590.36
1972	1,875.00	74.16	25.28	29.66	749.86
1973	900.00	73.46	12.25	29.96	367.04
1975	2,100.00	72.10	29.12	30.60	891.34
1978	1,800.00	70.20	25.64	31.70	812.84
1980	4,900.00	69.02	70.99	32.52	2,308.91
1981	1,250.00	68.47	18.26	32.97	601.87
1983	1,144.76	67.41	16.98	33.91	575.85
1984	584.00	66.91	8.73	34.41	300.34
1985	2,903.00	66.43	43.70	34.93	1,526.48
1986	1,267.00	65.97	19.21	35.47	681.25
1987	3,089.35	65.53	47.14	36.03	1,698.65
1988	13,174.38	65.11	202.34	36.61	7,407.66
1989	4,508.29	64.70	69.68	37.20	2,592.21
1990	1,365.13	64.31	21.23	37.81	802.64
1995	5,679.21	62.51	90.85	41.01	3,725.95
1997	2,005.00	61.84	32.42	42.34	1,372.73

Westfield Water
Water Division
335.40 Hydrants
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***73*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1998	847.00	61.51	13.77	43.01	592.25
1999	19,404.02	61.19	317.12	43.69	13,854.34
2001	2,816.83	60.57	46.50	45.07	2,096.02
2002	2,811.06	60.28	46.64	45.78	2,134.85
2006	12,420.00	59.22	209.74	48.72	10,217.74
2007	11,850.00	58.98	200.90	49.48	9,941.41
2012	208,330.00	58.08	3,587.07	53.58	192,188.16
2013	284,649.77	57.96	4,911.47	54.46	267,459.61
2014	207,492.00	57.86	3,586.18	55.36	198,526.56
2015	684,637.99	57.78	11,848.06	56.28	666,865.89
2016	1,125,800.80	57.74	19,498.80	57.24	1,116,051.40
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	2,617,374.59	58.05	45,089.35	55.64	2,508,704.12
Total ALL	2,617,374.59	58.05	45,089.35	55.64	2,508,704.12
Less F.Y.	0.00				
12/31/2016	2,617,374.59				

Westfield Water
Water Division
340.54 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***10*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2007	935.00	10.00	93.50	0.50	46.75
2011	9,653.00	10.00	965.30	4.50	4,343.85
2013	152,436.45	10.00	15,243.65	6.50	99,083.69
2016	494,975.18	10.00	49,497.52	9.50	470,226.42
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	657,999.63	10.00	65,799.96	8.72	573,700.71
Total ALL	657,999.63	10.00	65,799.96	8.72	573,700.71
Less F.Y.	0.00				
12/31/2016	657,999.63				

Citizens Wastewater
Wastewater Division
371.30 Pumping Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***48*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1977	2,098,479.00	57.00	36,814.90	17.50	644,290.41
1985	260,508.11	50.53	5,156.01	19.03	98,093.78
1987	3,332,086.60	49.05	67,927.97	19.55	1,328,211.43
1988	1,672,598.00	48.35	34,594.71	19.85	686,648.76
1989	3,828,065.00	47.67	80,309.30	20.17	1,619,559.20
1990	2,925,106.00	47.01	62,223.93	20.51	1,276,171.92
1991	2,012,156.00	46.38	43,385.59	20.88	905,823.57
1992	6,187,517.00	45.78	135,171.52	21.28	2,875,814.67
1993	9,352,126.00	45.20	206,898.91	21.70	4,490,001.56
1995	5,559,082.00	44.15	125,926.81	22.65	2,851,655.48
1996	2,634,647.00	43.66	60,340.43	23.16	1,397,668.20
1998	1,338,465.00	42.79	31,283.39	24.29	759,722.21
1999	3,786,213.00	42.38	89,329.51	24.88	2,222,946.57
2002	3,418,773.00	41.29	82,802.16	26.79	2,218,141.64
2003	2,230,433.00	40.94	54,474.79	27.44	1,495,023.32
2006	335,124.00	39.97	8,383.86	29.47	247,093.51
2009	1,853,178.00	39.13	47,362.90	31.63	1,497,956.25
2010	122,416.70	38.88	3,148.40	32.38	101,952.11
2011	3,851,527.39	38.66	99,627.18	33.16	3,303,577.89
2012	17,937,571.32	38.46	466,379.25	33.96	15,838,864.69
2013	598,080.17	38.29	15,619.41	34.79	543,412.25
2014	4,130,590.66	38.15	108,269.65	35.65	3,859,916.54
2015	1,014,861.54	38.04	26,675.32	36.54	974,848.56

Citizens Wastewater
Wastewater Division
371.30 Pumping Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***48*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	80,479,604.49	42.53	1,892,105.91	27.08	51,237,394.53
Total ALL	80,479,604.49	42.53	1,892,105.91	27.08	51,237,394.53
Less F.Y.	0.00				
12/31/2016	80,479,604.49				

Citizens Wastewater
Wastewater Division
380.40 Treatment and Disposal Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** *And Subsequent*

Average Service Life: ***44*** *Survivor Curve:* ***S0.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1955	2,191,353.00	70.37	31,141.49	8.87	276,151.25
1966	7,033,100.00	62.80	111,995.22	12.30	1,377,341.22
1968	6,228,744.00	61.43	101,391.30	12.93	1,311,265.96
1970	10,403,711.00	60.07	173,187.36	13.57	2,350,498.86
1979	18,201,968.00	54.02	336,948.59	16.52	5,566,395.91
1980	9,024,261.00	53.36	169,132.93	16.86	2,850,909.06
1982	146,183,605.00	52.03	2,809,375.73	17.53	49,260,142.37
1985	1,254,604.00	50.07	25,058.44	18.57	465,263.22
1987	25,647,808.00	48.77	525,924.42	19.27	10,133,037.66
1995	163,661,757.00	43.67	3,747,579.56	22.17	83,088,796.57
1997	810,000.00	42.43	19,091.84	22.93	437,709.12
1999	14,824,142.00	41.19	359,865.37	23.69	8,526,497.94
2000	16,563,650.00	40.58	408,149.15	24.08	9,829,189.04
2002	4,500,000.00	39.37	114,304.95	24.87	2,842,578.25
2003	5,993,448.00	38.77	154,604.23	25.27	3,906,290.93
2004	3,523,500.00	38.17	92,316.33	25.67	2,369,545.85
2005	20,676,661.00	37.57	550,333.11	26.07	14,347,830.18
2006	23,634,752.00	36.98	639,170.20	26.48	16,923,464.91
2007	3,952,215.00	36.39	108,618.55	26.89	2,920,338.81
2008	18,000,000.00	35.80	502,838.47	27.30	13,725,872.99
2009	4,020,355.00	35.21	114,190.33	27.71	3,163,927.51
2011	11,727,920.76	34.03	344,640.80	28.53	9,832,396.33
2012	2,844,778.30	33.44	85,083.46	28.94	2,461,902.73

Citizens Wastewater
Wastewater Division
380.40 Treatment and Disposal Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***44*** ***Survivor Curve:*** ***S0.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2013	7,637,422.81	32.83	232,621.05	29.33	6,823,249.15
2014	14,348,999.08	32.22	445,390.47	29.72	13,235,522.90
2015	74,030,775.82	31.58	2,344,568.68	30.08	70,513,922.80
2016	56,169,526.00	30.87	1,819,536.04	30.37	55,259,757.98
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	673,089,056.77	41.12	16,367,058.07	24.06	393,799,799.50
Total ALL	673,089,056.77	41.12	16,367,058.07	24.06	393,799,799.50
Less F.Y.	0.00				
12/31/2016	673,089,056.77				

Citizens Wastewater
Wastewater Division
390.74 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***10*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2011	339,468.01	10.00	33,946.80	4.50	152,760.60
2012	101,566.49	10.00	10,156.65	5.50	55,861.57
2013	195,050.98	10.00	19,505.10	6.50	126,783.14
2014	62,308.93	10.00	6,230.89	7.50	46,731.70
2015	15,241.82	10.00	1,524.18	8.50	12,955.55
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	713,636.23	10.00	71,363.62	5.54	395,092.56
Total ALL	713,636.23	10.00	71,363.62	5.54	395,092.56
Less F.Y.	0.00				
12/31/2016	713,636.23				

Westfield Wastewater
Wastewater Division
371.30 Pumping Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***48*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1974	6,593.71	59.56	110.70	17.06	1,889.03
1977	5,600.00	57.00	98.24	17.50	1,719.35
1979	445.42	55.32	8.05	17.82	143.47
1980	12,697.40	54.49	233.02	17.99	4,192.04
1981	5,111.31	53.67	95.23	18.17	1,730.48
1982	16,134.96	52.86	305.22	18.36	5,604.83
1986	23,835.18	49.78	478.82	19.28	9,231.28
1989	135,456.40	47.67	2,841.75	20.17	57,308.24
1995	200,985.98	44.15	4,552.82	22.65	103,100.26
1996	143,318.19	43.66	3,282.37	23.16	76,029.65
1997	13,359.48	43.21	309.17	23.71	7,330.59
1998	105,620.87	42.79	2,468.63	24.29	59,951.15
1999	52,066.83	42.38	1,228.43	24.88	30,569.27
2000	7,700.00	42.01	183.31	25.51	4,675.37
2001	285,427.46	41.64	6,854.44	26.14	179,183.59
2002	41,350.17	41.29	1,001.49	26.79	26,828.49
2003	362,419.71	40.94	8,851.53	27.44	242,924.09
2004	112,312.97	40.61	2,765.71	28.11	77,741.64
2005	21,883.06	40.28	543.21	28.78	15,636.13
2006	32,364.79	39.97	809.68	29.47	23,863.20
2007	15,650.00	39.67	394.46	30.17	11,902.63
2010	13,004.15	38.88	334.45	32.38	10,830.23
2012	41,614.90	38.46	1,081.99	33.96	36,745.93

Westfield Wastewater
Wastewater Division
371.30 Pumping Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***48*** ***Survivor Curve:*** ***L2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2013	32,553.24	38.29	850.16	34.79	29,577.69
2014	117,277.33	38.15	3,074.03	35.65	109,592.25
2015	22,166.42	38.04	582.64	36.54	21,292.46
2016	1,781,560.25	37.98	46,912.98	37.48	1,758,103.76
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	3,608,510.18	39.98	90,252.56	32.22	2,907,697.10
Total ALL	3,608,510.18	39.98	90,252.56	32.22	2,907,697.10
Less F.Y.	0.00				
12/31/2016	3,608,510.18				

Westfield Wastewater
Wastewater Division
380.40 Treatment and Disposal Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***44*** ***Survivor Curve:*** ***S0.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1998	1,835,270.00	41.81	43,897.23	23.31	1,023,171.21
1999	82,263.64	41.19	1,997.00	23.69	47,316.11
2000	2,871.00	40.58	70.75	24.08	1,703.71
2001	42,659.10	39.97	1,067.17	24.47	26,117.93
2002	11,564.00	39.37	293.74	24.87	7,304.79
2004	39,600.00	38.17	1,037.53	25.67	26,630.91
2005	4,721,578.50	37.57	125,670.24	26.07	3,276,370.71
2006	115,024.87	36.98	3,110.69	26.48	82,362.59
2011	158,440.72	34.03	4,655.99	28.53	132,832.75
2012	47,550.96	33.44	1,422.18	28.94	41,151.13
2013	60,048.00	32.83	1,828.95	29.33	53,646.69
2014	14,224.00	32.22	441.51	29.72	13,120.22
2015	47,521.55	31.58	1,505.02	30.08	45,264.03
2016	19,517.86	30.87	632.25	30.37	19,201.73
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	7,198,134.20	38.36	187,630.26	25.56	4,796,194.51
Total ALL	7,198,134.20	38.36	187,630.26	25.56	4,796,194.51
Less F.Y.	0.00				
12/31/2016	7,198,134.20				

Westfield Wastewater
Wastewater Division
390.74 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***10*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1996	5,765.00	0.00	0.00	0.00	0.00
2000	2,563.59	0.00	0.00	0.00	0.00
2002	2,239.64	0.00	0.00	0.00	0.00
2003	8,375.00	0.00	0.00	0.00	0.00
2006	5,936.57	0.00	0.00	0.00	0.00
2007	1,562.49	10.00	156.25	0.50	78.12
2013	296,553.72	10.00	29,655.37	6.50	192,759.92
2014	5,637.00	10.00	563.70	7.50	4,227.75
2016	418,721.15	10.00	41,872.12	9.50	397,785.09
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	747,354.16	10.34	72,247.44	8.23	594,850.89
Total ALL	747,354.16	10.34	72,247.44	8.23	594,850.89
Less F.Y.	0.00				
12/31/2016	747,354.16				

Shared Services
Shared Services Division
391.70 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon A Composite of BG/ELG Procedure Plus Rem. Life Technique
Using December 31, 2016 Plant In Service And 1/2 of Future Year Additions

ELG Vintages - **1900** ***And Subsequent***

Average Service Life: ***10*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2011	465,364.80	10.00	46,536.48	4.50	209,414.16
2012	11,143,747.04	10.00	1,114,374.70	5.50	6,129,060.87
2013	1,384,040.23	10.00	138,404.02	6.50	899,626.15
2014	1,911,373.30	10.00	191,137.33	7.50	1,433,529.98
2015	11,157,027.24	10.00	1,115,702.72	8.50	9,483,473.15
2016	970,131.08	10.00	97,013.11	9.50	921,624.53
Total BG	0.00	0.00	0.00	0.00	0.00
Total ELG	27,031,683.69	10.00	2,703,168.37	7.06	19,076,728.84
Total ALL	27,031,683.69	10.00	2,703,168.37	7.06	19,076,728.84
Less F.Y.	0.00				
12/31/2016	27,031,683.69				

Summary Expense Adjustment - ALG Example

Utility	Depreciable Plant 9/30/2017	Current Parameters Rate	Current Parameters Expense	Company Proposal Rate	Company Proposal Expense	OUCC Proposal Rate	OUCC Proposal Expense	OUCC Adjustment Rate	OUCC Adjustment Expense
Shared Services	$ 92,586,871	12.75%	$ 11,808,035	8.40%	$ 7,781,015	9.72%	$ 9,002,577	1.32%	$ 1,221,562
Citizens Gas	714,261,153	2.86%	20,461,459	1.97%	14,064,970	1.74%	12,439,536	-0.23%	(1,625,434)
Citizens Thermal Steam	91,095,305	3.97%	3,617,389	3.92%	3,567,796	2.04%	1,857,904	-1.88%	(1,709,892)
Citizens Water	1,629,430,952	2.00%	32,588,619	1.18%	19,281,124	1.12%	18,291,902	-0.06%	(989,222)
CWA Authority	2,708,172,805	2.50%	67,704,320	1.73%	46,959,086	1.68%	45,511,723	-0.05%	(1,447,363)
Westfield Gas	11,353,188	3.22%	365,229	2.18%	248,048	1.81%	205,062	-0.38%	(42,985)
Westfield Water	74,968,137	2.00%	1,499,363	1.84%	1,382,757	1.58%	1,183,672	-0.27%	(199,084)
Westfield Wastewater	108,014,462	2.50%	2,700,362	2.44%	2,630,974	2.02%	2,181,512	-0.42%	(449,462)
Total Plant Studied	$ 5,429,882,872	2.59%	$ 140,744,775	1.77%	$ 95,915,770	1.67%	$ 90,673,889	-0.10%	**$ (5,241,881)**

* See Exhibit DJG-3 for detailed calculations

Detailed Expense Adjustment - ALG Example

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Business Unit	**Account Description**	**Plant Balance 9/30/2017**	**Current Rate**	**Current Expense**	**CEG Rate**	**CEG Proposed Expense**	**OUCC Rate**	**OUCC Proposed Expense**	**OUCC Less Current Exp**	**OUCC Less CEG Proposed Exp**
Shared Services	GENERAL PLANT - LAND	$ 1,581,974								
Shared Services	GENERAL PLANT - STRUCTURES AND IMPROVEMENTS	47,343,259	3.02	$ 1,429,766	2.73	$ 1,292,471	2.67	$ 1,262,368	$ (167,399)	$ (30,103)
Shared Services	GENERAL PLANT - OFFICE FURNITURE	3,576,876	15.31	547,620	2.69	96,218	3.30	117,859	(429,761)	21,641
Shared Services	GENERAL PLANT - OFFICE MACHINES	1,827,145	1.77	32,340	6.50	118,764	6.56	119,861	87,520	1,096
Shared Services	GENERAL PLANT - COMPUTER EQUIPMENT	6,263,511	0.00	-	21.22	1,329,117	22.64	1,418,061	1,418,061	88,944
Shared Services	GENERAL PLANT - SOFTWARE	28,950,390	32.80	9,495,728	16.05	4,646,538	19.99	5,786,853	(3,708,875)	1,140,316
Shared Services	GENERAL PLANT - TRANSPORTATION EQUIPMENT	75,108	6.27	4,709	10.49	7,879	8.94	6,715	2,006	(1,164)
Shared Services	GENERAL PLANT - TOOL EQUIPMENT	19,606	4.19	821	5.03	986	5.03	986	165	0
Shared Services	GENERAL PLANT - GARAGE EQUIPMENT	21,259	4.19	891	5.03	1,069	5.03	1,069	179	0
Shared Services	GENERAL PLANT - COMMUNICATION EQUIPMENT	3,974,687	6.77	269,086	6.56	260,739	6.58	261,677	(7,410)	937
Shared Services	GENERAL PLANT - OTHER EQUIPMENT	535,030	5.06	27,073	5.09	27,233	5.07	27,128	55	(105)
Shared Services Total Plant in Service		94,168,845								
Shared Services Depreciable Plant in Service (excl. Land)		**92,586,871**	**12.75**	**11,808,035**	**8.40**	**7,781,015**	**9.72**	**9,002,577**	**(2,805,458)**	**1,221,562**
Citizens Gas	PRESSURE REGULATING - LAND	147,578								
Citizens Gas	PRESSURE REGULATING - STRUCTURES AND IMPROVEMENTS	530,574	1.38	7,322	1.05	5,571	0.99	5,250	(2,072)	(321)
Citizens Gas	PRESSURE REGULATING - PRESSURE REGULATING EQUIPMENT	1,993,407	4.04	80,534	3.01	60,002	2.73	54,517	(26,017)	(5,485)
Citizens Gas	UNDERGROUND STORAGE - LAND	20,500								
Citizens Gas	UNDERGROUND STORAGE - LEASEHOLDS	583,865	0.83	4,846	0.28	1,635	0.50	2,894	(1,952)	1,259
Citizens Gas	UNDERGROUND STORAGE - STRUCTURES AND IMPROVEMENTS	785,779	0.94	7,386	0.98	7,701	1.13	8,869	1,482	1,168
Citizens Gas	UNDERGROUND STORAGE - WELLS	11,558,237	0.74	85,531	0.60	69,349	0.64	73,725	(11,806)	4,376
Citizens Gas	UNDERGROUND STORAGE - NON-RECOVERABLE GAS	4,073,028	1.52	61,910	0.85	34,621	0.79	32,223	(29,687)	(2,398)
Citizens Gas	UNDERGROUND STORAGE - LINES	3,204,993	2.12	67,946	1.08	34,614	1.09	34,922	(33,024)	308
Citizens Gas	UNDERGROUND STORAGE - MEASURING AND REGULATING EQUIPMENT	916,068	5.18	47,452	4.59	42,048	3.78	34,662	(12,791)	(7,386)
Citizens Gas	UNDERGROUND STORAGE - PURIFICATION EQUIPMENT	4,504,424	1.44	64,864	1.63	73,422	1.56	70,321	5,458	(3,101)
Citizens Gas	UNDERGROUND STORAGE - OTHER EQUIPMENT	50,445	3.48	1,756	2.24	1,130	1.94	980	(775)	(150)
Citizens Gas	TRANSMISSION UGS - LAND	30,999								
Citizens Gas	TRANSMISSION UGS - RIGHT-OF-WAY	278,517	1.27	3,537	1.13	3,147	1.33	3,702	165	555
Citizens Gas	TRANSMISSION UGS - STRUCTURES AND IMPROVEMENTS	788,150	1.86	14,660	1.57	12,374	1.53	12,083	(2,576)	(291)
Citizens Gas	TRANSMISSION UGS - MAINS	8,937,585	1.14	101,888	1.52	135,851	1.42	126,699	24,811	(9,152)
Citizens Gas	TRANSMISSION UGS - COMPRESSOR STATION EQUIPMENT	2,097,727	0.83	17,411	1.08	22,655	1.35	28,345	10,933	5,689
Citizens Gas	TRANSMISSION UGS - MEASURING AND REGULATING EQUIPMENT	1,432,391	1.85	26,499	2.90	41,539	2.69	38,467	11,968	(3,072)
Citizens Gas	TRANSMISSION UGS - COMMUNICATION EQUIPMENT	448,419	2.16	9,686	1.96	8,789	2.43	10,893	1,207	2,104
Citizens Gas	TRANSMISSION MARION COUNTY - LAND	45,878								
Citizens Gas	TRANSMISSION MARION COUNTY - RIGHT-OF-WAY	772,529	1.54	11,897	1.50	11,588	1.45	11,197	(700)	(391)
Citizens Gas	TRANSMISSION MARION COUNTY - STRUCTURES AND IMPROVEMENTS	231,059	2.12	4,898	1.87	4,321	1.67	3,850	(1,049)	(471)
Citizens Gas	TRANSMISSION MARION COUNTY - MAINS	45,819,324	1.98	907,223	2.12	971,370	1.69	772,931	(134,292)	(198,439)
Citizens Gas	TRANSMISSION MARION COUNTY - MEASURING AND REGULATING EQUIPMENT	1,943,466	1.65	32,067	2.56	49,753	2.47	48,045	15,977	(1,708)
Citizens Gas	DISTRIBUTION - MAINS	306,265,143	2.52	7,717,882	1.53	4,685,857	1.34	4,112,789	(3,605,092)	(573,067)
Citizens Gas	DISTRIBUTION - SERVICES	253,812,775	3.14	7,969,721	2.33	5,913,838	2.06	5,238,062	(2,731,659)	(675,776)
Citizens Gas	DISTRIBUTION - METERS	33,471,146	2.84	950,581	2.39	799,960	2.04	683,616	(266,965)	(116,344)
Citizens Gas	DISTRIBUTION - METER INSTALLATIONS	5,762,436	2.65	152,705	1.59	91,623	1.45	83,610	(69,095)	(8,013)
Citizens Gas	DISTRIBUTION - HOUSE REGULATORS	4,623,134	2.74	126,674	1.43	66,111	1.39	64,258	(62,415)	(1,852)
Citizens Gas	DISTRIBUTION - HOUSE REGULATOR INSTALLATIONS	700,221	2.83	19,816	1.46	10,223	1.50	10,530	(9,286)	307
Citizens Gas	DISTRIBUTION - OTHER PROPERTY - CUSTOMER PREMISES	356,362	0.45	1,604	8.39	29,899	5.83	20,769	19,166	(9,130)
Citizens Gas	DISTRIBUTION - OTHER EQUIPMENT	165,536	0.00	-	5.86	9,700	5.68	9,410	9,410	(291)
Citizens Gas	GENERAL PLANT - STRUCTURES AND IMPROVEMENTS	133,156	3.02	4,021	4.38	5,832	2.86	3,805	(216)	(2,027)
Citizens Gas	GENERAL PLANT - OFFICE FURNITURE	261,863	15.31	40,091	0.00	-	0.00	-	(40,091)	-
Citizens Gas	GENERAL PLANT - COMPUTER EQUIPMENT	409,513	0.00	-	0.00	-	0.00	-	-	-
Citizens Gas	GENERAL PLANT - SOFTWARE	3,295,621	32.80	1,080,964	2.28	75,140	4.01	132,242	(948,721)	57,102
Citizens Gas	GENERAL PLANT - TRANSPORTATION EQUIPMENT	8,285,458	6.27	519,498	8.15	675,265	6.92	573,220	53,722	(102,044)
Citizens Gas	GENERAL PLANT - STORES EQUIPMENT	27,590	2.96	817	2.99	825	3.28	904	87	79
Citizens Gas	GENERAL PLANT - TOOL EQUIPMENT	1,450,037	4.19	60,757	0.87	12,615	1.49	21,671	(39,086)	9,055
Citizens Gas	GENERAL PLANT - GARAGE EQUIPMENT	11,447	4.19	480	0.87	100	1.49	171	(309)	71
Citizens Gas	GENERAL PLANT - CNG EQUIPMENT	570,015	4.19	23,884	0.87	4,959	1.49	8,519	(15,365)	3,560
Citizens Gas	GENERAL PLANT - POWER OPERATED EQUIPMENT	2,522,429	6.46	162,949	1.51	38,089	1.76	44,460	(118,489)	6,371
Citizens Gas	GENERAL PLANT - COMMUNICATION EQUIPMENT	563,049	6.77	38,118	3.74	21,058	4.42	24,897	(13,222)	3,839
Citizens Gas	GENERAL PLANT - OTHER EQUIPMENT	624,235	5.06	31,586	5.19	32,398	5.13	32,027	441	(370)
Citizens Gas Total Plant in Service		714,506,106								
Citizens Gas Depreciable Plant in Service (excl. Land)		**714,261,153**	**2.86**	**20,461,459**	**1.97**	**14,064,970**	**1.74**	**12,439,536**	**(8,021,923)**	**(1,625,434)**

Detailed Expense Adjustment - ALG Example

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Business Unit	**Account Description**	**Plant Balance 9/30/2017**	**Current Rate**	**Current Expense**	**CEG Rate**	**CEG Proposed Expense**	**OUCC Rate**	**OUCC Proposed Expense**	**OUCC Less Current Exp**	**OUCC Less CEG Proposed Exp**
Steam	PRODUCTION - LAND	47,847		-		-		-	-	-
Steam	PRODUCTION - STRUCTURES AND IMPROVEMENTS	11,171,235	3.72	415,570	3.83	427,858	1.76	196,894	(218,676)	(230,964)
Steam	PRODUCTION - BOILER PLANT EQUIPMENT	43,810,779	3.85	1,686,715	5.00	2,190,539	2.20	964,327	(722,388)	(1,226,211)
Steam	PRODUCTION - TURBOGENERATOR UNITS	1,810,310	2.94	53,223	2.56	46,344	1.17	21,230	(31,993)	(25,114)
Steam	PRODUCTION - ACCESSORY ELECTRIC EQUIPMENT	3,224,201	2.91	93,824	4.13	133,159	1.52	49,116	(44,708)	(84,043)
Steam	PRODUCTION - MISCELLANEOUS POWER PLANT EQUIPMENT	992,235	3.80	37,705	5.53	54,871	2.81	27,842	(9,862)	(27,028)
Steam	DISTRIBUTION - LAND RIGHTS	1,792	2.57	46	2.51	45	2.29	41	(5)	(4)
Steam	DISTRIBUTION - MAINS	22,686,947	2.84	644,309	1.93	437,858	1.50	340,805	(303,504)	(97,053)
Steam	DISTRIBUTION - SERVICES	4,059,115	4.55	184,690	2.63	106,755	2.24	90,969	(93,721)	(15,786)
Steam	DISTRIBUTION - METERS	555,677	3.55	19,727	2.32	12,892	2.08	11,565	(8,161)	(1,326)
Steam	GENERAL PLANT - OFFICE FURNITURE	82,540	4.81	3,970	0.00	-	0.00	-	(3,970)	-
Steam	GENERAL PLANT - OFFICE EQUIPMENT	6,370	8.40	535	0.00	-	0.00	-	(535)	-
Steam	GENERAL PLANT - COMPUTER EQUIPMENT PRE 2017	29,670	94.49	28,035	0.00	-	0.00	-	(28,035)	-
Steam	GENERAL PLANT - COMPUTER EQUIPMENT POST 2016	339,257	94.49	320,564	20.00	67,851	20.00	67,851	(252,712)	-
Steam	GENERAL PLANT - SOFTWARE PRE 2017	75,290	18.73	14,102	0.00	-	0.00	-	(14,102)	-
Steam	GENERAL PLANT - SOFTWARE POST 2016	22,000	18.73	4,121	20.00	4,400	20.00	4,400	279	-
Steam	GENERAL PLANT - TRANSPORTATION EQUIPMENT	972,354	4.24	41,228	1.78	17,308	2.13	20,707	(20,520)	3,399
Steam	GENERAL PLANT - STORES EQUIPMENT	77,421	3.64	2,818	3.41	2,640	3.38	2,617	(201)	(23)
Steam	GENERAL PLANT - TOOLS, SHOP, GARAGE EQUIPMENT	301,117	3.65	10,991	2.95	8,883	3.05	9,190	(1,801)	307
Steam	GENERAL PLANT - LABORATORY EQUIPMENT	95,811	6.70	6,419	3.58	3,430	4.24	4,059	(2,360)	629
Steam	GENERAL PLANT - POWER OPERATED EQUIPMENT	421,395	5.89	24,820	8.98	37,841	7.17	30,196	5,376	(7,645)
Steam	GENERAL PLANT - COMMUNICATION EQUIPMENT	15,097	8.13	1,227	15.46	2,334	14.30	2,159	932	(175)
Steam	GENERAL PLANT - MISCELLANEOUS EQUIPMENT	344,692	6.60	22,750	3.71	12,788	4.04	13,934	(8,816)	1,146
Steam Total Plant in Service		91,143,152								
Steam Depreciable Plant in Service (excl. Land)		**91,095,305**	**3.97**	**3,617,389**	**3.92**	**3,567,796**	**2.04**	**1,857,904**	**(1,759,484)**	**(1,709,892)**
Citizens Water	SUPPLY & PUMPING - LAND	22,247,515								
Citizens Water	SUPPLY & PUMPING - STRUCTURES AND IMPROVEMENTS	25,616,842	2.00	512,337	2.31	591,749	2.05	526,039	13,702	(65,710)
Citizens Water	SUPPLY & PUMPING - COLLECTING AND IMPOUNDING RESERVOIRS	53,429,789	2.00	1,068,596	1.29	689,244	1.16	622,362	(446,233)	(66,882)
Citizens Water	SUPPLY & PUMPING - LAKE, RIVER AND INTAKES	6,716,526	2.00	134,331	1.93	129,629	1.63	109,417	(24,914)	(20,212)
Citizens Water	SUPPLY & PUMPING - WELLS AND SPRINGS	34,298,899	2.00	685,978	2.28	782,015	1.94	664,350	(21,628)	(117,665)
Citizens Water	SUPPLY & PUMPING - PUMPING EQUIPMENT	59,693,440	2.00	1,193,869	2.85	1,701,263	2.52	1,506,736	312,867	(194,527)
Citizens Water	SUPPLY & PUMPING - OTHER MISCELLANEOUS EQUIPMENT	4,536,324	2.00	90,726	4.01	181,907	3.48	157,933	67,206	(23,974)
Citizens Water	TREATMENT - LAND	9,171,858								-
Citizens Water	TREATMENT - STRUCTURES AND IMPROVEMENTS	196,363,313	2.00	3,927,266	1.42	2,788,359	1.30	2,561,139	(1,366,127)	(227,220)
Citizens Water	TREATMENT - WATER TREATMENT EQUIPMENT	176,355,364	2.00	3,527,107	2.24	3,950,360	2.20	3,878,520	351,413	(71,840)
Citizens Water	DISTRIBUTION - LAND	1,066,387								-
Citizens Water	DISTRIBUTION - RESERVOIRS AND STANDPIPES	15,191,206	2.00	303,824	1.82	276,480	1.81	274,493	(29,331)	(1,987)
Citizens Water	DISTRIBUTION - MAINS TRANSMISSION AND DISTRIBUTION	801,497,185	2.00	16,029,944	0.55	4,408,235	0.56	4,472,707	(11,557,237)	64,472
Citizens Water	DISTRIBUTION- CIAC MAINS TRANSMISSION AND DISTRIBUTION	23,516,128	2.00	470,323	0.55	129,339	0.01	1,312	(469,010)	(128,026)
Citizens Water	DISTRIBUTION - SERVICES	97,804,452	2.00	1,956,089	1.15	1,124,751	1.20	1,175,792	(780,297)	51,040
Citizens Water	DISTRIBUTION - SERVICES (SYSTEM 2)	5,935,456	2.00	118,709	1.15	68,258	1.20	71,355	(47,354)	3,097
Citizens Water	DISTRIBUTION - CIAC SERVICES	1,369,271	2.00	27,385	1.15	15,747	1.20	16,461	(10,924)	715
Citizens Water	DISTRIBUTION - METERS/INSTALLATIONS	66,367,970	2.00	1,327,359	0.42	278,745	0.34	227,413	(1,099,947)	(51,333)
Citizens Water	DISTRIBUTION - HYDRANTS	41,231,272	2.00	824,625	1.10	453,544	1.09	447,928	(376,697)	(5,616)
Citizens Water	DISTRIBUTION - CIAC HYDRANTS	3,261,242	2.00	65,225	1.10	35,874	1.09	35,429	(29,795)	(444)
Citizens Water	DISTRIBUTION - OTHER MISCELLANEOUS EQUIPMENT	2,917,635	2.00	58,353	2.30	67,106	2.32	67,620	9,267	514
Citizens Water	GENERAL PLANT - OFFICE FURNITURE	131,351	2.00	2,627	4.38	5,753	4.37	5,735	3,108	(18)
Citizens Water	GENERAL PLANT - COMPUTER EQUIPMENT	645,747	2.00	12,915	42.95	277,348	40.94	264,391	251,476	(12,958)
Citizens Water	GENERAL PLANT - SOFTWARE	1,894,049	2.00	37,881	27.63	523,326	27.58	522,368	484,487	(958)
Citizens Water	GENERAL PLANT - TRANSPORTATION EQUIPMENT	7,222,406	2.00	144,448	8.57	618,960	7.14	515,639	371,191	(103,321)
Citizens Water	GENERAL PLANT - TOOLS, SHOP AND GARAGE EQUIPMENT	124,888	2.00	2,498	5.39	6,731	5.38	6,723	4,225	(9)
Citizens Water	GENERAL PLANT - LABORATORY EQUIPMENT	684,250	2.00	13,685	8.13	55,630	8.04	54,982	41,297	(648)
Citizens Water	GENERAL PLANT - POWER OPERATED EQUIPMENT	2,505,967	2.00	50,119	4.58	114,773	3.95	99,060	48,940	(15,713)
Citizens Water	GENERAL PLANT - MISCELLANEOUS EQUIPMENT	119,983	2.00	2,400	5.00	5,999	5.00	5,999	3,599	-
Citizens Water Total Plant in Service		1,661,916,712								
Citizens Water Depreciable Plant in Service (excl. Land)		**1,629,430,952**	**2.00**	**32,588,619**	**1.18**	**19,281,124**	**1.12**	**18,291,902**	**(14,296,717)**	**(989,222)**
CWA Authority	COLLECTION - LAND	88,982								
CWA Authority	COLLECTION - STRUCTURES AND IMPROVEMENTS	708,797	2.50	17,720	3.16	22,398	3.16	22,398	4,678	-
CWA Authority	COLLECTION - COLLECTING SEWERS FORCE	21,129,121	2.50	528,228	2.17	458,502	1.79	378,838	(149,390)	(79,663)

Detailed Expense Adjustment - ALG Example

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Business Unit	**Account Description**	**Plant Balance 9/30/2017**	**Current Rate**	**Current Expense**	**CEG Rate**	**CEG Proposed Expense**	**OUCC Rate**	**OUCC Proposed Expense**	**OUCC Less Current Exp**	**OUCC Less CEG Proposed Exp**
CWA Authority	COLLECTION - CIAC FORCE SEWERS	118,836	2.50	2,971	2.17	2,579	1.79	2,131	(840)	(448)
CWA Authority	COLLECTION - COLLECTING SEWERS GRAVITY	1,149,112,345	2.50	28,727,809	1.19	13,674,437	1.23	14,173,438	(14,554,371)	499,001
CWA Authority	COLLECTION - CIAC GRAVITY SEWERS	6,304,102	2.50	157,603	1.19	75,019	1.23	77,756	(79,846)	2,738
CWA Authority	COLLECTION - SPECIAL COLLECTING STRUCTS	169,154,756	2.50	4,228,869	1.36	2,300,505	1.55	2,625,564	(1,603,305)	325,059
CWA Authority	COLLECTION - SPECIAL COLLECTING STRUCTS - DROP SHAFTS	33,115,926	2.50	827,898	2.45	811,340	2.21	731,333	(96,565)	(80,007)
CWA Authority	COLLECTION - FLOW MEASURING DEVICES	272,216	2.50	6,805	4.02	10,943	4.02	10,943	4,138	-
CWA Authority	GENERAL PLANT - OFFICE FURNITURE	150,921	2.50	3,773	4.22	6,369	4.22	6,365	2,592	(4)
CWA Authority	GENERAL PLANT - COMPUTER EQUIPMENT	3,727,058	2.50	93,176	36.86	1,373,794	35.18	1,311,019	1,217,843	(62,775)
CWA Authority	GENERAL PLANT - SOFTWARE	1,224,874	2.50	30,622	63.99	783,797	60.33	739,014	708,392	(44,783)
CWA Authority	GENERAL PLANT - TRANSPORTATION EQUIPMENT	4,869,351	2.50	121,734	11.39	554,619	9.44	459,590	337,856	(95,029)
CWA Authority	GENERAL PLANT - POWER OPERATED EQUIPMENT	182,776	2.50	4,569	9.56	17,473	6.75	12,329	7,760	(5,144)
CWA Authority	GENERAL PLANT - MISCELLANEOUS EQUIPMENT	103,654	2.50	2,591	5.00	5,183	5.00	5,183	2,591	-
CWA Authority	SYSTEM PUMPING - LAND	12,202								-
CWA Authority	SYSTEM PUMPING - STRUCTURES AND IMPROVEMENTS	72,070,713	2.50	1,801,768	1.76	1,268,445	1.58	1,137,885	(663,883)	(130,559)
CWA Authority	SYSTEM PUMPING - PUMPING EQUIPMENT	82,664,385	2.50	2,066,610	2.49	2,058,343	2.17	1,797,660	(268,950)	(260,684)
CWA Authority	TREATMENT - LAND	2,442,687								-
CWA Authority	TREATMENT - STRUCTURES AND IMPROVEMENTS	488,532,408	2.50	12,213,310	1.71	8,353,904	1.48	7,252,266	(4,961,044)	(1,101,638)
CWA Authority	TREATMENT - TREATMENT AND DISPOSAL EQUIPMENT	674,730,568	2.50	16,868,264	2.25	15,181,438	2.19	14,768,011	(2,100,253)	(413,426)
CWA Authority Total Plant in Service		2,710,716,677								
CWA Authority Depreciable Plant in Service (excl. Land)		**2,708,172,805**	**2.50**	**67,704,320**	**1.73**	**46,959,086**	**1.68**	**45,511,723**	**(22,192,597)**	**(1,447,363)**
Westfield Gas	DISTRIBUTION - LAND	46,086								
Westfield Gas	DISTRIBUTION - STRUCTURES AND IMPROVEMENTS	28,305	1.45	410	2.34	662	2.02	571	160	(92)
Westfield Gas	DISTRIBUTION - MAINS	8,022,505	2.94	235,862	1.96	157,241	1.63	130,828	(105,034)	(26,413)
Westfield Gas	DISTRIBUTION - MEASURING AND REGULATING EQUIPMENT	10,754	3.31	356	2.14	230	1.85	199	(157)	(31)
Westfield Gas	DISTRIBUTION - MEASURING AND REGULATING EQUIPMENT GCCS	92,124	3.30	3,040	3.27	3,012	2.65	2,441	(599)	(572)
Westfield Gas	DISTRIBUTION - SERVICES	2,431,691	3.98	96,781	2.77	67,358	2.29	55,682	(41,099)	(11,675)
Westfield Gas	DISTRIBUTION - METERS	631,795	3.74	23,629	2.70	17,058	2.09	13,186	(10,443)	(3,872)
Westfield Gas	DISTRIBUTION - METER INSTALLATIONS	16,798	3.40	571	1.74	292	1.52	256	(315)	(36)
Westfield Gas	DISTRIBUTION - HOUSE REGULATORS	86,663	3.95	3,423	2.14	1,855	1.85	1,604	(1,819)	(250)
Westfield Gas	DISTRIBUTION - INDUSTRIAL MEASURING & REGULATING EQUIPMENT	32,553	3.55	1,156	1.04	339	0.91	295	(860)	(43)
Westfield Gas Total Plant in Service		11,399,274								
Westfield Gas Depreciable Plant in Service (excl. Land)		**11,353,188**	**3.22**	**365,229**	**2.18**	**248,048**	**1.81**	**205,062**	**(160,166)**	**(42,985)**
Westfield Water	SUPPLY & PUMPING - LAND	1,461,607								
Westfield Water	SUPPLY & PUMPING - STRUCTURES AND IMPROVEMENTS	445,325	2.00	8,907	1.81	8,060	1.61	7,189	(1,718)	(872)
Westfield Water	SUPPLY & PUMPING - WELLS AND SPRINGS	2,694,434	2.00	53,889	1.34	36,105	1.27	34,348	(19,540)	(1,757)
Westfield Water	SUPPLY & PUMPING - SUPPLY MAINS	5,021,845	2.00	100,437	2.61	131,070	2.25	113,080	12,643	(17,990)
Westfield Water	SUPPLY & PUMPING - PUMPING EQUIPMENT	933,482	2.00	18,670	2.52	23,524	2.27	21,159	2,489	(2,365)
Westfield Water	SUPPLY & PUMPING - OTHER MISCELLANEOUS EQUIPMENT	69,093	2.00	1,382	2.36	1,631	2.29	1,582	200	(49)
Westfield Water	TREATMENT - LAND	119,398								
Westfield Water	TREATMENT - STRUCTURES AND IMPROVEMENTS	8,314,105	2.00	166,282	1.79	148,822	1.51	125,235	(41,047)	(23,587)
Westfield Water	TREATMENT - WATER TREATMENT EQUIPMENT	3,633,329	2.00	72,667	2.55	92,650	2.24	81,542	8,875	(11,108)
Westfield Water	TREATMENT - OTHER MISCELLANEOUS EQUIPMENT	116,676	2.00	2,334	3.55	4,142	3.55	4,142	1,808	-
Westfield Water	DISTRIBUTION - LAND	501,644								
Westfield Water	DISTRIBUTION - RESERVOIRS AND STANDPIPES	2,511,680	2.00	50,234	2.23	56,010	2.05	51,425	1,192	(4,585)
Westfield Water	DISTRIBUTION & TRANS - CIAC RESERVOIR & STANDPIPES	113,104	2.00	2,262	2.23	2,522	2.05	2,316	54	(206)
Westfield Water	DISTRIBUTION - MAINS TRANSMISSION AND DISTRIBUTION	11,305,806	2.00	226,116	0.97	109,666	0.84	95,308	(130,809)	(14,359)
Westfield Water	DISTRIBUTION- CIAC MAINS TRANSMISSION AND DISTRIBUTION	28,481,582	2.00	569,632	0.97	276,271	0.84	240,099	(329,533)	(36,173)
Westfield Water	DISTRIBUTION - SERVICES	49,731	2.00	995	2.33	1,159	2.18	1,083	88	(76)
Westfield Water	DISTRIBUTION - SERVICES (SYSTEM 2)	562,017	2.00	11,240	2.33	13,095	2.18	12,237	996	(858)
Westfield Water	DISTRIBUTION - CIAC SERVICES	1,299,819	2.00	25,996	2.33	30,286	2.18	28,301	2,304	(1,985)
Westfield Water	DISTRIBUTION - METERS/INSTALLATIONS	4,187,327	2.00	83,747	2.73	114,314	1.95	81,828	(1,919)	(32,486)
Westfield Water	DISTRIBUTION - HYDRANTS	234,275	2.00	4,686	2.17	5,084	1.67	3,904	(782)	(1,180)
Westfield Water	DISTRIBUTION - CIAC HYDRANTS	3,583,851	2.00	71,677	2.17	77,770	1.67	59,719	(11,958)	(18,051)
Westfield Water	DISTRIBUTION - OTHER MISCELLANEOUS EQUIPMENT	26,492	2.00	530	2.93	776	2.52	667	137	(109)
Westfield Water	GENERAL PLANT - COMPUTER EQUIPMENT	135,150	2.00	2,703	21.25	28,719	21.25	28,716	26,013	(3)
Westfield Water	GENERAL PLANT - SOFTWARE	693,656	2.00	13,873	30.43	211,080	25.09	174,049	160,176	(37,030)
Westfield Water	GENERAL PLANT - TRANSPORTATION EQUIPMENT	296,896	2.00	5,938	1.27	3,771	2.68	7,953	2,015	4,182
Westfield Water	GENERAL PLANT - TOOLS, SHOP AND GARAGE EQU. PRE-2017	18,474	2.00	369	0.00	-	0.00	-	(369)	-
Westfield Water	GENERAL PLANT - TOOLS, SHOP AND GARAGE EQU. POST-2016	26,690	2.00	534	5.00	1,335	5.00	1,335	801	-

Detailed Expense Adjustment - ALG Example

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]
Business Unit	**Account Description**	**Plant Balance 9/30/2017**	**Current Rate**	**Current Expense**	**CEG Rate**	**CEG Proposed Expense**	**OUCC Rate**	**OUCC Proposed Expense**	**OUCC Less Current Exp**	**OUCC Less CEG Proposed Exp**
Westfield Water	GENERAL PLANT - LABORATORY EQUIPMENT	28,511	2.00	570	1.99	567	3.90	1,112	542	545
Westfield Water	GENERAL PLANT - POWER OPERATED EQUIPMENT	48,781	2.00	976	3.02	1,473	2.62	1,277	302	(196)
Westfield Water	GENERAL PLANT - COMMUNICATION EQUIPMENT PRE-2017	20,563	2.00	411	0.00	-	0.00	-	(411)	-
Westfield Water	GENERAL PLANT - COMMUNICATION EQUIPMENT POST-2016	8,595	2.00	172	6.67	573	6.67	573	401	-
Westfield Water	GENERAL PLANT - MISCELLANEOUS EQUIPMENT	101,364	2.00	2,027	2.18	2,210	3.37	3,412	1,385	1,203
Westfield Water	GENERAL PLANT - OTHER EQUIPMENT	5,484	2.00	110	1.29	71	1.52	83	(26)	13
Westfield Water Total Plant in Service		77,050,786								
Westfield Water Depreciable Plant in Service (excl. Land)		**74,968,137**	**2.00**	**1,499,363**	**1.84**	**1,382,757**	**1.58**	**1,183,672**	**(315,690)**	**(199,084)**
Westfield Wastewater	COLLECTION - LAND	992,148								
Westfield Wastewater	COLLECTION - STRUCTURES AND IMPROVEMENTS	647	2.50	16	0.15	1	0.17	1	(15)	0
Westfield Wastewater	COLLECTION - COLLECTING SEWERS FORCE	6,386,947	2.50	159,674	1.97	125,823	1.68	107,279	(52,394)	(18,544)
Westfield Wastewater	COLLECTION - CIAC FORCE SEWERS	977,466	2.50	24,437	1.97	19,256	1.68	16,418	(8,019)	(2,838)
Westfield Wastewater	COLLECTION - COLLECTING SEWERS GRAVITY	33,845,321	2.50	846,133	2.12	717,521	1.76	596,092	(250,041)	(121,429)
Westfield Wastewater	COLLECTION - CIAC GRAVITY SEWERS	34,119,655	2.50	852,991	2.12	723,337	1.76	600,924	(252,067)	(122,413)
Westfield Wastewater	COLLECTION - SERVICES	28,023	2.50	701	2.44	684	2.11	592	(109)	(92)
Westfield Wastewater	COLLECTION - FLOW MEASURING DEVICES	1,326,434	2.50	33,161	3.65	48,415	3.03	40,242	7,081	(8,173)
Westfield Wastewater	GENERAL PLANT - OFFICE FURNITURE	26,666	2.50	667	0.00	-	0.00	-	(667)	-
Westfield Wastewater	GENERAL PLANT - OFFICE MACHINERY	24,322	2.50	608	0.00	-	0.00	-	(608)	-
Westfield Wastewater	GENERAL PLANT - COMPUTER EQUIPMENT	229,387	2.50	5,735	15.02	34,454	14.51	33,285	27,550	(1,169)
Westfield Wastewater	GENERAL PLANT - SOFTWARE	771,327	2.50	19,283	31.41	242,274	25.62	197,583	178,300	(44,691)
Westfield Wastewater	GENERAL PLANT - TRANSPORTATION EQUIPMENT	297,809	2.50	7,445	4.22	12,568	5.05	15,027	7,582	2,460
Westfield Wastewater	GENERAL PLANT - TOOLS, SHOP AND GARAGE EQUIPMENT	61,373	2.50	1,534	0.12	74	0.33	203	(1,331)	130
Westfield Wastewater	GENERAL PLANT - LABORATORY EQUIPMENT	38,004	2.50	950	0.36	137	0.79	299	(651)	162
Westfield Wastewater	GENERAL PLANT - POWER OPERATED EQUIPMENT	165,927	2.50	4,148	0.00	-	0.00	-	(4,148)	-
Westfield Wastewater	GENERAL PLANT - COMMUNICATION EQUIPMENT	21,151	2.50	529	0.00	-	0.00	-	(529)	-
Westfield Wastewater	GENERAL PLANT - MISCELLANEOUS EQUIPMENT	63,619	2.50	1,590	0.00	-	0.00	-	(1,590)	-
Westfield Wastewater	GENERAL PLANT - OTHER EQUIPMENT	145,914	2.50	3,648	5.82	8,492	5.36	7,816	4,168	(677)
Westfield Wastewater	SYSTEM PUMPING - LAND	81,580								
Westfield Wastewater	SYSTEM PUMPING - STRUCTURES AND IMPROVEMENTS	1,796,821	2.50	44,921	2.20	39,530	1.80	32,313	(12,608)	(7,217)
Westfield Wastewater	SYSTEM PUMPING - PUMPING EQUIPMENT	3,474,853	2.50	86,871	3.61	125,442	2.69	93,455	6,584	(31,987)
Westfield Wastewater	SYSTEM PUMPING - CIAC PUMPING EQUIPMENT	155,234	2.50	3,881	3.61	5,604	2.69	4,175	294	(1,429)
Westfield Wastewater	TREATMENT - LAND	210,269								
Westfield Wastewater	TREATMENT - STRUCTURES AND IMPROVEMENTS	16,819,637	2.50	420,491	1.81	304,435	1.52	256,344	(164,146)	(48,091)
Westfield Wastewater	TREATMENT - TREATMENT AND DISPOSAL EQUIPMENT	7,237,924	2.50	180,948	3.08	222,928	2.48	179,464	(1,484)	(43,464)
Westfield Wastewater Total Plant in Service		109,298,458								
Westfield Wastewater Depreciable Plant in Service (excl. Land)		**$ 108,014,462**	**2.50**	**$ 2,700,362**	**2.44**	**$ 2,630,974**	**2.02**	**$ 2,181,512**	**$ (518,850)**	**$ (449,462)**
TOTAL PLANT STUDIED		**$ 5,429,882,872**	**2.59**	**$ 140,744,775**	**1.77**	**$ 95,915,770**	**1.67**	**$ 90,673,889**	**$ (50,070,886)**	**$ (5,241,881)**

[1], [2], [3], [4], [5], [6], [7] See Attachment SEK-1
[8] See Exhibit DJG-5
[9] = [3] * [8] / 100
[10] = [9] - [5]
[11] = [9] - [7]

Detailed Rate Comparison - ALG Example

		[1]	[2]		[3]		[4]	
			CEG Proposal		OUCC Proposal		OUCC Adjustment	
Account No.	Description	Plant 12/31/2016	Rate	Annual Accrual	Rate	Annual Accrual	Rate	Annual Accrual
	GAS OPERATIONS							
	PRESSURE REGULATING							
305.30	STRUCTURES AND IMPROVEMENTS	530,574	1.05%	5,584	0.99%	5,250	-0.06%	-334
319.00	PRESSURE REGULATING EQUIPMENT	1,993,407	3.01%	59,916	2.73%	54,517	-0.28%	-5,399
	TOTAL PRESSURE REGULATING	2,523,980	2.60%	65,500	2.37%	59,767	-0.23%	-5,733
	UNDERGROUND STORAGE PLANT							
350.20	LEASEHOLDS	583,865	0.28%	1,622	0.50%	2,894	0.22%	1,272
351.00	STRUCTURES AND IMPROVEMENTS	785,779	0.98%	7,715	1.13%	8,869	0.15%	1,154
352.00	WELLS	11,558,237	0.60%	68,810	0.64%	73,725	0.04%	4,915
352.30	NON-RECOVERABLE GAS	4,073,028	0.85%	34,709	0.79%	32,223	-0.06%	-2,486
353.00	LINES	3,157,718	1.08%	34,029	1.09%	34,406	0.01%	377
355.00	MEASURING AND REGULATING EQUIPMENT	839,372	4.59%	38,519	3.78%	31,760	-0.81%	-6,759
356.00	PURIFICATION EQUIPMENT	4,504,424	1.63%	73,523	1.56%	70,321	-0.07%	-3,202
357.00	OTHER EQUIPMENT	50,445	2.24%	1,130	1.94%	980	-0.30%	-150
	TOTAL UNDERGROUND STORAGE PLANT	25,552,869	1.02%	260,057	1.00%	255,178	-0.02%	-4,879
	TRANSMISSION PLANT - U.G.S.							
365.20	RIGHTS OF WAY	278,517	1.13%	3,147	1.33%	3,702	0.20%	555
366.10	STRUCTURES AND IMPROVEMENTS	788,150	1.57%	12,392	1.53%	12,083	-0.04%	-309
367.10	MAINS	8,937,585	1.52%	136,271	1.42%	126,699	-0.10%	-9,572
368.00	COMPRESSOR STATION EQUIPMENT	2,097,727	1.08%	22,745	1.35%	28,345	0.27%	5,600
369.10	MEASURING AND REGULATING EQUIPMENT	1,438,708	2.90%	41,770	2.69%	38,637	-0.21%	-3,133
370.00	COMMUNICATION EQUIPMENT	329,229	1.96%	6,443	2.43%	7,998	0.47%	1,555
	TOTAL TRANSMISSION - U.G.S.	13,869,916	1.61%	222,768	1.57%	217,464	-0.04%	-5,304
	TRANSMISSION PLANT - MARION COUNTY							
365.40	RIGHTS OF WAY	772,529	1.50%	11,592	1.45%	11,197	-0.05%	-395
366.00	STRUCTURES AND IMPROVEMENTS	231,059	1.87%	4,326	1.67%	3,850	-0.20%	-476
367.00	MAINS	44,168,438	2.12%	935,923	1.69%	745,082	-0.43%	-190,841
369.00	MEASURING AND REGULATING EQUIPMENT	1,943,466	2.56%	49,804	2.47%	48,045	-0.09%	-1,759
	TOTAL TRANSMISSION PLANT- MARION COUNTY	47,115,492	2.13%	1,001,645	1.72%	808,174	-0.41%	-193,471
	DISTRIBUTION PLANT							
376.10	VALVES, VALVE PITS, ETC.	8,327,142	2.13%	177,457	1.82%	151,902	-0.31%	-25,555
376.20	STEEL INSTALLED PRIOR TO 1955	258,340	0.00%	0	0.00%	0	0.00%	0
376.21	STEEL AND PLASTIC INSTALLED SUBSEQUENT TO 1954	291,795,386	1.52%	4,421,821	1.34%	3,918,477	-0.18%	-503,344

Detailed Rate Comparison - ALG Example

Account No.	Description	[1] Plant 12/31/2016	[2] CEG Proposal Rate	[2] CEG Proposal Annual Accrual	[3] OUCC Proposal Rate	[3] OUCC Proposal Annual Accrual	[4] OUCC Adjustment Rate	[4] OUCC Adjustment Annual Accrual
376.70	CAST IRON AND WROUGHT IRON	1,128,297	0.00%	0	0.00%	0	0.00%	0
380.00	SERVICES	248,358,721	2.33%	5,784,897	2.06%	5,125,504	-0.27%	-659,393
381.00	METERS	31,719,431	2.39%	757,348	2.04%	647,839	-0.35%	-109,509
382.00	METER INSTALLATIONS	5,804,410	1.59%	92,559	1.45%	84,219	-0.14%	-8,340
383.00	HOUSE REGULATORS	4,623,134	1.43%	66,119	1.39%	64,258	-0.04%	-1,861
384.00	HOUSE REGULATOR INSTALLATIONS	700,221	1.46%	10,195	1.50%	10,530	0.04%	335
386.00	OTHER PROPERTY - CUSTOMER PREMISES	356,362	8.39%	29,914	5.83%	20,769	-2.56%	-9,145
387.00	OTHER EQUIPMENT	165,536	5.86%	9,702	5.68%	9,410	-0.18%	-292
	TOTAL DISTRIBUTION PLANT	593,236,982	1.91%	11,350,012	1.69%	10,032,908	-0.22%	-1,317,104
	GENERAL PLANT							
390.00	STRUCTURES AND IMPROVEMENTS	88,254	4.38%	3,863	2.86%	2,522	-1.52%	-1,341
391.40	OFFICE FURNITURE	306,670	0.00%	0	0.00%	0	0.00%	0
391.50	OFFICE MACHINES	10,612	0.00%	0	0.00%	0	0.00%	0
391.60	COMPUTER EQUIPMENT	629,506	0.00%	0	0.00%	0	0.00%	0
391.70	SOFTWARE	3,505,874	2.28%	79,986	4.01%	140,679	1.73%	60,693
392.10	TRANSPORTATION EQUIPMENT	7,866,007	8.15%	641,236	6.92%	544,201	-1.23%	-97,035
393.10	STORES EQUIPMENT	28,893	2.99%	865	3.28%	947	0.29%	82
394.10	TOOLS, SHOP AND GARAGE EQUIPMENT	2,052,543	0.87%	17,813	1.49%	30,675	0.62%	12,862
396.10	POWER OPERATED EQUIPMENT	2,158,963	1.51%	32,598	1.76%	38,054	0.25%	5,456
397.10	COMMUNICATION EQUIPMENT	584,483	3.74%	21,840	4.42%	25,844	0.68%	4,004
398.10	MISCELLANEOUS EQUIPMENT	629,816	5.19%	32,678	5.13%	32,314	-0.06%	-364
	TOTAL GENERAL PLANT	17,861,619	4.65%	830,879	4.56%	815,237	-0.09%	-15,642
	NONDEPRECIABLE PLANT							
304.30	PRESSURE REGULATING - LAND	147,578						
350.00	UNDERGROUND STORAGE - LAND	20,500						
360.10	PEAK SHAVING LNG - LAND	0						
365.10	TRANSMISSION - U.G.S. - LAND	30,999						
365.30	TRANSMISSION - MARION COUNTY - LAND	45,878						
	TOTAL NONDEPRECIABLE PLANT	244,954						
	TOTAL GAS OPERATIONS	**700,405,813**	**1.96%**	**13,730,861**	**1.74%**	**12,188,727**	**-0.22%**	**-1,542,134**
	THERMAL							
	STEAM DIVISION							
	PRODUCTION PLANT							

Detailed Rate Comparison - ALG Example

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311.00	STRUCTURES AND IMPROVEMENTS	10,857,472	3.83%	415,621	1.76%	191,364	-2.07%	-224,257
312.00	BOILER PLANT EQUIPMENT	44,298,688	5.00%	2,214,625	2.20%	975,067	-2.80%	-1,239,558
314.00	TURBOGENERATOR UNITS	2,412,277	2.56%	61,807	1.17%	28,289	-1.39%	-33,518
315.00	ACCESSORY ELECTRIC EQUIPMENT	3,134,757	4.13%	129,382	1.52%	47,754	-2.61%	-81,628
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	946,913	5.53%	52,336	2.81%	26,571	-2.72%	-25,765
	TOTAL PRODUCTION PLANT	61,650,107	4.66%	2,873,771	2.06%	1,269,045	-2.60%	-1,604,726
	DISTRIBUTION PLANT							
360.00	LAND RIGHTS	1,792	2.51%	45	2.29%	41	-0.22%	-4
366.00	MAINS	22,347,601	1.93%	431,206	1.50%	335,708	-0.43%	-95,498
369.00	SERVICES	3,837,815	2.63%	101,076	2.24%	86,009	-0.39%	-15,067
370.00	METERS	555,677	2.32%	12,866	2.08%	11,565	-0.24%	-1,301
	TOTAL DISTRUBUTION PLANT	26,742,885	2.04%	545,193	1.62%	433,323	-0.42%	-111,870
	GENERAL PLANT							
391.10	OFFICE FURNITURE	82,540	0.00%	0	0.00%	0	0.00%	0
391.20	OFFICE EQUIPMENT	6,370	0.00%	0	0.00%	0	0.00%	0
391.30	COMPUTER EQUIPMENT	29,670	0.00%	0	0.00%	0	0.00%	0
391.40	SOFTWARE	148,946	0.00%	0	0.00%	0	0.00%	0
392.00	TRANSPORTATION EQUIPMENT	972,354	1.78%	17,315	2.13%	20,707	0.35%	3,392
393.00	STORES EQUIPMENT	77,421	3.41%	2,637	3.38%	2,617	-0.03%	-20
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	304,495	2.95%	8,991	3.05%	9,293	0.10%	302
395.00	LABORATORY EQUIPMENT	106,276	3.58%	3,808	4.24%	4,502	0.66%	694
396.00	POWER OPERATED EQUIPMENT	355,208	8.98%	31,898	7.17%	25,453	-1.81%	-6,445
397.00	COMMUNICATION EQUIPMENT	15,097	15.46%	2,334	14.30%	2,159	-1.16%	-175
398.00	MISCELLANEOUS EQUIPMENT	305,878	3.71%	11,349	4.04%	12,365	0.33%	1,016
	TOTAL PRODUCTION PLANT	2,404,254	3.26%	78,332	3.21%	77,097	-0.05%	-1,235
	NONDEPRECIABLE PLANT							
370.00	LAND	47,847						
	TOTAL NONDEPRECIABLE PLANT	47,847						
	TOTAL STEAM DIVISION	90,845,093	3.85%	3,497,296	1.96%	1,779,465	-1.89%	-1,717,831
	CHILLED WATER DIVISION							
	PRODUCTION PLANT							
311.00	STRUCTURES AND IMPROVEMENTS	13,966,500	1.79%	249,503	1.56%	217,667	-0.23%	-31,836

Detailed Rate Comparison - ALG Example

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312.00	BOILER PLANT EQUIPMENT	34,788,154	2.13%	739,527	1.87%	649,264	-0.26%	-90,263
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	981,925	3.35%	32,919	2.78%	27,259	-0.57%	-5,660
	TOTAL PRODUCTION PLANT	49,736,579	2.05%	1,021,949	1.80%	894,191	-0.26%	-127,758
	DISTRIBUTION PLANT							
366.00	MAINS	26,313,267	2.92%	768,453	2.43%	640,093	-0.49%	-128,360
369.00	SERVICES	9,214,946	3.19%	293,827	2.67%	245,755	-0.52%	-48,072
370.00	METERS	860,279	2.97%	25,545	2.33%	20,037	-0.64%	-5,508
	TOTAL DISTRUBUTION PLANT	36,388,492	2.99%	1,087,825	2.49%	905,886	-0.50%	-181,939
	GENERAL PLANT							
391.10	OFFICE FURNITURE	15,946	0.00%	0	0.00%	0	0.00%	0
391.30	COMPUTER EQUIPMENT	38,149	0.00%	0	0.00%	0	0.00%	0
391.40	SOFTWARE	124,575	0.00%	0	0.00%	0	0.00%	0
392.00	TRANSPORTATION EQUIPMENT	269,725	3.27%	8,812	3.33%	8,972	0.06%	160
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	243,929	3.83%	9,346	4.07%	9,933	0.24%	587
397.00	COMMUNICATION EQUIPMENT	412,646	6.39%	26,369	6.40%	26,393	0.01%	24
	TOTAL GENERAL PLANT	1,104,970	4.03%	44,527	4.10%	45,297	0.07%	770
	NONDEPRECIABLE PLANT							
370.00	LAND	915,614						
	TOTAL NONDEPRECIABLE PLANT	915,614						
	TOTAL CHILLED WATER DIVISION	88,145,656	2.44%	2,154,301	2.09%	1,845,374	-0.35%	-308,927
	TOTAL THERMAL PLANT	**178,990,748**	**3.16%**	**5,651,597**	**2.03%**	**3,624,839**	**-1.13%**	**-2,026,758**
	CITIZENS GAS OF WESTFIELD							
	DISTRIBUTION PLANT							
375.00	STRUCTURES AND IMPROVEMENTS	28,305	2.34%	662	2.02%	571	-0.32%	-91
376.00	MAINS	7,610,508	1.96%	149,195	1.63%	124,109	-0.33%	-25,086
378.00	MEASURING AND REGULATING EQUIPMENT - GENERAL	10,754	2.14%	230	1.85%	199	-0.29%	-31
379.00	MEASURING AND REGULATING EQUIPMENT - GCCS	92,124	3.27%	3,008	2.65%	2,441	-0.62%	-567
380.00	SERVICES	2,255,573	2.77%	62,410	2.29%	51,649	-0.48%	-10,761

Detailed Rate Comparison - ALG Example

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381.00	METERS	633,993	2.70%	17,113	2.09%	13,232	-0.61%	-3,881
382.00	METER INSTALLATIONS	16,927	1.74%	295	1.52%	258	-0.22%	-37
383.00	HOUSE REGULATORS	86,663	2.14%	1,853	1.85%	1,604	-0.29%	-249
385.00	INDUSTRIAL MEASURING AND REGULATING EQUIPMENT	32,553	1.04%	337	0.91%	295	-0.13%	-42
	TOTAL DISTRIBUTION PLANT	10,767,399	2.18%	235,103	1.81%	194,359	-0.38%	-40,744
	NONDEPRECIABLE PLANT							
370.00	LAND	46,086						
	TOTAL NONDEPRECIABLE PLANT	46,086						
	TOTAL CITIZENS GAS OF WESTFIELD	**10,813,485**	**2.17%**	**235,103**	**1.80%**	**194,359**	**-0.38%**	**-40,744**
	WATER PLANT							
	CITIZENS WATER							
	SOURCE OF SUPPLY AND PUMPING PLANT							
304.20	STRUCTURES AND IMPROVEMENTS	25,467,134	2.31%	589,350	2.05%	522,965	-0.26%	-66,385
305.20	COLLECTING AND IMPOUNDING RESERVOIRS	53,429,789	1.29%	686,631	1.16%	622,362	-0.12%	-64,269
306.20	LAKE, RIVER AND OTHER INTAKES	2,946,467	1.93%	56,781	1.63%	48,000	-0.30%	-8,781
307.20	WELLS AND SPRINGS	33,826,192	2.28%	771,067	1.94%	655,194	-0.34%	-115,873
311.20	PUMPING EQUIPMENT	55,892,133	2.85%	1,595,332	2.52%	1,410,786		
339.20	OTHER MISCELLANEOUS EQUIPMENT	4,430,135	4.01%	177,612	3.48%	154,236	-0.53%	-23,376
	TOTAL SOURCE OF SUPPLY AND PUMPING EQUIPMENT	175,991,851	2.20%	3,876,773	1.94%	3,413,543	-0.26%	-463,230
	TREATMENT PLANT							
304.30	STRUCTURES AND IMPROVEMENTS	192,720,165	1.42%	2,735,762	1.30%	2,513,622	-0.12%	-222,140
320.30	WATER TREATMENT EQUIPMENT	172,816,446	2.24%	3,875,685	2.20%	3,800,690	-0.04%	-74,995
	TOTAL TREATMENT PLANT	365,536,611	1.81%	6,611,447	1.73%	6,314,312	-0.08%	-297,135
	DISTRIBUTION PLANT							
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES	15,191,206	1.82%	276,702	1.81%	274,493	-0.01%	-2,209
331.40	TRANSMISSION AND DISTRIBUTION MAINS	814,152,967	0.55%	4,472,595	0.56%	4,543,331	0.01%	70,736
333.40	SERVICES	103,194,099	1.15%	1,191,749	1.20%	1,240,585	0.05%	48,836
334.40	METERS AND METER INSTALLATIONS	67,806,374	0.42%	282,207	0.34%	232,341	-0.07%	-49,866
335.40	HYDRANTS	42,226,328	1.10%	464,447	1.09%	458,738	-0.01%	-5,709

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339.40	OTHER MISCELLANEOUS EQUIPMENT	2,917,635	2.30%	66,960	2.32%	67,620	0.02%	660
	TOTAL DISTRIBUTION PLANT	1,045,488,609	0.65%	6,754,660	0.65%	6,817,109	0.01%	62,449
	GENERAL PLANT							
340.51	OFFICE FURNITURE	131,351	4.38%	5,751	4.37%	5,735	-0.01%	-16
340.53	COMPUTER EQUIPMENT	645,747	42.95%	277,373	40.94%	264,391	-2.01%	-12,982
340.54	SOFTWARE	1,894,049	27.63%	523,296	27.58%	522,368	-0.05%	-928
341.50	TRANSPORTATION EQUIPMENT	6,848,470	8.57%	586,597	7.14%	488,942	-1.43%	-97,655
343.50	TOOLS, SHOP AND GARAGE EQUIPMENT	80,154	5.39%	4,323	5.38%	4,315	-0.01%	-8
344.50	LABORATORY EQUIPMENT	406,980	8.13%	33,087	8.04%	32,702		
345.50	POWER OPERATED EQUIPMENT	2,511,081	4.58%	114,949	3.95%	99,262	-0.62%	-15,687
	TOTAL GENERAL PLANT	12,517,831	12.35%	1,545,376	11.33%	1,417,714	-1.02%	-127,662
	NONDEPRECIABLE PLANT							
303.20	LAND AND LAND RIGHTS - PUMPING	22,247,515						
303.30	LAND AND LAND RIGHTS - TREATMENT	9,171,858						
303.40	LAND AND LAND RIGHTS - DISTRIBUTION	1,066,387						
	TOTAL NONDEPRECIABLE PLANT	32,485,760						
	TOTAL CITIZENS WATER	1,632,020,663	1.15%	18,788,256	1.10%	17,962,679	-0.05%	-296,476
	WESTFIELD WATER							
	SOURCE OF SUPPLY AND PUMPING PLANT							
304.20	STRUCTURES AND IMPROVEMENTS	405,037	1.81%	7,319	1.61%	6,538	-0.19%	-781
307.20	WELLS AND SPRINGS	2,580,270	1.34%	34,458	1.27%	32,893	-0.06%	-1,565
309.20	SUPPLY MAINS	5,021,845	2.61%	131,198	2.25%	113,080	-0.36%	-18,118
311.20	PUMPING EQUIPMENT	923,141	2.52%	23,292	2.27%	20,925	-0.26%	-2,367
339.20	OTHER MISCELLANEOUS EQUIPMENT	13,066	2.36%	309	2.29%	299	-0.08%	-10
	TOTAL SOURCE OF SUPPLY AND PUMPING EQUIPMENT	8,943,360	2.20%	196,576	1.94%	173,735	-0.26%	-22,841
	TREATMENT PLANT							
304.30	STRUCTURES AND IMPROVEMENTS	8,197,053	1.79%	146,326	1.51%	123,472	-0.28%	-22,854
320.30	WATER TREATMENT EQUIPMENT	3,536,004	2.55%	90,323	2.24%	79,357	-0.31%	-10,966
	TOTAL TREATMENT PLANT	11,733,057	2.02%	236,649	1.73%	202,829	-0.29%	-33,820

Detailed Rate Comparison - ALG Example

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	DISTRIBUTION PLANT							
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES	2,607,539	2.23%	58,091	2.05%	53,388	-0.18%	-4,703
331.40	TRANSMISSION AND DISTRIBUTION MAINS	34,063,610	0.97%	331,768	0.84%	287,155	-0.13%	-44,613
333.40	SERVICES	920,688	2.33%	21,471	2.18%	20,046	-0.15%	-1,425
334.40	METERS AND METER INSTALLATIONS	3,987,870	2.73%	108,993	1.95%	77,930	-0.78%	-31,063
335.40	HYDRANTS	2,617,375	2.17%	56,869	1.67%	43,614	-0.51%	-13,255
339.40	OTHER MISCELLANEOUS EQUIPMENT	25,718	2.93%	754	2.52%	647	-0.41%	-107
	TOTAL DISTRIBUTION PLANT	44,222,801	1.31%	577,946	1.09%	482,780	-0.22%	-95,166
	GENERAL PLANT							
340.53	COMPUTER EQUIPMENT	135,150	21.25%	28,716	21.25%	28,716	0.00%	0
340.54	SOFTWARE	658,000	30.43%	200,222	25.09%	165,103	-5.34%	-35,119
341.50	TRANSPORTATION EQUIPMENT	210,045	1.27%	2,678	2.68%	5,626	1.40%	2,948
343.50	TOOLS, SHOP AND GARAGE EQUIPMENT	18,474	0.00%	0	0.00%	0	0.00%	0
344.50	LABORATORY EQUIPMENT	28,511	1.99%	567	3.90%	1,112	1.91%	545
345.50	POWER OPERATED EQUIPMENT	48,781	3.02%	1,471	2.62%	1,277	-0.40%	-194
346.50	COMMUNICATION EQUIPMENT	20,563	0.00%	0	0.00%	0	0.00%	0
347.50	MISCELLANEOUS EQUIPMENT	101,364	2.18%	2,211	3.37%	3,412	1.19%	1,201
348.50	OTHER TANGIBLE EQUIPMENT	5,484	1.29%	71	1.52%	83	0.22%	12
	TOTAL GENERAL PLANT	1,226,371	19.24%	235,936	16.74%	205,330	-2.50%	-30,606
	NONDEPRECIABLE PLANT							
303.20	LAND AND LAND RIGHTS - PUMPING	1,461,607						
303.30	LAND AND LAND RIGHTS - TREATMENT	119,398						
303.40	LAND AND LAND RIGHTS - DISTRIBUTION	501,644						
	TOTAL NONDEPRECIABLE PLANT	2,082,649						
	TOTAL WESTFIELD WATER	68,208,238	1.83%	1,247,107	1.56%	1,064,675	-0.27%	-33,926
	TOTAL WATER PLANT	**1,700,228,901**	**1.18%**	**20,035,363**	**1.12%**	**19,027,354**	**-0.06%**	**-33,926**
	WASTEWATER PLANT							
	CITIZENS WASTEWATER							
	COLLECTION PLANT							
360.20	COLLECTING SEWERS - FORCE	14,501,739	2.17%	315,265	1.79%	260,012	-0.38%	-55,253

Detailed Rate Comparison - ALG Example

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361.20	COLLECTING SEWERS - GRAVITY	1,121,230,973	1.19%	13,398,100	1.23%	13,829,542	0.04%	431,442
362.20	SPECIAL COLLECTING STRUCTURES	155,215,961	1.36%	2,117,498	1.55%	2,409,211	0.19%	291,713
362.22	SPECIAL COLLECTING STRUCTURES - DROP SHAFTS	33,115,926	2.45%	810,951	2.21%	731,333	-0.24%	-79,618
	TOTAL COLLECTION PLANT	1,324,064,599	1.26%	16,641,814	1.30%	17,230,097	0.04%	588,283
	PUMPING PLANT							
354.30	STRUCTURES AND IMPROVEMENTS	66,901,633	1.76%	1,180,727	1.58%	1,056,273	-0.19%	-124,454
380.40	PUMPING EQUIPMENT	80,479,604	2.49%	2,005,660	2.17%	1,750,148	-0.32%	-255,512
	TOTAL PUMPING EQUIPMENT	147,381,238	2.16%	3,186,387	1.90%	2,806,422	-0.26%	-379,965
	TREATMENT PLANT							
354.40	STRUCTURES AND IMPROVEMENTS	480,980,986	1.71%	8,245,158	1.48%	7,140,165	-0.23%	-1,104,993
380.40	TREATMENT AND DISPOSAL EQUIPMENT	673,089,057	2.55%	15,118,468	2.19%	14,732,083	-0.37%	-386,385
	TOTAL TREATMENT PLANT	1,154,070,042	2.02%	23,363,626	1.90%	21,872,249	-0.13%	-1,491,377
	GENERAL PLANT							
390.71	OFFICE FURNITURE	150,921	4.22%	6,372	4.22%	6,365	0.00%	-7
390.73	COMPUTER EQUIPMENT	3,377,670	36.86%	1,244,845	35.18%	1,188,119	-1.68%	-56,726
390.74	SOFTWARE	713,636	63.99%	456,630	60.33%	430,564	-3.65%	-26,066
391.70	TRANSPORTATION EQUIPMENT	4,639,911	11.39%	528,625	9.44%	437,935	-1.95%	-90,690
395.70	POWER OPERATED EQUIPMENT	97,576	9.56%	9,327	6.75%	6,582	-2.81%	-2,745
	TOTAL GENERAL PLANT	8,979,714	25.01%	2,245,799	23.05%	2,069,565	-1.96%	-176,234
	NONDEPRECIABLE PLANT							
353.20	LAND AND LAND RIGHTS - COLLECTION	52,482						
353.30	LAND AND LAND RIGHTS - PUMPING	12,202						
353.40	LAND AND LAND RIGHTS - TREATMENT	2,442,687						
	TOTAL NONDEPRECIABLE PLANT	2,507,372						
	TOTAL CITIZENS WASTEWATER	2,637,002,965	1.72%	45,437,626	1.67%	43,978,332	-0.06%	588,283
	WESTFIELD WASTEWATER							
	COLLECTION PLANT							
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	647	0.15%	1	0.17%	1	0.02%	0

Detailed Rate Comparison - ALG Example

Account No.	Description	[1] Plant 12/31/2016	[2] CEG Proposal Rate	[2] CEG Proposal Annual Accrual	[3] OUCC Proposal Rate	[3] OUCC Proposal Annual Accrual	[4] OUCC Adjustment Rate	[4] OUCC Adjustment Annual Accrual
360.20	COLLECTING SEWERS - FORCE	7,057,903	1.97%	139,136	1.68%	118,549	-0.29%	-20,587
361.20	COLLECTING SEWERS - GRAVITY	62,411,132	2.12%	1,324,890	1.76%	1,099,200	-0.36%	-225,690
363.20	SERVICES	28,023	2.44%	683	2.11%	592	-0.33%	-91
364.20	FLOW MEASURING DEVICES	1,303,276	3.65%	47,534	3.03%	39,539	-0.61%	-7,995
	TOTAL COLLECTION PLANT	70,800,981	2.14%	1,512,244	1.78%	1,257,881	-0.36%	-254,363
	PUMPING PLANT							
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1,795,756	2.20%	39,432	1.80%	32,294	-0.40%	-7,138
371.30	PUMPING EQUIPMENT	3,608,510	3.61%	130,368	2.69%	97,050	-0.92%	-33,318
	TOTAL PUMPING EQUIPMENT	5,404,266	3.14%	169,800	2.39%	129,343	-0.75%	-40,457
	TREATMENT PLANT							
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	16,819,637	1.81%	304,400	1.52%	256,344	-0.29%	-48,056
380.40	TREATMENT AND DISPOSAL EQUIPMENT	7,198,134	3.08%	221,720	2.48%	178,477	-0.60%	-43,243
	TOTAL TREATMENT PLANT	24,017,771	2.19%	526,120	1.81%	434,822	-0.38%	-91,298
	GENERAL PLANT							
390.71	OFFICE FURNITURE	26,666	0.00%	0	0.00%	0	0.00%	0
390.72	OFFICE MACHINES	24,322	0.00%	0	0.00%	0	0.00%	0
390.73	COMPUTER EQUIPMENT	229,387	15.02%	34,458	14.51%	33,285	-0.51%	-1,173
390.74	SOFTWARE	747,354	31.41%	234,767	25.62%	191,442	-5.80%	-43,325
391.70	TRANSPORTATION EQUIPMENT	230,064	4.22%	9,713	5.05%	11,609	0.82%	1,896
393.70	TOOLS, SHOP AND GARAGE EQUIPMENT	61,373	0.12%	75	0.33%	203	0.21%	128
394.70	LABORATORY EQUIPMENT	38,004	0.36%	138	0.79%	299	0.42%	161
395.70	POWER OPERATED EQUIPMENT	165,927	0.00%	0	0.00%	0	0.00%	0
396.70	COMMUNICATION EQUIPMENT	21,151	0.00%	0	0.00%	0	0.00%	0
397.70	MISCELLANEOUS EQUIPMENT	63,619	0.00%	0	0.00%	0	0.00%	0
398.70	OTHER EQUIPMENT	145,914	5.82%	8,486	5.36%	7,816	-0.46%	-670
	TOTAL GENERAL PLANT	1,753,781	16.40%	287,637	13.95%	244,654	-2.45%	-42,983
	NONDEPRECIABLE PLANT							
353.20	LAND AND LAND RIGHTS - COLLECTION	1,003,473						
353.30	LAND AND LAND RIGHTS - PUMPING	81,580						
353.40	LAND AND LAND RIGHTS - TREATMENT	210,269						
	TOTAL NONDEPRECIABLE PLANT	1,295,322						
	TOTAL WESTFIELD WASTEWATER	103,272,121	2.42%	2,495,801	2.00%	2,066,700	-0.42%	-124,617

Detailed Rate Comparison - ALG Example

Account No.	Description	[1] Plant 12/31/2016	[2] CEG Proposal Rate	[2] CEG Proposal Annual Accrual	[3] OUCC Proposal Rate	[3] OUCC Proposal Annual Accrual	[4] OUCC Adjustment Rate	[4] OUCC Adjustment Annual Accrual
	TOTAL WASTEWATER PLANT	**2,740,275,086**	**1.75%**	**47,933,427**	**1.68%**	**46,045,032**	**-0.07%**	**-124,617**
	SHARED SERVICES							
	DEPRECIABLE PLANT							
390.00	STRUCTURES AND IMPROVEMENTS	45,195,069	2.73%	1,231,876	2.67%	1,205,088	-0.06%	-26,788
391.40	OFFICE FURNITURE	3,176,034	2.69%	85,471	3.30%	104,651	0.60%	19,180
391.50	OFFICE MACHINES	1,428,878	6.50%	92,814	6.56%	93,734	0.06%	920
391.60	COMPUTER EQUIPMENT	6,148,499	21.22%	1,304,706	22.64%	1,392,022	1.42%	87,316
391.70	SOFTWARE	27,031,684	16.05%	4,338,543	19.99%	5,403,326	3.94%	1,064,783
392.10	TRANSPORTATION EQUIPMENT	75,108	10.49%	7,878	8.94%	6,715	-1.55%	-1,163
394.10	TOOLS, SHOP AND GARAGE EQUIPMENT	19,606	5.03%	986	5.03%	986	0.00%	0
397.10	COMMUNICATION EQUIPMENT	3,958,858	6.56%	259,786	6.58%	260,634	0.02%	848
398.10	OTHER EQUIPMENT	425,435	5.09%	21,636	5.07%	21,571	-0.02%	-65
	TOTAL DEPRECIABLE PLANT	87,459,170	8.40%	7,343,696	9.71%	8,488,728	1.31%	1,145,032
	NONDEPRECIABLE PLANT							
389.00	LAND	1,581,974						
	TOTAL NONDEPRECIABLE PLANT	1,581,974						
	TOTAL SHARED SERVICES	**89,041,144**	**8.25%**	**7,343,696**	**9.53%**	**8,488,728**	**1.29%**	**1,145,032**
	TOTAL PLANT STUDIED	**5,419,755,177**	**1.75%**	**94,930,047**	**1.65%**	**89,569,039**	**-0.10%**	**-5,361,008**

[1], [2] See Company depreciation study
[3] Exhibit DJG-5
[4] = [3] - [2]

Depreciation Rate Development - ALG Example

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
	GAS OPERATIONS														
	PRESSURE REGULATING														
305.30	STRUCTURES AND IMPROVEMENTS	530,574	R2.5	65	0%	530,574	361,143	169,431	32.27	5,250	0.99%	0	0.00%	5,250	**0.99%**
319.00	PRESSURE REGULATING EQUIPMENT	1,993,407	L2	27	0%	1,993,407	1,178,929	814,478	14.94	54,517	2.73%	0	0.00%	54,517	**2.73%**
	TOTAL PRESSURE REGULATING	2,523,980				2,523,980	1,540,072	983,908	16.46	59,767	2.37%	0	0.00%	59,767	**2.37%**
	UNDERGROUND STORAGE PLANT														
350.20	LEASEHOLDS	583,865	S0	40	0%	583,865	547,894	35,971	12.43	2,894	0.50%	0	0.00%	2,894	**0.50%**
351.00	STRUCTURES AND IMPROVEMENTS	785,779	R2	50	0%	785,779	575,411	210,368	23.72	8,869	1.13%	0	0.00%	8,869	**1.13%**
352.00	WELLS	11,558,237	R2	55	-5%	12,136,148	10,584,976	1,551,172	21.04	46,258	0.40%	27,467	0.24%	73,725	**0.64%**
352.30	NON-RECOVERABLE GAS	4,073,028	R2	40	0%	4,073,028	3,690,220	382,808	11.88	32,223	0.79%	0	0.00%	32,223	**0.79%**
353.00	LINES	3,157,718	S2.5	38	0%	3,157,718	2,672,244	485,474	14.11	34,406	1.09%	0	0.00%	34,406	**1.09%**
355.00	MEASURING AND REGULATING EQUIPMENT	839,372	L2.5	25	-5%	881,341	329,358	551,983	17.38	29,345	3.50%	2,415	0.29%	31,760	**3.78%**
356.00	PURIFICATION EQUIPMENT	4,504,424	R2.5	55	-5%	4,729,645	2,399,200	2,330,445	33.14	63,525	1.41%	6,796	0.15%	70,321	**1.56%**
357.00	OTHER EQUIPMENT	50,445	R2.5	40	0%	50,445	22,674	27,771	28.33	980	1.94%	0	0.00%	980	**1.94%**
	TOTAL UNDERGROUND STORAGE PLANT	25,552,869				26,397,971	20,821,977	5,575,994	21.85	218,500	0.86%	36,678	0.14%	255,178	**1.00%**
	TRANSMISSION PLANT - U.G.S.														
365.20	RIGHTS OF WAY	278,517	S4	60	0%	278,517	192,153	86,364	23.33	3,702	1.33%	0	0.00%	3,702	**1.33%**
366.10	STRUCTURES AND IMPROVEMENTS	788,150	R2.5	50	-5%	827,558	508,800	318,758	26.38	10,589	1.34%	1,494	0.19%	12,083	**1.53%**
367.10	MAINS	8,937,585	S0.5	55	-10%	9,831,343	5,782,033	4,049,310	31.96	98,734	1.10%	27,965	0.31%	126,699	**1.42%**
368.00	COMPRESSOR STATION EQUIPMENT	2,097,727	S2.5	45	-5%	2,202,614	1,757,038	445,576	15.72	21,672	1.03%	6,672	0.32%	28,345	**1.35%**
369.10	MEASURING AND REGULATING EQUIPMENT	1,438,708	S1.5	35	-5%	1,510,643	679,172	831,471	21.52	35,294	2.45%	3,343	0.23%	38,637	**2.69%**
370.00	COMMUNICATION EQUIPMENT	329,229	S2	25	0%	329,229	267,088	62,141	7.77	7,998	2.43%	0	0.00%	7,998	**2.43%**
	TOTAL TRANSMISSION - U.G.S.	13,869,916				14,979,904	9,186,284	5,793,620	26.64	177,990	1.28%	39,474	0.28%	217,464	**1.57%**
	TRANSMISSION PLANT - MARION COUNTY														
365.40	RIGHTS OF WAY	772,529	S4	60	0%	772,529	466,728	305,801	27.31	11,197	1.45%	0	0.00%	11,197	**1.45%**
366.00	STRUCTURES AND IMPROVEMENTS	231,059	R2.5	50	-5%	242,612	118,075	124,537	32.35	3,493	1.51%	357	0.15%	3,850	**1.67%**
367.00	MAINS	44,168,438	S0.5	55	-10%	48,585,282	17,470,664	31,114,618	41.76	639,315	1.45%	105,767	0.24%	745,082	**1.69%**
369.00	MEASURING AND REGULATING EQUIPMENT	1,943,466	S1.5	35	-5%	2,040,640	969,724	1,070,916	22.29	43,685	2.25%	4,360	0.22%	48,045	**2.47%**
	TOTAL TRANSMISSION PLANT- MARION COUNTY	47,115,492				51,641,062	19,025,191	32,615,871	40.36	697,690	1.48%	110,484	0.23%	808,174	**1.72%**
	DISTRIBUTION PLANT														
376.10	VALVES, VALVE PITS, ETC.	8,327,142	R2	55	-30%	10,825,285	4,378,578	6,446,707	42.44	93,039	1.12%	58,863	0.71%	151,902	**1.82%**
376.20	STEEL INSTALLED PRIOR TO 1955	258,340	L1.5	33	-30%	335,842	335,842							0	**0.00%**
376.21	STEEL AND PLASTIC INSTALLED SUBSEQUENT TO 1954	291,795,386	R2.5	75	-30%	379,334,002	158,606,188	220,727,814	56.33	2,364,445	0.81%	1,554,032	0.53%	3,918,477	**1.34%**
376.70	CAST IRON AND WROUGHT IRON	1,128,297	L1	43	-30%	1,466,787	1,466,787							0	**0.00%**
380.00	SERVICES	248,358,721	R2	49	-45%	360,120,146	196,719,085	163,401,061	31.88	1,619,813	0.65%	3,505,691	1.41%	5,125,504	**2.06%**
381.00	METERS	31,719,431	R1	35	0%	31,719,431	16,585,914	15,133,517	23.36	647,839	2.04%	0	0.00%	647,839	**2.04%**
382.00	METER INSTALLATIONS	5,804,410	R1	35	0%	5,804,410	4,111,611	1,692,799	20.10	84,219	1.45%	0	0.00%	84,219	**1.45%**
383.00	HOUSE REGULATORS	4,623,134	R1	35	0%	4,623,134	3,410,577	1,212,557	18.87	64,258	1.39%	0	0.00%	64,258	**1.39%**
384.00	HOUSE REGULATOR INSTALLATIONS	700,221	R1	35	0%	700,221	497,827	202,394	19.22	10,530	1.50%	0	0.00%	10,530	**1.50%**
386.00	OTHER PROPERTY - CUSTOMER PREMISES	356,362	S4	20	0%	356,362	207,655	148,707	7.16	20,769	5.83%	0	0.00%	20,769	**5.83%**
387.00	OTHER EQUIPMENT	165,536	L1	15	0%	165,536	81,226	84,310	8.96	9,410	5.68%	0	0.00%	9,410	**5.68%**
	TOTAL DISTRIBUTION PLANT	593,236,982				795,451,156	386,401,290	409,049,866	40.77	4,914,322	0.83%	5,118,586	0.86%	10,032,908	**1.69%**
	GENERAL PLANT														
390.00	STRUCTURES AND IMPROVEMENTS	88,254	S0	36	-5%	92,667	7,643	85,024	33.71	2,391	2.71%	131	0.15%	2,522	**2.86%**
391.40	OFFICE FURNITURE	306,670	SQ	25	0%	306,670	306,670							0	**0.00%**

Depreciation Rate Development - ALG Example

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
391.50	OFFICE MACHINES	10,612	SQ	15	0%	10,612	10,612							0	**0.00%**
391.60	COMPUTER EQUIPMENT	629,506	SQ	5	0%	629,506	629,506							0	**0.00%**
391.70	SOFTWARE	3,505,874	SQ	5	0%	3,505,874	3,225,922	279,952	1.99	140,679	4.01%	0	0.00%	140,679	**4.01%**
392.10	TRANSPORTATION EQUIPMENT	7,866,007	L2.5	10	15%	6,686,106	3,578,717	3,107,389	5.71	750,839	9.55%	-206,638	-2.63%	544,201	**6.92%**
393.10	STORES EQUIPMENT	28,893	SQ	30	0%	28,893	19,964	8,929	9.43	947	3.28%	0	0.00%	947	**3.28%**
394.10	TOOLS, SHOP AND GARAGE EQUIPMENT	2,052,543	SQ	20	0%	2,052,543	1,742,723	309,820	10.10	30,675	1.49%	0	0.00%	30,675	**1.49%**
396.10	POWER OPERATED EQUIPMENT	2,158,963	L1.5	14	20%	1,727,170	1,437,201	289,969	7.62	94,719	4.39%	-56,666	-2.62%	38,054	**1.76%**
397.10	COMMUNICATION EQUIPMENT	584,483	SQ	15	0%	584,483	468,958	115,525	4.47	25,844	4.42%	0	0.00%	25,844	**4.42%**
398.10	MISCELLANEOUS EQUIPMENT	629,816	SQ	20	0%	629,816	373,244	256,572	7.94	32,314	5.13%	0	0.00%	32,314	**5.13%**
	TOTAL GENERAL PLANT	17,861,619				16,254,338	11,801,160	4,453,179	5.46	1,078,409	6.04%	-263,172	-1.47%	815,237	**4.56%**
	NONDEPRECIABLE PLANT														
304.30	PRESSURE REGULATING - LAND	147,578													
350.00	UNDERGROUND STORAGE - LAND	20,500													
360.10	PEAK SHAVING LNG - LAND	0													
365.10	TRANSMISSION - U.G.S. - LAND	30,999													
365.30	TRANSMISSION - MARION COUNTY - LAND	45,878													
	TOTAL NONDEPRECIABLE PLANT	244,954													
	TOTAL GAS OPERATIONS	**700,405,813**				**907,248,412**	**448,775,974**	**458,472,439**	**37.61**	**7,146,678**	**1.02%**	**5,042,049**	**0.72%**	**12,188,727**	**1.74%**
	THERMAL														
	STEAM DIVISION														
	PRODUCTION PLANT														
311.00	STRUCTURES AND IMPROVEMENTS	10,857,472	S1	50	0%	10,857,472	2,812,516	8,044,956	42.04	191,364	1.76%	0	0.00%	191,364	**1.76%**
312.00	BOILER PLANT EQUIPMENT	44,298,688	S0	46	0%	44,298,688	5,637,285	38,661,403	39.65	975,067	2.20%	0	0.00%	975,067	**2.20%**
314.00	TURBOGENERATOR UNITS	2,412,277	S2	60	0%	2,412,277	1,140,398	1,271,879	44.96	28,289	1.17%	0	0.00%	28,289	**1.17%**
315.00	ACCESSORY ELECTRIC EQUIPMENT	3,134,757	R1.5	60	0%	3,134,757	699,315	2,435,442	51.00	47,754	1.52%	0	0.00%	47,754	**1.52%**
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	946,913	R1.5	35	0%	946,913	113,124	833,789	31.38	26,571	2.81%	0	0.00%	26,571	**2.81%**
	TOTAL PRODUCTION PLANT	61,650,107				61,650,107	10,402,638	51,247,469	40.38	1,269,045	2.06%	0	0.00%	1,269,045	**2.06%**
	DISTRIBUTION PLANT														
360.00	LAND RIGHTS	1,792	R4	65	0%	1,792	814	978	23.81	41	2.29%	0	0.00%	41	**2.29%**
366.00	MAINS	22,347,601	R2	65	-5%	23,464,981	5,306,548	18,158,433	54.09	315,050	1.41%	20,658	0.09%	335,708	**1.50%**
369.00	SERVICES	3,837,815	R2.5	45	-15%	4,413,487	1,243,194	3,170,293	36.86	70,391	1.83%	15,618	0.41%	86,009	**2.24%**
370.00	METERS	555,677	R3	45	0%	555,677	266,657	289,020	24.99	11,565	2.08%	0	0.00%	11,565	**2.08%**
	TOTAL DISTRUBUTION PLANT	26,742,885				28,435,937	6,817,213	21,618,724	49.89	397,048	1.48%	36,276	0.14%	433,323	**1.62%**
	GENERAL PLANT														
391.10	OFFICE FURNITURE	82,540	SQ	25	0%	82,540	82,540							0	**0.00%**
391.20	OFFICE EQUIPMENT	6,370	SQ	15	0%	6,370	6,370							0	**0.00%**
391.30	COMPUTER EQUIPMENT	29,670	SQ	5	0%	29,670	29,670							0	**0.00%**
391.40	SOFTWARE	148,946	SQ	5	0%	148,946	148,946							0	**0.00%**
392.00	TRANSPORTATION EQUIPMENT	972,354	S2	19	15%	826,501	589,401	237,100	11.45	33,446	3.44%	-12,738	-1.31%	20,707	**2.13%**
393.00	STORES EQUIPMENT	77,421	SQ	30	0%	77,421	9,822	67,599	25.83	2,617	3.38%	0	0.00%	2,617	**3.38%**
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	304,495	SQ	20	0%	304,495	218,257	86,238	9.28	9,293	3.05%	0	0.00%	9,293	**3.05%**
395.00	LABORATORY EQUIPMENT	106,276	SQ	15	0%	106,276	61,748	44,528	9.89	4,502	4.24%	0	0.00%	4,502	**4.24%**
396.00	POWER OPERATED EQUIPMENT	355,208	S2.5	11	20%	284,166	124,321	159,845	6.28	36,765	10.35%	-11,312	-3.18%	25,453	**7.17%**
397.00	COMMUNICATION EQUIPMENT	15,097	SQ	15	0%	15,097	10,131	4,966	2.30	2,159	14.30%	0	0.00%	2,159	**14.30%**

Depreciation Rate Development - ALG Example

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
398.00	MISCELLANEOUS EQUIPMENT	305,878	SQ	20	0%	305,878	141,175	164,703	13.32	12,365	4.04%	0	0.00%	12,365	**4.04%**
	TOTAL PRODUCTION PLANT	2,404,254				2,187,359	1,422,381	764,978	9.92	101,147	4.21%	-24,051	-1.00%	77,097	**3.21%**
	NONDEPRECIABLE PLANT														
370.00	LAND	47,847													
	TOTAL NONDEPRECIABLE PLANT	47,847													
	TOTAL STEAM DIVISION	90,845,093				92,273,403	18,642,232	73,631,171	41.38	1,767,240	1.95%	12,225	0.01%	1,779,465	**1.96%**
	CHILLED WATER DIVISION														
	PRODUCTION PLANT														
311.00	STRUCTURES AND IMPROVEMENTS	13,966,500	R3	60	0%	13,966,500	2,578,137	11,388,363	52.32	217,667	1.56%	0	0.00%	217,667	**1.56%**
312.00	BOILER PLANT EQUIPMENT	34,788,154	R3	50	0%	34,788,154	7,882,657	26,905,497	41.44	649,264	1.87%	0	0.00%	649,264	**1.87%**
316.00	MISCELLANEOUS POWER PLANT EQUIPMENT	981,925	S1.5	35	0%	981,925	134,700	847,225	31.08	27,259	2.78%	0	0.00%	27,259	**2.78%**
	TOTAL PRODUCTION PLANT	49,736,579				49,736,579	10,595,494	39,141,085	43.77	894,191	1.80%	0	0.00%	894,191	**1.80%**
	DISTRIBUTION PLANT														
366.00	MAINS	26,313,267	R2.5	60	-60%	42,101,227	10,333,391	31,767,836	49.63	321,980	1.22%	318,113	1.21%	640,093	**2.43%**
369.00	SERVICES	9,214,946	R2.5	45	-45%	13,361,672	4,047,548	9,314,124	37.90	136,343	1.48%	109,412	1.19%	245,755	**2.67%**
370.00	METERS	860,279	S1	40	0%	860,279	195,445	664,834	33.18	20,037	2.33%	0	0.00%	20,037	**2.33%**
	TOTAL DISTRUBUTION PLANT	36,388,492				56,323,178	14,576,384	41,746,794	46.08	478,360	1.31%	427,526	1.17%	905,886	**2.49%**
	GENERAL PLANT														
391.10	OFFICE FURNITURE	15,946	SQ	25	0%	15,946	15,946							0	**0.00%**
391.30	COMPUTER EQUIPMENT	38,149	SQ	5	0%	38,149	38,149							0	**0.00%**
391.40	SOFTWARE	124,575	SQ	5	0%	124,575	124,575							0	**0.00%**
392.00	TRANSPORTATION EQUIPMENT	269,725	L3	18	15%	229,266	123,850	105,416	11.75	12,415	4.60%	-3,443	-1.28%	8,972	**3.33%**
394.00	TOOLS, SHOP AND GARAGE EQUIPMENT	243,929	SQ	20	0%	243,929	119,272	124,657	12.55	9,933	4.07%	0	0.00%	9,933	**4.07%**
397.00	COMMUNICATION EQUIPMENT	412,646	SQ	15	0%	412,646	92,505	320,141	12.13	26,393	6.40%	0	0.00%	26,393	**6.40%**
	TOTAL GENERAL PLANT	1,104,970				1,064,512	514,297	550,214	12.15	48,740	4.41%	-3,443	-0.31%	45,297	**4.10%**
	NONDEPRECIABLE PLANT														
370.00	LAND	915,614													
	TOTAL NONDEPRECIABLE PLANT	915,614													
	TOTAL CHILLED WATER DIVISION	88,145,656				107,124,269	25,686,175	81,438,093	44.13	1,421,291	1.61%	424,082	0.48%	1,845,374	**2.09%**
	TOTAL THERMAL PLANT	**178,990,748**				**199,397,672**	**44,328,407**	**155,069,264**	**42.78**	**3,188,531**	**1.78%**	**436,307**	**0.24%**	**3,624,839**	**2.03%**
	CITIZENS GAS OF WESTFIELD														
	DISTRIBUTION PLANT														

Depreciation Rate Development - ALG Example

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
375.00	STRUCTURES AND IMPROVEMENTS	28,305	R3	50	0%	28,305	1,181	27,124	47.54	571	2.02%	0	0.00%	571	**2.02%**
376.00	MAINS	7,610,508	S1.5	65	-20%	9,132,610	2,297,926	6,834,684	55.07	96,470	1.27%	27,639	0.36%	124,109	**1.63%**
378.00	MEASURING AND REGULATING EQUIPMENT - GENERAL	10,754	R2.5	40	-10%	11,829	6,946	4,883	24.53	155	1.44%	44	0.41%	199	**1.85%**
379.00	MEASURING AND REGULATING EQUIPMENT - GCCS	92,124	R2.5	40	-10%	101,336	11,884	89,452	36.65	2,189	2.38%	251	0.27%	2,441	**2.65%**
380.00	SERVICES	2,255,573	R2.5	50	-40%	3,157,802	1,142,439	2,015,363	39.02	28,527	1.26%	23,122	1.03%	51,649	**2.29%**
381.00	METERS	633,993	S0	35	0%	633,993	295,774	338,219	25.56	13,232	2.09%	0	0.00%	13,232	**2.09%**
382.00	METER INSTALLATIONS	16,927	S2.5	35	0%	16,927	11,990	4,937	19.15	258	1.52%	0	0.00%	258	**1.52%**
383.00	HOUSE REGULATORS	86,663	S2.5	40	0%	86,663	49,126	37,537	23.40	1,604	1.85%	0	0.00%	1,604	**1.85%**
385.00	INDUSTRIAL MEASURING AND REGULATING EQUIPMENT	32,553	S2	35	0%	32,553	27,498	5,055	17.11	295	0.91%	0	0.00%	295	**0.91%**
	TOTAL DISTRIBUTION PLANT	10,767,399				13,202,017	3,844,764	9,357,253	48.14	143,302	1.33%	51,057	0.47%	194,359	**1.81%**
	NONDEPRECIABLE PLANT														
370.00	LAND	46,086													
	TOTAL NONDEPRECIABLE PLANT	46,086													
	TOTAL CITIZENS GAS OF WESTFIELD	**10,813,485**				**13,202,017**	**3,844,764**	**9,357,253**	**48.14**	**143,302**	**1.33%**	**51,057**	**0.47%**	**194,359**	**1.80%**
	WATER PLANT														
	CITIZENS WATER														
	SOURCE OF SUPPLY AND PUMPING PLANT														
304.20	STRUCTURES AND IMPROVEMENTS	25,467,134	R3	50	-5%	26,740,491	11,459,460	15,281,031	29.22	479,387	1.88%	43,578	0.17%	522,965	**2.05%**
305.20	COLLECTING AND IMPOUNDING RESERVOIRS	53,429,789	R2.5	75	0%	53,429,789	30,968,730	22,461,059	36.09	622,362	1.16%	0	0.00%	622,362	**1.16%**
306.20	LAKE, RIVER AND OTHER INTAKES	2,946,467	S1.5	60	0%	2,946,467	389,029	2,557,438	53.28	48,000	1.63%	0	0.00%	48,000	**1.63%**
307.20	WELLS AND SPRINGS	33,826,192	R3	55	-5%	35,517,501	4,539,914	30,977,587	47.28	619,422	1.83%	35,772	0.11%	655,194	**1.94%**
311.20	PUMPING EQUIPMENT	55,892,133	S1.5	40	-10%	61,481,347	22,614,182	38,867,165	27.55	1,207,911	2.16%	202,875	0.36%	1,410,786	**2.52%**
339.20	OTHER MISCELLANEOUS EQUIPMENT	4,430,135	R3	30	0%	4,430,135	330,553	4,099,582	26.58	154,236	3.48%	0	0.00%	154,236	**3.48%**
	TOTAL SOURCE OF SUPPLY AND PUMPING EQUIPMENT	175,991,851				184,545,731	70,301,868	114,243,863	33.47	3,131,318	1.78%	282,226	0.16%	3,413,543	**1.94%**
	TREATMENT PLANT														
304.30	STRUCTURES AND IMPROVEMENTS	192,720,165	R2.5	65	-10%	211,992,182	113,860,382	98,131,800	39.04	2,019,974	1.05%	493,648	0.26%	2,513,622	**1.30%**
320.30	WATER TREATMENT EQUIPMENT	172,816,446	R2.5	40	-5%	181,457,268	81,233,082	100,224,186	26.37	3,473,013	2.01%	327,676	0.19%	3,800,690	**2.20%**
	TOTAL TREATMENT PLANT	365,536,611				393,449,450	195,093,464	198,355,986	31.41	5,492,987	1.50%	821,324	0.22%	6,314,312	**1.73%**
	DISTRIBUTION PLANT														
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES	15,191,206	R4	55	-10%	16,710,327	6,647,400	10,062,927	36.66	233,055	1.53%	41,438	0.27%	274,493	**1.81%**
331.40	TRANSMISSION AND DISTRIBUTION MAINS	814,152,967	R3	125	-15%	936,275,912	515,290,820	420,985,092	92.66	3,225,363	0.40%	1,317,968	0.16%	4,543,331	**0.56%**
333.40	SERVICES	103,194,099	R4	70	-50%	154,791,149	88,618,336	66,172,813	53.34	273,261	0.26%	967,324	0.94%	1,240,585	**1.20%**
334.40	METERS AND METER INSTALLATIONS	67,806,374	S0	43	0%	67,806,374	60,424,887	7,381,487	31.77	232,341	0.34%	0	0.00%	232,341	**0.34%**
335.40	HYDRANTS	42,226,328	R2.5	65	-10%	46,448,961	24,305,666	22,143,295	48.27	371,259	0.88%	87,479	0.21%	458,738	**1.09%**
339.40	OTHER MISCELLANEOUS EQUIPMENT	2,917,635	R3	40	0%	2,917,635	1,045,923	1,871,712	27.68	67,620	2.32%	0	0.00%	67,620	**2.32%**
	TOTAL DISTRIBUTION PLANT	1,045,488,609				1,224,950,357	696,333,032	528,617,325	77.54	4,402,900	0.42%	2,414,210	0.23%	6,817,109	**0.65%**
	GENERAL PLANT														
340.51	OFFICE FURNITURE	131,351	SQ	25	0%	131,351	9,415	121,936	21.26	5,735	4.37%	0	0.00%	5,735	**4.37%**
340.53	COMPUTER EQUIPMENT	645,747	SQ	5	0%	645,747	29,717	616,030	2.33	264,391	40.94%	0	0.00%	264,391	**40.94%**
340.54	SOFTWARE	1,894,049	SQ	5	0%	1,894,049	70,986	1,823,063	3.49	522,368	27.58%	0	0.00%	522,368	**27.58%**

Depreciation Rate Development - ALG Example

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
341.50	TRANSPORTATION EQUIPMENT	6,848,470	S3	12	20%	5,478,776	2,241,980	3,236,796	6.62	695,844	10.16%	-206,902	-3.02%	488,942	**7.14%**
343.50	TOOLS, SHOP AND GARAGE EQUIPMENT	80,154	SQ	20	0%	80,154	3,913	76,241	17.67	4,315	5.38%	0	0.00%	4,315	**5.38%**
344.50	LABORATORY EQUIPMENT	406,980	SQ	15	0%	406,980	26,652	380,328	11.63	32,702	8.04%	0	0.00%	32,702	**8.04%**
345.50	POWER OPERATED EQUIPMENT	2,511,081	L1.5	12	20%	2,008,865	1,384,507	624,358	6.29	179,106	7.13%	-79,844	-3.18%	99,262	**3.95%**
	TOTAL GENERAL PLANT	12,517,831				10,645,921	3,767,170	6,878,751	4.85	1,704,461	13.62%	-286,746	-2.29%	1,417,714	**11.33%**
	NONDEPRECIABLE PLANT														
303.20	LAND AND LAND RIGHTS - PUMPING	22,247,515													
303.30	LAND AND LAND RIGHTS - TREATMENT	9,171,858													
303.40	LAND AND LAND RIGHTS - DISTRIBUTION	1,066,387													
	TOTAL NONDEPRECIABLE PLANT	32,485,760													
	TOTAL CITIZENS WATER	1,632,020,663				1,813,591,459	965,495,534	848,095,925	47.21	14,731,665	0.90%	3,231,014	0.20%	17,962,679	**1.10%**
	WESTFIELD WATER														
	SOURCE OF SUPPLY AND PUMPING PLANT														
304.20	STRUCTURES AND IMPROVEMENTS	405,037	R3	50	-5%	425,289	200,693	224,596	34.35	5,949	1.47%	590	0.15%	6,538	**1.61%**
307.20	WELLS AND SPRINGS	2,580,270	R3	55	-5%	2,709,284	1,249,827	1,459,457	44.37	29,985	1.16%	2,908	0.11%	32,893	**1.27%**
309.20	SUPPLY MAINS	5,021,845	R2.5	50	-15%	5,775,122	2,237,970	3,537,152	31.28	88,999	1.77%	24,082	0.48%	113,080	**2.25%**
311.20	PUMPING EQUIPMENT	923,141	S1.5	40	-10%	1,015,455	389,392	626,063	29.92	17,839	1.93%	3,085	0.33%	20,925	**2.27%**
339.20	OTHER MISCELLANEOUS EQUIPMENT	13,066	R3	30	0%	13,066	5,490	7,576	25.33	299	2.29%	0	0.00%	299	**2.29%**
	TOTAL SOURCE OF SUPPLY AND PUMPING EQUIPMENT	8,943,360				9,938,216	4,083,372	5,854,844	33.70	143,071	1.60%	30,664	0.34%	173,735	**1.94%**
	TREATMENT PLANT														
304.30	STRUCTURES AND IMPROVEMENTS	8,197,053	R2.5	65	-10%	9,016,758	2,580,170	6,436,588	52.13	107,748	1.31%	15,724	0.19%	123,472	**1.51%**
320.30	WATER TREATMENT EQUIPMENT	3,536,004	R2.5	40	-5%	3,712,804	1,095,600	2,617,204	32.98	73,996	2.09%	5,361	0.15%	79,357	**2.24%**
	TOTAL TREATMENT PLANT	11,733,057				12,729,562	3,675,770	9,053,792	44.64	181,744	1.55%	21,085	0.18%	202,829	**1.73%**
	DISTRIBUTION PLANT														
330.40	DISTRIBUTION RESERVOIRS AND STANDPIPES	2,607,539	R4	55	-10%	2,868,293	1,021,601	1,846,692	34.59	45,850	1.76%	7,538	0.29%	53,388	**2.05%**
331.40	TRANSMISSION AND DISTRIBUTION MAINS	34,063,610	R3	125	-15%	39,173,152	5,863,163	33,309,989	116.00	243,107	0.71%	44,048	0.13%	287,155	**0.84%**
333.40	SERVICES	920,688	R4	70	-50%	1,381,032	17,716	1,363,316	68.01	13,277	1.44%	6,769	0.74%	20,046	**2.18%**
334.40	METERS AND METER INSTALLATIONS	3,987,870	S0	43	0%	3,987,870	1,259,544	2,728,326	35.01	77,930	1.95%	0	0.00%	77,930	**1.95%**
335.40	HYDRANTS	2,617,375	R2.5	65	-10%	2,879,112	145,824	2,733,288	62.67	39,438	1.51%	4,176	0.16%	43,614	**1.67%**
339.40	OTHER MISCELLANEOUS EQUIPMENT	25,718	R3	40	0%	25,718	771	24,947	38.53	647	2.52%	0	0.00%	647	**2.52%**
	TOTAL DISTRIBUTION PLANT	44,222,801				50,315,178	8,308,619	42,006,559	87.01	420,249	0.95%	62,531	0.14%	482,780	**1.09%**
	GENERAL PLANT														
340.53	COMPUTER EQUIPMENT	135,150	SQ	5	0%	135,150	63,360	71,790	2.50	28,716	21.25%	0	0.00%	28,716	**21.25%**
340.54	SOFTWARE	658,000	SQ	5	0%	658,000	32,261	625,739	3.79	165,103	25.09%	0	0.00%	165,103	**25.09%**
341.50	TRANSPORTATION EQUIPMENT	210,045	S3	12	20%	168,036	143,280	24,756	4.40	15,174	7.22%	-9,548	-4.55%	5,626	**2.68%**
343.50	TOOLS, SHOP AND GARAGE EQUIPMENT	18,474	SQ	20	0%	18,474	18,474							0	**0.00%**
344.50	LABORATORY EQUIPMENT	28,511	SQ	15	0%	28,511	21,303	7,208	6.48	1,112	3.90%	0	0.00%	1,112	**3.90%**
345.50	POWER OPERATED EQUIPMENT	48,781	L1.5	12	20%	39,025	32,612	6,413	5.02	3,221	6.60%	-1,943	-3.98%	1,277	**2.62%**
346.50	COMMUNICATION EQUIPMENT	20,563	SQ	15	0%	20,563	20,563							0	**0.00%**
347.50	MISCELLANEOUS EQUIPMENT	101,364	SQ	20	0%	101,364	58,540	42,824	12.55	3,412	3.37%	0	0.00%	3,412	**3.37%**
348.50	OTHER TANGIBLE EQUIPMENT	5,484	SQ	20	0%	5,484	4,757	727	8.73	83	1.52%	0	0.00%	83	**1.52%**
	TOTAL GENERAL PLANT	1,226,371				1,174,606	395,150	779,457	3.80	216,821	17.68%	-11,491	-0.94%	205,330	**16.74%**

Depreciation Rate Development - ALG Example

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
	NONDEPRECIABLE PLANT														
303.20	LAND AND LAND RIGHTS - PUMPING	1,461,607													
303.30	LAND AND LAND RIGHTS - TREATMENT	119,398													
303.40	LAND AND LAND RIGHTS - DISTRIBUTION	501,644													
	TOTAL NONDEPRECIABLE PLANT	2,082,649													
	TOTAL WESTFIELD WATER	68,208,238				74,157,562	16,462,911	57,694,652	54.19	961,885	1.41%	102,790	0.15%	1,064,675	**1.56%**
	TOTAL WATER PLANT	**1,700,228,901**				**1,887,749,021**	**981,958,445**	**905,790,577**	**47.60**	**15,693,551**	**0.92%**	**3,333,803**	**0.20%**	**19,027,354**	**1.12%**
	WASTEWATER PLANT														
	CITIZENS WASTEWATER														
	COLLECTION PLANT														
360.20	COLLECTING SEWERS - FORCE	14,501,739	R2.5	60	-10%	15,951,913	2,979,933	12,971,980	49.89	230,944	1.59%	29,067	0.20%	260,012	**1.79%**
361.20	COLLECTING SEWERS - GRAVITY	1,121,230,973	S1.5	60	-10%	1,233,354,070	784,447,134	448,906,936	32.46	10,375,349	0.93%	3,454,193	0.31%	13,829,542	**1.23%**
362.20	SPECIAL COLLECTING STRUCTURES	155,215,961	S2.5	45	0%	155,215,961	89,131,310	66,084,651	27.43	2,409,211	1.55%	0	0.00%	2,409,211	**1.55%**
362.22	SPECIAL COLLECTING STRUCTURES - DROP SHAFTS	33,115,926	S2.5	45	0%	33,115,926	1,953,838	31,162,088	42.61	731,333	2.21%	0	0.00%	731,333	**2.21%**
	TOTAL COLLECTION PLANT	1,324,064,599				1,437,637,870	878,512,215	559,125,655	32.45	13,746,837	1.04%	3,483,260	0.26%	17,230,097	**1.30%**
	PUMPING PLANT														
354.30	STRUCTURES AND IMPROVEMENTS	66,901,633	R2.5	55	-5%	70,246,715	35,484,760	34,761,955	32.91	954,630	1.43%	101,643	0.15%	1,056,273	**1.58%**
371.30	PUMPING EQUIPMENT	80,479,604	R2	40	-10%	88,527,565	41,956,121	46,571,444	26.61	1,447,707	1.80%	302,441	0.38%	1,750,148	**2.17%**
	TOTAL PUMPING EQUIPMENT	147,381,238				158,774,280	77,440,881	81,333,399	28.98	2,402,337	1.63%	404,085	0.27%	2,806,422	**1.90%**
	TREATMENT PLANT														
354.40	STRUCTURES AND IMPROVEMENTS	480,980,986	R2.5	65	-10%	529,079,084	180,067,800	349,011,284	48.88	6,156,162	1.28%	984,004	0.20%	7,140,165	**1.48%**
380.40	TREATMENT AND DISPOSAL EQUIPMENT	673,089,057	S1	35	-5%	706,743,510	405,619,729	301,123,781	20.44	13,085,584	1.94%	1,646,500	0.24%	14,732,083	**2.19%**
	TOTAL TREATMENT PLANT	1,154,070,042				1,235,822,594	585,687,529	650,135,065	29.72	19,241,745	1.67%	2,630,503	0.23%	21,872,249	**1.90%**
	GENERAL PLANT														
390.71	OFFICE FURNITURE	150,921	SQ	25	0%	150,921	10,391	140,530	22.08	6,365	4.22%	0	0.00%	6,365	**4.22%**
390.73	COMPUTER EQUIPMENT	3,377,670	SQ	5	0%	3,377,670	62,817	3,314,853	2.79	1,188,119	35.18%	0	0.00%	1,188,119	**35.18%**
390.74	SOFTWARE	713,636	SQ	5	0%	713,636	76,401	637,235	1.48	430,564	60.33%	0	0.00%	430,564	**60.33%**
391.70	TRANSPORTATION EQUIPMENT	4,639,911	L3	10	20%	3,711,929	309,177	3,402,752	7.77	557,366	12.01%	-119,431	-2.57%	437,935	**9.44%**
395.70	POWER OPERATED EQUIPMENT	97,576	L1.5	12	20%	78,061	2,236	75,825	11.52	8,276	8.48%	-1,694	-1.74%	6,582	**6.75%**
	TOTAL GENERAL PLANT	8,979,714				8,032,217	461,022	7,571,195	3.66	2,190,690	24.40%	-121,125	-1.35%	2,069,565	**23.05%**
	NONDEPRECIABLE PLANT														
353.20	LAND AND LAND RIGHTS - COLLECTION	52,482													
353.30	LAND AND LAND RIGHTS - PUMPING	12,202													
353.40	LAND AND LAND RIGHTS - TREATMENT	2,442,687													
	TOTAL NONDEPRECIABLE PLANT	2,507,372													

Depreciation Rate Development - ALG Example

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
	TOTAL CITIZENS WASTEWATER	2,637,002,965				2,840,266,960	1,542,101,647	1,298,165,313	29.52	37,581,610	1.43%	6,396,723	0.24%	43,978,332	**1.67%**
	WESTFIELD WASTEWATER														
	COLLECTION PLANT														
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	647	R2.5	45	-5%	679	642	37	33.57	0	0.02%	1	0.15%	1	**0.17%**
360.20	COLLECTING SEWERS - FORCE	7,057,903	R2.5	60	-10%	7,763,693	2,424,243	5,339,450	45.04	102,879	1.46%	15,670	0.22%	118,549	**1.68%**
361.20	COLLECTING SEWERS - GRAVITY	62,411,132	S1.5	60	-10%	68,652,245	11,460,846	57,191,399	52.03	979,248	1.57%	119,952	0.19%	1,099,200	**1.76%**
363.20	SERVICES	28,023	R2.5	55	-20%	33,627	15,122	18,505	31.28	412	1.47%	179	0.64%	592	**2.11%**
364.20	FLOW MEASURING DEVICES	1,303,276	S1.5	30	0%	1,303,276	552,432	750,844	18.99	39,539	3.03%	0	0.00%	39,539	**3.03%**
	TOTAL COLLECTION PLANT	70,800,981				77,753,522	14,453,285	63,300,237	50.32	1,122,079	1.58%	135,803	0.19%	1,257,881	**1.78%**
	PUMPING PLANT														
354.30	STRUCTURES AND IMPROVEMENTS - PUMPING	1,795,756	R2.5	55	-5%	1,885,544	369,681	1,515,863	46.94	30,381	1.69%	1,913	0.11%	32,294	**1.80%**
371.30	PUMPING EQUIPMENT	3,608,510	R2	40	-10%	3,969,361	767,689	3,201,672	32.99	86,112	2.39%	10,938	0.30%	97,050	**2.69%**
	TOTAL PUMPING EQUIPMENT	5,404,266				5,854,905	1,137,370	4,717,535	36.47	116,492	2.16%	12,851	0.24%	129,343	**2.39%**
	TREATMENT PLANT														
354.40	STRUCTURES AND IMPROVEMENTS - TREATMENT	16,819,637	R2.5	65	-10%	18,501,600	5,312,680	13,188,920	51.45	223,653	1.33%	32,691	0.19%	256,344	**1.52%**
380.40	TREATMENT AND DISPOSAL EQUIPMENT	7,198,134	S1	35	-5%	7,558,041	3,351,334	4,206,707	23.57	163,207	2.27%	15,270	0.21%	178,477	**2.48%**
	TOTAL TREATMENT PLANT	24,017,771				26,059,641	8,664,014	17,395,627	40.01	386,861	1.61%	47,961	0.20%	434,822	**1.81%**
	GENERAL PLANT														
390.71	OFFICE FURNITURE	26,666	SQ	25	0%	26,666	26,666							0	**0.00%**
390.72	OFFICE MACHINES	24,322	SQ	15	0%	24,322	24,322							0	**0.00%**
390.73	COMPUTER EQUIPMENT	229,387	SQ	5	0%	229,387	89,590	139,797	4.20	33,285	14.51%	0	0.00%	33,285	**14.51%**
390.74	SOFTWARE	747,354	SQ	5	0%	747,354	125,168	622,186	3.25	191,442	25.62%	0	0.00%	191,442	**25.62%**
391.70	TRANSPORTATION EQUIPMENT	230,064	L3	10	20%	184,051	126,354	57,697	4.97	20,867	9.07%	-9,258	-4.02%	11,609	**5.05%**
393.70	TOOLS, SHOP AND GARAGE EQUIPMENT	61,373	SQ	20	0%	61,373	60,140	1,233	6.07	203	0.33%	0	0.00%	203	**0.33%**
394.70	LABORATORY EQUIPMENT	38,004	SQ	15	0%	38,004	36,697	1,307	4.37	299	0.79%	0	0.00%	299	**0.79%**
395.70	POWER OPERATED EQUIPMENT	165,927	L1.5	12	20%	132,741	132,741							0	**0.00%**
396.70	COMMUNICATION EQUIPMENT	21,151	SQ	15	0%	21,151	21,151							0	**0.00%**
397.70	MISCELLANEOUS EQUIPMENT	63,619	SQ	20	0%	63,619	63,619							0	**0.00%**
398.70	OTHER EQUIPMENT	145,914	SQ	20	0%	145,914	57,754	88,160	11.28	7,816	5.36%	0	0.00%	7,816	**5.36%**
	TOTAL GENERAL PLANT	1,753,781				1,674,583	764,202	910,380	3.72	253,912	14.48%	-9,258	-0.53%	244,654	**13.95%**
	NONDEPRECIABLE PLANT														
353.20	LAND AND LAND RIGHTS - COLLECTION	1,003,473													
353.30	LAND AND LAND RIGHTS - PUMPING	81,580													
353.40	LAND AND LAND RIGHTS - TREATMENT	210,269													
	TOTAL NONDEPRECIABLE PLANT	1,295,322													
	TOTAL WESTFIELD WASTEWATER	103,272,121				111,342,651	25,018,871	86,323,779	41.77	1,879,344	1.82%	187,356	0.18%	2,066,700	**2.00%**
	TOTAL WASTEWATER PLANT	**2,740,275,086**				**2,951,609,611**	**1,567,120,518**	**1,384,489,093**	**30.07**	**39,460,953**	**1.44%**	**6,584,079**	**0.24%**	**46,045,032**	1.68%

Depreciation Rate Development - ALG Example

Account No.	Description	[1] Original Cost	[2] Iowa Curve Type	[2] Iowa Curve AL	[3] Net Salvage	[4] Depreciable Base	[5] Book Reserve	[6] Future Accruals	[7] Remaining Life	[8] Service Life Accrual	[9] Service Life Rate	[10] Net Salvage Accrual	[11] Net Salvage Rate	[12] Total Accrual	[13] Total Rate
	SHARED SERVICES														
	DEPRECIABLE PLANT														
390.00	STRUCTURES AND IMPROVEMENTS	45,195,069	S1.5	25	-5%	47,454,822	25,437,863	22,016,959	18.27	1,081,402	2.39%	123,687	0.27%	1,205,088	**2.67%**
391.40	OFFICE FURNITURE	3,176,034	SQ	25	0%	3,176,034	1,253,591	1,922,443	18.37	104,651	3.30%	0	0.00%	104,651	**3.30%**
391.50	OFFICE MACHINES	1,428,878	SQ	15	0%	1,428,878	322,812	1,106,066	11.80	93,734	6.56%	0	0.00%	93,734	**6.56%**
391.60	COMPUTER EQUIPMENT	6,148,499	SQ	5	0%	6,148,499	3,350,535	2,797,964	2.01	1,392,022	22.64%	0	0.00%	1,392,022	**22.64%**
391.70	SOFTWARE	27,031,684	SQ	5	0%	27,031,684	15,684,700	11,346,984	2.10	5,403,326	19.99%	0	0.00%	5,403,326	**19.99%**
392.10	TRANSPORTATION EQUIPMENT	75,108	L3	10	15%	63,841	13,343	50,498	7.52	8,213	10.94%	-1,498	-1.99%	6,715	**8.94%**
394.10	TOOLS, SHOP AND GARAGE EQUIPMENT	19,606	SQ	20	0%	19,606	2,346	17,260	17.50	986	5.03%	0	0.00%	986	**5.03%**
397.10	COMMUNICATION EQUIPMENT	3,958,858	SQ	15	0%	3,958,858	852,095	3,106,763	11.92	260,634	6.58%	0	0.00%	260,634	**6.58%**
398.10	OTHER EQUIPMENT	425,435	SQ	20	0%	425,435	93,675	331,760	15.38	21,571	5.07%	0	0.00%	21,571	**5.07%**
	TOTAL DEPRECIABLE PLANT	87,459,170				89,707,657	47,010,960	42,696,697	5.03	8,366,540	9.57%	122,188	0.14%	8,488,728	**9.71%**
	NONDEPRECIABLE PLANT														
389.00	LAND	1,581,974													
	TOTAL NONDEPRECIABLE PLANT	1,581,974													
	TOTAL SHARED SERVICES	**89,041,144**				**89,707,657**	**47,010,960**	**42,696,697**	**5.03**	**8,366,540**	**9.40%**	**122,188**	**0.14%**	**8,488,728**	**9.53%**
	TOTAL PLANT STUDIED	**5,419,755,177**				**6,048,914,392**	**3,093,039,068**	**2,955,875,323**	**33.00**	**73,999,555**	**1.37%**	**15,569,484**	**0.29%**	**89,569,039**	**1.65%**

[1] See Company depreciation study
[2] Average life and Iowa curve shape developed through actuarial analysis and professional judgment
[3] Weighted net salvage for life span accounts from weighted net salvage exhibit; net salvage for mass accounts developed through statistical analysis and professional judgment
[4] = [1]*(1-[3])
[5] See Company depreciation study
[6] = [4] - [5]
[7] Composite remaining life based on Iowa cuve in [2]; see remaining life exhibit for detailed calculations
[8] = ([1] - [5]) / [7]
[9] = [8] / [1]
[10] = [12] - [8]
[11] = [13] - [9]
[12] = [6] / [7]
[13] = [12] / [1]

Gas Operations
Gas Division
305.30 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1949	8,464.23	65.00	130.22	14.43	1,878.75
1950	24,338.87	65.00	374.44	14.86	5,564.32
1958	2,473.32	65.00	38.05	18.80	715.24
1960	13,549.56	65.00	208.45	19.91	4,150.31
1962	553.86	65.00	8.52	21.07	179.55
1964	3,432.70	65.00	52.81	22.28	1,176.55
1965	14,688.18	65.00	225.97	22.90	5,174.85
1966	10,323.01	65.00	158.82	23.53	3,736.87
1967	27,249.33	65.00	419.22	24.17	10,133.67
1968	14,588.21	65.00	224.43	24.82	5,570.93
1969	11,831.93	65.00	182.03	25.49	4,639.07
1970	27,659.18	65.00	425.53	26.15	11,129.15
1971	6,241.02	65.00	96.02	26.84	2,576.68
1972	15,264.36	65.00	234.84	27.53	6,464.08
1973	3,517.77	65.00	54.12	28.22	1,527.42
1975	2,309.38	65.00	35.53	29.64	1,053.24
1980	30,653.33	65.00	471.59	33.34	15,723.84
1982	52,685.71	65.00	810.55	34.87	28,267.40
1985	50,164.50	65.00	771.76	37.23	28,730.62
1986	120,415.25	65.00	1,852.54	38.02	70,442.45
1987	73,927.17	65.00	1,137.34	38.83	44,163.29
1988	2,825.00	65.00	43.46	39.64	1,722.86
1989	8,608.00	65.00	132.43	40.46	5,358.13
1990	1,500.00	65.00	23.08	41.28	952.69
1997	3,310.00	65.00	50.92	47.22	2,404.79

Gas Operations
Gas Division
305.30 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***65*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	530,573.87	65.00	8,162.66	32.27	263,436.76

Composite Average Remaining Life ... ***32.27 Years***

Gas Operations
Gas Division
319.00 Pressure Regulating Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *27* ***Survivor Curve:*** *L2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1960	328.52	27.00	12.17	3.71	45.11
1962	1,832.28	27.00	67.86	4.10	278.23
1963	1,959.95	27.00	72.59	4.30	312.02
1964	5,551.84	27.00	205.62	4.50	925.37
1965	3,480.11	27.00	128.89	4.71	606.75
1966	3,253.26	27.00	120.49	4.91	592.10
1967	16,055.48	27.00	594.65	5.12	3,047.35
1968	64,687.88	27.00	2,395.85	5.34	12,796.18
1969	20,970.39	27.00	776.68	5.56	4,316.18
1970	16,455.69	27.00	609.47	5.78	3,521.33
1971	216.00	27.00	8.00	6.00	48.04
1972	3,793.84	27.00	140.51	6.23	875.61
1973	12,774.90	27.00	473.14	6.46	3,057.90
1980	22,761.08	27.00	843.00	8.18	6,892.84
1982	54,898.36	27.00	2,033.27	8.68	17,650.97
1985	33,994.45	27.00	1,259.05	9.43	11,870.35
1986	123,860.31	27.00	4,587.42	9.67	44,368.22
1988	21,649.22	27.00	801.82	10.15	8,142.30
1989	264,926.99	27.00	9,812.11	10.39	101,979.39
1997	13,284.87	27.00	492.03	12.57	6,183.49
2001	768,013.94	27.00	28,444.95	14.25	405,345.25
2013	538,657.22	27.00	19,950.26	23.56	469,965.50
Total	1,993,406.58	27.00	73,829.85	14.94	1,102,820.49

Composite Average Remaining Life ... 14.94 Years

Gas Operations
Gas Division
350.20 Leaseholds
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *40* ***Survivor Curve:*** *S0*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1962	316,151.57	40.00	7,903.78	9.75	77,072.84
1963	1,949.34	40.00	48.73	10.16	495.03
1964	148,851.50	40.00	3,721.28	10.57	39,319.95
1965	17,293.72	40.00	432.34	10.98	4,746.05
1966	5,632.83	40.00	140.82	11.39	1,604.06
1968	1,973.33	40.00	49.33	12.23	603.13
1969	747.79	40.00	18.69	12.65	236.44
1970	17.63	40.00	0.44	13.07	5.76
1971	17.28	40.00	0.43	13.50	5.83
1972	2,785.94	40.00	69.65	13.93	970.13
1973	10,522.02	40.00	263.05	14.36	3,778.07
1974	16,453.31	40.00	411.33	14.80	6,087.36
1976	3,379.57	40.00	84.49	15.68	1,325.02
1977	8.08	40.00	0.20	16.13	3.26
1987	2,293.24	40.00	57.33	20.83	1,194.37
1988	220.00	40.00	5.50	21.33	117.32
1992	544.86	40.00	13.62	23.38	318.50
2006	55,022.84	40.00	1,375.57	31.65	43,530.50
Total	583,864.85	40.00	14,596.61	12.43	181,413.61

Composite Average Remaining Life ... 12.43 Years

Gas Operations
Gas Division
351.00 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *50* ***Survivor Curve:*** *R2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1962	58,211.31	50.00	1,164.22	11.81	13,754.33
1963	42,394.09	50.00	847.88	12.24	10,380.28
1964	23,772.73	50.00	475.45	12.68	6,030.02
1965	33,785.36	50.00	675.70	13.13	8,875.01
1966	58,926.22	50.00	1,178.52	13.60	16,025.58
1967	47,488.68	50.00	949.77	14.07	13,366.64
1968	2,431.60	50.00	48.63	14.56	708.13
1970	15,029.85	50.00	300.60	15.57	4,680.79
1971	1,016.39	50.00	20.33	16.09	327.17
1972	36,733.16	50.00	734.66	16.63	12,217.35
1973	19,936.83	50.00	398.73	17.18	6,848.95
1974	11,175.36	50.00	223.51	17.74	3,963.91
1975	4,828.63	50.00	96.57	18.31	1,767.76
1976	1,229.52	50.00	24.59	18.89	464.42
1977	2,060.77	50.00	41.22	19.48	802.83
1978	2,841.84	50.00	56.84	20.08	1,141.42
1979	67,883.49	50.00	1,357.66	20.70	28,099.59
1980	13,395.95	50.00	267.92	21.32	5,712.62
1981	20,681.33	50.00	413.62	21.96	9,082.42
1986	22,313.35	50.00	446.27	25.29	11,285.80
1987	17,050.20	50.00	341.00	25.98	8,860.90
1988	33,133.10	50.00	662.66	26.69	17,686.07
1989	19,834.53	50.00	396.69	27.40	10,870.60
1990	44,010.91	50.00	880.21	28.13	24,756.98
1991	15,598.46	50.00	311.97	28.86	9,002.64
1992	1,500.00	50.00	30.00	29.60	887.93
1993	5,821.00	50.00	116.42	30.35	3,532.89

Gas Operations
Gas Division
351.00 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***50*** ***Survivor Curve:*** ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1994	12,675.50	50.00	253.51	31.10	7,884.90
1998	6,735.00	50.00	134.70	34.21	4,608.06
2008	11,739.68	50.00	234.79	42.48	9,974.76
2010	60,353.17	50.00	1,207.06	44.22	53,370.82
2011	40,018.29	50.00	800.36	45.09	36,088.80
2014	31,172.94	50.00	623.46	47.75	29,769.32
Total	785,779.24	50.00	15,715.52	23.72	372,829.71

Composite Average Remaining Life ... 23.72 Years

Gas Operations
Gas Division
352.30 Non-Recoverable Gas
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1976	2,540,440.62	40.00	63,510.66	10.83	688,008.95
1977	98,587.26	40.00	2,464.67	11.31	27,870.18
1978	79,434.84	40.00	1,985.86	11.80	23,430.71
1980	19,400.55	40.00	485.01	12.82	6,219.91
1982	1,335,165.22	40.00	33,378.95	13.91	464,263.17
Total	4,073,028.49	40.00	101,825.15	11.88	1,209,792.92

Composite Average Remaining Life ... 11.88 Years

Gas Operations
Gas Division
352.00 Wells
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1962	1,743,058.51	55.00	31,691.87	15.46	489,829.50
1963	575,131.27	55.00	10,456.90	15.94	166,709.81
1964	1,319,385.01	55.00	23,988.74	16.44	394,372.57
1965	1,253,878.77	55.00	22,797.72	16.95	386,347.34
1966	744,656.08	55.00	13,539.16	17.47	236,477.35
1968	390.00	55.00	7.09	18.54	131.44
1969	422,277.92	55.00	7,677.75	19.09	146,554.24
1970	2,210.37	55.00	40.19	19.65	789.62
1971	105,759.90	55.00	1,922.90	20.22	38,882.36
1972	913,574.35	55.00	16,610.39	20.80	345,555.12
1973	950,113.26	55.00	17,274.73	21.40	369,618.62
1974	231,529.46	55.00	4,209.61	22.00	92,608.77
1975	296,372.93	55.00	5,388.58	22.61	121,846.71
1976	45,010.19	55.00	818.36	23.23	19,012.95
1977	321,670.28	55.00	5,848.53	23.87	139,578.22
1978	9,673.70	55.00	175.88	24.51	4,310.50
1979	365,561.70	55.00	6,646.55	25.16	167,218.80
1980	274,896.92	55.00	4,998.11	25.82	129,046.07
1982	182,178.30	55.00	3,312.32	27.17	89,979.57
1983	262,376.50	55.00	4,770.47	27.85	132,869.09
1984	20,221.81	55.00	367.67	28.55	10,496.26
1985	43,338.97	55.00	787.98	29.25	23,050.17
1986	70,795.29	55.00	1,287.18	29.96	38,569.81
1987	280,431.60	55.00	5,098.74	30.68	156,447.08
1988	17,411.05	55.00	316.56	31.41	9,944.01
1991	403,420.24	55.00	7,334.89	33.64	246,781.77
1992	19,854.51	55.00	360.99	34.40	12,418.95

Gas Operations
Gas Division
352.00 Wells

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1993	419,450.99	55.00	7,626.36	35.17	268,214.67
1994	194,975.85	55.00	3,545.00	35.94	127,419.75
1998	535.47	55.00	9.74	39.11	380.74
2000	15,190.58	55.00	276.19	40.73	11,249.29
2004	29,880.15	55.00	543.27	44.05	23,931.00
2005	6,597.19	55.00	119.95	44.90	5,385.09
2010	16,427.48	55.00	298.68	49.20	14,696.52
Total	11,558,236.60	55.00	210,149.06	21.04	4,420,723.76

Composite Average Remaining Life ... ***21.04 Years***

Gas Operations
Gas Division
353.00 Lines

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *38* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1962	166,261.35	38.00	4,375.30	4.47	19,541.21
1963	14,132.42	38.00	371.91	4.72	1,756.23
1964	59,225.47	38.00	1,558.56	4.98	7,760.93
1965	87,458.24	38.00	2,301.53	5.25	12,079.34
1966	67,690.29	38.00	1,781.32	5.52	9,828.87
1969	2,257.50	38.00	59.41	6.38	378.81
1970	35,375.78	38.00	930.94	6.68	6,216.73
1971	696.62	38.00	18.33	6.99	128.13
1972	81,891.71	38.00	2,155.04	7.31	15,748.94
1973	138,100.68	38.00	3,634.23	7.64	27,752.59
1974	40,264.13	38.00	1,059.58	7.98	8,450.71
1983	9,627.40	38.00	253.35	11.56	2,928.50
1985	17,113.26	38.00	450.35	12.52	5,636.14
1988	503,854.95	38.00	13,259.34	14.08	186,746.71
1990	549,794.68	38.00	14,468.28	15.23	220,323.09
1991	380,196.92	38.00	10,005.18	15.83	158,410.29
1992	345,447.86	38.00	9,090.73	16.46	149,625.96
1994	355,374.36	38.00	9,351.96	17.78	166,273.80
1996	204,168.65	38.00	5,372.86	19.19	103,126.53
2005	98,786.01	38.00	2,599.63	26.71	69,442.19
Total	3,157,718.28	38.00	83,097.85	14.11	1,172,155.71

Composite Average Remaining Life ... 14.11 Years

Gas Operations
Gas Division
355.00 Measuring and Regulating Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *25* ***Survivor Curve:*** *L2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1966	339.72	25.00	13.59	3.79	51.52
1967	2,110.08	25.00	84.40	3.99	336.84
1970	12,133.12	25.00	485.32	4.61	2,235.90
1972	1,466.06	25.00	58.64	5.03	295.23
1973	3,914.55	25.00	156.58	5.25	822.61
1989	28,710.00	25.00	1,148.40	9.14	10,491.63
1990	6,214.15	25.00	248.57	9.38	2,330.61
1991	6,819.59	25.00	272.78	9.62	2,622.94
2002	18,171.33	25.00	726.85	13.12	9,536.19
2004	168,585.48	25.00	6,743.42	14.24	96,000.21
2005	141,815.13	25.00	5,672.61	14.88	84,424.75
2008	31,472.85	25.00	1,258.91	17.15	21,584.96
2011	47,695.73	25.00	1,907.83	19.72	37,618.50
2012	237,686.80	25.00	9,507.47	20.63	196,125.34
2014	132,237.83	25.00	5,289.51	22.53	119,149.23
Total	839,372.42	25.00	33,574.90	17.38	583,626.44

Composite Average Remaining Life ... 17.38 Years

Gas Operations
Gas Division
356.00 Purification Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1951	17,816.44	55.00	323.93	9.17	2,969.35
1962	141,006.77	55.00	2,563.75	13.38	34,292.63
1963	95,760.65	55.00	1,741.10	13.85	24,115.79
1964	163,452.38	55.00	2,971.86	14.34	42,620.99
1965	183,969.14	55.00	3,344.89	14.85	49,658.01
1966	287,302.18	55.00	5,223.67	15.37	80,278.74
1967	170,628.16	55.00	3,102.32	15.91	49,344.39
1968	8,092.87	55.00	147.14	16.46	2,421.62
1971	10,811.75	55.00	196.58	18.20	3,577.08
1972	86,283.25	55.00	1,568.78	18.80	29,500.87
1973	51,772.89	55.00	941.32	19.43	18,285.92
1974	4,979.13	55.00	90.53	20.06	1,815.92
1976	15,802.47	55.00	287.32	21.36	6,136.79
1977	7,872.45	55.00	143.14	22.03	3,152.97
1978	1,025.92	55.00	18.65	22.71	423.57
1979	143,030.38	55.00	2,600.55	23.40	60,847.76
1980	43,351.72	55.00	788.21	24.10	18,994.83
1981	5,603.06	55.00	101.87	24.81	2,527.20
1982	20,541.21	55.00	373.48	25.53	9,534.24
1983	510.40	55.00	9.28	26.26	243.68
1985	68,026.90	55.00	1,236.85	27.75	34,319.91
1986	219,372.64	55.00	3,988.59	28.51	113,696.93
1987	300,509.07	55.00	5,463.79	29.27	159,928.40
1988	117,091.92	55.00	2,128.94	30.05	63,966.75
1989	174,083.63	55.00	3,165.15	30.83	97,582.51
1990	97,619.13	55.00	1,774.89	31.62	56,126.29
1991	65,803.95	55.00	1,196.43	32.42	38,791.37

Gas Operations
Gas Division
356.00 Purification Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1992	154,724.17	55.00	2,813.16	33.23	93,478.22
1993	43,094.33	55.00	783.53	34.05	26,675.48
1994	46,856.53	55.00	851.94	34.87	29,706.07
1995	65,052.15	55.00	1,182.76	35.70	42,224.65
1999	101,865.26	55.00	1,852.09	39.09	72,404.55
2000	19,632.83	55.00	356.96	39.96	14,263.73
2001	6,766.46	55.00	123.03	40.83	5,023.24
2003	15,943.37	55.00	289.88	42.59	12,346.22
2004	26,952.46	55.00	490.04	43.48	21,307.45
2005	27,410.40	55.00	498.37	44.38	22,115.60
2006	66,592.60	55.00	1,210.77	45.28	54,819.24
2007	118,883.19	55.00	2,161.51	46.18	99,822.11
2008	147,380.11	55.00	2,679.63	47.09	126,189.18
2010	140,617.18	55.00	2,556.67	48.93	125,087.66
2011	57,871.05	55.00	1,052.20	49.85	52,452.10
2012	65,947.73	55.00	1,199.05	50.78	60,885.30
2013	521,668.82	55.00	9,484.87	51.71	490,462.83
2014	313,061.04	55.00	5,692.01	52.65	299,656.10
2015	61,983.69	55.00	1,126.97	53.58	60,388.44
Total	4,504,423.83	55.00	81,898.45	33.14	2,714,462.70

Composite Average Remaining Life ... 33.14 Years

Gas Operations
Gas Division
357.00 Other Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1970	1,273.76	40.00	31.84	7.03	223.85
2004	34,999.00	40.00	874.97	28.63	25,048.95
2005	14,172.69	40.00	354.32	29.50	10,450.98
Total	50,445.45	40.00	1,261.13	28.33	35,723.77

Composite Average Remaining Life ... ***28.33 Years***

Gas Operations
Gas Division
365.20 Rights of Way
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***60*** ***Survivor Curve:*** ***S4***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1962	138,715.56	60.00	2,311.92	10.76	24,887.83
1966	7,171.35	60.00	119.52	12.93	1,545.86
1972	25,448.43	60.00	424.14	16.98	7,203.85
1973	18.66	60.00	0.31	17.75	5.52
1977	7,269.37	60.00	121.16	21.07	2,553.16
1987	24,621.41	60.00	410.36	30.53	12,527.92
2004	75,272.00	60.00	1,254.53	47.50	59,590.36
Total	278,516.78	60.00	4,641.94	23.33	108,314.50

Composite Average Remaining Life ... 23.33 Years

Gas Operations
Gas Division
365.40 Rights of Way
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***60*** ***Survivor Curve:*** ***S4***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1960	4,793.49	60.00	79.89	9.83	785.21
1966	5,745.78	60.00	95.76	12.93	1,238.56
1967	111,634.89	60.00	1,860.58	13.54	25,183.68
1968	2,914.00	60.00	48.57	14.17	688.34
1969	861.00	60.00	14.35	14.84	212.91
1972	663.00	60.00	11.05	16.98	187.68
1981	500.00	60.00	8.33	24.72	205.96
1982	232,628.47	60.00	3,877.14	25.66	99,495.58
1989	412,788.45	60.00	6,879.80	32.51	223,679.36
Total	772,529.08	60.00	12,875.46	27.31	351,677.27

Composite Average Remaining Life ... ***27.31 Years***

Gas Operations
Gas Division
366.10 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***50*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1962	70,195.09	50.00	1,403.90	10.06	14,126.38
1963	15,846.79	50.00	316.94	10.45	3,312.55
1968	9,310.64	50.00	186.21	12.66	2,357.14
1969	8,602.80	50.00	172.06	13.15	2,262.86
1970	5,165.63	50.00	103.31	13.66	1,411.53
1971	792.92	50.00	15.86	14.19	225.04
1973	51,877.21	50.00	1,037.54	15.29	15,869.11
1974	3,306.94	50.00	66.14	15.87	1,049.68
1975	4,125.61	50.00	82.51	16.46	1,358.33
1976	2,847.10	50.00	56.94	17.07	971.90
1977	28,231.98	50.00	564.64	17.69	9,987.64
1978	8,011.25	50.00	160.22	18.32	2,935.74
1979	4,751.68	50.00	95.03	18.97	1,802.79
1986	5,317.45	50.00	106.35	23.84	2,535.24
1987	48,877.35	50.00	977.54	24.58	24,026.47
1988	13,608.26	50.00	272.16	25.33	6,893.37
1989	27,435.42	50.00	548.71	26.09	14,314.35
1990	8,859.20	50.00	177.18	26.86	4,758.53
1992	8,869.31	50.00	177.39	28.42	5,041.79
1993	210,876.75	50.00	4,217.52	29.22	123,233.79
1994	143,547.79	50.00	2,870.95	30.03	86,200.25
1995	11,678.26	50.00	233.56	30.84	7,202.94
1997	8,170.88	50.00	163.42	32.49	5,309.83
2007	4,163.44	50.00	83.27	41.20	3,430.77
2010	59,079.53	50.00	1,181.59	43.93	51,912.58
2013	11,870.55	50.00	237.41	46.71	11,089.94
2014	12,730.53	50.00	254.61	47.65	12,131.31

Gas Operations
Gas Division
366.10 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***50*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	788,150.36	50.00	15,762.97	26.38	415,751.82

Composite Average Remaining Life ... ***26.38 Years***

Gas Operations
Gas Division
366.00 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *50* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1982	7,348.81	50.00	146.98	20.99	3,084.66
1987	9,684.45	50.00	193.69	24.58	4,760.55
1989	115,907.56	50.00	2,318.15	26.09	60,474.41
1990	13,725.00	50.00	274.50	26.86	7,372.09
1992	5,070.00	50.00	101.40	28.42	2,882.06
2007	31,708.94	50.00	634.18	41.20	26,128.90
2010	12,071.00	50.00	241.42	43.93	10,606.66
2014	19,221.03	50.00	384.42	47.65	18,316.31
2015	16,322.32	50.00	326.45	48.59	15,860.43
Total	231,059.11	50.00	4,621.17	32.35	149,486.07

Composite Average Remaining Life ... 32.35 Years

Gas Operations
Gas Division
367.10 Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *S0.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1961	24,956.62	55.00	453.76	19.55	8,872.15
1962	3,859,788.57	55.00	70,177.90	19.98	1,401,913.57
1964	342,128.74	55.00	6,220.52	20.84	129,623.31
1965	19,341.54	55.00	351.66	21.28	7,481.89
1966	250,142.42	55.00	4,548.04	21.72	98,776.23
1969	744.31	55.00	13.53	23.08	312.31
1972	762,489.83	55.00	13,863.44	24.49	339,461.64
1975	4,620.69	55.00	84.01	25.95	2,180.04
1986	9,020.98	55.00	164.02	31.86	5,224.82
1987	290,248.40	55.00	5,277.24	32.44	171,190.54
1989	28,950.93	55.00	526.38	33.64	17,706.75
1991	8,932.12	55.00	162.40	34.88	5,663.92
1993	30,067.96	55.00	546.69	36.15	19,763.92
2000	13,997.82	55.00	254.51	40.97	10,427.85
2008	230,643.91	55.00	4,193.52	47.25	198,137.78
2011	2,962,672.56	55.00	53,866.72	49.84	2,684,838.35
2012	98,837.58	55.00	1,797.05	50.74	91,181.19
Total	8,937,584.98	55.00	162,501.37	31.96	5,192,756.25

Composite Average Remaining Life ... 31.96 Years

Gas Operations
Gas Division
367.00 Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *S0.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1951	921,752.53	55.00	16,759.12	15.53	260,335.93
1952	38,981.57	55.00	708.76	15.92	11,283.03
1955	115.64	55.00	2.10	17.10	35.95
1956	60,416.13	55.00	1,098.47	17.50	19,219.22
1957	2,856.04	55.00	51.93	17.90	929.49
1958	421.70	55.00	7.67	18.31	140.36
1960	1,555,753.85	55.00	28,286.40	19.13	541,209.72
1961	33,237.58	55.00	604.32	19.55	11,816.06
1962	11,205.09	55.00	203.73	19.98	4,069.80
1963	313,928.68	55.00	5,707.79	20.40	116,467.30
1964	36,652.45	55.00	666.41	20.84	13,886.62
1965	370,120.85	55.00	6,729.46	21.28	143,173.80
1966	232,514.65	55.00	4,227.53	21.72	91,815.37
1967	1,367,916.49	55.00	24,871.18	22.17	551,301.05
1968	402,679.12	55.00	7,321.43	22.62	165,605.57
1969	186,523.05	55.00	3,391.32	23.08	78,263.82
1970	51,316.17	55.00	933.02	23.54	21,964.20
1971	69,229.52	55.00	1,258.72	24.01	30,222.58
1972	36,404.90	55.00	661.91	24.49	16,207.52
1973	188.46	55.00	3.43	24.97	85.55
1974	12,242.80	55.00	222.60	25.46	5,666.22
1975	4,478.01	55.00	81.42	25.95	2,112.73
1977	17,482.92	55.00	317.87	26.96	8,568.53
1978	42,380.99	55.00	770.56	27.47	21,167.50
1980	20,918.83	55.00	380.34	28.52	10,847.31
1981	382,682.53	55.00	6,957.86	29.05	202,157.55
1982	380,994.85	55.00	6,927.17	29.60	205,034.27

Gas Operations
Gas Division
367.00 Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *S0.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1983	25,167.17	55.00	457.58	30.15	13,796.35
1984	62,352.18	55.00	1,133.67	30.71	34,815.50
1985	71,523.71	55.00	1,300.43	31.28	40,675.50
1986	285,523.01	55.00	5,191.32	31.86	165,370.64
1987	116,890.07	55.00	2,125.27	32.44	68,942.58
1988	955,408.78	55.00	17,371.05	33.03	573,843.14
1989	4,395,059.17	55.00	79,910.08	33.64	2,688,072.28
1990	709,148.99	55.00	12,893.60	34.25	441,637.61
1991	505,271.34	55.00	9,186.74	34.88	320,396.05
1992	358,655.59	55.00	6,521.00	35.51	231,545.07
1993	1,818,826.38	55.00	33,069.54	36.15	1,195,529.60
1994	84,693.69	55.00	1,539.88	36.81	56,678.39
1995	1,907,000.19	55.00	34,672.69	37.47	1,299,278.18
1996	519,301.04	55.00	9,441.83	38.15	360,200.59
1998	437,392.13	55.00	7,952.58	39.54	314,410.92
1999	271,099.46	55.00	4,929.08	40.25	198,386.67
2000	1,397,691.52	55.00	25,412.55	40.97	1,041,227.89
2001	103,710.57	55.00	1,885.64	41.71	78,650.66
2006	211,807.99	55.00	3,851.05	45.59	175,588.38
2007	3,524.55	55.00	64.08	46.41	2,974.36
2009	3,141,380.15	55.00	57,115.94	48.10	2,747,032.40
2010	286,667.57	55.00	5,212.13	48.96	255,191.87
2011	4,348,291.04	55.00	79,059.75	49.84	3,940,515.97
2012	7,741,365.42	55.00	140,751.95	50.74	7,141,685.73
2013	886,277.56	55.00	16,114.12	51.65	832,350.36
2014	1,224,556.07	55.00	22,264.63	52.58	1,170,723.35
2015	4,854,059.96	55.00	88,255.54	53.53	4,724,589.55

Gas Operations
Gas Division
367.00 Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *S0.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2016	892,397.30	55.00	16,225.39	54.50	884,357.95
Total	44,168,438.00	55.00	803,061.66	41.76	33,532,054.58

Composite Average Remaining Life ... *41.76 Years*

Gas Operations
Gas Division
368.00 Compressor Station Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *45* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1958	56,117.34	45.00	1,247.05	6.89	8,597.67
1962	557,569.82	45.00	12,390.44	8.08	100,114.35
1963	166,164.94	45.00	3,692.55	8.39	30,997.28
1964	20,662.67	45.00	459.17	8.72	4,002.47
1965	6,018.67	45.00	133.75	9.05	1,209.76
1966	560.75	45.00	12.46	9.38	116.93
1969	127,969.38	45.00	2,843.76	10.45	29,721.00
1973	176,685.82	45.00	3,926.35	12.01	47,173.42
1977	244,551.13	45.00	5,434.47	13.77	74,809.04
1981	7,962.00	45.00	176.93	15.74	2,784.40
1984	158,598.92	45.00	3,524.42	17.38	61,258.57
1986	87,965.74	45.00	1,954.79	18.56	36,285.95
1989	39,232.62	45.00	871.84	20.48	17,852.30
1990	31,988.54	45.00	710.86	21.15	15,036.53
1994	5,536.47	45.00	123.03	24.06	2,960.26
1997	41,970.72	45.00	932.68	26.45	24,673.75
1998	51,289.85	45.00	1,139.77	27.29	31,105.97
2000	32,762.27	45.00	728.05	29.02	21,128.09
2001	54,098.55	45.00	1,202.19	29.91	35,960.88
2002	28,906.00	45.00	642.36	30.82	19,797.53
2003	29,278.72	45.00	650.64	31.74	20,652.96
2004	16,885.27	45.00	375.23	32.68	12,262.03
2005	14,688.68	45.00	326.42	33.63	10,976.57
2010	105,053.07	45.00	2,334.51	38.51	89,906.36
2013	15,791.45	45.00	350.92	41.50	14,563.48
2015	19,417.98	45.00	431.51	43.50	18,770.72

Gas Operations
Gas Division
368.00 Compressor Station Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *45* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	2,097,727.37	45.00	46,616.17	15.72	732,718.29

Composite Average Remaining Life ... ***15.72 Years***

Gas Operations
Gas Division
369.10 Measuring and Regulating Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1962	115,254.85	35.00	3,293.00	3.99	13,151.96
1963	5,625.61	35.00	160.73	4.25	683.22
1967	15,215.89	35.00	434.74	5.32	2,311.27
1968	9,351.78	35.00	267.19	5.60	1,495.42
1969	7,144.48	35.00	204.13	5.88	1,199.98
1971	3,271.51	35.00	93.47	6.46	603.92
1980	2,929.29	35.00	83.69	9.48	793.09
1985	202,506.32	35.00	5,785.90	11.53	66,692.64
1987	22,989.12	35.00	656.83	12.45	8,174.29
1988	3,768.09	35.00	107.66	12.93	1,391.80
1989	9,639.14	35.00	275.40	13.43	3,697.67
1990	5,178.27	35.00	147.95	13.94	2,062.93
1991	9,438.85	35.00	269.68	14.48	3,904.59
1992	13,122.14	35.00	374.92	15.03	5,635.93
1993	96,653.48	35.00	2,761.53	15.61	43,095.45
1994	115,516.72	35.00	3,300.48	16.20	53,464.08
2005	52,510.68	35.00	1,500.31	24.16	36,254.59
2007	217,370.16	35.00	6,210.58	25.90	160,852.49
2013	507,310.28	35.00	14,494.58	31.53	456,964.92
2014	23,910.91	35.00	683.17	32.51	22,210.24
Total	1,438,707.57	35.00	41,105.93	21.52	884,640.49

Composite Average Remaining Life ... 21.52 Years

Gas Operations
Gas Division
369.00 Measuring and Regulating Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1982	203,824.36	35.00	5,823.55	10.26	59,736.14
1983	28,423.93	35.00	812.11	10.67	8,662.90
1986	21,165.17	35.00	604.72	11.98	7,243.47
1987	54,173.82	35.00	1,547.82	12.45	19,262.71
1988	77,146.70	35.00	2,204.19	12.93	28,495.34
1989	421,307.06	35.00	12,037.35	13.43	161,617.40
1990	50,937.08	35.00	1,455.35	13.94	20,292.46
1992	42,806.23	35.00	1,223.04	15.03	18,385.17
1993	41,437.45	35.00	1,183.93	15.61	18,475.96
1994	7,890.74	35.00	225.45	16.20	3,652.04
1995	11,982.17	35.00	342.35	16.81	5,755.79
1997	6,020.83	35.00	172.02	18.10	3,114.20
2001	17,430.91	35.00	498.03	20.95	10,435.81
2004	21,957.01	35.00	627.34	23.33	14,635.00
2011	311,171.90	35.00	8,890.63	29.59	263,082.26
2013	53,576.85	35.00	1,530.77	31.53	48,259.90
2014	47,340.35	35.00	1,352.58	32.51	43,973.26
2015	524,873.64	35.00	14,996.39	33.50	502,418.71
Total	1,943,466.20	35.00	55,527.61	22.29	1,237,498.52

Composite Average Remaining Life ... 22.29 Years

Gas Operations
Gas Division
370.00 Communication Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *25* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1969	2,945.00	25.00	117.80	0.60	70.22
1972	29,729.79	25.00	1,189.19	1.08	1,290.06
1977	2,263.40	25.00	90.54	2.10	189.95
1978	3,452.69	25.00	138.11	2.32	320.69
1982	4,000.00	25.00	160.00	3.30	527.64
1984	12,793.68	25.00	511.75	3.84	1,965.82
1986	67,652.14	25.00	2,706.09	4.43	11,987.44
1987	7,073.25	25.00	282.93	4.74	1,341.95
1989	48,339.26	25.00	1,933.57	5.41	10,466.03
1990	1,083.80	25.00	43.35	5.77	250.21
1998	2,968.82	25.00	118.75	9.41	1,117.12
2000	92,451.83	25.00	3,698.07	10.59	39,159.50
2004	38,600.48	25.00	1,544.02	13.37	20,640.72
2012	15,874.99	25.00	635.00	20.52	13,028.15
Total	329,229.13	25.00	13,169.17	7.77	102,355.50

Composite Average Remaining Life ... 7.77 Years

Gas Operations
Gas Division
376.10 Valves, Valve Pits, Etc.
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1937	201.93	55.00	3.67	6.30	23.13
1938	164.16	55.00	2.98	6.59	19.67
1940	869.05	55.00	15.80	7.18	113.50
1941	3,056.12	55.00	55.57	7.48	415.87
1942	233.71	55.00	4.25	7.79	33.10
1946	51.72	55.00	0.94	9.06	8.52
1948	16,443.06	55.00	298.96	9.74	2,910.47
1949	2,086.71	55.00	37.94	10.08	382.51
1950	1,658.05	55.00	30.15	10.44	314.64
1951	1,956.98	55.00	35.58	10.80	384.33
1953	3,613.45	55.00	65.70	11.56	759.29
1954	11,004.60	55.00	200.08	11.95	2,390.88
1955	10,498.53	55.00	190.88	12.35	2,357.63
1956	10,415.16	55.00	189.37	12.76	2,416.94
1957	22,684.77	55.00	412.45	13.19	5,438.42
1958	7,984.96	55.00	145.18	13.62	1,977.14
1959	15,073.76	55.00	274.07	14.06	3,853.65
1960	7,368.20	55.00	133.97	14.52	1,944.56
1961	14,406.07	55.00	261.93	14.98	3,923.73
1962	56,820.99	55.00	1,033.11	15.46	15,967.68
1963	17,728.84	55.00	322.34	15.94	5,138.95
1964	37,174.44	55.00	675.90	16.44	11,111.68
1965	34,292.98	55.00	623.51	16.95	10,566.41
1966	33,124.91	55.00	602.27	17.47	10,519.34
1967	45,265.98	55.00	823.02	18.00	14,811.21
1968	45,867.38	55.00	833.95	18.54	15,458.90
1969	45,192.35	55.00	821.68	19.09	15,684.29

Gas Operations
Gas Division
376.10 Valves, Valve Pits, Etc.
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1970	31,646.54	55.00	575.39	19.65	11,305.24
1971	20,707.15	55.00	376.49	20.22	7,612.93
1972	44,429.28	55.00	807.80	20.80	16,805.16
1973	25,404.65	55.00	461.90	21.40	9,883.07
1974	20,257.93	55.00	368.32	22.00	8,102.91
1975	14,193.32	55.00	258.06	22.61	5,835.25
1976	14,964.61	55.00	272.08	23.23	6,321.26
1977	12,243.63	55.00	222.61	23.87	5,312.72
1978	12,448.65	55.00	226.34	24.51	5,546.99
1979	24,861.49	55.00	452.03	25.16	11,372.39
1980	65,698.86	55.00	1,194.52	25.82	30,841.30
1981	75,786.26	55.00	1,377.93	26.49	36,496.28
1982	56,879.56	55.00	1,034.17	27.17	28,093.35
1983	20,578.85	55.00	374.16	27.85	10,421.26
1984	34,756.81	55.00	631.94	28.55	18,040.75
1985	71,991.74	55.00	1,308.94	29.25	38,289.37
1986	107,803.14	55.00	1,960.05	29.96	58,731.97
1987	89,286.95	55.00	1,623.39	30.68	49,811.37
1988	118,458.40	55.00	2,153.78	31.41	67,655.40
1989	115,029.38	55.00	2,091.44	32.15	67,237.58
1990	122,370.33	55.00	2,224.91	32.89	73,184.38
1991	97,812.37	55.00	1,778.40	33.64	59,834.16
1992	79,087.33	55.00	1,437.95	34.40	49,468.93
1993	89,284.33	55.00	1,623.35	35.17	57,092.17
1994	162,279.86	55.00	2,950.53	35.94	106,052.41
1995	120,247.12	55.00	2,186.30	36.72	80,290.86
1996	66,666.42	55.00	1,212.11	37.51	45,469.16

Gas Operations
Gas Division
376.10 Valves, Valve Pits, Etc.
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1997	205,250.01	55.00	3,731.81	38.31	142,953.94
1998	101,032.12	55.00	1,836.94	39.11	71,837.38
1999	89,577.75	55.00	1,628.68	39.92	65,009.39
2000	153,883.94	55.00	2,797.88	40.73	113,957.76
2001	121,607.65	55.00	2,211.04	41.55	91,870.88
2002	109,997.85	55.00	1,999.95	42.38	84,754.17
2003	138,611.32	55.00	2,520.20	43.21	108,897.77
2004	227,826.01	55.00	4,142.28	44.05	182,465.72
2005	152,116.32	55.00	2,765.74	44.90	124,168.04
2006	1,131,103.58	55.00	20,565.45	45.75	940,789.15
2007	290,705.21	55.00	5,285.53	46.60	246,320.43
2008	389,576.67	55.00	7,083.19	47.46	336,202.95
2009	543,892.86	55.00	9,888.93	48.33	477,947.98
2010	383,714.45	55.00	6,976.60	49.20	343,282.53
2011	195,928.66	55.00	3,562.33	50.08	178,412.51
2012	885,412.62	55.00	16,098.36	50.97	820,475.88
2013	428,631.64	55.00	7,793.28	51.85	404,117.47
2014	273,713.56	55.00	4,976.59	52.75	262,499.06
2015	326,392.80	55.00	5,934.39	53.64	318,349.08
2016	17,753.39	55.00	322.79	54.55	17,607.19
Total	8,327,142.23	55.00	151,402.09	42.44	6,425,954.36

Composite Average Remaining Life ... 42.44 Years

Gas Operations
Gas Division
376.20 Steel Installed Prior to 1955
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *33* ***Survivor Curve:*** *L1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1913	270.46	0.00	0.00	0.00	0.00
1914	7.02	33.00	0.21	0.50	0.11
1916	285.44	33.00	8.65	0.94	8.12
1917	3,614.88	33.00	109.54	1.12	122.17
1920	15,926.06	33.00	482.59	1.64	789.19
1921	8,879.87	33.00	269.08	1.80	484.07
1922	7,405.27	33.00	224.39	1.96	439.97
1923	3,919.03	33.00	118.75	2.12	251.64
1925	7,635.27	33.00	231.36	2.44	564.81
1927	728.13	33.00	22.06	2.76	60.82
1929	420.53	33.00	12.74	3.06	39.02
1930	908.09	33.00	27.52	3.21	88.35
1936	338.40	33.00	10.25	4.08	41.85
1937	40.80	33.00	1.24	4.23	5.23
1938	4.52	33.00	0.14	4.38	0.60
1940	412.93	33.00	12.51	4.68	58.58
1941	15,396.78	33.00	466.55	4.84	2,257.10
1942	6,179.45	33.00	187.25	5.00	935.55
1943	7,643.97	33.00	231.63	5.16	1,194.61
1944	265.63	33.00	8.05	5.32	42.83
1945	1,399.16	33.00	42.40	5.49	232.69
1946	473.40	33.00	14.34	5.66	81.17
1947	172.48	33.00	5.23	5.83	30.47
1948	1,376.18	33.00	41.70	6.01	250.47
1949	6,708.75	33.00	203.29	6.19	1,257.34
1950	16,505.54	33.00	500.15	6.37	3,184.28
1951	8,712.45	33.00	264.00	6.55	1,728.55

Gas Operations
Gas Division
376.20 Steel Installed Prior to 1955
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *33* ***Survivor Curve:*** *L1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1953	2,601.82	33.00	78.84	6.93	546.11
1954	140,108.06	33.00	4,245.55	7.12	30,232.47
Total	258,340.37	31.86	7,820.02	5.75	44,928.19

Composite Average Remaining Life ... 5.75 Years

Gas Operations
Gas Division
376.70 Cast Iron and Wrought Iron
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***43*** ***Survivor Curve:*** ***L1***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1926	5,284.88	43.00	122.90	8.33	1,024.15
1940	33.76	43.00	0.79	11.28	8.86
1945	233.56	43.00	5.43	12.42	67.47
1947	329.18	43.00	7.65	12.90	98.72
1948	614,276.84	43.00	14,284.63	13.13	187,609.89
1949	45.78	43.00	1.06	13.38	14.24
1950	225,565.17	43.00	5,245.38	13.62	71,444.79
1951	158,227.62	43.00	3,679.49	13.86	51,016.08
1952	22,112.90	43.00	514.22	14.11	7,257.77
1953	182.43	43.00	4.24	14.37	60.94
1957	17,592.70	43.00	409.11	15.39	6,297.91
1958	4,165.46	43.00	96.87	15.66	1,516.78
1959	14,570.49	43.00	338.83	15.93	5,396.24
1960	17,009.29	43.00	395.54	16.19	6,405.71
1961	48,126.72	43.00	1,119.16	16.47	18,429.87
1965	19.08	43.00	0.44	17.59	7.80
1979	521.50	43.00	12.13	21.93	265.96
Total	1,128,297.36	43.00	26,237.87	13.60	356,923.19

Composite Average Remaining Life ... 13.60 Years

Gas Operations
Gas Division
376.21 Steel and Plastic Installed After 1954
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *75* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1955	294,723.26	75.00	3,929.64	25.14	98,803.60
1956	362,975.52	75.00	4,839.67	25.75	124,633.63
1957	449,198.47	75.00	5,989.31	26.38	157,970.07
1958	261,601.96	75.00	3,488.02	27.00	94,191.12
1959	351,288.65	75.00	4,683.84	27.64	129,467.34
1960	365,656.37	75.00	4,875.41	28.29	137,930.74
1961	580,708.93	75.00	7,742.78	28.95	224,125.32
1962	2,456,063.11	75.00	32,747.47	29.61	969,631.86
1963	1,159,038.91	75.00	15,453.83	30.28	468,009.33
1964	2,623,394.65	75.00	34,978.55	30.96	1,083,088.14
1965	1,563,167.89	75.00	20,842.21	31.65	659,688.22
1966	1,500,462.29	75.00	20,006.14	32.35	647,199.11
1967	2,674,529.45	75.00	35,660.35	33.05	1,178,687.71
1968	2,295,439.73	75.00	30,605.82	33.76	1,033,346.91
1969	2,843,402.39	75.00	37,911.98	34.48	1,307,343.65
1970	2,716,509.13	75.00	36,220.08	35.21	1,275,258.52
1971	2,746,179.76	75.00	36,615.68	35.94	1,315,965.98
1972	3,243,098.15	75.00	43,241.25	36.68	1,586,150.64
1973	1,500,129.38	75.00	20,001.70	37.43	748,604.58
1974	2,747,292.74	75.00	36,630.52	38.18	1,398,507.66
1975	2,019,783.44	75.00	26,930.41	38.94	1,048,672.57
1976	2,136,774.60	75.00	28,490.29	39.71	1,131,218.42
1977	2,285,123.04	75.00	30,468.27	40.48	1,233,249.28
1978	2,040,508.31	75.00	27,206.74	41.26	1,122,463.51
1979	2,921,391.28	75.00	38,951.83	42.04	1,637,571.69
1980	4,692,163.36	75.00	62,562.10	42.83	2,679,573.48
1981	5,215,556.01	75.00	69,540.66	43.63	3,033,992.80

Gas Operations
Gas Division
376.21 Steel and Plastic Installed After 1954
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *75* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1982	4,740,376.09	75.00	63,204.93	44.43	2,808,268.46
1983	2,924,659.89	75.00	38,995.42	45.24	1,764,097.48
1984	3,967,561.72	75.00	52,900.76	46.05	2,436,309.11
1985	3,554,389.96	75.00	47,391.81	46.87	2,221,425.20
1986	6,583,358.65	75.00	87,778.00	47.70	4,186,832.84
1987	5,043,735.74	75.00	67,249.73	48.53	3,263,643.76
1988	5,119,424.32	75.00	68,258.90	49.37	3,369,658.89
1989	5,410,409.32	75.00	72,138.70	50.21	3,621,816.71
1990	6,988,731.46	75.00	93,182.97	51.05	4,757,379.73
1991	5,990,086.65	75.00	79,867.72	51.91	4,145,556.93
1992	4,699,532.97	75.00	62,660.36	52.76	3,306,019.73
1993	5,027,773.10	75.00	67,036.89	53.62	3,594,757.66
1994	7,979,555.61	75.00	106,393.94	54.49	5,797,326.27
1995	6,364,623.34	75.00	84,861.54	55.36	4,697,866.69
1996	5,640,972.44	75.00	75,212.87	56.24	4,229,644.49
1997	6,224,287.43	75.00	82,990.39	57.11	4,739,992.97
1998	5,387,080.00	75.00	71,827.64	58.00	4,165,877.67
1999	5,107,341.33	75.00	68,097.80	58.89	4,010,112.50
2000	6,904,978.84	75.00	92,066.27	59.78	5,503,678.00
2001	7,813,240.05	75.00	104,176.40	60.68	6,320,921.39
2002	7,192,444.43	75.00	95,899.14	61.58	5,905,120.27
2003	7,875,517.98	75.00	105,006.77	62.48	6,560,826.58
2004	9,957,500.51	75.00	132,766.51	63.39	8,415,680.56
2005	8,621,513.02	75.00	114,953.36	64.30	7,391,406.25
2006	13,004,333.16	75.00	173,390.89	65.21	11,307,434.15
2007	9,352,578.41	75.00	124,700.89	66.13	8,246,594.98
2008	9,601,852.31	75.00	128,024.54	67.05	8,584,437.38

Gas Operations
Gas Division
376.21 Steel and Plastic Installed After 1954
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *75* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2009	12,196,476.23	75.00	162,619.48	67.98	11,054,414.45
2010	6,142,229.50	75.00	81,896.29	68.90	5,642,991.21
2011	7,672,052.84	75.00	102,293.91	69.84	7,143,715.76
2012	8,103,179.53	75.00	108,042.26	70.77	7,645,952.45
2013	6,991,261.02	75.00	93,216.70	71.70	6,683,978.53
2014	8,579,507.56	75.00	114,393.29	72.64	8,309,858.76
2015	10,068,049.90	75.00	134,240.50	73.58	9,877,927.60
2016	918,609.87	75.00	12,248.12	74.53	912,815.65
Total	291,795,385.96	75.00	3,890,600.24	56.33	219,149,686.94

Composite Average Remaining Life ... 56.33 Years

Gas Operations
Gas Division
380.00 Services
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***49*** ***Survivor Curve:*** ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1913	96.45	0.00	0.00	0.00	0.00
1916	579.46	0.00	0.00	0.00	0.00
1917	63.66	0.00	0.00	0.00	0.00
1919	176.04	0.00	0.00	0.00	0.00
1920	188.22	0.00	0.00	0.00	0.00
1922	196.64	0.00	0.00	0.00	0.00
1923	248.25	0.00	0.00	0.00	0.00
1925	176.98	0.00	0.00	0.00	0.00
1926	332.02	49.00	6.78	0.50	3.39
1930	113.51	49.00	2.32	1.20	2.77
1931	176.98	49.00	3.61	1.43	5.17
1935	330.29	49.00	6.74	2.54	17.11
1936	1,741.36	49.00	35.54	2.82	100.23
1937	5,174.43	49.00	105.60	3.10	327.78
1938	10,385.05	49.00	211.94	3.39	718.38
1939	10,491.69	49.00	214.12	3.68	787.23
1940	11,433.99	49.00	233.35	3.96	925.18
1941	17,398.77	49.00	355.08	4.25	1,510.44
1942	16,595.48	49.00	338.68	4.54	1,538.77
1943	4,339.92	49.00	88.57	4.83	428.10
1944	5,548.52	49.00	113.23	5.12	580.24
1945	5,269.07	49.00	107.53	5.42	582.38
1946	8,144.16	49.00	166.21	5.71	948.85
1947	23,430.90	49.00	478.18	6.00	2,870.82
1948	36,356.81	49.00	741.97	6.30	4,675.09
1949	27,272.89	49.00	556.59	6.60	3,674.20
1950	19,124.56	49.00	390.30	6.91	2,695.24

Gas Operations
Gas Division
380.00 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***49*** ***Survivor Curve:*** ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1951	45,836.91	49.00	935.44	7.21	6,748.91
1952	74,359.95	49.00	1,517.54	7.53	11,425.82
1953	101,550.61	49.00	2,072.45	7.85	16,268.50
1954	111,286.52	49.00	2,271.15	8.18	18,572.42
1955	86,880.18	49.00	1,773.06	8.51	15,093.89
1956	127,881.08	49.00	2,609.81	8.85	23,109.57
1957	77,865.16	49.00	1,589.08	9.21	14,632.09
1958	126,801.97	49.00	2,587.79	9.57	24,766.04
1959	37,464.63	49.00	764.58	9.94	7,602.04
1960	91,705.46	49.00	1,871.53	10.33	19,324.53
1961	116,816.64	49.00	2,384.00	10.72	25,554.18
1962	102,753.54	49.00	2,097.00	11.12	23,326.23
1963	109,922.61	49.00	2,243.31	11.54	25,886.80
1964	35,975.77	49.00	734.20	11.97	8,786.20
1965	64,289.14	49.00	1,312.02	12.41	16,277.48
1966	130,342.69	49.00	2,660.05	12.86	34,202.11
1967	78,434.57	49.00	1,600.70	13.32	21,323.00
1968	785,933.70	49.00	16,039.41	13.80	221,287.91
1969	1,105,471.56	49.00	22,560.56	14.28	322,258.39
1970	829,322.97	49.00	16,924.90	14.78	250,217.01
1971	1,167,480.33	49.00	23,826.04	15.30	364,441.74
1972	1,064,746.02	49.00	21,729.43	15.82	343,760.37
1973	686,111.74	49.00	14,002.23	16.36	229,023.05
1974	483,738.58	49.00	9,872.18	16.90	166,882.30
1975	210,235.48	49.00	4,290.50	17.46	74,930.51
1976	150,607.96	49.00	3,073.62	18.04	55,435.71
1977	439,745.52	49.00	8,974.37	18.62	167,095.94

Gas Operations
Gas Division
380.00 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***49*** ***Survivor Curve:*** ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1978	511,501.56	49.00	10,438.77	19.21	200,570.20
1979	2,730,749.69	49.00	55,729.39	19.82	1,104,554.12
1980	4,460,384.30	49.00	91,027.92	20.44	1,860,511.09
1981	4,862,878.77	49.00	99,242.07	21.07	2,090,729.28
1982	4,145,538.13	49.00	84,602.52	21.71	1,836,361.24
1983	3,149,413.72	49.00	64,273.52	22.36	1,436,839.68
1984	3,884,414.33	49.00	79,273.48	23.01	1,824,459.54
1985	5,116,623.96	49.00	104,420.52	23.68	2,473,156.65
1986	6,856,488.08	49.00	139,927.83	24.36	3,409,254.75
1987	7,867,889.41	49.00	160,568.60	25.05	4,022,877.34
1988	8,254,319.20	49.00	168,454.89	25.75	4,338,235.99
1989	7,714,702.60	49.00	157,442.35	26.46	4,166,185.98
1990	9,608,264.81	49.00	196,086.33	27.18	5,329,516.29
1991	9,769,892.59	49.00	199,384.85	27.91	5,564,082.79
1992	8,580,771.32	49.00	175,117.15	28.64	5,015,692.37
1993	10,253,477.31	49.00	209,253.89	29.39	6,149,195.21
1994	10,951,119.34	49.00	223,491.43	30.14	6,735,846.98
1995	9,500,612.68	49.00	193,889.36	30.90	5,991,260.85
1996	9,660,046.57	49.00	197,143.10	31.67	6,243,491.65
1997	10,490,116.43	49.00	214,083.24	32.45	6,946,426.41
1998	9,209,049.10	49.00	187,939.10	33.23	6,245,715.56
1999	7,219,795.61	49.00	147,342.24	34.03	5,013,427.22
2000	7,087,251.59	49.00	144,637.27	34.83	5,037,190.92
2001	6,187,111.11	49.00	126,267.12	35.63	4,499,458.47
2002	4,905,605.13	49.00	100,114.03	36.45	3,649,134.76
2003	4,987,713.51	49.00	101,789.71	37.27	3,793,931.73
2004	4,831,475.69	49.00	98,601.19	38.10	3,756,873.75

Gas Operations
Gas Division
380.00 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *49* ***Survivor Curve:*** *R2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2005	4,489,921.02	49.00	91,630.71	38.94	3,568,027.36
2006	7,679,155.17	49.00	156,716.89	39.78	6,234,545.16
2007	5,018,060.80	49.00	102,409.04	40.63	4,161,059.27
2008	4,172,843.71	49.00	85,159.77	41.49	3,533,082.90
2009	5,135,555.21	49.00	104,806.87	42.35	4,438,558.36
2010	4,075,806.81	49.00	83,179.43	43.22	3,594,861.83
2011	4,476,052.79	49.00	91,347.69	44.09	4,027,737.45
2012	4,265,217.60	49.00	87,044.95	44.97	3,914,620.60
2013	5,786,805.46	49.00	118,097.65	45.86	5,415,730.52
2014	5,610,036.28	49.00	114,490.13	46.75	5,352,325.84
2015	4,842,572.40	49.00	98,827.65	47.65	4,708,716.81
2016	1,360,540.01	49.00	27,766.02	48.55	1,347,969.16
Total	248,358,721.19	44.79	5,068,491.96	31.88	161,562,840.19

Composite Average Remaining Life ... 31.88 Years

Gas Operations
Gas Division
381.00 Meters

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1910	10.00	0.00	0.00	0.00	0.00
1949	40.00	35.00	1.14	0.98	1.12
1954	185.35	35.00	5.30	2.58	13.66
1955	55.06	35.00	1.57	2.87	4.52
1956	107.58	35.00	3.07	3.16	9.73
1957	148.29	35.00	4.24	3.46	14.66
1958	185.44	35.00	5.30	3.76	19.93
1959	5,890.59	35.00	168.30	4.07	684.71
1960	10,037.42	35.00	286.77	4.38	1,256.25
1961	8,811.63	35.00	251.75	4.70	1,183.52
1962	110,677.71	35.00	3,162.12	5.02	15,888.14
1963	170,132.36	35.00	4,860.78	5.35	26,029.10
1964	219,400.80	35.00	6,268.40	5.69	35,682.06
1965	224,726.14	35.00	6,420.55	6.04	38,760.14
1966	231,125.74	35.00	6,603.39	6.39	42,186.17
1967	344,909.29	35.00	9,854.25	6.75	66,491.36
1968	201,315.17	35.00	5,751.69	7.11	40,920.55
1969	559,368.92	35.00	15,981.48	7.49	119,666.43
1970	230,417.28	35.00	6,583.15	7.87	51,802.05
1971	237,846.23	35.00	6,795.40	8.26	56,115.30
1972	128,010.08	35.00	3,657.32	8.65	31,653.41
1973	10,316.93	35.00	294.76	9.06	2,670.52
1974	275,236.43	35.00	7,863.66	9.47	74,495.67
1975	5,364.62	35.00	153.27	9.90	1,516.66
1976	222,488.35	35.00	6,356.62	10.33	65,637.62
1977	48,582.55	35.00	1,388.03	10.77	14,942.51
1979	482,615.26	35.00	13,788.59	11.67	160,930.24

Gas Operations
Gas Division
381.00 Meters

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1980	227,734.39	35.00	6,506.50	12.14	78,976.98
1981	729,654.06	35.00	20,846.62	12.61	262,970.41
1982	267,723.73	35.00	7,649.02	13.10	100,202.35
1983	105,829.38	35.00	3,023.60	13.60	41,108.41
1984	34,369.16	35.00	981.95	14.10	13,846.86
1985	137,758.30	35.00	3,935.83	14.62	57,529.88
1986	419,846.20	35.00	11,995.24	15.14	181,636.93
1987	265,837.32	35.00	7,595.12	15.68	119,075.12
1988	497,637.73	35.00	14,217.79	16.22	230,658.62
1989	391,313.60	35.00	11,180.05	16.78	187,577.87
1990	577,329.13	35.00	16,494.62	17.34	286,072.14
1991	336,991.96	35.00	9,628.05	17.92	172,520.99
1992	224,540.27	35.00	6,415.24	18.50	118,703.80
1993	488,421.92	35.00	13,954.49	19.10	266,497.88
1994	817,440.00	35.00	23,354.72	19.70	460,113.09
1995	718,224.91	35.00	20,520.09	20.31	416,833.08
1996	895,131.63	35.00	25,574.41	20.93	535,366.67
1997	945,123.13	35.00	27,002.69	21.56	582,261.75
1998	784,264.74	35.00	22,406.88	22.20	497,439.78
1999	895,787.34	35.00	25,593.14	22.84	584,672.49
2000	620,132.34	35.00	17,717.53	23.50	416,297.17
2001	1,002,408.98	35.00	28,639.38	24.15	691,762.06
2002	496,761.75	35.00	14,192.76	24.82	352,236.14
2003	964,876.98	35.00	27,567.07	25.49	702,595.35
2004	927,048.03	35.00	26,486.28	26.16	692,912.56
2005	1,727,953.80	35.00	49,368.60	26.84	1,325,063.72
2006	1,956,362.14	35.00	55,894.36	27.52	1,538,411.18

Gas Operations
Gas Division
381.00 Meters

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2007	1,776,026.92	35.00	50,742.08	28.21	1,431,490.16
2008	579,094.53	35.00	16,545.05	28.90	478,202.16
2009	442,880.93	35.00	12,653.36	29.60	374,534.54
2010	1,260,030.86	35.00	35,999.78	30.30	1,090,818.71
2011	665,055.34	35.00	19,001.00	31.01	589,176.65
2012	1,371,730.95	35.00	39,191.12	31.72	1,243,147.77
2013	1,564,175.49	35.00	44,689.37	32.44	1,449,651.26
2014	1,585,601.45	35.00	45,301.52	33.16	1,502,318.91
2015	1,290,326.66	35.00	36,865.35	33.89	1,249,484.56
Total	31,719,431.27	34.45	906,241.56	23.36	21,170,744.04

Composite Average Remaining Life ... ***23.36 Years***

Gas Operations
Gas Division
382.00 Meter Installations

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1967	13,922.35	35.00	397.77	6.75	2,683.94
1968	14,955.07	35.00	427.27	7.11	3,039.86
1969	17,949.91	35.00	512.84	7.49	3,840.04
1970	33,092.55	35.00	945.47	7.87	7,439.81
1971	40,923.52	35.00	1,169.21	8.26	9,655.13
1972	34,214.57	35.00	977.53	8.65	8,460.33
1973	37,964.88	35.00	1,084.68	9.06	9,827.13
1974	38,064.81	35.00	1,087.53	9.47	10,302.65
1975	3,653.09	35.00	104.37	9.90	1,032.79
1976	41,358.32	35.00	1,181.63	10.33	12,201.37
1977	10,663.79	35.00	304.67	10.77	3,279.86
1978	1,181.89	35.00	33.77	11.21	378.66
1979	86,362.10	35.00	2,467.41	11.67	28,797.83
1980	132,173.54	35.00	3,776.27	12.14	45,837.03
1981	88,468.15	35.00	2,527.58	12.61	31,884.30
1982	124,769.87	35.00	3,564.74	13.10	46,698.27
1983	54,867.92	35.00	1,567.61	13.60	21,312.92
1984	38,788.26	35.00	1,108.20	14.10	15,627.26
1985	71,138.51	35.00	2,032.47	14.62	29,708.48
1986	185,367.69	35.00	5,296.06	15.14	80,195.13
1987	98,428.51	35.00	2,812.16	15.68	44,088.57
1988	182,078.18	35.00	5,202.08	16.22	84,394.53
1989	148,317.18	35.00	4,237.50	16.78	71,096.48
1990	153,609.37	35.00	4,388.71	17.34	76,114.92
1991	141,862.94	35.00	4,053.10	17.92	72,625.87
1992	205,806.40	35.00	5,880.00	18.50	108,800.10
1993	181,283.13	35.00	5,179.36	19.10	98,913.60

Gas Operations
Gas Division
382.00 Meter Installations

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1994	296,867.68	35.00	8,481.68	19.70	167,098.14
1995	201,403.76	35.00	5,754.22	20.31	116,887.83
1996	298,345.87	35.00	8,523.91	20.93	178,436.81
1997	324,491.89	35.00	9,270.91	21.56	199,909.63
1998	203,398.94	35.00	5,811.22	22.20	129,010.93
1999	665,776.84	35.00	19,021.62	22.84	434,546.67
2000	165,962.30	35.00	4,741.64	23.50	111,411.12
2001	332,118.29	35.00	9,488.80	24.15	229,194.71
2002	126,591.35	35.00	3,616.79	24.82	89,761.44
2003	217,694.12	35.00	6,219.64	25.49	158,518.53
2004	790,492.69	35.00	22,584.82	26.16	590,845.67
Total	5,804,410.23	35.00	165,835.24	20.10	3,333,858.30

Composite Average Remaining Life ... 20.10 Years

Gas Operations
Gas Division
383.00 House Regulators

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1965	156.49	35.00	4.47	6.04	26.99
1966	698.32	35.00	19.95	6.39	127.46
1967	1,427.48	35.00	40.78	6.75	275.19
1968	44,923.22	35.00	1,283.48	7.11	9,131.37
1969	109,108.86	35.00	3,117.30	7.49	23,341.78
1970	50,562.25	35.00	1,444.59	7.87	11,367.33
1971	81,271.97	35.00	2,321.99	8.26	19,174.58
1972	64,425.78	35.00	1,840.68	8.65	15,930.74
1973	29,037.84	35.00	829.63	9.06	7,516.38
1974	19,205.98	35.00	548.73	9.47	5,198.30
1975	9,371.59	35.00	267.75	9.90	2,649.50
1976	33,526.48	35.00	957.87	10.33	9,890.85
1977	23,083.77	35.00	659.52	10.77	7,099.86
1978	32,369.67	35.00	924.82	11.21	10,370.63
1979	77,328.75	35.00	2,209.33	11.67	25,785.62
1980	98,534.41	35.00	2,815.18	12.14	34,171.17
1981	243,886.86	35.00	6,967.98	12.61	87,897.85
1982	119,280.69	35.00	3,407.92	13.10	44,643.80
1983	45,787.34	35.00	1,308.17	13.60	17,785.65
1984	106,923.39	35.00	3,054.86	14.10	43,077.97
1985	133,419.02	35.00	3,811.86	14.62	55,717.74
1986	131,976.06	35.00	3,770.63	15.14	57,096.45
1987	123,985.92	35.00	3,542.35	15.68	55,536.37
1988	115,066.07	35.00	3,287.50	16.22	53,333.94
1989	148,184.93	35.00	4,233.73	16.78	71,033.09
1990	145,245.77	35.00	4,149.75	17.34	71,970.68
1991	190,618.53	35.00	5,446.08	17.92	97,586.00

Gas Operations
Gas Division
383.00 House Regulators

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1992	118,912.08	35.00	3,397.38	18.50	62,863.18
1993	161,703.97	35.00	4,619.97	19.10	88,230.61
1994	21,760.16	35.00	621.70	19.70	12,248.16
1995	217,049.58	35.00	6,201.23	20.31	125,968.12
1996	141,074.60	35.00	4,030.58	20.93	84,374.90
1997	109,888.90	35.00	3,139.59	21.56	67,699.22
1998	133,404.45	35.00	3,811.44	22.20	84,615.15
1999	142,622.11	35.00	4,074.79	22.84	93,088.19
2000	106,601.76	35.00	3,045.67	23.50	71,562.16
2001	124,679.98	35.00	3,562.18	24.15	86,041.61
2002	200,168.13	35.00	5,718.92	24.82	141,932.12
2003	104,284.53	35.00	2,979.47	25.49	75,936.96
2004	103,291.91	35.00	2,951.11	26.16	77,204.48
2005	668,102.37	35.00	19,088.06	26.84	512,327.48
2006	90,182.32	35.00	2,576.56	27.52	70,916.06
Total	4,623,134.29	35.00	132,085.53	18.87	2,492,745.70

Composite Average Remaining Life ... 18.87 Years

Gas Operations
Gas Division
384.00 House Regulator Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *R1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1965	116.96	35.00	3.34	6.04	20.17
1966	1,759.28	35.00	50.26	6.39	321.11
1967	2,728.08	35.00	77.94	6.75	525.92
1968	25,982.17	35.00	742.33	7.11	5,281.29
1969	54,989.94	35.00	1,571.09	7.49	11,764.06
1970	28,069.63	35.00	801.96	7.87	6,310.57
1971	16,169.64	35.00	461.98	8.26	3,814.92
1972	13,662.63	35.00	390.35	8.65	3,378.40
1973	9,651.72	35.00	275.76	9.06	2,498.33
1974	4,303.55	35.00	122.95	9.47	1,164.80
1975	7,806.53	35.00	223.04	9.90	2,207.03
1976	6,560.16	35.00	187.43	10.33	1,935.35
1977	2,792.97	35.00	79.80	10.77	859.03
1978	4,712.79	35.00	134.65	11.21	1,509.89
1979	7,938.86	35.00	226.82	11.67	2,647.25
1980	10,472.48	35.00	299.20	12.14	3,631.80
1981	10,054.98	35.00	287.28	12.61	3,623.86
1982	9,174.23	35.00	262.11	13.10	3,433.69
1983	4,150.60	35.00	118.58	13.60	1,612.26
1984	6,454.37	35.00	184.40	14.10	2,600.38
1985	6,204.96	35.00	177.28	14.62	2,591.28
1986	6,813.15	35.00	194.66	15.14	2,947.55
1987	8,796.79	35.00	251.33	15.68	3,940.30
1988	6,982.22	35.00	199.49	16.22	3,236.31
1989	9,826.61	35.00	280.75	16.78	4,710.43
1990	9,949.48	35.00	284.26	17.34	4,930.06
1991	12,127.61	35.00	346.49	17.92	6,208.66

Gas Operations
Gas Division
384.00 House Regulator Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***35*** ***Survivor Curve:*** ***R1***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1992	9,938.55	35.00	283.95	18.50	5,254.04
1993	12,906.40	35.00	368.74	19.10	7,042.12
1994	2,316.75	35.00	66.19	19.70	1,304.03
1995	15,849.27	35.00	452.82	20.31	9,198.37
1996	14,968.40	35.00	427.66	20.93	8,952.41
1997	7,085.17	35.00	202.43	21.56	4,364.96
1998	1,472.96	35.00	42.08	22.20	934.26
2004	347,431.15	35.00	9,926.30	26.16	259,683.86
Total	700,221.04	35.00	20,005.71	19.22	384,438.75

Composite Average Remaining Life ... 19.22 Years

Gas Operations
Gas Division
386.00 Other Property - Customer Premises
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *20* ***Survivor Curve:*** *S4*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1993	166,752.46	20.00	8,337.58	1.80	14,986.75
1994	37,626.00	20.00	1,881.29	2.04	3,838.82
1996	2,473.00	20.00	123.65	2.64	325.82
2011	149,511.01	20.00	7,475.51	14.50	108,395.69
Total	356,362.47	20.00	17,818.04	7.16	127,547.08

Composite Average Remaining Life ... 7.16 Years

Gas Operations
Gas Division
387.00 Other Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***15*** ***Survivor Curve:*** ***L1***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1976	55,410.26	15.00	3,693.69	1.33	4,918.75
2014	110,125.24	15.00	7,341.04	12.80	93,970.55
Total	165,535.50	15.00	11,034.73	8.96	98,889.29

Composite Average Remaining Life ... 8.96 Years

Gas Operations
Gas Division
390.00 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *36* ***Survivor Curve:*** *S0*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2014	88,253.86	36.00	2,451.49	33.71	82,651.10
Total	88,253.86	36.00	2,451.49	33.71	82,651.10

Composite Average Remaining Life ... *33.71 Years*

Gas Operations
Gas Division
391.70 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2011	112,792.29	0.00	0.00	0.00	0.00
2012	1,702,453.71	5.00	340,490.74	0.50	170,245.37
2014	10,397.67	5.00	2,079.53	2.50	5,198.84
2015	1,680,229.97	5.00	336,045.99	3.50	1,176,160.98
Total	3,505,873.64	3.75	678,616.27	1.99	1,351,605.19

Composite Average Remaining Life ... 1.99 Years

Gas Operations
Gas Division
392.10 Transportation Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *10* ***Survivor Curve:*** *L2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1957	1,000.00	0.00	0.00	0.00	0.00
1980	2,678.53	0.00	0.00	0.00	0.00
1982	6,546.27	0.00	0.00	0.00	0.00
1983	6,778.87	0.00	0.00	0.00	0.00
1988	104,282.93	0.00	0.00	0.00	0.00
1992	27,942.00	10.00	2,794.19	0.80	2,243.58
1993	97,890.00	10.00	9,788.96	0.96	9,415.90
1995	21,141.50	10.00	2,114.14	1.31	2,769.09
1997	45,080.00	10.00	4,507.98	1.69	7,621.27
1998	201,204.40	10.00	20,120.35	1.89	38,098.62
2000	19,229.00	10.00	1,922.89	2.33	4,476.04
2001	58,986.25	10.00	5,898.60	2.56	15,102.11
2002	21,804.48	10.00	2,180.44	2.80	6,110.31
2003	261,453.58	10.00	26,145.24	3.05	79,768.09
2004	126,602.00	10.00	12,660.14	3.30	41,794.30
2005	276,710.90	10.00	27,670.97	3.55	98,173.58
2006	186,823.41	10.00	18,682.26	3.79	70,778.58
2007	484,578.56	10.00	48,457.64	4.03	195,184.41
2008	878,432.52	10.00	87,842.86	4.28	376,039.59
2009	559,408.00	10.00	55,940.55	4.57	255,784.22
2010	427,142.48	10.00	42,714.06	4.94	210,856.22
2011	595,567.25	10.00	59,556.46	5.41	322,230.00
2012	496,883.32	10.00	49,688.11	6.03	299,376.21
2013	748,821.73	10.00	74,881.84	6.78	507,613.90
2014	794,708.02	10.00	79,470.45	7.62	605,737.27
2015	690,207.15	10.00	69,020.41	8.53	588,876.45
2016	724,103.55	10.00	72,410.04	9.50	688,000.55

Gas Operations
Gas Division
392.10 Transportation Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *10* ***Survivor Curve:*** *L2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	7,866,006.70	8.15	774,468.60	5.71	4,426,050.29

Composite Average Remaining Life ... 5.71 Years

Gas Operations
Gas Division
393.10 Stores Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***30*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1987	3,312.10	30.00	110.40	0.50	55.20
1993	12,977.32	30.00	432.58	6.50	2,811.75
1994	4,234.47	30.00	141.15	7.50	1,058.62
2005	8,368.77	30.00	278.96	18.50	5,160.74
Total	28,892.66	30.00	963.09	9.43	9,086.31

Composite Average Remaining Life ... 9.43 Years

Gas Operations
Gas Division
394.10 Tools, Shop and Garage Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *20* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1996	42,158.97	0.00	0.00	0.00	0.00
1997	25,076.66	20.00	1,253.83	0.50	626.92
1998	379,309.19	20.00	18,965.46	1.50	28,448.19
2000	58,346.42	20.00	2,917.32	3.50	10,210.62
2001	88,351.99	20.00	4,417.60	4.50	19,879.20
2002	28,547.84	20.00	1,427.39	5.50	7,850.66
2003	31,529.34	20.00	1,576.47	6.50	10,247.04
2004	58,055.14	20.00	2,902.76	7.50	21,770.68
2005	293,425.24	20.00	14,671.26	8.50	124,705.73
2006	42,780.03	20.00	2,139.00	9.50	20,320.51
2007	142,350.26	20.00	7,117.51	10.50	74,733.89
2008	33,446.00	20.00	1,672.30	11.50	19,231.45
2009	38,029.04	20.00	1,901.45	12.50	23,768.15
2010	99,488.10	20.00	4,974.41	13.50	67,154.47
2011	81,680.06	20.00	4,084.00	14.50	59,218.04
2012	56,497.49	20.00	2,824.87	15.50	43,785.55
2013	21,773.99	20.00	1,088.70	16.50	17,963.54
2014	531,697.52	20.00	26,584.88	17.50	465,235.33
Total	2,052,543.28	18.89	100,519.22	10.10	1,015,149.96

Composite Average Remaining Life ... 10.10 Years

Gas Operations
Gas Division
396.10 Power Operated Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *14* ***Survivor Curve:*** *L1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1977	15,961.40	14.00	1,140.05	0.99	1,127.26
1978	105,969.00	14.00	7,568.86	1.14	8,626.62
1980	23,805.18	14.00	1,700.29	1.43	2,437.44
1983	15,260.55	14.00	1,089.99	1.86	2,025.31
1986	11,458.91	14.00	818.45	2.33	1,903.03
1987	31,715.38	14.00	2,265.28	2.49	5,649.77
1988	3,283.00	14.00	234.49	2.67	626.11
1990	45,500.00	14.00	3,249.85	3.04	9,887.67
1991	120,776.36	14.00	8,626.48	3.24	27,956.37
1994	7,851.07	14.00	560.76	3.88	2,177.21
1995	59,027.00	14.00	4,216.02	4.11	17,339.37
1998	1,973.70	14.00	140.97	4.85	683.26
1999	13,215.00	14.00	943.88	5.10	4,816.56
2000	93,158.00	14.00	6,653.83	5.36	35,679.45
2001	7,750.00	14.00	553.55	5.62	3,113.02
2002	4,474.62	14.00	319.60	5.89	1,881.70
2003	190,967.44	14.00	13,639.89	6.16	83,957.45
2004	228,217.94	14.00	16,300.51	6.43	104,843.02
2005	43,822.99	14.00	3,130.07	6.72	21,045.82
2006	87,236.33	14.00	6,230.87	7.04	43,866.66
2007	158,320.05	14.00	11,308.04	7.39	83,594.22
2008	4,437.00	14.00	316.91	7.79	2,469.55
2009	122,400.00	14.00	8,742.45	8.25	72,147.87
2011	25,456.94	14.00	1,818.27	9.41	17,107.42
2012	167,369.62	14.00	11,954.41	10.11	120,799.51
2013	73,791.90	14.00	5,270.60	10.87	57,272.54
2014	279,679.62	14.00	19,976.17	11.69	233,559.40

Gas Operations
Gas Division
396.10 Power Operated Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *14* ***Survivor Curve:*** *L1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2016	216,083.74	14.00	15,433.83	13.52	208,623.32
Total	2,158,962.74	14.00	154,204.35	7.62	1,175,216.94

Composite Average Remaining Life ... 7.62 Years

Gas Operations
Gas Division
397.10 Communication Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***15*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2001	2,945.00	0.00	0.00	0.00	0.00
2002	18,488.94	15.00	1,232.60	0.50	616.30
2004	121,114.15	15.00	8,074.28	2.50	20,185.69
2005	126,236.90	15.00	8,415.79	3.50	29,455.28
2006	226,129.13	15.00	15,075.28	4.50	67,838.74
2009	28,559.02	15.00	1,903.93	7.50	14,279.51
2010	29,346.29	15.00	1,956.42	8.50	16,629.56
2013	31,663.42	15.00	2,110.89	11.50	24,275.29
Total	584,482.85	13.13	38,769.19	4.47	173,280.37

Composite Average Remaining Life ... 4.47 Years

Gas Operations
Gas Division
398.10 Miscellaneous Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *20* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1996	571.24	0.00	0.00	0.00	0.00
1997	5,010.43	20.00	250.52	0.50	125.26
1998	44,098.33	20.00	2,204.92	1.50	3,307.37
2002	12,214.59	20.00	610.73	5.50	3,359.01
2004	449,637.54	20.00	22,481.88	7.50	168,614.08
2005	49,244.15	20.00	2,462.21	8.50	20,928.76
2007	10,237.78	20.00	511.89	10.50	5,374.83
2009	12,416.97	20.00	620.85	12.50	7,760.61
2012	8,591.18	20.00	429.56	15.50	6,658.16
2014	24,737.46	20.00	1,236.87	17.50	21,645.28
2015	13,056.50	20.00	652.83	18.50	12,077.26
Total	629,816.17	18.18	31,462.25	7.94	249,850.63

Composite Average Remaining Life ... 7.94 Years

CEG Steam
Steam Division
311.00 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *50* ***Survivor Curve:*** *S1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1943	387.13	50.00	7.74	7.58	58.69
1944	20.74	50.00	0.41	7.90	3.28
1945	234.66	50.00	4.69	8.22	38.57
1946	34,893.86	50.00	697.88	8.54	5,961.45
1947	51,018.50	50.00	1,020.37	8.87	9,050.17
1948	1,200.05	50.00	24.00	9.20	220.81
1949	164.30	50.00	3.29	9.53	31.33
1950	133.44	50.00	2.67	9.87	26.34
1951	743.87	50.00	14.88	10.21	151.94
1952	171.60	50.00	3.43	10.56	36.23
1953	30,623.89	50.00	612.48	10.91	6,679.70
1954	946.72	50.00	18.93	11.26	213.18
1955	1,140.30	50.00	22.81	11.62	264.90
1956	52.94	50.00	1.06	11.98	12.68
1957	967.69	50.00	19.35	12.34	238.85
1958	112.74	50.00	2.25	12.71	28.66
1961	82.12	50.00	1.64	13.85	22.74
1962	184.21	50.00	3.68	14.24	52.45
1963	216.19	50.00	4.32	14.63	63.26
1964	1,287.32	50.00	25.75	15.03	387.00
1966	973.53	50.00	19.47	15.85	308.56
1967	109.08	50.00	2.18	16.26	35.48
1968	712.86	50.00	14.26	16.69	237.91
1970	639.79	50.00	12.80	17.55	224.60
1972	6,268.93	50.00	125.38	18.44	2,312.57
1973	2,438.06	50.00	48.76	18.90	921.66
1974	18,049.76	50.00	361.00	19.37	6,991.00

CEG Steam
Steam Division
311.00 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: 50 **Survivor Curve:** S1

Year	Original Cost	Avg. Service Life	Avg. Annual Accrual	Avg. Remaining Life	Future Annual Accruals
(1)	(2)	(3)	(4)	(5)	(6)
1975	12,222.10	50.00	244.44	19.84	4,849.23
1976	496.18	50.00	9.92	20.32	201.63
1977	4,348.20	50.00	86.96	20.81	1,809.39
1978	6,748.68	50.00	134.97	21.30	2,875.35
1979	1,868.23	50.00	37.36	21.81	814.87
1980	8,275.60	50.00	165.51	22.32	3,694.78
1981	18,850.82	50.00	377.02	22.85	8,613.84
1982	13,391.06	50.00	267.82	23.38	6,261.98
1983	2,444.29	50.00	48.89	23.93	1,169.59
1984	6,886.65	50.00	137.73	24.48	3,371.60
1985	71,986.92	50.00	1,439.74	25.04	36,057.05
1986	7,738.63	50.00	154.77	25.62	3,965.30
1987	11,749.95	50.00	235.00	26.21	6,158.74
1988	24,495.18	50.00	489.90	26.81	13,132.68
1989	106,545.39	50.00	2,130.91	27.42	58,425.09
1990	72,288.50	50.00	1,445.77	28.04	40,541.87
1991	5,799.94	50.00	116.00	28.68	3,326.66
1992	83,757.86	50.00	1,675.16	29.33	49,129.52
1993	59,857.22	50.00	1,197.14	29.99	35,904.59
1994	49,637.58	50.00	992.75	30.67	30,447.12
1995	2,613.38	50.00	52.27	31.36	1,639.18
1996	35,146.19	50.00	702.92	32.07	22,541.42
1997	7,922.34	50.00	158.45	32.79	5,195.45
1998	48,619.69	50.00	972.39	33.53	32,601.54
1999	14,782.66	50.00	295.65	34.28	10,135.01
2000	46,674.41	50.00	933.49	35.05	32,717.90
2001	19,485.50	50.00	389.71	35.83	13,965.01

CEG Steam
Steam Division
311.00 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *50* ***Survivor Curve:*** *S1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2002	221,613.46	50.00	4,432.27	36.64	162,381.32
2003	455,623.77	50.00	9,112.48	37.45	341,304.24
2004	1,036,594.12	50.00	20,731.88	38.29	793,820.20
2005	191,666.00	50.00	3,833.32	39.14	150,043.18
2006	706,036.72	50.00	14,120.74	40.01	564,978.68
2007	973,767.06	50.00	19,475.34	40.90	796,461.12
2008	395,874.53	50.00	7,917.49	41.80	330,930.96
2009	350,253.14	50.00	7,005.06	42.71	299,220.48
2010	600,041.41	50.00	12,000.83	43.65	523,807.02
2011	350,737.07	50.00	7,014.74	44.59	312,820.37
2012	340,769.99	50.00	6,815.40	45.56	310,477.41
2013	3,421,682.37	50.00	68,433.65	46.53	3,184,077.95
2014	74,170.36	50.00	1,483.41	47.51	70,478.33
2015	369,578.64	50.00	7,391.57	48.50	358,511.24
2016	470,656.26	50.00	9,413.13	49.50	465,950.87
Total	10,857,472.33	50.00	217,149.46	42.04	9,129,383.79

Composite Average Remaining Life ... 42.04 Years

CEG Steam
Steam Division
312.00 Boiler Plant Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: 46 **Survivor Curve:** S0

Year	Original Cost	Avg. Service Life	Avg. Annual Accrual	Avg. Remaining Life	Future Annual Accruals
(1)	(2)	(3)	(4)	(5)	(6)
1953	56,303.42	46.00	1,223.99	10.88	13,315.82
1955	1,398.27	46.00	30.40	11.69	355.35
1956	32,501.52	46.00	706.56	12.10	8,548.68
1957	505.83	46.00	11.00	12.51	137.55
1958	453.33	46.00	9.86	12.92	127.35
1959	915.82	46.00	19.91	13.34	265.53
1960	210.68	46.00	4.58	13.75	63.00
1961	118.08	46.00	2.57	14.17	36.38
1962	20,632.13	46.00	448.53	14.60	6,546.59
1963	7,180.45	46.00	156.10	15.02	2,344.63
1964	15,955.79	46.00	346.87	15.45	5,358.18
1965	197.67	46.00	4.30	15.88	68.23
1966	666.42	46.00	14.49	16.31	236.28
1967	5,285.50	46.00	114.90	16.74	1,924.00
1968	33,120.94	46.00	720.02	17.18	12,371.81
1969	1,280.66	46.00	27.84	17.62	490.65
1970	2,455.61	46.00	53.38	18.07	964.50
1971	3,196.66	46.00	69.49	18.51	1,286.64
1972	68,717.38	46.00	1,493.86	18.97	28,331.12
1973	135,222.29	46.00	2,939.62	19.42	57,083.78
1974	143,399.73	46.00	3,117.39	19.88	61,961.44
1975	105,487.17	46.00	2,293.20	20.34	46,636.50
1976	35,601.18	46.00	773.94	20.80	16,098.96
1977	47,412.51	46.00	1,030.71	21.27	21,922.73
1978	5,732.67	46.00	124.62	21.74	2,709.54
1979	12,083.56	46.00	262.69	22.22	5,836.38
1980	14,435.05	46.00	313.81	22.70	7,123.09

CEG Steam
Steam Division
312.00 Boiler Plant Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: 46 **Survivor Curve:** S0

Year	Original Cost	Avg. Service Life	Avg. Annual Accrual	Avg. Remaining Life	Future Annual Accruals
(1)	(2)	(3)	(4)	(5)	(6)
1981	22,788.11	46.00	495.39	23.18	11,485.25
1982	19,845.91	46.00	431.43	23.67	10,213.60
1983	28,821.21	46.00	626.55	24.17	15,142.39
1984	40,072.56	46.00	871.14	24.67	21,488.60
1985	33,818.67	46.00	735.19	25.17	18,506.16
1986	27,421.20	46.00	596.11	25.68	15,309.24
1987	36,482.77	46.00	793.10	26.20	20,776.98
1988	72,866.77	46.00	1,584.06	26.72	42,323.05
1989	61,346.80	46.00	1,333.63	27.25	36,334.76
1990	427,713.96	46.00	9,298.14	27.78	258,286.29
1991	166,884.95	46.00	3,627.94	28.32	102,739.42
1992	350,767.86	46.00	7,625.40	28.87	220,113.20
1993	96,061.10	46.00	2,088.29	29.42	61,436.91
1994	117,891.92	46.00	2,562.87	29.98	76,837.87
1995	95,264.56	46.00	2,070.97	30.55	63,268.97
1996	185,365.07	46.00	4,029.68	31.13	125,434.99
1997	21,535.93	46.00	468.17	31.72	14,848.20
1998	611,108.41	46.00	13,284.98	32.31	429,246.74
1999	292,737.82	46.00	6,363.87	32.92	209,471.26
2000	49,889.99	46.00	1,084.57	33.53	36,366.33
2001	86,912.64	46.00	1,889.41	34.16	64,535.42
2002	298,049.49	46.00	6,479.34	34.79	225,438.03
2003	874,735.66	46.00	19,016.01	35.44	674,008.83
2004	1,609,908.16	46.00	34,998.04	36.11	1,263,651.88
2005	334,303.13	46.00	7,267.47	36.78	267,311.61
2006	3,982,657.09	46.00	86,579.59	37.47	3,244,304.67
2007	1,034,682.78	46.00	22,493.13	38.18	858,727.49

CEG Steam
Steam Division
312.00 Boiler Plant Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***46*** ***Survivor Curve:*** ***S0***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2008	6,877,019.43	46.00	149,500.58	38.90	5,815,805.40
2009	4,130,454.72	46.00	89,792.59	39.64	3,559,578.86
2010	1,857,610.21	46.00	40,382.87	40.40	1,631,562.09
2011	1,001,758.68	46.00	21,777.39	41.18	896,870.62
2012	2,680,908.31	46.00	58,280.68	41.99	2,447,092.24
2013	5,591,949.94	46.00	121,564.26	42.82	5,205,172.55
2014	9,172,898.93	46.00	199,411.06	43.68	8,710,587.43
2015	639,398.05	46.00	13,899.97	44.58	619,604.99
2016	616,285.17	46.00	13,397.52	45.51	609,741.20
Total	44,298,688.28	46.00	963,015.98	39.65	38,185,768.21

Composite Average Remaining Life ... ***39.65 Years***

CEG Steam
Steam Division
314.00 Turbogenerator Units
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: 60 **Survivor Curve:** S2

Year	Original Cost	Avg. Service Life	Avg. Annual Accrual	Avg. Remaining Life	Future Annual Accruals
(1)	(2)	(3)	(4)	(5)	(6)
1924	96,638.96	60.00	1,610.65	5.49	8,843.70
1926	243.49	60.00	4.06	5.96	24.19
1929	81.82	60.00	1.36	6.68	9.11
1935	942.46	60.00	15.71	8.22	129.16
1938	22,332.31	60.00	372.20	9.05	3,367.19
1941	306.92	60.00	5.12	9.91	50.70
1946	123.72	60.00	2.06	11.45	23.62
1948	139.52	60.00	2.33	12.11	28.17
1949	205.01	60.00	3.42	12.45	42.55
1952	251.32	60.00	4.19	13.50	56.56
1959	197.48	60.00	3.29	16.22	53.40
1960	299.92	60.00	5.00	16.65	83.21
1962	944.81	60.00	15.75	17.52	275.87
1964	127.29	60.00	2.12	18.43	39.10
1970	161.29	60.00	2.69	21.42	57.59
1972	863.64	60.00	14.39	22.51	324.06
1975	200.80	60.00	3.35	24.25	81.15
1976	2,536.47	60.00	42.27	24.85	1,050.62
1984	11,255.46	60.00	187.59	30.21	5,667.06
1985	4,858.45	60.00	80.97	30.94	2,505.64
1987	7,015.36	60.00	116.92	32.47	3,796.11
1988	723.31	60.00	12.06	33.25	400.83
1990	1,355.04	60.00	22.58	34.86	787.28
1991	39,321.08	60.00	655.35	35.68	23,386.11
1992	25,750.86	60.00	429.18	36.53	15,677.36
1993	3,052.15	60.00	50.87	37.39	1,901.77
1994	12,923.95	60.00	215.40	38.26	8,240.18

CEG Steam
Steam Division
314.00 Turbogenerator Units
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *60* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1996	6,691.43	60.00	111.52	40.03	4,464.67
2002	472,390.69	60.00	7,873.17	45.64	359,306.76
2003	24,443.24	60.00	407.39	46.60	18,984.63
2004	1,413,278.28	60.00	23,554.62	47.57	1,120,587.39
2006	71,442.45	60.00	1,190.71	49.54	58,982.69
2008	115,011.85	60.00	1,916.86	51.51	98,746.18
2009	49,190.76	60.00	819.85	52.51	43,048.46
2016	26,975.21	60.00	449.59	59.50	26,750.42
Total	2,412,276.80	60.00	40,204.58	44.96	1,807,773.48

Composite Average Remaining Life ... 44.96 Years

CEG Steam
Steam Division
315.00 Accessory Electric Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: 60 **Survivor Curve:** R1.5

Year	Original Cost	Avg. Service Life	Avg. Annual Accrual	Avg. Remaining Life	Future Annual Accruals
(1)	(2)	(3)	(4)	(5)	(6)
1935	537.59	60.00	8.96	11.04	98.93
1937	264.86	60.00	4.41	11.68	51.55
1938	1,766.15	60.00	29.44	12.00	353.32
1939	100.29	60.00	1.67	12.33	20.62
1940	140.83	60.00	2.35	12.67	29.74
1943	2,508.19	60.00	41.80	13.72	573.56
1946	10,939.88	60.00	182.33	14.83	2,704.07
1947	6,846.90	60.00	114.11	15.22	1,736.38
1948	123.98	60.00	2.07	15.61	32.25
1949	279.17	60.00	4.65	16.01	74.49
1950	11,476.10	60.00	191.27	16.42	3,140.60
1951	520.60	60.00	8.68	16.84	146.10
1953	6,125.76	60.00	102.09	17.70	1,806.95
1954	93.84	60.00	1.56	18.14	28.37
1955	682.61	60.00	11.38	18.59	211.54
1956	4,730.87	60.00	78.85	19.05	1,502.41
1957	153.21	60.00	2.55	19.52	49.86
1959	892.52	60.00	14.88	20.49	304.79
1960	439.71	60.00	7.33	20.99	153.79
1961	243.03	60.00	4.05	21.49	87.04
1962	1,313.50	60.00	21.89	22.00	481.68
1963	11,745.15	60.00	195.75	22.53	4,409.39
1964	4,704.35	60.00	78.40	23.06	1,807.72
1965	335.35	60.00	5.59	23.59	131.87
1966	61.88	60.00	1.03	24.14	24.90
1967	3,332.66	60.00	55.54	24.70	1,371.73
1968	1,163.81	60.00	19.40	25.26	489.99

CEG Steam
Steam Division
315.00 Accessory Electric Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: 60 **Survivor Curve:** R1.5

Year	Original Cost	Avg. Service Life	Avg. Annual Accrual	Avg. Remaining Life	Future Annual Accruals
(1)	(2)	(3)	(4)	(5)	(6)
1970	3,410.09	60.00	56.83	26.41	1,501.25
1971	3,119.29	60.00	51.99	27.00	1,403.76
1972	976.24	60.00	16.27	27.60	449.04
1973	13,932.75	60.00	232.21	28.20	6,548.41
1974	19,176.19	60.00	319.60	28.81	9,208.53
1975	27,268.94	60.00	454.48	29.43	13,376.21
1976	8,887.98	60.00	148.13	30.06	4,452.58
1977	1,163.26	60.00	19.39	30.69	595.02
1978	220.08	60.00	3.67	31.33	114.92
1979	1,646.82	60.00	27.45	31.98	877.67
1980	1,676.29	60.00	27.94	32.63	911.68
1981	7,931.58	60.00	132.19	33.29	4,401.15
1982	2,546.94	60.00	42.45	33.96	1,441.60
1983	4,062.94	60.00	67.71	34.63	2,345.23
1984	1,388.44	60.00	23.14	35.31	817.18
1985	12,636.21	60.00	210.60	36.00	7,581.32
1986	6,908.31	60.00	115.14	36.69	4,224.51
1987	2,494.26	60.00	41.57	37.39	1,554.28
1988	3,344.46	60.00	55.74	38.09	2,123.28
1989	136,116.68	60.00	2,268.59	38.80	88,021.09
1990	122,734.50	60.00	2,045.55	39.51	80,828.36
1991	40,959.90	60.00	682.66	40.23	27,464.50
1992	247,522.66	60.00	4,125.33	40.96	168,958.73
1993	88,661.57	60.00	1,477.68	41.69	61,597.71
1994	12,436.02	60.00	207.26	42.42	8,791.96
1995	2,629.46	60.00	43.82	43.16	1,891.27
1996	92,273.01	60.00	1,537.87	43.90	67,510.78

CEG Steam
Steam Division
315.00 Accessory Electric Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *60* ***Survivor Curve:*** *R1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1997	3,274.73	60.00	54.58	44.64	2,436.61
1998	73,338.43	60.00	1,222.29	45.40	55,487.19
1999	4,100.85	60.00	68.35	46.15	3,154.29
2001	30,870.00	60.00	514.49	47.67	24,527.35
2003	17,074.85	60.00	284.58	49.21	14,004.04
2010	52,944.63	60.00	882.40	54.72	48,282.39
2012	21,671.53	60.00	361.19	56.33	20,344.26
2013	1,743,439.79	60.00	29,057.00	57.14	1,660,183.94
2014	85,373.11	60.00	1,422.87	57.95	82,454.67
2015	69,484.22	60.00	1,158.06	58.77	68,054.72
2016	95,536.76	60.00	1,592.26	59.59	94,880.20
Total	3,134,756.56	60.00	52,245.36	51.00	2,664,625.31

Composite Average Remaining Life ... 51.00 Years

CEG Steam
Steam Division
316.00 Miscellaneous Power Plant Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *R1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1923	78.65	0.00	0.00	0.00	0.00
1938	78.89	0.00	0.00	0.00	0.00
1944	55.63	0.00	0.00	0.00	0.00
1948	159.11	35.00	4.55	0.67	3.06
1950	925.79	35.00	26.45	1.31	34.54
1952	62.61	35.00	1.79	1.96	3.51
1955	95.18	35.00	2.72	2.75	7.48
1956	500.81	35.00	14.31	2.97	42.54
1968	144.02	35.00	4.11	6.15	25.31
1974	994.87	35.00	28.42	8.14	231.46
1975	759.36	35.00	21.70	8.51	184.70
1977	200.24	35.00	5.72	9.29	53.16
1981	2,215.65	35.00	63.30	11.02	697.71
1982	1,635.70	35.00	46.73	11.49	536.99
1983	3,131.53	35.00	89.47	11.98	1,071.41
1984	7,185.02	35.00	205.28	12.47	2,560.81
1987	392.78	35.00	11.22	14.06	157.80
1988	8,684.52	35.00	248.12	14.62	3,627.55
1990	1,638.16	35.00	46.80	15.78	738.42
1991	169.99	35.00	4.86	16.38	79.54
1992	2,533.48	35.00	72.38	16.99	1,229.72
1993	8,465.85	35.00	241.88	17.61	4,260.39
1994	370.44	35.00	10.58	18.25	193.17
1995	2,039.02	35.00	58.26	18.90	1,101.07
1996	917.63	35.00	26.22	19.56	512.82
1997	1,497.87	35.00	42.80	20.23	865.84
1999	7,011.24	35.00	200.32	21.61	4,328.28

CEG Steam
Steam Division
316.00 Miscellaneous Power Plant Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***35*** ***Survivor Curve:*** ***R1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2000	6,157.08	35.00	175.91	22.31	3,924.52
2002	13,378.00	35.00	382.22	23.74	9,074.36
2003	67,465.81	35.00	1,927.56	24.47	47,165.45
2010	34,742.25	35.00	992.62	29.78	29,555.54
2013	124,986.74	35.00	3,570.98	32.15	114,815.89
2014	392,876.10	35.00	11,224.82	32.96	369,948.61
2015	22,825.18	35.00	652.14	33.77	22,022.80
2016	232,537.63	35.00	6,643.81	34.59	229,802.66
Total	946,912.83	32.00	27,048.06	31.38	848,857.13

Composite Average Remaining Life ... 31.38 Years

CEG Steam
Steam Division
360.00 Land Rights
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R4*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1973	1,792.46	65.00	27.58	23.81	656.71
Total	1,792.46	65.00	27.58	23.81	656.71

Composite Average Remaining Life ... ***23.81 Years***

CEG Steam
Steam Division
366.00 Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: 65 **Survivor Curve:** R2

Year	Original Cost	Avg. Service Life	Avg. Annual Accrual	Avg. Remaining Life	Future Annual Accruals
(1)	(2)	(3)	(4)	(5)	(6)
1935	12,443.77	65.00	191.44	11.31	2,166.04
1937	2,134.80	65.00	32.84	12.01	394.39
1945	67.56	65.00	1.04	15.08	15.68
1946	1,379.40	65.00	21.22	15.50	329.02
1947	5,899.58	65.00	90.76	15.93	1,446.25
1948	456.16	65.00	7.02	16.37	114.91
1949	107.77	65.00	1.66	16.82	27.89
1950	1,751.88	65.00	26.95	17.28	465.72
1951	7,352.10	65.00	113.11	17.75	2,007.15
1952	578.80	65.00	8.90	18.22	162.26
1953	8,079.77	65.00	124.30	18.71	2,325.15
1954	20,475.40	65.00	315.01	19.20	6,048.20
1955	2,990.61	65.00	46.01	19.70	906.48
1956	1,851.29	65.00	28.48	20.22	575.77
1957	999.66	65.00	15.38	20.74	318.90
1958	3,734.12	65.00	57.45	21.27	1,221.78
1959	2,652.84	65.00	40.81	21.81	890.04
1960	682.11	65.00	10.49	22.36	234.60
1961	12,600.77	65.00	193.86	22.91	4,442.05
1962	14,345.62	65.00	220.70	23.48	5,181.94
1963	114,123.76	65.00	1,755.75	24.06	42,235.57
1964	1,967.11	65.00	30.26	24.64	745.64
1965	4,328.58	65.00	66.59	25.23	1,680.29
1966	914.92	65.00	14.08	25.83	363.60
1967	6,599.01	65.00	101.52	26.44	2,684.54
1968	4,872.00	65.00	74.95	27.06	2,028.17
1969	1,056.00	65.00	16.25	27.69	449.80

CEG Steam
Steam Division
366.00 Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1970	25,667.60	65.00	394.89	28.32	11,182.78
1971	93,744.33	65.00	1,442.22	28.96	41,771.00
1972	135,372.99	65.00	2,082.66	29.61	61,675.47
1973	25,749.21	65.00	396.14	30.27	11,991.60
1974	86,992.28	65.00	1,338.34	30.94	41,404.92
1975	80,260.80	65.00	1,234.78	31.61	39,031.18
1976	53,628.26	65.00	825.05	32.29	26,642.10
1977	63,615.95	65.00	978.70	32.98	32,276.29
1978	56,915.21	65.00	875.62	33.68	29,486.45
1979	170,501.87	65.00	2,623.10	34.38	90,172.59
1980	119,695.03	65.00	1,841.46	35.09	64,611.61
1981	135,345.55	65.00	2,082.23	35.80	74,548.91
1982	172,608.36	65.00	2,655.51	36.53	96,998.08
1983	194,895.47	65.00	2,998.39	37.26	111,707.09
1984	149,097.69	65.00	2,293.81	37.99	87,150.97
1985	153,928.24	65.00	2,368.12	38.74	91,736.16
1986	188,275.55	65.00	2,896.54	39.49	114,376.00
1987	236,468.18	65.00	3,637.96	40.24	146,406.01
1988	223,783.44	65.00	3,442.81	41.01	141,174.63
1989	249,000.25	65.00	3,830.76	41.77	160,030.14
1990	346,194.77	65.00	5,326.06	42.55	226,617.32
1991	277,395.66	65.00	4,267.62	43.33	184,917.30
1992	1,688,699.76	65.00	25,979.94	44.12	1,146,128.63
1993	466,185.55	65.00	7,172.07	44.91	322,092.84
1994	319,035.65	65.00	4,908.23	45.71	224,337.23
1995	215,979.83	65.00	3,322.76	46.51	154,545.61
1996	251,382.58	65.00	3,867.42	47.32	183,003.60

CEG Steam
Steam Division
366.00 Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1997	193,287.17	65.00	2,973.64	48.14	143,137.36
1998	134,752.06	65.00	2,073.10	48.96	101,490.92
1999	28,224.64	65.00	434.22	49.78	21,616.14
2000	125,933.75	65.00	1,937.44	50.61	98,058.26
2001	55,853.46	65.00	859.28	51.45	44,208.03
2002	224,009.96	65.00	3,446.30	52.29	180,204.28
2003	181,480.95	65.00	2,792.01	53.13	148,351.87
2004	239,670.06	65.00	3,687.22	53.99	199,058.43
2005	1,270,043.96	65.00	19,539.10	54.84	1,071,540.92
2006	487,811.36	65.00	7,504.77	55.70	418,031.01
2007	1,875,824.05	65.00	28,858.77	56.57	1,632,430.33
2008	557,194.69	65.00	8,572.21	57.44	492,358.48
2009	784,971.13	65.00	12,076.45	58.31	704,174.77
2010	721,330.20	65.00	11,097.36	59.19	656,842.73
2011	1,782,973.61	65.00	27,430.30	60.07	1,647,797.31
2012	1,433,278.92	65.00	22,050.40	60.96	1,344,164.54
2013	1,351,877.25	65.00	20,798.07	61.85	1,286,365.18
2014	1,176,854.39	65.00	18,105.41	62.74	1,136,022.80
2015	723,193.44	65.00	11,126.03	63.64	708,110.27
2016	2,584,170.13	65.00	39,756.38	64.55	2,566,151.94
Total	22,347,600.63	65.00	343,808.50	54.09	18,595,593.88

Composite Average Remaining Life ... 54.09 Years

CEG Steam
Steam Division
369.00 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *45* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1959	664.37	45.00	14.76	6.40	94.48
1960	102.52	45.00	2.28	6.67	15.19
1961	65.87	45.00	1.46	6.94	10.16
1962	227.99	45.00	5.07	7.23	36.63
1963	588.86	45.00	13.09	7.53	98.55
1964	156.46	45.00	3.48	7.85	27.28
1965	1,443.11	45.00	32.07	8.18	262.19
1966	247.72	45.00	5.50	8.52	46.92
1967	1,465.58	45.00	32.57	8.89	289.43
1968	1,475.22	45.00	32.78	9.27	303.86
1969	614.41	45.00	13.65	9.67	132.02
1970	1,052.84	45.00	23.40	10.09	236.07
1971	17,171.54	45.00	381.59	10.53	4,017.78
1972	1,840.28	45.00	40.89	10.99	449.33
1973	366.33	45.00	8.14	11.47	93.33
1974	3,602.86	45.00	80.06	11.96	957.86
1975	1,026.69	45.00	22.82	12.48	284.73
1976	2,169.32	45.00	48.21	13.01	627.39
1977	5,731.48	45.00	127.37	13.57	1,728.00
1978	3,472.46	45.00	77.17	14.14	1,090.91
1979	2,969.98	45.00	66.00	14.73	971.98
1980	3,381.77	45.00	75.15	15.33	1,152.14
1981	7,754.40	45.00	172.32	15.95	2,748.67
1982	32,630.02	45.00	725.11	16.59	12,026.60
1983	15,565.82	45.00	345.91	17.24	5,962.60
1984	18,290.23	45.00	406.45	17.90	7,276.17
1985	12,669.16	45.00	281.54	18.58	5,230.80

CEG Steam
Steam Division
369.00 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *45* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1986	18,931.72	45.00	420.70	19.27	8,107.00
1987	22,101.19	45.00	491.14	19.97	9,809.58
1988	15,414.91	45.00	342.55	20.69	7,087.73
1989	21,773.37	45.00	483.85	21.42	10,363.42
1990	27,329.95	45.00	607.33	22.16	13,457.03
1991	26,827.30	45.00	596.16	22.91	13,656.74
1992	15,727.55	45.00	349.50	23.67	8,272.87
1993	1,296.71	45.00	28.82	24.44	704.33
1994	36,390.28	45.00	808.67	25.22	20,398.71
1995	22,752.92	45.00	505.62	26.02	13,154.86
1996	10,805.27	45.00	240.12	26.82	6,439.80
1997	14,930.30	45.00	331.78	27.63	9,168.16
1998	23,933.85	45.00	531.86	28.45	15,133.81
1999	24,507.43	45.00	544.61	29.28	15,948.76
2000	107,617.02	45.00	2,391.48	30.12	72,041.16
2002	212,509.82	45.00	4,722.43	31.83	150,312.32
2003	68,351.49	45.00	1,518.92	32.69	49,659.13
2004	251,850.17	45.00	5,596.65	33.57	187,855.71
2006	239,196.44	45.00	5,315.46	35.33	187,809.63
2007	548,743.10	45.00	12,194.26	36.23	441,751.87
2008	253,263.81	45.00	5,628.07	37.13	208,948.87
2009	31,863.89	45.00	708.08	38.03	26,930.14
2012	372,068.41	45.00	8,268.16	40.79	337,228.70
2013	188,738.46	45.00	4,194.18	41.71	174,958.53
2015	1,144,142.35	45.00	25,425.31	43.59	1,108,182.96

CEG Steam
Steam Division
369.00 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***45*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	3,837,815.00	45.00	85,284.54	36.86	3,143,552.88

Composite Average Remaining Life ... ***36.86 Years***

CEG Steam
Steam Division
370.00 Meters

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *45* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1950	67.05	45.00	1.49	2.34	3.49
1951	289.28	45.00	6.43	2.60	16.72
1952	492.03	45.00	10.93	2.84	31.10
1953	357.49	45.00	7.94	3.10	24.65
1954	462.27	45.00	10.27	3.36	34.54
1955	257.68	45.00	5.73	3.62	20.74
1956	444.73	45.00	9.88	3.87	38.26
1957	66.31	45.00	1.47	4.13	6.09
1959	112.41	45.00	2.50	4.66	11.65
1960	124.51	45.00	2.77	4.94	13.66
1967	596.83	45.00	13.26	7.18	95.23
1969	435.18	45.00	9.67	7.97	77.11
1970	1,062.12	45.00	23.60	8.40	198.31
1971	1,010.30	45.00	22.45	8.85	198.70
1972	347.21	45.00	7.72	9.32	71.90
1973	105.53	45.00	2.35	9.81	23.00
1975	786.27	45.00	17.47	10.86	189.67
1977	230.78	45.00	5.13	11.98	61.44
1978	2,806.23	45.00	62.36	12.57	784.07
1979	1,245.85	45.00	27.69	13.19	365.10
1980	1,529.35	45.00	33.99	13.82	469.59
1981	7,153.54	45.00	158.97	14.46	2,299.42
1982	29,962.81	45.00	665.84	15.13	10,073.32
1983	17,734.82	45.00	394.11	15.81	6,231.34
1984	19,421.42	45.00	431.59	16.51	7,124.39
1985	10,809.47	45.00	240.21	17.22	4,135.99
1986	8,486.99	45.00	188.60	17.94	3,384.06

CEG Steam
Steam Division
370.00 Meters

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *45* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1987	5,443.09	45.00	120.96	18.68	2,259.68
1988	11,215.97	45.00	249.24	19.44	4,844.24
1989	147,629.19	45.00	3,280.65	20.20	66,271.52
1990	11,702.28	45.00	260.05	20.98	5,455.34
1991	6,453.60	45.00	143.41	21.77	3,121.71
1992	11,854.07	45.00	263.42	22.57	5,945.47
1993	4,355.33	45.00	96.79	23.38	2,263.11
1997	23,011.98	45.00	511.38	26.74	13,676.52
1998	1,780.86	45.00	39.57	27.61	1,092.68
2000	23,845.73	45.00	529.90	29.37	15,564.25
2001	5,801.10	45.00	128.91	30.27	3,901.87
2004	122,118.43	45.00	2,713.74	33.00	89,559.13
2005	32,036.44	45.00	711.92	33.93	24,154.89
2006	12,050.41	45.00	267.79	34.86	9,336.27
2009	29,980.00	45.00	666.22	37.71	25,120.72
Total	555,676.94	45.00	12,348.37	24.99	308,550.95

Composite Average Remaining Life ... 24.99 Years

CEG Steam
Steam Division
392.00 Transportation Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *19* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1991	6,021.63	19.00	316.93	2.71	857.90
1993	2,786.42	19.00	146.65	3.28	480.61
1994	6,585.35	19.00	346.60	3.59	1,242.68
1995	1,801.52	19.00	94.82	3.91	371.01
1998	7,752.66	19.00	408.03	5.03	2,050.84
1999	6,217.35	19.00	327.23	5.45	1,782.97
2002	3,895.00	19.00	205.00	6.91	1,416.49
2003	197,875.53	19.00	10,414.48	7.47	77,805.62
2004	77,935.14	19.00	4,101.84	8.07	33,118.62
2005	91,981.60	19.00	4,841.13	8.72	42,223.65
2007	106,410.52	19.00	5,600.54	10.16	56,905.14
2008	89,456.00	19.00	4,708.20	10.95	51,561.19
2009	45,378.50	19.00	2,388.34	11.79	28,157.42
2011	38,795.00	19.00	2,041.84	13.59	27,747.35
2014	140,813.43	19.00	7,411.22	16.50	122,310.17
2015	128,096.16	19.00	6,741.89	17.50	117,985.62
2016	20,551.84	19.00	1,081.67	18.50	20,011.00
Total	972,353.65	19.00	51,176.39	11.45	586,028.29

Composite Average Remaining Life ... 11.45 Years

CEG Steam
Steam Division
393.00 Stores Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *30* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1995	1,562.48	30.00	52.08	8.50	442.70
1998	945.94	30.00	31.53	11.50	362.61
2003	8,175.00	30.00	272.50	16.50	4,496.25
2004	5,597.44	30.00	186.58	17.50	3,265.17
2015	61,140.00	30.00	2,038.00	28.50	58,083.00
Total	77,420.86	30.00	2,580.70	25.83	66,649.74

Composite Average Remaining Life ... *25.83 Years*

CEG Steam
Steam Division
394.00 Tools, Shop and Garage Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: 20 **Survivor Curve:** SQ

Year	Original Cost	Avg. Service Life	Avg. Annual Accrual	Avg. Remaining Life	Future Annual Accruals
(1)	(2)	(3)	(4)	(5)	(6)
1973	74.65	0.00	0.00	0.00	0.00
1980	4,414.05	0.00	0.00	0.00	0.00
1981	1,807.27	0.00	0.00	0.00	0.00
1982	2,424.71	0.00	0.00	0.00	0.00
1983	10,051.18	0.00	0.00	0.00	0.00
1984	2,392.95	0.00	0.00	0.00	0.00
1985	5,343.06	0.00	0.00	0.00	0.00
1986	2,310.79	0.00	0.00	0.00	0.00
1987	8,969.12	0.00	0.00	0.00	0.00
1988	3,285.11	0.00	0.00	0.00	0.00
1989	12,113.04	0.00	0.00	0.00	0.00
1990	9,747.98	0.00	0.00	0.00	0.00
1991	8,733.11	0.00	0.00	0.00	0.00
1992	9,502.26	0.00	0.00	0.00	0.00
1993	409.68	0.00	0.00	0.00	0.00
1994	6,248.05	0.00	0.00	0.00	0.00
1995	6,358.78	0.00	0.00	0.00	0.00
1996	1,210.78	0.00	0.00	0.00	0.00
1997	670.39	20.00	33.52	0.50	16.76
1999	3,521.37	20.00	176.07	2.50	440.17
2001	15,821.29	20.00	791.06	4.50	3,559.79
2003	31,097.37	20.00	1,554.87	6.50	10,106.65
2004	7,405.54	20.00	370.28	7.50	2,777.08
2005	36,792.85	20.00	1,839.64	8.50	15,636.96
2007	88,638.21	20.00	4,431.91	10.50	46,535.06
2009	8,628.00	20.00	431.40	12.50	5,392.50
2010	2,674.95	20.00	133.75	13.50	1,805.59

CEG Steam
Steam Division
394.00 Tools, Shop and Garage Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***20*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2012	13,848.53	20.00	692.43	15.50	10,732.61
Total	304,495.07	7.14	10,454.93	9.28	97,003.17

Composite Average Remaining Life ... 9.28 Years

CEG Steam
Steam Division
395.00 Laboratory Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***15*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1996	430.28	0.00	0.00	0.00	0.00
2000	10,033.80	0.00	0.00	0.00	0.00
2004	6,665.21	15.00	444.35	2.50	1,110.87
2006	14,330.15	15.00	955.34	4.50	4,299.05
2012	34,416.12	15.00	2,294.41	10.50	24,091.28
2014	40,400.01	15.00	2,693.33	12.50	33,666.68
Total	106,275.57	10.00	6,387.43	9.89	63,167.87

Composite Average Remaining Life ... 9.89 Years

CEG Steam
Steam Division
396.00 Power Operated Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *11* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1982	3,670.01	0.00	0.00	0.00	0.00
1983	2,797.89	0.00	0.00	0.00	0.00
1986	76.56	0.00	0.00	0.00	0.00
1988	7,635.92	0.00	0.00	0.00	0.00
1990	1,534.65	0.00	0.00	0.00	0.00
2002	57,667.00	11.00	5,242.51	1.66	8,724.85
2007	22,415.20	11.00	2,037.77	3.45	7,030.06
2008	46,515.27	11.00	4,228.70	3.95	16,704.14
2009	17,525.00	11.00	1,593.20	4.52	7,197.25
2010	51,317.27	11.00	4,665.25	5.16	24,073.73
2011	17,875.00	11.00	1,625.02	5.88	9,562.40
2016	126,178.04	11.00	11,470.84	10.50	120,442.74
Total	355,207.81	6.42	30,863.29	6.28	193,735.16

Composite Average Remaining Life ... 6.28 Years

CEG Steam
Steam Division
397.00 Communication Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *15* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2003	6,678.00	15.00	445.20	1.50	667.80
2004	4,785.00	15.00	319.00	2.50	797.50
2005	3,633.56	15.00	242.24	3.50	847.83
Total	15,096.56	15.00	1,006.44	2.30	2,313.13

Composite Average Remaining Life ... 2.30 Years

CEG Steam
Steam Division
398.00 Miscellaneous Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *20* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1973	271.10	0.00	0.00	0.00	0.00
1981	67.91	0.00	0.00	0.00	0.00
1982	488.47	0.00	0.00	0.00	0.00
1988	223.78	0.00	0.00	0.00	0.00
1989	66.65	0.00	0.00	0.00	0.00
1990	81.76	0.00	0.00	0.00	0.00
1991	105.21	0.00	0.00	0.00	0.00
1993	35,797.67	0.00	0.00	0.00	0.00
1995	331.62	0.00	0.00	0.00	0.00
1997	3,912.34	20.00	195.62	0.50	97.81
2002	53,235.41	20.00	2,661.77	5.50	14,639.74
2003	8,112.57	20.00	405.63	6.50	2,636.59
2004	9,695.01	20.00	484.75	7.50	3,635.63
2007	36,627.00	20.00	1,831.35	10.50	19,229.18
2008	10,873.16	20.00	543.66	11.50	6,252.07
2010	12,357.03	20.00	617.85	13.50	8,341.00
2014	30,367.19	20.00	1,518.36	17.50	26,571.29
2015	66,654.69	20.00	3,332.73	18.50	61,655.59
2016	36,609.44	20.00	1,830.47	19.50	35,694.20
Total	305,878.01	10.53	13,422.19	13.32	178,753.08

Composite Average Remaining Life ... 13.32 Years

Citizens Gas of Westfield
Gas Division
375.00 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *50* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2014	28,305.16	50.00	566.10	47.54	26,915.27
Total	28,305.16	50.00	566.10	47.54	26,915.27

Composite Average Remaining Life ... *47.54 Years*

Citizens Gas of Westfield
Gas Division
376.00 Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1988	445,253.69	65.00	6,850.06	39.13	268,041.16
1994	23,366.00	65.00	359.48	43.92	15,786.61
1995	122,070.00	65.00	1,878.00	44.76	84,052.94
1996	108,158.00	65.00	1,663.97	45.61	75,885.64
1997	90,252.00	65.00	1,388.49	46.47	64,522.02
1998	107,447.00	65.00	1,653.03	47.34	78,258.92
1999	132,074.00	65.00	2,031.91	48.23	97,989.61
2000	95,009.00	65.00	1,461.68	49.12	71,797.94
2001	453,661.00	65.00	6,979.40	50.02	349,132.96
2002	75,989.00	65.00	1,169.06	50.94	59,549.79
2003	144,519.00	65.00	2,223.37	51.86	115,304.43
2004	74,321.08	65.00	1,143.40	52.79	60,364.04
2005	1,160,641.63	65.00	17,856.03	53.73	959,457.61
2006	1,629,266.34	65.00	25,065.64	54.68	1,370,660.57
2007	148,834.42	65.00	2,289.76	55.64	127,398.11
2008	303,379.69	65.00	4,667.38	56.60	264,186.99
2009	49,978.73	65.00	768.90	57.57	44,267.32
2010	30,286.85	65.00	465.95	58.55	27,281.15
2011	202,059.46	65.00	3,108.61	59.53	185,059.91
2012	158,930.92	65.00	2,445.09	60.52	147,971.70
2013	740,604.78	65.00	11,393.92	61.51	700,830.20
2014	358,298.40	65.00	5,512.28	62.50	344,536.49
2015	884,506.06	65.00	13,607.79	63.50	864,107.12
2016	71,601.41	65.00	1,101.56	64.50	71,050.60

Citizens Gas of Westfield
Gas Division
376.00 Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	7,610,508.46	65.00	117,084.76	55.07	6,447,493.83

Composite Average Remaining Life ... *55.07 Years*

Citizens Gas of Westfield
Gas Division
378.00 Measuring and Regulating Equipment - General
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1997	4,374.65	40.00	109.37	22.82	2,495.43
2000	2,817.00	40.00	70.42	25.25	1,778.02
2001	3,562.00	40.00	89.05	26.08	2,322.18
Total	10,753.65	40.00	268.84	24.53	6,595.63

Composite Average Remaining Life ... 24.53 Years

Citizens Gas of Westfield
Gas Division
379.00 Measuring and Regulating Equipment - GCCS
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1998	4,884.92	40.00	122.12	23.62	2,884.15
1999	937.00	40.00	23.42	24.43	572.18
2003	1,149.00	40.00	28.72	27.77	797.64
2014	85,152.74	40.00	2,128.81	37.65	80,149.32
Total	92,123.66	40.00	2,303.08	36.65	84,403.29

Composite Average Remaining Life ... ***36.65 Years***

Citizens Gas of Westfield
Gas Division
380.00 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***50*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1988	382,088.47	50.00	7,641.75	25.33	193,550.00
1997	2,234.29	50.00	44.69	32.49	1,451.95
1998	32,302.00	50.00	646.04	33.33	21,533.23
1999	44,420.00	50.00	888.40	34.18	30,363.37
2000	40,866.00	50.00	817.32	35.03	28,632.04
2001	59,327.00	50.00	1,186.54	35.89	42,588.42
2002	72,925.00	50.00	1,458.50	36.76	53,616.44
2003	69,810.00	50.00	1,396.20	37.64	52,548.23
2004	111,945.35	50.00	2,238.90	38.52	86,239.24
2005	234,734.54	50.00	4,694.68	39.41	185,002.06
2006	349,418.91	50.00	6,988.36	40.30	281,638.42
2007	147,767.31	50.00	2,955.34	41.20	121,763.68
2008	46,519.36	50.00	930.38	42.11	39,175.78
2009	42,044.08	50.00	840.88	43.02	36,173.18
2010	57,206.44	50.00	1,144.13	43.93	50,266.71
2011	46,084.20	50.00	921.68	44.86	41,342.80
2012	28,314.83	50.00	566.30	45.78	25,925.97
2013	126,286.03	50.00	2,525.71	46.71	117,981.38
2014	103,713.61	50.00	2,074.27	47.65	98,831.88
2015	178,741.48	50.00	3,574.82	48.59	173,683.45
2016	78,823.77	50.00	1,576.47	49.53	78,078.83
Total	2,255,572.67	50.00	45,111.34	39.02	1,760,387.06

Composite Average Remaining Life ... 39.02 Years

Citizens Gas of Westfield
Gas Division
381.00 Meters

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *S0*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1965	6,564.00	35.00	187.54	7.01	1,314.21
1972	4,080.00	35.00	116.57	9.84	1,146.87
1973	3,672.00	35.00	104.91	10.25	1,075.75
1974	5,188.00	35.00	148.23	10.67	1,581.89
1975	2,652.00	35.00	75.77	11.09	840.59
1976	3,708.00	35.00	105.94	11.52	1,220.28
1978	1,428.00	35.00	40.80	12.38	505.02
1979	408.00	35.00	11.66	12.81	149.36
1980	1,224.00	35.00	34.97	13.25	463.45
1981	1,020.00	35.00	29.14	13.70	399.12
1985	204.00	35.00	5.83	15.51	90.40
1987	1,836.00	35.00	52.46	16.45	862.71
1988	5,800.00	35.00	165.71	16.92	2,804.20
1989	6,004.00	35.00	171.54	17.40	2,985.39
1990	3,264.00	35.00	93.26	17.89	1,668.43
1991	1,836.00	35.00	52.46	18.38	964.38
1992	7,140.00	35.00	204.00	18.88	3,852.39
1993	10,541.08	35.00	301.17	19.39	5,840.11
1994	12,442.50	35.00	355.50	19.91	7,076.31
1995	11,172.87	35.00	319.23	20.43	6,520.77
1996	7,042.67	35.00	201.22	20.96	4,216.75
1997	11,092.83	35.00	316.94	21.49	6,812.34
1998	13,582.19	35.00	388.06	22.04	8,553.46
1999	20,547.20	35.00	587.06	22.60	13,266.53
2000	25,473.64	35.00	727.82	23.16	16,859.87
2001	24,564.39	35.00	701.84	23.74	16,663.42
2002	20,701.10	35.00	591.46	24.33	14,391.11

Citizens Gas of Westfield
Gas Division
381.00 Meters

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *S0*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2003	24,256.70	35.00	693.05	24.93	17,279.02
2004	8,216.00	35.00	234.74	25.55	5,996.88
2005	58,026.56	35.00	1,657.90	26.18	43,396.18
2006	156,014.56	35.00	4,457.57	26.82	119,549.01
2007	46,316.75	35.00	1,323.34	27.48	36,365.12
2008	2,750.37	35.00	78.58	28.16	2,212.73
2009	1,719.39	35.00	49.13	28.86	1,417.57
2010	6,604.32	35.00	188.70	29.57	5,580.46
2011	2,819.55	35.00	80.56	30.32	2,442.32
2012	9,637.70	35.00	275.36	31.09	8,560.18
2013	35,507.11	35.00	1,014.49	31.89	32,348.15
2014	29,950.89	35.00	855.74	32.72	27,999.21
2015	30,074.58	35.00	859.28	33.59	28,864.94
2016	8,909.75	35.00	254.56	34.51	8,786.21
Total	633,992.70	35.00	18,114.11	25.56	462,923.10

Composite Average Remaining Life ... ***25.56 Years***

Citizens Gas of Westfield
Gas Division
382.00 Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1994	534.44	35.00	15.27	15.20	232.13
1995	1,761.15	35.00	50.32	15.85	797.72
1998	4,386.04	35.00	125.32	17.96	2,250.62
1999	3,088.65	35.00	88.25	18.71	1,651.49
2000	1,442.57	35.00	41.22	19.50	803.52
2001	1,084.96	35.00	31.00	20.30	629.33
2002	1,442.42	35.00	41.21	21.13	870.94
2003	2,226.78	35.00	63.62	21.99	1,398.89
2004	960.00	35.00	27.43	22.87	627.21
Total	16,927.01	35.00	483.63	19.15	9,261.85

Composite Average Remaining Life ... ***19.15 Years***

Citizens Gas of Westfield
Gas Division
383.00 House Regulators

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *40* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1994	5,185.00	40.00	129.63	19.54	2,532.96
1995	3,716.00	40.00	92.90	20.26	1,882.27
1996	7,939.00	40.00	198.48	21.01	4,169.39
1997	21,496.80	40.00	537.42	21.77	11,701.53
1998	5,671.00	40.00	141.78	22.56	3,199.15
1999	3,468.00	40.00	86.70	23.38	2,026.75
2000	8,729.00	40.00	218.23	24.21	5,283.72
2001	8,638.00	40.00	215.95	25.07	5,413.25
2002	11,655.00	40.00	291.38	25.94	7,559.52
2003	5,610.00	40.00	140.25	26.84	3,764.15
2004	4,555.32	40.00	113.88	27.75	3,160.60
Total	86,663.12	40.00	2,166.58	23.40	50,693.28

Composite Average Remaining Life ... 23.40 Years

Citizens Gas of Westfield
Gas Division
385.00 Industrial M&R Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1991	3,491.00	35.00	99.74	13.39	1,335.80
1997	16,011.51	35.00	457.47	17.23	7,882.66
1998	13,050.00	35.00	372.86	17.96	6,696.38
Total	32,552.51	35.00	930.07	17.11	15,914.84

Composite Average Remaining Life ... *17.11 Years*

Citizens Water
Water Division
304.20 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *50* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1948	198,716.00	50.00	3,974.32	3.97	15,795.50
1950	315,237.00	50.00	6,304.74	4.49	28,306.03
1957	707,882.00	50.00	14,157.63	6.44	91,153.83
1962	2,948,395.00	50.00	58,967.88	8.17	481,663.90
1963	1,019,971.00	50.00	20,399.41	8.56	174,685.11
1970	284,619.00	50.00	5,692.38	11.85	67,458.16
1973	1,444,657.00	50.00	28,893.13	13.54	391,238.45
1986	1,362,290.00	50.00	27,245.79	22.49	612,699.17
1989	28,138.00	50.00	562.76	24.85	13,986.46
1992	719,224.00	50.00	14,384.47	27.31	392,876.36
1993	1,393,555.00	50.00	27,871.09	28.15	784,627.81
1995	111,708.00	50.00	2,234.16	29.86	66,710.59
1996	403,965.00	50.00	8,079.30	30.73	248,250.45
1998	3,879,261.00	50.00	77,585.19	32.49	2,520,557.97
1999	2,032,407.00	50.00	40,648.12	33.38	1,356,858.19
2006	991,854.00	50.00	19,837.07	39.84	790,239.53
2007	1,350,000.00	50.00	26,999.99	40.78	1,101,168.68
2009	6,028.00	50.00	120.56	42.69	5,147.26
2010	1,487,336.00	50.00	29,746.71	43.66	1,298,647.54
2011	190,147.07	50.00	3,802.94	44.62	169,699.89
2012	1,751,099.63	50.00	35,021.98	45.59	1,596,782.33
2013	1,906,874.39	50.00	38,137.47	46.57	1,775,972.69
2014	609,155.95	50.00	12,183.11	47.54	579,244.15
2015	94,956.58	50.00	1,899.13	48.52	92,155.22
2016	229,657.78	50.00	4,593.15	49.51	227,396.58

Citizens Water
Water Division
304.20 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***50*** ***Survivor Curve:*** ***R3***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	25,467,134.40	50.00	509,342.48	29.22	14,883,321.84

Composite Average Remaining Life ... 29.22 Years

Citizens Water
Water Division
304.30 Structures and Improvements

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1927	4,284,811.00	65.00	65,920.08	7.64	503,843.15
1968	45,692,508.42	65.00	702,960.73	24.82	17,448,999.29
1976	15,858,042.00	65.00	243,969.55	30.37	7,409,150.25
1989	14,496,943.00	65.00	223,029.60	40.46	9,023,754.78
1991	59,645,161.00	65.00	917,616.64	42.12	38,645,484.99
1997	33,638,740.00	65.00	517,518.39	47.22	24,439,331.75
2009	1,045,707.00	65.00	16,087.78	57.99	932,910.06
2011	289,857.95	65.00	4,459.35	59.84	266,853.85
2012	3,240,827.85	65.00	49,858.82	60.77	3,030,029.16
2013	5,610,721.67	65.00	86,318.68	61.71	5,326,441.54
2014	1,659,723.56	65.00	25,534.17	62.64	1,599,555.79
2015	6,073,402.47	65.00	93,436.84	63.58	5,941,124.56
2016	1,183,719.36	65.00	18,211.04	64.53	1,175,108.21
Total	192,720,165.28	65.00	2,964,921.68	39.04	115,742,587.37

Composite Average Remaining Life ... ***39.04 Years***

Citizens Water
Water Division
305.20 Collecting and Impounding Reservoirs
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *75* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1901	98,647.00	75.00	1,315.29	6.07	7,990.20
1943	7,102,593.00	75.00	94,701.12	18.62	1,763,665.61
1956	27,057,497.00	75.00	360,766.17	25.75	9,290,637.87
1970	2,671,928.00	75.00	35,625.66	35.21	1,254,330.02
1998	13,063,698.00	75.00	174,182.42	58.00	10,102,275.77
2011	637,570.00	75.00	8,500.92	69.84	593,663.65
2013	2,151,207.50	75.00	28,682.73	71.70	2,056,656.83
2016	646,648.73	75.00	8,621.97	74.53	642,569.93
Total	53,429,789.23	75.00	712,396.29	36.09	25,711,789.88

Composite Average Remaining Life ... ***36.09 Years***

Citizens Water
Water Division
306.20 Lake, River and Other Intakes

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***60*** ***Survivor Curve:*** ***S1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1901	86,580.00	60.00	1,443.00	1.26	1,820.33
2009	1,072,359.00	60.00	17,872.63	52.58	939,793.89
2011	221,650.00	60.00	3,694.16	54.54	201,465.17
2012	71,497.48	60.00	1,191.62	55.52	66,160.06
2013	1,494,380.49	60.00	24,906.32	56.51	1,407,461.36
Total	2,946,466.97	60.00	49,107.73	53.28	2,616,700.80

Composite Average Remaining Life ... ***53.28 Years***

Citizens Water
Water Division
307.20 Wells and Springs

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1927	56,166.00	55.00	1,021.20	0.88	903.41
1930	3,339.00	55.00	60.71	1.56	94.48
1962	226,739.00	55.00	4,122.53	11.34	46,730.88
1968	340,953.00	55.00	6,199.14	14.51	89,975.85
1976	71,082.00	55.00	1,292.40	19.63	25,369.08
1989	301,821.00	55.00	5,487.65	29.59	162,357.08
1997	4,860,649.00	55.00	88,375.41	36.49	3,225,250.45
2005	2,510,167.00	55.00	45,639.39	43.87	2,002,075.38
2009	692,801.00	55.00	12,596.38	47.68	600,656.08
2010	2,710,476.00	55.00	49,281.37	48.65	2,397,541.41
2011	12,661,395.03	55.00	230,207.11	49.62	11,422,614.14
2012	317,795.22	55.00	5,778.09	50.59	292,319.38
2014	812,780.07	55.00	14,777.81	52.54	776,481.85
2015	8,260,028.52	55.00	150,182.29	53.52	8,038,437.88
Total	33,826,191.84	55.00	615,021.48	47.28	29,080,807.32

Composite Average Remaining Life ... ***47.28 Years***

Citizens Water
Water Division
311.20 Pumping Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *40* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1927	41,407.00	0.00	0.00	0.00	0.00
1930	2,512.00	0.00	0.00	0.00	0.00
1948	201,767.00	40.00	5,044.18	2.99	15,063.54
1950	343,284.00	40.00	8,582.10	3.49	29,936.45
1957	753,204.00	40.00	18,830.10	5.29	99,530.60
1962	3,150,665.00	40.00	78,766.63	6.65	524,026.04
1963	1,013,331.00	40.00	25,333.28	6.94	175,857.98
1968	206,113.00	40.00	5,152.83	8.46	43,613.40
1970	255,206.00	40.00	6,380.15	9.12	58,193.06
1973	1,091,600.00	40.00	27,290.00	10.17	277,469.35
1976	50,883.00	40.00	1,272.08	11.30	14,369.63
1986	1,249,312.00	40.00	31,232.80	15.82	494,197.79
1989	235,867.00	40.00	5,896.68	17.46	102,970.87
1992	743,461.00	40.00	18,586.53	19.26	357,951.06
1993	1,447,389.00	40.00	36,184.73	19.89	719,810.46
1995	122,284.00	40.00	3,057.10	21.22	64,870.87
1996	439,899.00	40.00	10,997.48	21.91	240,992.71
1997	3,944,531.00	40.00	98,613.28	22.62	2,231,113.87
1998	4,413,747.00	40.00	110,343.68	23.36	2,577,430.69
1999	2,320,221.00	40.00	58,005.53	24.11	1,398,479.60
2005	1,887,526.00	40.00	47,188.15	29.03	1,369,966.96
2006	1,017,062.00	40.00	25,426.55	29.92	760,704.37
2007	2,382,570.00	40.00	59,564.25	30.82	1,835,682.75
2009	867,186.00	40.00	21,679.65	32.67	708,232.83
2010	6,535,734.00	40.00	163,393.36	33.61	5,492,385.46
2011	11,018,034.60	40.00	275,450.88	34.57	9,522,952.76
2012	607,616.82	40.00	15,190.42	35.54	539,899.51

Citizens Water
Water Division
311.20 Pumping Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***S1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2013	6,892,372.30	40.00	172,309.32	36.52	6,292,880.27
2014	1,838,418.23	40.00	45,960.46	37.51	1,723,904.95
2015	764,702.24	40.00	19,117.56	38.50	736,062.27
2016	54,228.14	40.00	1,355.70	39.50	53,550.46
Total	55,892,133.33	37.42	1,396,205.43	27.55	38,462,100.58

Composite Average Remaining Life ... ***27.55 Years***

Citizens Water
Water Division
320.30 Water Treatment Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *40* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1927	1,520,161.00	0.00	0.00	0.00	0.00
1968	19,898,243.00	40.00	497,454.40	6.41	3,189,493.72
1976	6,735,099.00	40.00	168,376.91	9.34	1,571,881.60
1989	6,479,515.00	40.00	161,987.33	16.86	2,730,957.65
1991	27,351,264.00	40.00	683,779.30	18.27	12,493,447.96
1997	15,196,651.00	40.00	379,915.00	22.82	8,668,622.07
2009	3,635,732.00	40.00	90,892.99	33.05	3,004,120.76
2010	26,761,634.00	40.00	669,038.60	33.96	22,719,694.88
2011	36,050,393.36	40.00	901,256.80	34.87	31,428,769.63
2012	11,460,701.51	40.00	286,516.57	35.79	10,255,146.38
2013	4,841,760.06	40.00	121,043.59	36.72	4,444,490.12
2014	2,694,168.10	40.00	67,353.98	37.65	2,535,863.53
2015	8,476,354.95	40.00	211,908.16	38.59	8,176,713.71
2016	1,714,769.17	40.00	42,869.09	39.53	1,694,520.41
Total	172,816,446.15	37.14	4,282,392.73	26.37	112,913,722.42

Composite Average Remaining Life ... 26.37 Years

Citizens Water
Water Division
330.40 Distribution Reservoirs and Standpipes
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R4*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1907	5,839.00	0.00	0.00	0.00	0.00
1922	117,087.00	0.00	0.00	0.00	0.00
1927	75,290.00	0.00	0.00	0.00	0.00
1957	174,515.00	55.00	3,172.99	6.23	19,755.79
1963	340,720.00	55.00	6,194.88	8.78	54,418.43
1968	498,466.00	55.00	9,062.98	11.69	105,903.15
1970	155,817.00	55.00	2,833.02	13.00	36,833.03
1972	176,593.00	55.00	3,210.77	14.38	46,163.45
1974	177,414.00	55.00	3,225.69	15.80	50,975.02
1976	923,983.00	55.00	16,799.61	17.28	290,261.45
1980	233,395.00	55.00	4,243.53	20.40	86,565.46
1989	582,029.00	55.00	10,582.30	28.16	298,012.30
1991	1,367,062.00	55.00	24,855.56	30.00	745,724.12
1994	178,878.00	55.00	3,252.31	32.82	106,745.66
1995	129,718.00	55.00	2,358.50	33.77	79,657.93
1997	1,156,956.00	55.00	21,035.47	35.70	750,922.89
1998	556,786.00	55.00	10,123.34	36.67	371,183.45
2005	3,430,551.00	55.00	62,373.37	43.54	2,715,883.88
2007	3,465,127.00	55.00	63,002.02	45.53	2,868,282.54
2011	378,506.00	55.00	6,881.90	49.51	340,716.51
2012	193,168.58	55.00	3,512.14	50.51	177,386.18
2013	41,128.86	55.00	747.79	51.50	38,514.80
2015	832,176.58	55.00	15,130.41	53.50	809,501.91
Total	15,191,206.02	47.83	272,598.58	36.66	9,993,407.94

Composite Average Remaining Life ... 36.66 Years

Citizens Water
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *125* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1901	20,807,037.05	125.00	166,456.32	30.02	4,997,770.43
1902	830,668.47	125.00	6,645.35	30.56	203,112.34
1903	2,948,402.47	125.00	23,587.22	31.12	734,027.26
1904	1,499,224.00	125.00	11,993.79	31.68	379,982.04
1905	1,396,552.00	125.00	11,172.42	32.25	360,311.34
1906	1,649,667.33	125.00	13,197.34	32.83	433,205.26
1907	1,359,075.58	125.00	10,872.61	33.40	363,158.12
1908	1,334,961.58	125.00	10,679.69	33.99	363,027.19
1909	813,186.00	125.00	6,505.49	34.59	225,022.80
1910	1,361,543.00	125.00	10,892.35	35.19	383,337.92
1911	992,056.00	125.00	7,936.45	35.80	284,149.91
1912	2,147,755.00	125.00	17,182.04	36.41	625,657.46
1913	1,990,652.00	125.00	15,925.22	37.04	589,844.85
1914	3,641,764.74	125.00	29,134.12	37.67	1,097,460.35
1915	1,742,289.00	125.00	13,938.31	38.31	533,919.22
1916	1,068,055.45	125.00	8,544.44	38.95	332,790.90
1917	1,093,339.40	125.00	8,746.72	39.59	346,289.12
1918	347,731.00	125.00	2,781.85	40.25	111,961.86
1919	367,045.88	125.00	2,936.37	40.91	120,124.54
1920	1,540,410.00	125.00	12,323.28	41.58	512,359.15
1921	1,392,995.00	125.00	11,143.96	42.25	470,822.28
1922	1,695,383.00	125.00	13,563.07	42.92	582,149.55
1923	4,309,153.00	125.00	34,473.23	43.61	1,503,289.64
1924	4,002,436.89	125.00	32,019.50	44.30	1,418,406.16
1925	3,744,698.21	125.00	29,957.59	44.99	1,347,908.37
1926	3,002,990.00	125.00	24,023.92	45.69	1,097,760.19
1927	2,546,205.25	125.00	20,369.64	46.39	945,048.50

Citizens Water
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *125* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1928	3,241,941.00	125.00	25,935.53	47.11	1,221,765.07
1929	4,492,859.52	125.00	35,942.88	47.83	1,718,975.85
1930	3,322,223.00	125.00	26,577.79	48.55	1,290,277.99
1931	721,222.00	125.00	5,769.78	49.27	284,298.77
1932	45,751.00	125.00	366.01	50.00	18,300.48
1933	4,995.00	125.00	39.96	50.74	2,027.50
1934	132,637.00	125.00	1,061.10	51.48	54,625.78
1935	232,588.06	125.00	1,860.70	52.23	97,179.20
1936	475,839.22	125.00	3,806.71	52.98	201,671.84
1937	1,474,831.65	125.00	11,798.65	53.73	633,925.67
1938	1,012,321.18	125.00	8,098.57	54.49	441,292.85
1939	1,870,301.11	125.00	14,962.41	55.26	826,760.62
1940	1,398,425.56	125.00	11,187.41	56.03	626,780.20
1941	1,639,175.25	125.00	13,113.40	56.80	744,831.10
1942	2,083,775.75	125.00	16,670.21	57.57	959,751.27
1943	9,951.00	125.00	79.61	58.36	4,645.66
1944	165,466.20	125.00	1,323.73	59.14	78,291.22
1945	592,553.00	125.00	4,740.42	59.94	284,122.01
1946	1,206,437.84	125.00	9,651.50	60.73	586,149.35
1947	2,667,414.91	125.00	21,339.32	61.53	1,312,940.21
1948	2,986,396.92	125.00	23,891.18	62.33	1,489,182.01
1949	5,766,488.88	125.00	46,131.92	63.14	2,912,799.48
1950	4,581,634.16	125.00	36,653.08	63.95	2,344,078.92
1951	2,679,657.15	125.00	21,437.26	64.77	1,388,475.71
1952	3,358,606.53	125.00	26,868.86	65.59	1,762,206.61
1953	3,089,942.19	125.00	24,719.54	66.41	1,641,645.82
1954	5,837,857.25	125.00	46,702.86	67.24	3,140,290.10

Citizens Water
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *125* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1955	6,099,241.65	125.00	48,793.94	68.07	3,321,513.00
1956	4,313,581.17	125.00	34,508.65	68.91	2,377,930.62
1957	4,107,157.24	125.00	32,857.26	69.74	2,291,609.13
1958	3,979,771.99	125.00	31,838.18	70.59	2,247,430.88
1959	5,060,553.61	125.00	40,484.43	71.44	2,892,101.57
1960	9,163,099.86	125.00	73,304.81	72.29	5,299,128.37
1961	9,364,869.91	125.00	74,918.97	73.14	5,479,867.48
1962	8,192,925.46	125.00	65,543.41	74.00	4,850,153.69
1963	7,320,816.18	125.00	58,566.54	74.86	4,384,432.43
1964	6,894,468.66	125.00	55,155.76	75.73	4,176,889.04
1965	6,155,588.64	125.00	49,244.71	76.60	3,772,084.31
1966	8,480,062.12	125.00	67,840.50	77.47	5,255,723.01
1967	14,704,594.00	125.00	117,636.77	78.35	9,216,255.13
1968	9,533,679.03	125.00	76,269.44	79.23	6,042,514.87
1969	6,318,487.00	125.00	50,547.90	80.11	4,049,383.30
1970	5,960,130.06	125.00	47,681.05	81.00	3,862,011.51
1971	9,094,509.30	125.00	72,756.08	81.89	5,957,760.62
1972	9,809,197.64	125.00	78,473.59	82.78	6,495,814.80
1973	6,711,443.53	125.00	53,691.55	83.67	4,492,609.48
1974	8,521,571.11	125.00	68,172.58	84.57	5,765,668.84
1975	5,831,966.00	125.00	46,655.73	85.48	3,988,021.61
1976	3,778,044.54	125.00	30,224.36	86.38	2,610,884.65
1977	6,064,800.75	125.00	48,518.41	87.29	4,235,154.75
1978	4,476,772.41	125.00	35,814.18	88.20	3,158,891.76
1979	5,982,666.08	125.00	47,861.33	89.12	4,265,282.71
1980	3,873,385.43	125.00	30,987.09	90.04	2,789,933.21
1981	5,797,032.89	125.00	46,376.27	90.96	4,218,188.83

Citizens Water
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *125* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1982	2,909,082.59	125.00	23,272.66	91.88	2,138,212.19
1983	4,306,622.63	125.00	34,452.99	92.80	3,197,345.72
1984	7,464,437.95	125.00	59,715.51	93.73	5,597,262.34
1985	8,002,076.48	125.00	64,016.62	94.66	6,060,035.62
1986	8,812,078.19	125.00	70,496.63	95.60	6,739,276.36
1987	13,094,207.99	125.00	104,753.68	96.53	10,111,996.83
1988	13,368,796.75	125.00	106,950.39	97.47	10,424,496.60
1989	14,950,663.51	125.00	119,605.32	98.41	11,770,567.85
1990	14,104,987.33	125.00	112,839.91	99.36	11,211,230.94
1991	8,020,166.21	125.00	64,161.34	100.30	6,435,427.35
1992	13,392,169.21	125.00	107,137.37	101.25	10,847,293.84
1993	10,783,565.97	125.00	86,268.54	102.20	8,816,386.14
1994	30,738,908.72	125.00	245,911.30	103.15	25,365,578.14
1995	15,736,008.21	125.00	125,888.08	104.10	13,105,382.27
1996	10,820,218.00	125.00	86,561.75	105.06	9,094,124.70
1997	20,561,586.80	125.00	164,492.71	106.02	17,438,808.30
1998	28,765,165.66	125.00	230,121.35	106.98	24,617,437.92
1999	21,149,916.15	125.00	169,199.35	107.94	18,262,992.13
2000	20,003,570.50	125.00	160,028.58	108.90	17,427,296.87
2001	16,724,767.28	125.00	133,798.15	109.87	14,699,885.69
2002	21,269,783.85	125.00	170,158.29	110.83	18,858,888.84
2003	16,277,846.28	125.00	130,222.79	111.80	14,558,913.13
2004	15,755,646.00	125.00	126,045.18	112.77	14,214,120.32
2005	27,855,064.64	125.00	222,840.54	113.74	25,346,191.56
2006	14,314,647.03	125.00	114,517.19	114.71	13,136,729.25
2007	7,193,428.62	125.00	57,547.44	115.69	6,657,489.52
2008	4,898,645.27	125.00	39,189.17	116.66	4,571,913.80

Citizens Water
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***125*** ***Survivor Curve:*** ***R3***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2009	9,106,475.92	125.00	72,851.82	117.64	8,570,254.85
2010	9,809,878.79	125.00	78,479.04	118.62	9,308,989.88
2011	15,887,915.43	125.00	127,103.34	119.60	15,201,125.37
2012	27,023,937.96	125.00	216,191.53	120.58	26,067,487.00
2013	18,291,567.15	125.00	146,332.55	121.56	17,787,815.35
2014	20,528,106.80	125.00	164,224.87	122.54	20,124,113.37
2015	7,980,262.93	125.00	63,842.11	123.52	7,885,995.02
2016	3,943,778.36	125.00	31,550.23	124.51	3,928,246.96
Total	814,152,967.05	125.00	6,513,224.49	92.66	603,506,739.65

Composite Average Remaining Life ... 92.66 Years

Citizens Water
Water Division
333.40 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *70* ***Survivor Curve:*** *R4*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1909	686.00	0.00	0.00	0.00	0.00
1910	343.00	70.00	4.90	0.50	2.45
1913	343.00	70.00	4.90	0.81	3.96
1921	42,888.00	70.00	612.68	2.42	1,480.16
1930	343.00	70.00	4.90	4.71	23.06
1934	343.00	70.00	4.90	5.80	28.40
1936	1,029.00	70.00	14.70	6.38	93.73
1938	343.00	70.00	4.90	6.99	34.25
1939	686.00	70.00	9.80	7.32	71.70
1940	686.00	70.00	9.80	7.65	74.97
1942	343.00	70.00	4.90	8.37	41.00
1945	343.00	70.00	4.90	9.57	46.91
1946	686.00	70.00	9.80	10.02	98.15
1947	686.00	70.00	9.80	10.48	102.73
1948	1,372.00	70.00	19.60	10.97	215.00
1949	343.00	70.00	4.90	11.48	56.27
1950	1,715.00	70.00	24.50	12.02	294.41
1951	686.00	70.00	9.80	12.57	123.20
1952	343.00	70.00	4.90	13.16	64.47
1953	1,029.00	70.00	14.70	13.76	202.20
1954	343.00	70.00	4.90	14.38	70.46
1955	2,058.00	70.00	29.40	15.02	441.46
1956	1,029.00	70.00	14.70	15.67	230.36
1957	1,715.00	70.00	24.50	16.33	400.20
1958	1,372.00	70.00	19.60	17.01	333.37
1959	2,401.00	70.00	34.30	17.70	607.05
1960	1,029.00	70.00	14.70	18.39	270.37

Citizens Water
Water Division
333.40 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *70* ***Survivor Curve:*** *R4*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1961	1,029.00	70.00	14.70	19.10	280.77
1962	686.00	70.00	9.80	19.81	194.18
1963	96,756.00	70.00	1,382.22	20.54	28,394.31
1964	33,281.00	70.00	475.44	21.28	10,116.53
1965	75,139.00	70.00	1,073.41	22.02	23,639.93
1966	45,289.00	70.00	646.98	22.78	14,741.17
1967	6,862.00	70.00	98.03	23.55	2,308.72
1968	16,469.00	70.00	235.27	24.33	5,725.02
1969	26,419.00	70.00	377.41	25.12	9,481.76
1970	13,380.00	70.00	191.14	25.93	4,955.54
1971	29,850.00	70.00	426.43	26.74	11,401.34
1972	67,592.00	70.00	965.60	27.56	26,609.01
1973	74,453.00	70.00	1,063.61	28.39	30,198.26
1974	78,914.43	70.00	1,127.34	29.23	32,955.72
1975	88,864.75	70.00	1,269.49	30.09	38,195.34
1976	63,131.00	70.00	901.87	30.95	27,910.64
1977	329,036.84	70.00	4,700.50	31.82	149,568.10
1978	1,287,670.00	70.00	18,395.20	32.70	601,494.56
1979	812,471.72	70.00	11,606.68	33.58	389,809.51
1980	2,743,462.57	70.00	39,192.13	34.48	1,351,467.23
1981	2,931,140.52	70.00	41,873.23	35.39	1,481,724.78
1982	858,448.56	70.00	12,263.49	36.30	445,149.58
1983	836,144.54	70.00	11,944.86	37.22	444,545.83
1984	633,027.00	70.00	9,043.20	38.14	344,930.37
1985	859,476.00	70.00	12,278.17	39.07	479,751.93
1986	1,282,523.60	70.00	18,321.68	40.01	733,050.14
1987	1,713,806.50	70.00	24,482.83	40.95	1,002,678.75

Citizens Water
Water Division
333.40 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *70* ***Survivor Curve:*** *R4*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1988	2,787,037.27	70.00	39,814.63	41.90	1,668,309.64
1989	2,514,954.56	70.00	35,927.75	42.86	1,539,718.14
1990	2,109,062.71	70.00	30,129.32	43.81	1,320,062.11
1991	2,227,434.14	70.00	31,820.33	44.78	1,424,775.49
1992	1,299,679.06	70.00	18,566.75	45.74	849,265.05
1993	1,143,224.00	70.00	16,331.69	46.71	762,853.15
1994	892,757.54	70.00	12,753.62	47.68	608,135.67
1995	1,353,889.74	70.00	19,341.19	48.66	941,116.87
1996	1,475,004.38	70.00	21,071.39	49.64	1,045,932.63
1997	2,814,484.41	70.00	40,206.73	50.62	2,035,194.04
1998	3,609,800.45	70.00	51,568.33	51.60	2,661,012.64
1999	4,933,155.00	70.00	70,473.30	52.59	3,705,963.57
2000	4,328,605.16	70.00	61,836.92	53.57	3,312,822.26
2001	2,838,502.58	70.00	40,549.84	54.56	2,212,504.11
2002	5,102,992.17	70.00	72,899.54	55.55	4,049,756.10
2003	2,358,155.60	70.00	33,687.77	56.54	1,904,849.84
2004	5,087,894.78	70.00	72,683.86	57.54	4,181,994.75
2005	7,528,740.00	70.00	107,552.91	58.53	6,295,130.25
2006	8,609,519.80	70.00	122,992.55	59.53	7,321,135.74
2007	6,354,295.38	70.00	90,775.21	60.52	5,493,740.77
2008	3,964,263.56	70.00	56,632.06	61.52	3,483,804.04
2009	187,504.00	70.00	2,678.62	62.51	167,448.38
2010	357,395.53	70.00	5,105.63	63.51	324,259.70
2011	999,159.69	70.00	14,273.64	64.51	920,761.94
2012	3,587,551.84	70.00	51,250.49	65.51	3,357,209.53
2013	2,114,937.39	70.00	30,213.25	66.50	2,009,308.06
2014	3,454,049.78	70.00	49,343.33	67.50	3,330,812.48

Citizens Water
Water Division
333.40 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *70* ***Survivor Curve:*** *R4*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2015	3,209,341.72	70.00	45,847.52	68.50	3,140,632.59
2016	880,200.98	70.00	12,574.24	69.50	873,918.69
Total	103,194,099.25	69.16	1,474,184.49	53.34	78,639,117.58

Composite Average Remaining Life ... *53.34 Years*

Citizens Water
Water Division
334.40 Meters and Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *43* ***Survivor Curve:*** *S0*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1909	438.00	0.00	0.00	0.00	0.00
1910	219.00	0.00	0.00	0.00	0.00
1913	219.00	0.00	0.00	0.00	0.00
1920	219.00	0.00	0.00	0.00	0.00
1921	27,357.00	0.00	0.00	0.00	0.00
1930	218.00	0.00	0.00	0.00	0.00
1934	218.00	43.00	5.07	1.31	6.65
1936	875.00	43.00	20.35	2.03	41.39
1938	437.00	43.00	10.16	2.78	28.22
1939	438.00	43.00	10.19	3.14	32.03
1940	437.00	43.00	10.16	3.52	35.77
1942	218.00	43.00	5.07	4.27	21.65
1945	219.00	43.00	5.09	5.41	27.54
1946	437.00	43.00	10.16	5.79	58.86
1947	438.00	43.00	10.19	6.18	62.91
1948	875.00	43.00	20.35	6.56	133.50
1949	219.00	43.00	5.09	6.95	35.39
1950	1,093.25	43.00	25.42	7.34	186.58
1951	875.50	43.00	20.36	7.73	157.35
1952	219.00	43.00	5.09	8.12	41.36
1953	655.00	43.00	15.23	8.52	129.73
1954	219.00	43.00	5.09	8.91	45.39
1955	1,313.00	43.00	30.54	9.31	284.29
1956	876.00	43.00	20.37	9.71	197.83
1957	1,313.00	43.00	30.54	10.11	308.79
1958	1,095.00	43.00	25.47	10.52	267.82
1959	1,095.00	43.00	25.47	10.92	278.17

Citizens Water
Water Division
334.40 Meters and Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *43* ***Survivor Curve:*** *S0*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1960	657.00	43.00	15.28	11.33	173.14
1961	657.00	43.00	15.28	11.74	179.42
1962	657.00	43.00	15.28	12.16	185.74
1963	54,714.54	43.00	1,272.44	12.57	15,996.34
1964	18,165.01	43.00	422.44	12.99	5,487.33
1965	43,115.15	43.00	1,002.68	13.41	13,446.10
1966	24,511.01	43.00	570.03	13.83	7,885.19
1967	3,940.24	43.00	91.63	14.26	1,306.60
1968	9,191.87	43.00	213.77	14.69	3,139.68
1969	15,100.16	43.00	351.17	15.12	5,309.24
1970	8,098.10	43.00	188.33	15.55	2,929.11
1971	17,728.00	43.00	412.28	15.99	6,592.62
1972	36,987.02	43.00	860.17	16.43	14,133.48
1973	41,364.29	43.00	961.96	16.87	16,233.03
1974	46,398.09	43.00	1,079.03	17.32	18,690.98
1975	51,214.95	43.00	1,191.05	17.77	21,168.07
1976	35,236.29	43.00	819.45	18.23	14,936.05
1977	181,433.37	43.00	4,219.40	18.68	78,838.52
1978	777,819.71	43.00	18,088.91	19.15	346,338.92
1979	448,220.94	43.00	10,423.79	19.61	204,435.91
1980	1,527,187.26	43.00	35,516.13	20.08	713,246.53
1981	1,645,151.90	43.00	38,259.51	20.56	786,479.59
1982	477,766.92	43.00	11,110.91	21.04	233,722.74
1983	476,233.88	43.00	11,075.25	21.52	238,325.43
1984	352,142.34	43.00	8,189.39	22.01	180,221.95
1985	473,607.23	43.00	11,014.17	22.50	247,822.76
1986	728,576.75	43.00	16,943.72	23.00	389,684.12

Citizens Water
Water Division
334.40 Meters and Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *43* ***Survivor Curve:*** *S0*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1987	991,643.62	43.00	23,061.58	23.50	542,003.64
1988	1,642,963.74	43.00	38,208.62	24.01	917,485.70
1989	1,497,642.34	43.00	34,829.04	24.53	854,286.28
1990	1,250,771.10	43.00	29,087.82	25.05	728,635.43
1991	1,327,808.55	43.00	30,879.40	25.58	789,842.91
1992	713,038.38	43.00	16,582.36	26.11	433,019.07
1993	665,982.68	43.00	15,488.04	26.66	412,835.11
1994	510,594.80	43.00	11,874.35	27.21	323,046.01
1995	795,983.03	43.00	18,511.31	27.76	513,923.71
1996	853,981.01	43.00	19,860.11	28.33	562,597.50
1997	1,594,595.55	43.00	37,083.78	28.90	1,071,835.91
1998	2,048,286.43	43.00	47,634.77	29.49	1,404,578.71
1999	2,822,823.34	43.00	65,647.33	30.08	1,974,612.97
2000	2,517,080.40	43.00	58,537.00	30.68	1,796,103.18
2001	1,576,867.68	43.00	36,671.50	31.30	1,147,711.08
2002	3,116,968.54	43.00	72,487.95	31.92	2,313,965.82
2003	1,418,197.29	43.00	32,981.47	32.56	1,073,896.48
2004	3,125,504.23	43.00	72,686.45	33.21	2,413,984.97
2005	4,642,405.97	43.00	107,963.39	33.87	3,657,225.51
2006	5,238,812.85	43.00	121,833.38	34.55	4,209,925.99
2007	3,806,588.95	43.00	88,525.70	35.25	3,120,484.54
2008	2,356,220.72	43.00	54,796.06	35.96	1,970,509.53
2009	4,603,450.85	43.00	107,057.45	36.69	3,928,193.81
2010	628,413.62	43.00	14,614.33	37.44	547,199.18
2011	2,100,589.06	43.00	48,851.12	38.21	1,866,810.06
2012	1,175,749.74	43.00	27,343.13	39.01	1,066,718.09
2013	2,277,130.46	43.00	52,956.75	39.84	2,109,562.77

Citizens Water
Water Division
334.40 Meters and Meter Installations
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *43* ***Survivor Curve:*** *S0*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2014	2,878,474.73	43.00	66,941.56	40.69	2,723,756.55
2015	1,644,382.99	43.00	38,241.63	41.58	1,590,079.46
2016	445,310.71	43.00	10,356.11	42.51	440,261.22
Total	67,806,374.13	39.93	1,576,232.38	31.77	50,074,380.97

Composite Average Remaining Life ... *31.77 Years*

Citizens Water
Water Division
335.40 Hydrants

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1902	584,213.51	65.00	8,987.89	1.63	14,614.50
1903	649.85	65.00	10.00	1.91	19.09
1904	1,299.69	65.00	20.00	2.15	43.00
1907	649.85	65.00	10.00	2.96	29.61
1908	649.84	65.00	10.00	3.25	32.44
1910	4,548.94	65.00	69.98	3.78	264.62
1913	649.85	65.00	10.00	4.51	45.05
1915	4,548.94	65.00	69.98	4.96	346.98
1916	21,444.99	65.00	329.92	5.19	1,712.11
1917	27,943.47	65.00	429.90	5.40	2,319.80
1918	3,249.24	65.00	49.99	5.63	281.18
1919	8,448.02	65.00	129.97	5.83	757.86
1920	34,441.95	65.00	529.88	6.05	3,203.92
1921	51,987.84	65.00	799.81	6.27	5,016.42
1922	61,735.57	65.00	949.78	6.49	6,164.10
1923	48,088.76	65.00	739.83	6.72	4,971.57
1924	53,287.54	65.00	819.81	6.94	5,690.87
1925	83,180.56	65.00	1,279.70	7.18	9,183.91
1926	35,741.64	65.00	549.87	7.40	4,070.63
1927	43,539.81	65.00	669.84	7.64	5,119.77
1928	44,189.66	65.00	679.84	7.87	5,353.60
1929	88,379.34	65.00	1,359.68	8.12	11,042.39
1930	65,634.65	65.00	1,009.76	8.36	8,441.02
1931	7,798.17	65.00	119.97	8.61	1,033.35
1932	19,495.44	65.00	299.93	8.86	2,657.33
1933	7,148.32	65.00	109.97	9.12	1,002.49
1934	20,145.29	65.00	309.93	9.38	2,907.45

Citizens Water
Water Division
335.40 Hydrants

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1935	22,744.68	65.00	349.92	9.65	3,376.21
1936	25,344.07	65.00	389.91	9.93	3,870.70
1937	38,990.88	65.00	599.86	10.21	6,124.10
1938	46,139.22	65.00	709.83	10.50	7,455.78
1939	45,489.37	65.00	699.84	10.80	7,560.35
1940	54,587.23	65.00	839.80	11.12	9,334.87
1941	52,637.69	65.00	809.81	11.44	9,260.30
1942	16,896.05	65.00	259.94	11.77	3,058.99
1943	5,198.78	65.00	79.98	12.11	968.59
1944	9,747.71	65.00	149.96	12.47	1,869.39
1945	42,240.13	65.00	649.85	12.83	8,338.92
1946	53,287.53	65.00	819.81	13.21	10,831.08
1947	98,776.91	65.00	1,519.64	13.60	20,673.04
1948	114,373.26	65.00	1,759.59	14.01	24,651.08
1949	93,578.12	65.00	1,439.66	14.43	20,770.90
1950	89,679.01	65.00	1,379.68	14.86	20,502.30
1951	40,940.41	65.00	629.85	15.30	9,639.67
1952	37,691.18	65.00	579.86	15.76	9,141.28
1953	40,940.43	65.00	629.85	16.24	10,225.95
1954	92,278.43	65.00	1,419.67	16.72	23,740.49
1955	101,376.31	65.00	1,559.63	17.22	26,856.59
1956	163,761.72	65.00	2,519.41	17.73	44,678.52
1957	114,373.26	65.00	1,759.59	18.26	32,124.30
1958	130,619.46	65.00	2,009.53	18.80	37,772.70
1959	182,607.31	65.00	2,809.34	19.35	54,355.43
1960	159,862.63	65.00	2,459.42	19.91	48,966.92
1961	306,728.31	65.00	4,718.89	20.49	96,670.60

Citizens Water
Water Division
335.40 Hydrants

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1962	293,081.48	65.00	4,508.94	21.07	95,009.09
1963	173,509.45	65.00	2,669.37	21.67	57,847.28
1964	154,663.85	65.00	2,379.44	22.28	53,010.63
1965	163,761.73	65.00	2,519.41	22.90	57,695.56
1966	180,007.93	65.00	2,769.35	23.53	65,161.86
1967	365,214.67	65.00	5,618.68	24.17	135,818.61
1968	309,977.56	65.00	4,768.88	24.82	118,373.85
1969	229,396.39	65.00	3,529.17	25.49	89,941.80
1970	170,910.04	65.00	2,629.38	26.15	68,768.64
1971	361,965.41	65.00	5,568.69	26.84	149,441.67
1972	348,968.44	65.00	5,368.74	27.53	147,779.50
1973	284,633.49	65.00	4,378.97	28.22	123,587.96
1974	270,986.68	65.00	4,169.02	28.93	120,612.38
1975	207,951.40	65.00	3,199.25	29.64	94,840.71
1976	340,520.43	65.00	5,238.77	30.37	159,097.01
1977	248,891.84	65.00	3,829.10	31.10	119,082.88
1978	283,333.80	65.00	4,358.98	31.84	138,790.29
1979	277,485.17	65.00	4,269.00	32.59	139,109.47
1980	219,648.68	65.00	3,379.21	33.34	112,670.31
1981	367,164.23	65.00	5,648.67	34.10	192,637.53
1982	192,355.06	65.00	2,959.30	34.87	103,204.04
1983	240,443.81	65.00	3,699.13	35.65	131,873.40
1984	305,428.64	65.00	4,698.90	36.44	171,207.18
1985	323,624.39	65.00	4,978.83	37.23	185,348.82
1986	380,161.19	65.00	5,848.63	38.02	222,392.82
1987	520,528.40	65.00	8,008.12	38.83	310,958.05
1988	495,184.32	65.00	7,618.21	39.64	301,993.85

Citizens Water
Water Division
335.40 Hydrants

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1989	606,308.36	65.00	9,327.81	40.46	377,402.18
1990	530,276.12	65.00	8,158.08	41.28	336,793.57
1991	376,911.95	65.00	5,798.64	42.12	244,210.01
1992	436,048.14	65.00	6,708.42	42.95	288,133.03
1993	486,086.44	65.00	7,478.24	43.79	327,508.53
1994	751,874.36	65.00	11,567.28	44.64	516,392.87
1995	554,320.52	65.00	8,528.00	45.50	388,008.59
1996	413,953.31	65.00	6,368.50	46.36	295,226.26
1997	598,510.20	65.00	9,207.84	47.22	434,831.67
1998	925,383.83	65.00	14,236.66	48.10	684,719.63
1999	821,408.14	65.00	12,637.03	48.97	618,852.24
2000	638,800.78	65.00	9,827.69	49.85	489,941.41
2001	749,924.83	65.00	11,537.29	50.74	585,388.93
2002	725,880.44	65.00	11,167.38	51.63	576,576.76
2003	646,598.96	65.00	9,947.66	52.53	522,506.04
2004	686,239.71	65.00	10,557.52	53.43	564,049.18
2005	705,735.15	65.00	10,857.45	54.33	589,886.85
2006	624,504.12	65.00	9,607.74	55.24	530,727.21
2007	287,232.91	65.00	4,418.96	56.15	248,131.78
2008	241,743.53	65.00	3,719.13	57.07	212,246.81
2009	245,969.74	65.00	3,784.14	57.99	219,437.80
2010	885,717.50	65.00	13,626.40	58.91	802,780.39
2011	2,033,561.42	65.00	31,285.52	59.84	1,872,171.14
2012	4,877,216.68	65.00	75,034.00	60.77	4,559,979.55
2013	3,972,592.99	65.00	61,116.73	61.71	3,771,312.42
2014	4,380,848.56	65.00	67,397.58	62.64	4,222,035.44
2015	1,929,099.11	65.00	29,678.41	63.58	1,887,083.58

Citizens Water
Water Division
335.40 Hydrants

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***65*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2016	879,800.66	65.00	13,535.38	64.53	873,400.41
Total	42,226,327.76	65.00	649,634.95	48.27	31,355,133.55

Composite Average Remaining Life ... 48.27 Years

Citizens Water
Water Division
339.20 Other Miscellaneous Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***30*** ***Survivor Curve:*** ***R3***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2010	141,768.00	30.00	4,725.59	23.71	112,058.04
2012	571,305.27	30.00	19,043.48	25.62	487,833.41
2013	3,229,934.27	30.00	107,664.33	26.58	2,861,754.52
2015	487,127.95	30.00	16,237.58	28.53	463,208.31
Total	4,430,135.49	30.00	147,670.99	26.58	3,924,854.29

Composite Average Remaining Life ... 26.58 Years

Citizens Water
Water Division
339.40 Other Miscellaneous Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***R3***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1974	790,430.00	40.00	19,760.74	6.98	137,831.46
2009	283,910.00	40.00	7,097.75	32.72	232,253.31
2010	133,694.00	40.00	3,342.35	33.68	112,558.54
2011	200,000.00	40.00	5,000.00	34.64	173,181.10
2012	1,244,306.17	40.00	31,107.63	35.60	1,107,492.73
2015	265,294.36	40.00	6,632.35	38.53	255,515.25
Total	2,917,634.53	40.00	72,940.81	27.68	2,018,832.39

Composite Average Remaining Life ... 27.68 Years

Citizens Water
Water Division
340.51 Office Furniture

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *25* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2012	104,194.84	25.00	4,167.79	20.50	85,439.77
2014	4,708.66	25.00	188.35	22.50	4,237.79
2016	22,447.19	25.00	897.89	24.50	21,998.25
Total	131,350.69	25.00	5,254.03	21.26	111,675.81

Composite Average Remaining Life ... 21.26 Years

Citizens Water
Water Division
340.53 Computer Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2011	3,113.21	0.00	0.00	0.00	0.00
2012	55,467.61	5.00	11,093.52	0.50	5,546.76
2014	587,166.11	5.00	117,433.22	2.50	293,583.06
Total	645,746.93	3.33	128,526.74	2.33	299,129.82

Composite Average Remaining Life ... *2.33* ***Years***

Citizens Water
Water Division
340.54 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2013	4,000.00	5.00	800.00	1.50	1,200.00
2014	9,602.69	5.00	1,920.54	2.50	4,801.35
2015	1,880,445.92	5.00	376,089.18	3.50	1,316,312.14
Total	1,894,048.61	5.00	378,809.72	3.49	1,322,313.49

Composite Average Remaining Life ... *3.49* ***Years***

Citizens Water
Water Division
341.50 Transportation Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *12* ***Survivor Curve:*** *S3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1999	24,409.75	12.00	2,034.14	0.99	2,013.26
2000	40,121.00	12.00	3,343.42	1.17	3,906.32
2001	303,350.39	12.00	25,279.19	1.38	34,772.96
2002	32,667.00	12.00	2,722.25	1.61	4,393.31
2003	242,104.37	12.00	20,175.35	1.89	38,124.85
2004	376,101.69	12.00	31,341.79	2.21	69,293.09
2005	346,800.31	12.00	28,900.01	2.59	74,821.35
2006	318,328.20	12.00	26,527.34	3.03	80,504.56
2007	143,096.20	12.00	11,924.68	3.56	42,450.58
2008	758,450.63	12.00	63,204.19	4.17	263,866.94
2009	261,810.65	12.00	21,817.54	4.89	106,593.44
2012	1,339,239.58	12.00	111,603.25	7.52	839,721.16
2013	512,179.75	12.00	42,681.63	8.50	363,004.37
2014	893,419.25	12.00	74,451.57	9.50	707,327.48
2015	680,639.89	12.00	56,719.96	10.50	595,560.72
2016	575,751.81	12.00	47,979.30	11.50	551,762.16
Total	6,848,470.47	12.00	570,705.61	6.62	3,778,116.56

Composite Average Remaining Life ... *6.62* *Years*

Citizens Water
Water Division
343.50 Tools, Shop and Garage Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *20* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2013	33,202.79	20.00	1,660.14	16.50	27,392.30
2015	46,951.15	20.00	2,347.56	18.50	43,429.81
Total	80,153.94	20.00	4,007.70	17.67	70,822.12

Composite Average Remaining Life ... *17.67 Years*

Citizens Water
Water Division
344.50 Laboratory Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***15*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2012	248,813.64	15.00	16,587.58	10.50	174,169.55
2014	51,569.52	15.00	3,437.97	12.50	42,974.60
2015	70,694.09	15.00	4,712.94	13.50	63,624.68
2016	35,902.57	15.00	2,393.50	14.50	34,705.82
Total	406,979.82	15.00	27,131.99	11.63	315,474.65

Composite Average Remaining Life ... 11.63 Years

Citizens Water
Water Division
345.50 Power Operated Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *12* ***Survivor Curve:*** *L1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1995	2,195.00	12.00	182.91	2.86	522.50
1999	86,505.00	12.00	7,208.36	3.75	27,035.95
2001	57,458.00	12.00	4,787.90	4.25	20,345.16
2003	85,408.00	12.00	7,116.94	4.77	33,932.11
2004	408,249.00	12.00	34,018.89	5.03	171,131.91
2005	451,554.04	12.00	37,627.44	5.30	199,371.91
2006	287,430.29	12.00	23,951.21	5.58	133,573.10
2008	390,954.55	12.00	32,577.76	6.21	202,258.16
2009	300,130.00	12.00	25,009.46	6.59	164,837.41
2011	25,975.00	12.00	2,164.46	7.58	16,398.01
2012	5,139.24	12.00	428.25	8.21	3,515.45
2013	87,549.53	12.00	7,295.39	8.93	65,129.00
2014	207,601.98	12.00	17,299.22	9.72	168,156.44
2016	114,931.11	12.00	9,577.07	11.52	110,310.55
Total	2,511,080.74	12.00	209,245.27	6.29	1,316,517.66

Composite Average Remaining Life ... 6.29 Years

Westfield Water
Water Division
304.20 Structures and Improvements

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***50*** ***Survivor Curve:*** ***R3***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1984	11,256.71	50.00	225.13	20.97	4,720.23
1997	100,163.00	50.00	2,003.26	31.60	63,308.82
1999	102,742.24	50.00	2,054.84	33.38	68,591.90
2000	115,262.58	50.00	2,305.25	34.28	79,027.50
2002	17,516.00	50.00	350.32	36.11	12,648.67
2003	17,212.00	50.00	344.24	37.03	12,746.86
2007	12,750.00	50.00	255.00	40.78	10,399.93
2008	2,319.70	50.00	46.39	41.74	1,936.34
2012	8,694.00	50.00	173.88	45.59	7,927.83
2016	17,121.02	50.00	342.42	49.51	16,952.45
Total	405,037.25	50.00	8,100.74	34.35	278,260.52

Composite Average Remaining Life ... 34.35 Years

Westfield Water
Water Division
304.30 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1955	53,418.00	65.00	821.81	17.22	14,151.49
1972	6,000.00	65.00	92.31	27.53	2,540.85
1975	26,198.77	65.00	403.06	29.64	11,948.51
1977	143,461.00	65.00	2,207.09	31.10	68,639.25
1985	3,027.50	65.00	46.58	37.23	1,733.93
1986	113,123.64	65.00	1,740.36	38.02	66,176.89
1987	42,272.60	65.00	650.35	38.83	25,253.19
1988	2,206.00	65.00	33.94	39.64	1,345.35
1989	952.50	65.00	14.65	40.46	592.89
1990	3,462.56	65.00	53.27	41.28	2,199.17
1991	1,150.00	65.00	17.69	42.12	745.11
1994	24,094.17	65.00	370.68	44.64	16,548.05
1995	396,162.23	65.00	6,094.80	45.50	277,302.29
1997	153,292.84	65.00	2,358.35	47.22	111,370.84
1999	2,804,000.81	65.00	43,138.42	48.97	2,112,545.64
2000	163,630.04	65.00	2,517.38	49.85	125,499.43
2001	28,382.73	65.00	436.66	50.74	22,155.47
2003	677,317.60	65.00	10,420.26	52.53	547,329.27
2004	52,084.47	65.00	801.30	53.43	42,810.41
2005	219,604.09	65.00	3,378.52	54.33	183,555.49
2006	89,116.47	65.00	1,371.02	55.24	75,734.55
2007	776,818.31	65.00	11,951.04	56.15	671,069.73
2010	2,392,585.18	65.00	36,808.95	58.91	2,168,547.49
2013	10,438.26	65.00	160.59	61.71	9,909.38
2015	14,253.04	65.00	219.28	63.58	13,942.61

Westfield Water
Water Division
304.30 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***65*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	8,197,052.81	65.00	126,108.34	52.13	6,573,647.30

Composite Average Remaining Life ... ***52.13 Years***

Westfield Water
Water Division
307.20 Wells and Springs

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1929	4,960.00	55.00	90.18	1.32	119.03
1949	6,370.00	55.00	115.82	6.47	749.07
1955	7,900.00	55.00	143.64	8.40	1,207.00
1967	17,500.00	55.00	318.18	13.94	4,436.08
1974	55,907.49	55.00	1,016.50	18.27	18,569.66
1975	557.23	55.00	10.13	18.94	191.93
1976	2,325.00	55.00	42.27	19.63	829.79
1977	13,455.20	55.00	244.64	20.33	4,973.73
1978	36,897.70	55.00	670.87	21.04	14,117.72
1979	1,670.15	55.00	30.37	21.77	661.03
1980	57,228.21	55.00	1,040.51	22.50	23,415.99
1986	44,021.33	55.00	800.39	27.14	21,721.02
1988	34,759.34	55.00	631.99	28.76	18,176.08
1990	14,201.00	55.00	258.20	30.42	7,854.54
1995	5,985.00	55.00	108.82	34.72	3,778.08
1997	63,209.00	55.00	1,149.25	36.49	41,941.90
1998	188,566.28	55.00	3,428.48	37.39	128,199.75
2000	40,000.00	55.00	727.27	39.21	28,517.70
2001	16,282.00	55.00	296.04	40.13	11,880.29
2004	140,122.07	55.00	2,547.67	42.92	109,357.73
2007	17,263.00	55.00	313.87	45.77	14,365.14
2009	690,499.58	55.00	12,554.53	47.68	598,660.75
2010	251,742.98	55.00	4,577.14	48.65	222,678.31
2011	466,888.72	55.00	8,488.88	49.62	421,208.70
2012	147,162.84	55.00	2,675.69	50.59	135,365.63
2013	16,308.00	55.00	296.51	51.57	15,289.83
2015	180,154.08	55.00	3,275.53	53.52	175,321.11

Westfield Water
Water Division
307.20 Wells and Springs

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***55*** ***Survivor Curve:*** ***R3***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2016	58,334.19	55.00	1,060.62	54.51	57,811.98
Total	2,580,270.39	55.00	46,913.99	44.37	2,081,399.58

Composite Average Remaining Life ... ***44.37 Years***

Westfield Water
Water Division
309.20 Supply Mains

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *50* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1977	3,072.11	50.00	61.44	17.69	1,086.82
1980	11,750.00	50.00	235.00	19.63	4,613.10
1984	89,451.89	50.00	1,789.03	22.39	40,058.87
1986	858,326.66	50.00	17,166.49	23.84	409,230.62
1987	122,660.16	50.00	2,453.20	24.58	60,295.64
1988	96,846.52	50.00	1,936.93	25.33	49,058.39
1990	41,272.14	50.00	825.44	26.86	22,168.44
1991	79,234.00	50.00	1,584.68	27.63	43,792.52
1992	78,747.07	50.00	1,574.94	28.42	44,764.01
1993	278,757.00	50.00	5,575.13	29.22	162,902.17
1995	5,095.90	50.00	101.92	30.84	3,143.06
1997	30,892.00	50.00	617.84	32.49	20,075.09
1999	3,002,909.45	50.00	60,058.04	34.18	2,052,644.17
2000	211,038.30	50.00	4,220.76	35.03	147,860.25
2001	111,791.80	50.00	2,235.83	35.89	80,250.74
Total	5,021,845.00	50.00	100,436.65	31.28	3,141,943.90

Composite Average Remaining Life ... 31.28 Years

Westfield Water
Water Division
311.20 Pumping Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *40* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1955	2,350.00	40.00	58.75	4.76	279.82
1971	2,685.00	40.00	67.13	9.46	635.12
1977	1,145.80	40.00	28.65	11.69	334.95
1980	3,105.46	40.00	77.64	12.95	1,005.56
1981	6,504.00	40.00	162.60	13.40	2,178.16
1984	14,526.98	40.00	363.17	14.81	5,378.21
1985	3,360.00	40.00	84.00	15.31	1,285.85
1986	31,322.36	40.00	783.06	15.82	12,390.37
1987	1,000.00	40.00	25.00	16.35	408.82
1988	42,539.68	40.00	1,063.49	16.90	17,973.03
1989	6,850.12	40.00	171.25	17.46	2,990.51
1993	659.58	40.00	16.49	19.89	328.02
1995	26,542.01	40.00	663.55	21.22	14,080.37
1996	4,982.00	40.00	124.55	21.91	2,729.32
1997	5,200.51	40.00	130.01	22.62	2,941.52
1998	35,396.78	40.00	884.92	23.36	20,670.14
1999	47,162.00	40.00	1,179.05	24.11	28,426.21
2000	174,904.25	40.00	4,372.61	24.88	108,801.47
2001	17,228.00	40.00	430.70	25.67	11,057.53
2002	7,123.35	40.00	178.08	26.49	4,716.67
2004	9,235.00	40.00	230.88	28.17	6,502.70
2005	8,996.00	40.00	224.90	29.03	6,529.30
2006	14,089.00	40.00	352.23	29.92	10,537.77
2007	19,237.21	40.00	480.93	30.82	14,821.56
2008	28,988.00	40.00	724.70	31.74	22,999.52
2012	47,350.56	40.00	1,183.76	35.54	42,073.46
2013	9,374.55	40.00	234.36	36.52	8,559.16

Westfield Water
Water Division
311.20 Pumping Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***S1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2015	284,727.50	40.00	7,118.19	38.50	274,063.76
2016	66,555.46	40.00	1,663.89	39.50	65,723.73
Total	923,141.16	40.00	23,078.53	29.92	690,422.60

Composite Average Remaining Life ... ***29.92 Years***

Westfield Water
Water Division
320.30 Water Treatment Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *40* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1975	25,540.49	40.00	638.51	8.90	5,681.63
1976	60,348.26	40.00	1,508.70	9.34	14,084.47
1977	1,406.64	40.00	35.17	9.79	344.39
1978	3,766.78	40.00	94.17	10.27	967.56
1979	597.61	40.00	14.94	10.78	160.99
1980	796.24	40.00	19.91	11.30	224.94
1983	3,620.47	40.00	90.51	12.99	1,175.85
1984	2,724.70	40.00	68.12	13.59	926.02
1985	2,725.00	40.00	68.12	14.21	968.31
1986	305,810.84	40.00	7,645.25	14.85	113,547.61
1987	6,089.33	40.00	152.23	15.50	2,360.36
1997	27,650.00	40.00	691.25	22.82	15,772.38
1999	11,844.47	40.00	296.11	24.43	7,232.83
2001	1,555.00	40.00	38.87	26.08	1,013.75
2002	7,941.33	40.00	198.53	26.92	5,344.20
2003	3,371.00	40.00	84.27	27.77	2,340.16
2004	2,168.00	40.00	54.20	28.63	1,551.65
2005	33,329.48	40.00	833.23	29.50	24,577.24
2006	29,508.05	40.00	737.70	30.37	22,406.55
2007	217,501.50	40.00	5,437.52	31.26	169,966.96
2009	3,230.00	40.00	80.75	33.05	2,668.87
2010	1,419,312.96	40.00	35,482.70	33.96	1,204,947.25
2011	11,139.00	40.00	278.47	34.87	9,710.99
2012	11,063.70	40.00	276.59	35.79	9,899.91
2013	10,418.43	40.00	260.46	36.72	9,563.59
2014	49,903.85	40.00	1,247.59	37.65	46,971.59
2015	1,134,404.86	40.00	28,360.03	38.59	1,094,303.37

Westfield Water
Water Division
320.30 Water Treatment Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2016	148,236.09	40.00	3,705.89	39.53	146,485.65
Total	3,536,004.08	40.00	88,399.80	32.98	2,915,199.08

Composite Average Remaining Life ... ***32.98 Years***

Westfield Water
Water Division
330.40 Distribution Reservoirs and Standpipes
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R4*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1972	88,945.00	55.00	1,617.17	14.38	23,251.25
1978	68,448.75	55.00	1,244.52	18.81	23,411.47
1984	325,525.13	55.00	5,918.61	23.73	140,458.60
1985	4,122.87	55.00	74.96	24.60	1,843.74
1988	1,295.00	55.00	23.55	27.25	641.71
1993	621,696.00	55.00	11,303.51	31.87	360,290.59
1994	15,625.00	55.00	284.09	32.82	9,324.24
1995	507,907.60	55.00	9,234.64	33.77	311,898.64
2000	255,296.20	55.00	4,641.73	38.62	179,245.87
2003	24,141.70	55.00	438.94	41.56	18,244.25
2004	48,840.04	55.00	888.00	42.55	37,786.46
2005	28,970.04	55.00	526.73	43.54	22,934.88
2006	4,828.22	55.00	87.79	44.53	3,909.43
2007	611,897.31	55.00	11,125.35	45.53	506,502.18
Total	2,607,538.86	55.00	47,409.58	34.59	1,639,743.30

Composite Average Remaining Life ... 34.59 Years

Westfield Water
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *125* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1930	21,099.00	125.00	168.79	48.55	8,194.39
1937	1,200.00	125.00	9.60	53.73	515.80
1946	700.00	125.00	5.60	60.73	340.10
1949	1,400.00	125.00	11.20	63.14	707.18
1954	1,750.00	125.00	14.00	67.24	941.36
1956	4,950.00	125.00	39.60	68.91	2,728.77
1957	15,600.00	125.00	124.80	69.74	8,704.10
1961	3,250.00	125.00	26.00	73.14	1,901.74
1963	13,500.00	125.00	108.00	74.86	8,085.14
1965	4,550.00	125.00	36.40	76.60	2,788.20
1966	3,850.00	125.00	30.80	77.47	2,386.13
1967	20,300.00	125.00	162.40	78.35	12,723.23
1968	9,200.00	125.00	73.60	79.23	5,831.03
1972	125,000.00	125.00	1,000.00	82.78	82,777.09
1973	60,342.45	125.00	482.74	83.67	40,392.96
1974	35,960.98	125.00	287.69	84.57	24,331.09
1975	136,486.06	125.00	1,091.89	85.48	93,332.05
1976	123,447.88	125.00	987.58	86.38	85,310.85
1977	117,329.96	125.00	938.64	87.29	81,933.53
1978	80,189.28	125.00	641.51	88.20	56,583.01
1979	15,649.94	125.00	125.20	89.12	11,157.47
1980	170,622.32	125.00	1,364.98	90.04	122,896.34
1982	1,175.00	125.00	9.40	91.88	863.64
1983	15,300.00	125.00	122.40	92.80	11,359.11
1984	1,655.00	125.00	13.24	93.73	1,241.01
1985	142,876.46	125.00	1,143.01	94.66	108,201.47
1986	40,198.00	125.00	321.58	95.60	30,742.51

Westfield Water
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *125* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1987	127,920.89	125.00	1,023.37	96.53	98,786.86
1988	34,341.30	125.00	274.73	97.47	26,778.08
1989	71,166.89	125.00	569.34	98.41	56,029.27
1990	174,327.78	125.00	1,394.62	99.36	138,562.97
1991	35,420.82	125.00	283.37	100.30	28,421.87
1992	37,991.55	125.00	303.93	101.25	30,772.13
1993	46,160.89	125.00	369.29	102.20	37,740.04
1994	404,363.40	125.00	3,234.91	103.15	333,678.45
1995	712,273.77	125.00	5,698.19	104.10	593,201.27
1996	1,297,625.00	125.00	10,381.00	105.06	1,090,621.61
1997	752,634.39	125.00	6,021.08	106.02	638,328.50
1998	1,026,607.40	125.00	8,212.86	106.98	878,578.08
1999	651,934.05	125.00	5,215.47	107.94	562,946.27
2000	1,279,985.20	125.00	10,239.88	108.90	1,115,135.02
2001	345,421.61	125.00	2,763.37	109.87	303,601.13
2002	234,037.20	125.00	1,872.30	110.83	207,509.47
2003	113,583.95	125.00	908.67	111.80	101,589.54
2004	527,512.47	125.00	4,220.10	112.77	475,900.88
2005	14,478.00	125.00	115.82	113.74	13,173.98
2006	4,470,224.01	125.00	35,761.80	114.71	4,102,380.06
2007	2,144,652.00	125.00	17,157.22	115.69	1,984,866.88
2008	904,658.69	125.00	7,237.27	116.66	844,319.46
2009	725,734.50	125.00	5,805.88	117.64	683,000.72
2010	852,869.55	125.00	6,822.96	118.62	809,322.33
2011	210,268.48	125.00	1,682.15	119.60	201,179.16
2012	979,431.92	125.00	7,835.46	120.58	944,767.15
2013	2,356,963.94	125.00	18,855.71	121.56	2,292,052.89

Westfield Water
Water Division
331.40 Transmission and Distribution Mains
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *125* ***Survivor Curve:*** *R3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2014	2,969,066.12	125.00	23,752.53	122.54	2,910,634.86
2015	4,188,750.35	125.00	33,510.01	123.52	4,139,270.18
2016	5,205,622.04	125.00	41,644.98	124.51	5,185,121.24
Total	34,063,610.49	125.00	272,508.92	116.09	31,635,239.62

Composite Average Remaining Life ... *116.0 Years*

Westfield Water
Water Division
333.40 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *70* ***Survivor Curve:*** *R4*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1980	496.80	70.00	7.10	34.48	244.73
1987	2,617.89	70.00	37.40	40.95	1,531.62
1988	25,660.69	70.00	366.58	41.90	15,360.39
1991	2,148.00	70.00	30.69	44.78	1,373.97
2001	682.75	70.00	9.75	54.56	532.18
2012	3,275.00	70.00	46.79	65.51	3,064.73
2014	98,516.29	70.00	1,407.37	67.50	95,001.32
2015	303,544.60	70.00	4,336.33	68.50	297,045.98
2016	483,746.15	70.00	6,910.63	69.50	480,293.49
Total	920,688.17	70.00	13,152.62	68.01	894,448.40

Composite Average Remaining Life ... ***68.01 Years***

Westfield Water
Water Division
334.40 Meters and Meter Installations

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *43* ***Survivor Curve:*** *S0*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1960	7,784.08	43.00	181.03	11.33	2,051.36
1980	3,694.97	43.00	85.93	20.08	1,725.67
1981	2,549.32	43.00	59.29	20.56	1,218.73
1982	4,709.50	43.00	109.52	21.04	2,303.88
1983	460.00	43.00	10.70	21.52	230.20
1984	4,911.00	43.00	114.21	22.01	2,513.39
1985	2,820.00	43.00	65.58	22.50	1,475.61
1986	3,600.00	43.00	83.72	23.00	1,925.48
1987	7,366.13	43.00	171.31	23.50	4,026.11
1988	42,473.41	43.00	987.76	24.01	23,718.57
1989	36,763.74	43.00	854.97	24.53	20,970.80
1990	36,114.45	43.00	839.87	25.05	21,038.44
1991	37,373.40	43.00	869.15	25.58	22,231.45
1992	34,707.26	43.00	807.15	26.11	21,077.27
1993	45,434.94	43.00	1,056.63	26.66	28,164.60
1994	59,054.59	43.00	1,373.37	27.21	37,362.99
1995	64,334.99	43.00	1,496.17	27.76	41,537.67
1996	53,656.83	43.00	1,247.84	28.33	35,348.79
1997	71,345.70	43.00	1,659.21	28.90	47,956.29
1998	122,430.05	43.00	2,847.22	29.49	83,954.39
1999	199,611.90	43.00	4,642.16	30.08	139,631.92
2000	165,240.96	43.00	3,842.83	30.68	117,910.34
2001	113,797.55	43.00	2,646.47	31.30	82,826.68
2002	104,005.31	43.00	2,418.74	31.92	77,211.15
2003	126,985.19	43.00	2,953.16	32.56	96,156.54
2004	280,259.65	43.00	6,517.69	33.21	216,458.70
2005	251,490.10	43.00	5,848.63	33.87	198,120.55

Westfield Water
Water Division
334.40 Meters and Meter Installations

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *43* ***Survivor Curve:*** *S0*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2006	316,717.83	43.00	7,365.56	34.55	254,515.41
2007	216,024.96	43.00	5,023.86	35.25	177,088.35
2008	20,129.55	43.00	468.13	35.96	16,834.36
2009	14,885.06	43.00	346.17	36.69	12,701.65
2011	47,517.00	43.00	1,105.05	38.21	42,228.73
2012	58,638.85	43.00	1,363.70	39.01	53,201.05
2013	391,176.95	43.00	9,097.18	39.84	362,391.33
2014	476,835.05	43.00	11,089.23	40.69	451,205.14
2015	431,168.21	43.00	10,027.21	41.58	416,929.46
2016	131,801.88	43.00	3,065.17	42.51	130,307.35
Total	3,987,870.36	43.00	92,741.57	35.01	3,246,550.41

Composite Average Remaining Life ... 35.01 Years

Westfield Water
Water Division
335.40 Hydrants

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *65* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1930	1,760.00	65.00	27.08	8.36	226.35
1946	110.00	65.00	1.69	13.21	22.36
1956	750.00	65.00	11.54	17.73	204.62
1957	1,050.00	65.00	16.15	18.26	294.92
1961	450.00	65.00	6.92	20.49	141.83
1963	2,000.00	65.00	30.77	21.67	666.79
1966	1,650.00	65.00	25.38	23.53	597.29
1972	1,875.00	65.00	28.85	27.53	794.02
1973	900.00	65.00	13.85	28.22	390.78
1975	2,100.00	65.00	32.31	29.64	957.75
1978	1,800.00	65.00	27.69	31.84	881.73
1980	4,900.00	65.00	75.38	33.34	2,513.49
1981	1,250.00	65.00	19.23	34.10	655.83
1983	1,144.76	65.00	17.61	35.65	627.85
1984	584.00	65.00	8.98	36.44	327.36
1985	2,903.00	65.00	44.66	37.23	1,662.63
1986	1,267.00	65.00	19.49	38.02	741.19
1987	3,089.35	65.00	47.53	38.83	1,845.54
1988	13,174.38	65.00	202.68	39.64	8,034.55
1989	4,508.29	65.00	69.36	40.46	2,806.23
1990	1,365.13	65.00	21.00	41.28	867.03
1995	5,679.21	65.00	87.37	45.50	3,975.29
1997	2,005.00	65.00	30.85	47.22	1,456.68
1998	847.00	65.00	13.03	48.10	626.72
1999	19,404.02	65.00	298.52	48.97	14,619.07
2001	2,816.83	65.00	43.34	50.74	2,198.81
2002	2,811.06	65.00	43.25	51.63	2,232.86

Westfield Water
Water Division
335.40 Hydrants

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***65*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2006	12,420.00	65.00	191.08	55.24	10,554.99
2007	11,850.00	65.00	182.31	56.15	10,236.85
2012	208,330.00	65.00	3,205.07	60.77	194,779.24
2013	284,649.77	65.00	4,379.22	61.71	270,227.33
2014	207,492.00	65.00	3,192.18	62.64	199,970.07
2015	684,637.99	65.00	10,532.88	63.58	669,726.66
2016	1,125,800.80	65.00	17,319.99	64.53	1,117,610.98
Total	2,617,374.59	65.00	40,267.25	62.67	2,523,475.67

Composite Average Remaining Life ... ***62.67 Years***

Westfield Water
Water Division
339.20 Other Miscellaneous Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***30*** ***Survivor Curve:*** ***R3***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1998	1,730.00	30.00	57.67	13.34	769.21
2009	3,960.00	30.00	132.00	22.78	3,006.34
2016	7,376.18	30.00	245.87	29.51	7,255.16
Total	13,066.18	30.00	435.54	25.33	11,030.71

Composite Average Remaining Life ... ***25.33 Years***

Westfield Water
Water Division
339.40 Other Miscellaneous Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***R3***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2015	25,718.30	40.00	642.96	38.53	24,770.29
Total	25,718.30	40.00	642.96	38.53	24,770.29

Composite Average Remaining Life ... ***38.53 Years***

Westfield Water
Water Division
340.53 Computer Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2002	188.44	0.00	0.00	0.00	0.00
2006	32,719.02	0.00	0.00	0.00	0.00
2007	79,915.00	0.00	0.00	0.00	0.00
2011	7,148.00	0.00	0.00	0.00	0.00
2014	15,180.00	5.00	3,036.00	2.50	7,590.00
Total	135,150.46	1.00	3,036.00	2.50	7,590.00

Composite Average Remaining Life ... 2.50 Years

Westfield Water
Water Division
340.54 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2007	935.00	0.00	0.00	0.00	0.00
2011	9,653.00	0.00	0.00	0.00	0.00
2013	152,436.45	5.00	30,487.29	1.50	45,730.94
2016	494,975.18	5.00	98,995.04	4.50	445,477.66
Total	657,999.63	2.50	129,482.33	3.79	491,208.60

Composite Average Remaining Life ... 3.79 Years

Westfield Water
Water Division
341.50 Transportation Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *12* ***Survivor Curve:*** *S3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1988	699.18	0.00	0.00	0.00	0.00
2001	9,584.17	12.00	798.68	1.38	1,098.63
2002	8,726.17	12.00	727.18	1.61	1,173.56
2003	62,648.00	12.00	5,220.66	1.89	9,865.35
2006	40,404.98	12.00	3,367.08	3.03	10,218.34
2007	35,074.96	12.00	2,922.91	3.56	10,405.25
2014	26,907.20	12.00	2,242.27	9.50	21,302.66
2015	26,000.46	12.00	2,166.70	10.50	22,750.43
Total	210,045.12	10.50	17,445.49	4.40	76,814.23

Composite Average Remaining Life ... 4.40 Years

Westfield Water
Water Division
344.50 Laboratory Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *15* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1999	5,827.50	0.00	0.00	0.00	0.00
2004	13,811.50	15.00	920.77	2.50	2,301.92
2013	5,410.95	15.00	360.73	11.50	4,148.40
2016	3,460.55	15.00	230.70	14.50	3,345.20
Total	28,510.50	11.25	1,512.20	6.48	9,795.51

Composite Average Remaining Life ... 6.48 Years

Westfield Water
Water Division
345.50 Power Operated Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *12* ***Survivor Curve:*** *L1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1988	1,890.96	12.00	157.57	1.64	257.75
1998	2,362.50	12.00	196.86	3.51	691.53
2002	2,687.50	12.00	223.95	4.51	1,009.33
2003	139.98	12.00	11.66	4.77	55.61
2005	41,700.00	12.00	3,474.81	5.30	18,411.55
Total	48,780.94	12.00	4,064.86	5.02	20,425.77

Composite Average Remaining Life ... 5.02 Years

Westfield Water
Water Division
347.50 Miscellaneous Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *20* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1988	3,159.19	0.00	0.00	0.00	0.00
1989	1,395.59	0.00	0.00	0.00	0.00
1990	2,214.84	0.00	0.00	0.00	0.00
1996	9,254.25	0.00	0.00	0.00	0.00
1997	1,448.56	20.00	72.43	0.50	36.21
1998	2,733.22	20.00	136.66	1.50	204.99
1999	1,215.00	20.00	60.75	2.50	151.88
2000	23,436.30	20.00	1,171.82	3.50	4,101.35
2001	2,676.45	20.00	133.82	4.50	602.20
2006	7,032.91	20.00	351.65	9.50	3,340.63
2012	2,505.00	20.00	125.25	15.50	1,941.38
2016	44,292.97	20.00	2,214.65	19.50	43,185.65
Total	101,364.28	13.33	4,267.02	12.55	53,564.29

Composite Average Remaining Life ... 12.55 Years

Westfield Water
Water Division
348.50 Other Tangible Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *20* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2003	2,104.00	20.00	105.20	6.50	683.80
2005	647.00	20.00	32.35	8.50	274.98
2007	2,732.79	20.00	136.64	10.50	1,434.71
Total	5,483.79	20.00	274.19	8.73	2,393.49

Composite Average Remaining Life ... 8.73 Years

Citizens Wastewater
Wastewater Division
354.30 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1956	730,666.00	55.00	13,284.81	10.86	144,264.24
1957	216,943.00	55.00	3,944.41	11.24	44,335.12
1969	1,095,999.00	55.00	19,927.21	17.02	339,240.50
1977	3,952,324.00	55.00	71,860.29	22.03	1,582,933.20
1978	839,986.00	55.00	15,272.44	22.71	346,802.46
1979	1,477,030.00	55.00	26,855.04	23.40	628,355.76
1980	2,278,091.00	55.00	41,419.75	24.10	998,159.78
1981	1,495,199.00	55.00	27,185.38	24.81	674,392.87
1982	6,709,421.00	55.00	121,989.22	25.53	3,114,190.60
1983	3,609,834.00	55.00	65,633.21	26.26	1,723,466.02
1985	1,782,759.22	55.00	32,413.74	27.75	899,410.81
1986	7,317,206.00	55.00	133,039.84	28.51	3,792,377.46
1987	4,326,210.12	55.00	78,658.20	29.27	2,302,372.62
1988	571,030.00	55.00	10,382.34	30.05	311,950.95
1990	313,377.00	55.00	5,697.75	31.62	180,176.67
1991	416,296.00	55.00	7,569.00	32.42	245,406.09
1993	11,283,093.00	55.00	205,146.73	34.05	6,984,258.89
1996	316,353.00	55.00	5,751.86	36.54	210,162.47
1999	6,183,705.00	55.00	112,430.77	39.09	4,395,299.81
2009	135,000.00	55.00	2,454.54	48.01	117,833.24
2011	3,409,373.00	55.00	61,988.47	49.85	3,090,125.18
2012	5,403,893.77	55.00	98,252.41	50.78	4,989,067.61
2013	150,874.57	55.00	2,743.17	51.71	141,849.32
2014	2,024,648.11	55.00	36,811.71	52.65	1,937,954.82
2015	815,862.99	55.00	14,833.84	53.58	794,865.38
2016	46,458.54	55.00	844.70	54.53	46,059.30

Citizens Wastewater
Wastewater Division
354.30 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	66,901,633.32	55.00	1,216,390.84	32.91	40,035,311.16

Composite Average Remaining Life ... *32.91 Years*

Citizens Wastewater
Wastewater Division
354.40 Structures and Improvements
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***65*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1955	5,208,315.00	65.00	80,127.82	17.22	1,379,785.74
1966	11,850,071.00	65.00	182,308.54	23.53	4,289,658.88
1968	11,480,674.00	65.00	176,625.52	24.82	4,384,225.76
1970	3,144,184.00	65.00	48,372.00	26.15	1,265,117.36
1979	18,558,033.00	65.00	285,507.82	32.59	9,303,553.86
1980	6,750,583.00	65.00	103,854.99	33.34	3,462,758.16
1982	111,295,646.03	65.00	1,712,238.44	34.87	59,713,322.80
1987	15,996,490.00	65.00	246,099.52	38.83	9,556,130.42
1997	883,395.00	65.00	13,590.67	47.22	641,807.14
1999	12,027,954.00	65.00	185,045.20	48.97	9,061,909.58
2000	17,760,230.00	65.00	273,233.94	49.85	13,621,574.05
2005	61,732,766.53	65.00	949,733.61	54.33	51,599,168.66
2006	7,714,422.00	65.00	118,683.26	55.24	6,556,007.44
2009	7,163,253.00	65.00	110,203.75	57.99	6,390,576.72
2010	64,523.00	65.00	992.66	58.91	58,481.17
2011	18,532,676.15	65.00	285,117.72	59.84	17,061,860.56
2012	78,722,201.67	65.00	1,211,109.19	60.77	73,601,739.20
2013	18,745,469.44	65.00	288,391.45	61.71	17,795,687.07
2014	15,714,231.55	65.00	241,757.09	62.64	15,144,564.25
2015	26,404,458.23	65.00	406,221.90	63.58	25,829,372.57
2016	31,231,408.94	65.00	480,482.58	64.53	31,004,211.10
Total	480,980,985.54	65.00	7,399,697.65	48.88	361,721,512.52

Composite Average Remaining Life ... 48.88 Years

Citizens Wastewater
Wastewater Division
360.20 Collection Sewers - Force

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***60*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1950	74,827.00	60.00	1,247.12	11.66	14,542.22
1970	2,269,298.00	60.00	37,821.59	21.80	824,326.90
1980	193,462.00	60.00	3,224.36	28.68	92,472.04
2010	822,986.92	60.00	13,716.43	53.92	739,577.70
2011	5,496,222.25	60.00	91,603.60	54.85	5,024,027.12
2012	1,808,544.12	60.00	30,142.37	55.78	1,681,191.13
2013	563,847.38	60.00	9,397.45	56.71	532,908.90
2014	3,003,495.76	60.00	50,058.20	57.64	2,885,590.47
2015	207,658.25	60.00	3,460.97	58.58	202,756.98
2016	61,397.00	60.00	1,023.28	59.53	60,913.25
Total	14,501,738.68	60.00	241,695.36	49.89	12,058,306.70

Composite Average Remaining Life ... 49.89 Years

Citizens Wastewater
Wastewater Division
361.20 Collecting Sewers - Gravity

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *60* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1920	2,737,504.00	60.00	45,625.02	6.04	275,669.34
1925	8,675,225.00	60.00	144,586.94	7.33	1,060,021.88
1930	35,763.00	60.00	596.05	8.65	5,157.00
1935	296,249.00	60.00	4,937.48	10.04	49,595.56
1950	2,130,987.00	60.00	35,516.41	14.80	525,594.12
1960	1,314,539.00	60.00	21,908.96	18.67	409,068.51
1965	27,601,895.00	60.00	460,031.12	20.89	9,611,372.39
1969	582,008,203.00	60.00	9,700,126.93	22.83	221,489,324.98
1970	97,684,368.00	60.00	1,628,071.16	23.34	38,004,846.97
1975	27,151,451.00	60.00	452,523.73	26.05	11,788,465.97
1980	19,761,095.00	60.00	329,351.25	29.04	9,565,113.79
1990	32,412,071.00	60.00	540,200.64	35.97	19,433,504.71
2009	36,459,515.05	60.00	607,657.97	52.58	31,952,386.56
2010	36,736,941.14	60.00	612,281.73	53.56	32,791,678.77
2011	60,764,749.44	60.00	1,012,744.80	54.54	55,231,133.74
2012	81,332,138.89	60.00	1,355,534.28	55.52	75,260,539.27
2013	54,138,138.87	60.00	902,301.40	56.51	50,989,248.66
2014	36,066,052.62	60.00	601,100.27	57.50	34,565,792.05
2015	11,089,637.01	60.00	184,827.10	58.50	10,812,510.45
2016	2,834,450.03	60.00	47,240.79	59.50	2,810,829.81
Total	1,121,230,973.05	60.00	18,687,164.02	32.46	606,631,854.52

Composite Average Remaining Life ... 32.46 Years

Citizens Wastewater
Wastewater Division
362.20 Special Collecting Structures
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *45* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1969	44,849,174.00	45.00	996,648.38	10.45	10,416,260.90
1995	21,998,365.00	45.00	488,852.59	24.84	12,142,030.47
2006	4,408,241.00	45.00	97,960.92	34.59	3,388,377.19
2008	79,819,759.00	45.00	1,773,772.55	36.54	64,808,031.42
2011	991,510.00	45.00	22,033.56	39.51	870,451.22
2012	6,041.62	45.00	134.26	40.50	5,437.77
2013	38,670.71	45.00	859.35	41.50	35,663.61
2014	3,104,199.34	45.00	68,982.21	42.50	2,931,752.71
Total	155,215,960.67	45.00	3,449,243.82	27.43	94,598,005.29

Composite Average Remaining Life ... 27.43 Years

Citizens Wastewater
Wastewater Division
362.22 Special Collecting Structures - Drop Shafts
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *45* ***Survivor Curve:*** *S2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2013	10,811,927.03	45.00	240,265.06	41.50	9,971,173.22
2014	7,712,986.95	45.00	171,399.72	42.50	7,284,509.77
2015	14,591,012.31	45.00	324,244.74	43.50	14,104,650.59
Total	33,115,926.29	45.00	735,909.53	42.61	31,360,333.58

Composite Average Remaining Life ... 42.61 Years

Citizens Wastewater
Wastewater Division
371.30 Pumping Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1977	2,098,479.00	40.00	52,461.68	11.31	593,230.74
1985	260,508.11	40.00	6,512.67	15.64	101,878.50
1987	3,332,086.60	40.00	83,301.70	16.87	1,405,243.18
1988	1,672,598.00	40.00	41,814.72	17.50	731,893.35
1989	3,828,065.00	40.00	95,701.09	18.15	1,736,849.01
1990	2,925,106.00	40.00	73,127.24	18.81	1,375,402.16
1991	2,012,156.00	40.00	50,303.62	19.48	979,862.57
1992	6,187,517.00	40.00	154,687.07	20.16	3,118,985.09
1993	9,352,126.00	40.00	233,801.85	20.86	4,876,606.29
1995	5,559,082.00	40.00	138,976.28	22.28	3,096,822.56
1996	2,634,647.00	40.00	65,865.81	23.01	1,515,774.39
1998	1,338,465.00	40.00	33,461.44	24.50	819,930.39
1999	3,786,213.00	40.00	94,654.80	25.26	2,391,358.73
2002	3,418,773.00	40.00	85,468.85	27.61	2,359,487.06
2003	2,230,433.00	40.00	55,760.52	28.41	1,583,900.50
2006	335,124.00	40.00	8,378.05	30.86	258,532.72
2009	1,853,178.00	40.00	46,329.19	33.39	1,546,755.61
2010	122,416.70	40.00	3,060.40	34.25	104,804.20
2011	3,851,527.39	40.00	96,287.65	35.11	3,380,758.07
2012	17,937,571.32	40.00	448,436.79	35.98	16,136,969.83
2013	598,080.17	40.00	14,951.92	36.87	551,205.14
2014	4,130,590.66	40.00	103,264.19	37.75	3,898,536.25
2015	1,014,861.54	40.00	25,371.40	38.65	980,524.03
Total	80,479,604.49	40.00	2,011,978.94	26.61	53,545,310.38

Composite Average Remaining Life ... 26.61 Years

Citizens Wastewater
Wastewater Division
380.40 Treatment and Disposal Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *S1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1955	2,191,353.00	35.00	62,610.09	2.33	145,938.62
1966	7,033,100.00	35.00	200,945.74	5.61	1,127,755.28
1968	6,228,744.00	35.00	177,964.14	6.26	1,114,655.19
1970	10,403,711.00	35.00	297,248.92	6.93	2,060,167.66
1979	18,201,968.00	35.00	520,056.30	10.22	5,317,275.91
1980	9,024,261.00	35.00	257,836.06	10.62	2,739,438.05
1982	146,183,605.00	35.00	4,176,674.98	11.45	47,822,433.93
1985	1,254,604.00	35.00	35,845.83	12.75	457,210.96
1987	25,647,808.00	35.00	732,794.61	13.68	10,021,022.15
1995	163,661,757.00	35.00	4,676,050.81	17.85	83,459,039.61
1997	810,000.00	35.00	23,142.86	19.04	440,617.19
1999	14,824,142.00	35.00	423,546.97	20.30	8,598,776.51
2000	16,563,650.00	35.00	473,247.20	20.96	9,920,014.15
2002	4,500,000.00	35.00	128,571.45	22.34	2,872,494.96
2003	5,993,448.00	35.00	171,241.39	23.06	3,949,161.62
2004	3,523,500.00	35.00	100,671.44	23.81	2,396,613.36
2005	20,676,661.00	35.00	590,761.82	24.57	14,516,972.85
2006	23,634,752.00	35.00	675,278.72	25.36	17,127,460.41
2007	3,952,215.00	35.00	112,920.44	26.18	2,955,962.21
2008	18,000,000.00	35.00	514,285.78	27.02	13,893,473.19
2009	4,020,355.00	35.00	114,867.30	27.88	3,202,116.50
2011	11,727,920.76	35.00	335,083.49	29.67	9,941,710.67
2012	2,844,778.30	35.00	81,279.39	30.60	2,487,164.31
2013	7,637,422.81	35.00	218,212.11	31.55	6,884,903.91
2014	14,348,999.08	35.00	409,971.46	32.52	13,332,612.84
2015	74,030,775.82	35.00	2,115,165.30	33.51	70,869,115.23
2016	56,169,526.00	35.00	1,604,843.81	34.50	55,367,604.13

Citizens Wastewater
Wastewater Division
380.40 Treatment and Disposal Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***35*** ***Survivor Curve:*** ***S1***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	673,089,056.77	35.00	19,231,118.43	20.44	393,021,711.40

Composite Average Remaining Life ... 20.44 Years

Citizens Wastewater
Wastewater Division
390.71 Office Furniture

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *25* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2011	17,399.42	25.00	695.98	19.50	13,571.55
2012	5,680.80	25.00	227.23	20.50	4,658.26
2014	127,840.95	25.00	5,113.64	22.50	115,056.86
Total	150,921.17	25.00	6,036.85	22.08	133,286.66

Composite Average Remaining Life ... 22.08 Years

Citizens Wastewater
Wastewater Division
390.73 Computer Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2011	760,507.02	0.00	0.00	0.00	0.00
2013	89,122.29	5.00	17,824.46	1.50	26,736.69
2014	1,676,769.45	5.00	335,353.89	2.50	838,384.73
2015	851,271.10	5.00	170,254.22	3.50	595,889.77
Total	3,377,669.86	3.75	523,432.57	2.79	1,461,011.18

Composite Average Remaining Life ... 2.79 Years

Citizens Wastewater
Wastewater Division
390.74 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2011	339,468.01	0.00	0.00	0.00	0.00
2012	101,566.49	5.00	20,313.30	0.50	10,156.65
2013	195,050.98	5.00	39,010.20	1.50	58,515.29
2014	62,308.93	5.00	12,461.79	2.50	31,154.47
2015	15,241.82	5.00	3,048.36	3.50	10,669.27
Total	713,636.23	4.00	74,833.64	1.48	110,495.68

Composite Average Remaining Life ... 1.48 Years

Citizens Wastewater
Wastewater Division
391.70 Transportation Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *10* ***Survivor Curve:*** *L3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1995	4,510.00	10.00	451.01	0.61	273.52
1996	2,460.00	10.00	246.00	0.76	186.21
1997	1,312.00	10.00	131.20	0.93	122.33
1998	4,510.00	10.00	451.01	1.12	507.24
2002	11,972.00	10.00	1,197.22	2.04	2,437.41
2004	984.00	10.00	98.40	2.54	250.08
2005	1,312.00	10.00	131.20	2.76	362.35
2012	754,937.30	10.00	75,494.90	5.68	429,153.73
2013	501,967.69	10.00	50,197.55	6.58	330,120.53
2014	1,031,725.14	10.00	103,174.12	7.52	775,817.66
2015	1,407,519.08	10.00	140,754.10	8.50	1,196,565.92
2016	916,701.98	10.00	91,671.62	9.50	870,866.17
Total	4,639,911.19	10.00	463,998.34	7.77	3,606,663.16

Composite Average Remaining Life ... 7.77 Years

Citizens Wastewater
Wastewater Division
395.70 Power Operated Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *12* ***Survivor Curve:*** *L1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2016	97,575.64	12.00	8,130.86	11.52	93,652.82
Total	97,575.64	12.00	8,130.86	11.52	93,652.82

Composite Average Remaining Life ... *11.52 Years*

Westfield Wastewater
Wastewater Division
354.20 Structures and Improvements - Collection
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***45*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2004	647.14	45.00	14.38	33.57	482.70
Total	647.14	45.00	14.38	33.57	482.70

Composite Average Remaining Life ... ***33.57 Years***

Westfield Wastewater
Wastewater Division
354.30 Structures and Improvements - Pumping
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1964	35,000.00	55.00	636.36	14.34	9,126.42
1980	20,000.00	55.00	363.64	24.10	8,763.12
1981	25,000.00	55.00	454.54	24.81	11,275.97
2000	419.86	55.00	7.63	39.96	305.04
2002	134,301.67	55.00	2,441.84	41.71	101,845.46
2003	9,461.37	55.00	172.02	42.59	7,326.69
2004	115,655.87	55.00	2,102.83	43.48	91,432.54
2005	15,688.30	55.00	285.24	44.38	12,657.83
2006	130,301.88	55.00	2,369.12	45.28	107,264.93
2007	409,222.21	55.00	7,440.39	46.18	343,609.77
2008	365,480.28	55.00	6,645.08	47.09	312,929.99
2010	11,090.00	55.00	201.64	48.93	9,865.24
2012	27,235.00	55.00	495.18	50.78	25,144.32
2015	97,309.58	55.00	1,769.26	53.58	94,805.15
2016	399,590.08	55.00	7,265.26	54.53	396,156.22
Total	1,795,756.10	55.00	32,650.04	46.94	1,532,508.70

Composite Average Remaining Life ... 46.94 Years

Westfield Wastewater
Wastewater Division
354.40 Structures and Improvements - Treatment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***65*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1977	169,093.13	65.00	2,601.43	31.10	80,903.00
1979	6,097.41	65.00	93.81	32.59	3,056.77
1980	7,000.00	65.00	107.69	33.34	3,590.70
1986	800.00	65.00	12.31	38.02	468.00
1989	952.50	65.00	14.65	40.46	592.89
1990	586.55	65.00	9.02	41.28	372.53
1991	748,765.00	65.00	11,519.45	42.12	485,142.23
1995	41,003.00	65.00	630.81	45.50	28,700.93
1998	5,941,148.42	65.00	91,402.16	48.10	4,396,036.34
1999	187,683.90	65.00	2,887.44	48.97	141,401.82
2000	21,812.00	65.00	335.57	49.85	16,729.16
2001	26,695.29	65.00	410.70	50.74	20,838.26
2002	3,097.60	65.00	47.66	51.63	2,460.47
2003	47,143.80	65.00	725.29	52.53	38,096.13
2004	20,700.50	65.00	318.47	53.43	17,014.61
2005	7,443,339.92	65.00	114,512.77	54.33	6,221,495.87
2006	464,451.44	65.00	7,145.40	55.24	394,708.39
2007	1,601,972.22	65.00	24,645.69	56.15	1,383,895.12
2008	79,420.00	65.00	1,221.84	57.07	69,729.44
2013	7,874.00	65.00	121.14	61.71	7,475.05
Total	16,819,636.68	65.00	258,763.30	51.45	13,312,707.71

Composite Average Remaining Life ... 51.45 Years

Westfield Wastewater
Wastewater Division
360.20 Collection Sewers - Force

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***60*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1964	618,000.00	60.00	10,299.99	18.18	187,287.84
1980	224,000.00	60.00	3,733.33	28.68	107,068.77
1981	80,700.42	60.00	1,345.01	29.42	39,569.31
1982	2,483.72	60.00	41.40	30.17	1,248.80
1984	1,075.00	60.00	17.92	31.69	567.74
1985	99,535.03	60.00	1,658.92	32.46	53,845.47
1987	2,980.00	60.00	49.67	34.03	1,690.05
1988	1,505.00	60.00	25.08	34.82	873.49
1991	17,922.00	60.00	298.70	37.25	11,126.89
1992	80,465.00	60.00	1,341.08	38.08	51,063.18
1994	120,568.00	60.00	2,009.46	39.75	79,866.27
1995	1,255,806.03	60.00	20,930.08	40.59	849,515.32
1996	112,869.93	60.00	1,881.16	41.44	77,953.70
1997	170,983.00	60.00	2,849.71	42.29	120,526.41
1998	128,946.06	60.00	2,149.10	43.16	92,750.04
1999	287,701.21	60.00	4,795.01	44.03	211,107.99
2000	784,095.52	60.00	13,068.24	44.90	586,757.09
2001	47,630.76	60.00	793.85	45.78	36,342.19
2002	77,274.89	60.00	1,287.91	46.67	60,101.07
2003	13,286.00	60.00	221.43	47.55	10,530.17
2005	1,635.72	60.00	27.26	49.35	1,345.41
2007	1,106,903.16	60.00	18,448.36	51.17	943,914.62
2008	24,674.00	60.00	411.23	52.08	21,416.75
2010	24,000.00	60.00	400.00	53.92	21,567.61
2013	222,420.00	60.00	3,707.00	56.71	210,215.74
2014	106,103.15	60.00	1,768.38	57.64	101,937.96
2015	951,830.96	60.00	15,863.83	58.58	929,365.31

Westfield Wastewater
Wastewater Division
360.20 Collection Sewers - Force

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***60*** ***Survivor Curve:*** ***R2.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2016	492,508.62	60.00	8,208.47	59.53	488,628.10
Total	7,057,903.18	60.00	117,631.58	45.04	5,298,183.26

Composite Average Remaining Life ... 45.04 Years

Westfield Wastewater
Wastewater Division
361.20 Collecting Sewers - Gravity

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *60* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1974	18,230.75	60.00	303.85	25.49	7,743.90
1975	700.00	60.00	11.67	26.05	303.92
1976	214,958.93	60.00	3,582.65	26.63	95,390.06
1977	99,529.00	60.00	1,658.81	27.21	45,137.88
1978	51,362.11	60.00	856.03	27.81	23,806.43
1979	259,497.49	60.00	4,324.95	28.42	122,906.97
1980	117,622.95	60.00	1,960.38	29.04	56,933.94
1981	646.90	60.00	10.78	29.68	319.98
1982	83,255.00	60.00	1,387.58	30.33	42,080.11
1984	49,299.00	60.00	821.65	31.66	26,013.01
1985	136,373.00	60.00	2,272.88	32.34	73,511.98
1986	2,354,544.72	60.00	39,242.37	33.04	1,296,729.81
1987	26,791.00	60.00	446.52	33.76	15,073.33
1988	64,206.26	60.00	1,070.10	34.48	36,901.10
1989	31,295.00	60.00	521.58	35.22	18,370.84
1990	112,820.00	60.00	1,880.33	35.97	67,644.18
1991	8,808.00	60.00	146.80	36.74	5,393.06
1992	16,698.50	60.00	278.31	37.52	10,441.55
1993	223,078.77	60.00	3,717.98	38.31	142,438.74
1994	661,788.75	60.00	11,029.80	39.12	431,442.40
1995	197,433.00	60.00	3,290.55	39.93	131,400.19
1996	1,102,744.00	60.00	18,379.05	40.76	749,206.22
1997	808,079.50	60.00	13,467.98	41.60	560,333.40
1998	3,656,970.54	60.00	60,949.45	42.46	2,588,025.51
1999	901,616.75	60.00	15,026.93	43.33	651,119.22
2000	815,947.00	60.00	13,599.10	44.21	601,177.71
2001	275,940.71	60.00	4,599.01	45.10	207,411.37

Westfield Wastewater
Wastewater Division
361.20 Collecting Sewers - Gravity

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***60*** ***Survivor Curve:*** ***S1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2002	14,622.58	60.00	243.71	46.00	11,211.01
2003	967,371.60	60.00	16,122.84	46.91	756,353.08
2004	1,377,343.49	60.00	22,955.70	47.84	1,098,099.26
2005	33,690.82	60.00	561.51	48.77	27,384.10
2006	8,608,715.57	60.00	143,478.45	49.71	7,132,314.43
2007	3,031,455.91	60.00	50,524.21	50.66	2,559,525.59
2008	1,825,921.32	60.00	30,431.99	51.62	1,570,845.32
2009	339,137.00	60.00	5,652.28	52.58	297,212.85
2010	484,863.56	60.00	8,081.05	53.56	432,792.98
2011	239,776.70	60.00	3,996.27	54.54	217,941.14
2012	821,558.90	60.00	13,692.63	55.52	760,227.96
2013	1,503,851.47	60.00	25,064.17	56.51	1,416,381.47
2014	20,523,194.90	60.00	342,052.90	57.50	19,669,479.62
2015	6,104,598.94	60.00	101,743.21	58.50	5,952,046.92
2016	4,244,791.26	60.00	70,746.45	59.50	4,209,418.29
Total	62,411,131.65	60.00	1,040,184.48	52.03	54,118,490.81

Composite Average Remaining Life ... 52.03 Years

Westfield Wastewater
Wastewater Division
363.20 Services

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *55* ***Survivor Curve:*** *R2.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1988	24,214.55	55.00	440.26	30.05	13,228.29
1999	3,808.33	55.00	69.24	39.09	2,706.91
Total	28,022.88	55.00	509.51	31.28	15,935.21

Composite Average Remaining Life ... *31.28 Years*

Westfield Wastewater
Wastewater Division
364.20 Flow Measuring Devices

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *30* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1974	1,920.00	30.00	64.00	4.54	290.73
1986	1,200.00	30.00	40.00	8.43	337.04
1994	11,049.78	30.00	368.33	12.07	4,444.17
1995	19,089.02	30.00	636.30	12.61	8,021.44
1996	102,940.86	30.00	3,431.36	13.17	45,192.38
1999	10,888.40	30.00	362.95	15.00	5,444.88
2001	20,500.00	30.00	683.33	16.35	11,170.58
2002	498.50	30.00	16.62	17.06	283.49
2003	120,590.81	30.00	4,019.69	17.80	71,546.84
2004	272,499.19	30.00	9,083.31	18.56	168,620.97
2005	243,647.11	30.00	8,121.57	19.36	157,205.95
2006	239,646.19	30.00	7,988.21	20.17	161,153.88
2007	173,965.23	30.00	5,798.84	21.02	121,870.69
2008	31,040.25	30.00	1,034.68	21.88	22,643.44
2009	7,119.27	30.00	237.31	22.77	5,404.66
2012	16,029.97	30.00	534.33	25.57	13,662.35
2013	9,861.80	30.00	328.73	26.53	8,722.59
2014	20,790.00	30.00	693.00	27.51	19,067.17
Total	1,303,276.38	30.00	43,442.55	18.99	825,083.25

Composite Average Remaining Life ... 18.99 Years

Westfield Wastewater
Wastewater Division
371.30 Pumping Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *40* ***Survivor Curve:*** *R2*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1974	6,593.71	40.00	164.84	9.93	1,636.31
1977	5,600.00	40.00	140.00	11.31	1,583.10
1979	445.42	40.00	11.14	12.30	137.00
1980	12,697.40	40.00	317.43	12.82	4,070.84
1981	5,111.31	40.00	127.78	13.36	1,706.98
1982	16,134.96	40.00	403.37	13.91	5,610.44
1986	23,835.18	40.00	595.88	16.25	9,683.11
1989	135,456.40	40.00	3,386.39	18.15	61,458.55
1995	200,985.98	40.00	5,024.62	22.28	111,964.15
1996	143,318.19	40.00	3,582.93	23.01	82,454.33
1997	13,359.48	40.00	333.99	23.75	7,932.98
1998	105,620.87	40.00	2,640.51	24.50	64,702.30
1999	52,066.83	40.00	1,301.66	25.26	32,885.23
2000	7,700.00	40.00	192.50	26.04	5,011.80
2001	285,427.46	40.00	7,135.65	26.82	191,346.63
2002	41,350.17	40.00	1,033.75	27.61	28,538.07
2003	362,419.71	40.00	9,060.44	28.41	257,365.61
2004	112,312.97	40.00	2,807.81	29.21	82,029.03
2005	21,883.06	40.00	547.07	30.03	16,429.51
2006	32,364.79	40.00	809.12	30.86	24,967.94
2007	15,650.00	40.00	391.25	31.69	12,399.62
2010	13,004.15	40.00	325.10	34.25	11,133.20
2012	41,614.90	40.00	1,040.37	35.98	37,437.53
2013	32,553.24	40.00	813.83	36.87	30,001.85
2014	117,277.33	40.00	2,931.92	37.75	110,688.75
2015	22,166.42	40.00	554.16	38.65	21,416.43
2016	1,781,560.25	40.00	44,538.76	39.55	1,761,406.76

Westfield Wastewater
Wastewater Division
371.30 Pumping Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***40*** ***Survivor Curve:*** ***R2***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	3,608,510.18	40.00	90,212.25	32.99	2,975,998.06

Composite Average Remaining Life ... 32.99 Years

Westfield Wastewater
Wastewater Division
380.40 Treatment and Disposal Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *35* ***Survivor Curve:*** *S1*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1998	1,835,270.00	35.00	52,436.29	19.66	1,030,961.52
1999	82,263.64	35.00	2,350.39	20.30	47,717.21
2000	2,871.00	35.00	82.03	20.96	1,719.45
2001	42,659.10	35.00	1,218.83	21.64	26,377.07
2002	11,564.00	35.00	330.40	22.34	7,381.67
2004	39,600.00	35.00	1,131.43	23.81	26,935.12
2005	4,721,578.50	35.00	134,902.26	24.57	3,314,994.95
2006	115,024.87	35.00	3,286.43	25.36	83,355.39
2011	158,440.72	35.00	4,526.88	29.67	134,309.55
2012	47,550.96	35.00	1,358.60	30.60	41,573.38
2013	60,048.00	35.00	1,715.66	31.55	54,131.44
2014	14,224.00	35.00	406.40	32.52	13,216.47
2015	47,521.55	35.00	1,357.76	33.51	45,492.03
2016	19,517.86	35.00	557.65	34.50	19,239.21
Total	7,198,134.20	35.00	205,661.00	23.57	4,847,404.46

Composite Average Remaining Life ... ***23.57 Years***

Westfield Wastewater
Wastewater Division
390.73 Computer Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1998	289.91	0.00	0.00	0.00	0.00
2000	10,313.56	0.00	0.00	0.00	0.00
2001	635.50	0.00	0.00	0.00	0.00
2002	11,488.37	0.00	0.00	0.00	0.00
2003	2,302.00	0.00	0.00	0.00	0.00
2005	4,065.48	0.00	0.00	0.00	0.00
2006	32,719.02	0.00	0.00	0.00	0.00
2007	9,226.50	0.00	0.00	0.00	0.00
2008	6,995.50	0.00	0.00	0.00	0.00
2009	1,631.00	0.00	0.00	0.00	0.00
2012	3,222.00	5.00	644.40	0.50	322.20
2015	32,630.03	5.00	6,526.01	3.50	22,841.02
2016	113,868.23	5.00	22,773.65	4.50	102,481.41
Total	229,387.10	1.15	29,944.05	4.20	125,644.63

Composite Average Remaining Life ... 4.20 Years

Westfield Wastewater
Wastewater Division
390.74 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1996	5,765.00	0.00	0.00	0.00	0.00
2000	2,563.59	0.00	0.00	0.00	0.00
2002	2,239.64	0.00	0.00	0.00	0.00
2003	8,375.00	0.00	0.00	0.00	0.00
2006	5,936.57	0.00	0.00	0.00	0.00
2007	1,562.49	0.00	0.00	0.00	0.00
2013	296,553.72	5.00	59,310.74	1.50	88,966.12
2014	5,637.00	5.00	1,127.40	2.50	2,818.50
2016	418,721.15	5.00	83,744.23	4.50	376,849.04
Total	747,354.16	1.67	144,182.37	3.25	468,633.65

Composite Average Remaining Life ... *3.25* ***Years***

Westfield Wastewater
Wastewater Division
391.70 Transportation Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *10* ***Survivor Curve:*** *L3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1988	699.18	0.00	0.00	0.00	0.00
2000	565.62	10.00	56.56	1.55	87.80
2002	16,668.97	10.00	1,666.92	2.04	3,393.68
2003	50,671.80	10.00	5,067.26	2.29	11,615.03
2004	594.80	10.00	59.48	2.54	151.17
2006	22,542.50	10.00	2,254.29	2.94	6,634.25
2007	10,684.86	10.00	1,068.50	3.11	3,324.33
2013	102,932.00	10.00	10,293.36	6.58	67,693.53
2015	24,703.91	10.00	2,470.43	8.50	21,001.39
Total	230,063.64	8.89	22,936.80	4.97	113,901.18

Composite Average Remaining Life ... *4.97* ***Years***

Westfield Wastewater
Wastewater Division
393.70 Tools, Shop, and Garage Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *20* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1988	558.42	0.00	0.00	0.00	0.00
1990	246.25	0.00	0.00	0.00	0.00
1999	19,000.00	20.00	950.00	2.50	2,375.00
2000	7,783.08	20.00	389.15	3.50	1,362.04
2001	2,824.79	20.00	141.24	4.50	635.58
2002	8,450.35	20.00	422.52	5.50	2,323.85
2005	5,877.15	20.00	293.86	8.50	2,497.79
2006	10,247.10	20.00	512.36	9.50	4,867.37
2007	3,198.00	20.00	159.90	10.50	1,678.95
2013	3,188.33	20.00	159.42	16.50	2,630.37
Total	61,373.47	16.00	3,028.44	6.07	18,370.95

Composite Average Remaining Life ... 6.07 Years

Westfield Wastewater
Wastewater Division
394.70 Laboratory Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***15*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2000	8,147.56	0.00	0.00	0.00	0.00
2003	7,849.00	15.00	523.27	1.50	784.90
2005	7,516.44	15.00	501.10	3.50	1,753.84
2006	3,211.45	15.00	214.10	4.50	963.44
2007	4,127.17	15.00	275.14	5.50	1,513.30
2008	4,947.55	15.00	329.84	6.50	2,143.94
2012	2,205.00	15.00	147.00	10.50	1,543.50
Total	38,004.17	12.86	1,990.44	4.37	8,702.91

Composite Average Remaining Life ... 4.37 Years

Westfield Wastewater
Wastewater Division
398.70 Other Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***20*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1996	242.50	0.00	0.00	0.00	0.00
1998	797.50	20.00	39.88	1.50	59.81
2000	41,427.00	20.00	2,071.35	3.50	7,249.73
2003	2,104.00	20.00	105.20	6.50	683.80
2005	3,421.25	20.00	171.06	8.50	1,454.03
2006	7,076.25	20.00	353.81	9.50	3,361.22
2008	24,780.50	20.00	1,239.03	11.50	14,248.79
2013	54,488.12	20.00	2,724.41	16.50	44,952.70
2014	11,576.40	20.00	578.82	17.50	10,129.35
Total	145,913.52	17.78	7,283.55	11.28	82,139.42

Composite Average Remaining Life ... ***11.28 Years***

Shared Services
Shared Services Division
390.00 Structures and Improvements

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *25* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1913	13,203.90	0.00	0.00	0.00	0.00
1950	1,494.28	0.00	0.00	0.00	0.00
1953	1,013.45	0.00	0.00	0.00	0.00
1956	1,760.64	0.00	0.00	0.00	0.00
1957	1,157,149.51	0.00	0.00	0.00	0.00
1958	715,091.35	0.00	0.00	0.00	0.00
1959	4,777.08	0.00	0.00	0.00	0.00
1960	3,463.27	0.00	0.00	0.00	0.00
1963	19,269.93	0.00	0.00	0.00	0.00
1964	6,641.90	0.00	0.00	0.00	0.00
1966	1,512.42	0.00	0.00	0.00	0.00
1967	332.20	25.00	13.29	0.50	6.64
1968	837.96	25.00	33.52	0.55	18.28
1970	290,475.01	25.00	11,619.00	0.98	11,412.71
1971	12,275.43	25.00	491.02	1.23	601.69
1972	5,693.03	25.00	227.72	1.47	335.09
1973	42,510.49	25.00	1,700.42	1.72	2,922.28
1974	13,207.71	25.00	528.31	1.97	1,038.78
1975	30,096.77	25.00	1,203.87	2.21	2,666.35
1976	1,692.13	25.00	67.69	2.46	166.84
1977	17,855.43	25.00	714.22	2.72	1,940.70
1978	49,548.80	25.00	1,981.95	2.97	5,891.82
1980	97,423.11	25.00	3,896.92	3.50	13,626.48
1981	110,006.26	25.00	4,400.25	3.77	16,575.77
1982	5,063.00	25.00	202.52	4.04	818.99
1985	12,040.00	25.00	481.60	4.92	2,371.49
1986	2,581.60	25.00	103.26	5.24	540.80

Shared Services
Shared Services Division
390.00 Structures and Improvements

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *25* ***Survivor Curve:*** *S1.5*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1987	44,149.00	25.00	1,765.96	5.56	9,820.94
1988	452,284.83	25.00	18,091.39	5.90	106,698.34
1989	316,363.21	25.00	12,654.53	6.25	79,060.15
1990	4,514,317.72	25.00	180,572.71	6.61	1,193,917.90
1991	240,645.11	25.00	9,625.80	6.99	67,300.27
1992	202,827.50	25.00	8,113.10	7.39	59,941.04
1993	59,520.05	25.00	2,380.80	7.80	18,576.57
1994	159,107.16	25.00	6,364.29	8.24	52,418.31
1995	35,722.61	25.00	1,428.90	8.69	12,417.89
1996	77,042.62	25.00	3,081.70	9.17	28,248.51
1998	59,788.44	25.00	2,391.54	10.19	24,368.60
2000	59,185.00	25.00	2,367.40	11.32	26,789.60
2001	399,537.36	25.00	15,981.49	11.92	190,520.52
2002	153,568.80	25.00	6,142.75	12.56	77,129.12
2005	1,152,066.22	25.00	46,082.65	14.65	674,927.29
2006	483,132.80	25.00	19,325.31	15.41	297,726.54
2007	3,604,912.82	25.00	144,196.51	16.20	2,335,656.47
2008	3,724,534.88	25.00	148,981.39	17.02	2,535,736.02
2009	1,452,459.47	25.00	58,098.38	17.87	1,038,408.08
2010	834,164.13	25.00	33,366.56	18.75	625,775.62
2011	239,139.88	25.00	9,565.60	19.66	188,082.83
2012	1,015,446.00	25.00	40,617.84	20.59	836,500.97
2013	809,487.82	25.00	32,379.51	21.55	697,704.47
2014	20,823,469.89	25.00	832,938.79	22.52	18,756,980.15
2015	151,419.18	25.00	6,056.77	23.50	142,362.32
2016	1,513,759.74	25.00	60,550.39	24.50	1,483,497.77

Shared Services
Shared Services Division
390.00 Structures and Improvements

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***25*** ***Survivor Curve:*** ***S1.5***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
Total	45,195,068.90	19.81	1,730,787.63	18.27	31,621,501.02

Composite Average Remaining Life ... 18.27 Years

Shared Services
Shared Services Division
391.40 Office Furniture
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *25* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
1992	76,177.49	25.00	3,047.10	0.50	1,523.55
1993	40,564.65	25.00	1,622.59	1.50	2,433.88
1994	140,303.49	25.00	5,612.14	2.50	14,030.35
1995	79,632.98	25.00	3,185.32	3.50	11,148.62
1996	9,981.71	25.00	399.27	4.50	1,796.71
1997	32,641.48	25.00	1,305.66	5.50	7,181.13
1998	236,499.51	25.00	9,459.98	6.50	61,489.87
2001	7,591.50	25.00	303.66	9.50	2,884.77
2002	6,225.02	25.00	249.00	10.50	2,614.51
2005	210,499.67	25.00	8,419.99	13.50	113,669.82
2009	1,611.31	25.00	64.45	17.50	1,127.92
2011	18,148.85	25.00	725.95	19.50	14,156.10
2012	11,907.92	25.00	476.32	20.50	9,764.49
2014	2,045,005.22	25.00	81,800.21	22.50	1,840,504.70
2015	118,142.89	25.00	4,725.72	23.50	111,054.32
2016	141,099.89	25.00	5,644.00	24.50	138,277.89
Total	3,176,033.58	25.00	127,041.34	18.37	2,333,658.62

Composite Average Remaining Life ... ***18.37 Years***

Shared Services
Shared Services Division
391.50 Office Machines
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *15* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2004	9,116.00	15.00	607.73	2.50	1,519.33
2005	90,338.09	15.00	6,022.54	3.50	21,078.89
2013	524,066.54	15.00	34,937.77	11.50	401,784.35
2014	585,447.36	15.00	39,029.82	12.50	487,872.80
2015	14,244.98	15.00	949.67	13.50	12,820.48
2016	205,665.16	15.00	13,711.01	14.50	198,809.65
Total	1,428,878.13	15.00	95,258.54	11.80	1,123,885.51

Composite Average Remaining Life ... 11.80 Years

Shared Services
Shared Services Division
391.60 Computer Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2011	192,053.53	0.00	0.00	0.00	0.00
2012	1,925,062.72	5.00	385,012.54	0.50	192,506.27
2013	1,324,692.26	5.00	264,938.45	1.50	397,407.68
2014	1,207,412.69	5.00	241,482.54	2.50	603,706.35
2015	765,086.14	5.00	153,017.23	3.50	535,560.30
2016	734,192.06	5.00	146,838.41	4.50	660,772.85
Total	6,148,499.40	4.17	1,191,289.17	2.01	2,389,953.45

Composite Average Remaining Life ... 2.01 Years

Shared Services
Shared Services Division
391.70 Software

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *5* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2011	465,364.80	0.00	0.00	0.00	0.00
2012	11,143,747.04	5.00	2,228,749.41	0.50	1,114,374.70
2013	1,384,040.23	5.00	276,808.05	1.50	415,212.07
2014	1,911,373.30	5.00	382,274.66	2.50	955,686.65
2015	11,157,027.24	5.00	2,231,405.45	3.50	7,809,919.07
2016	970,131.08	5.00	194,026.22	4.50	873,117.97
Total	27,031,683.69	4.17	5,313,263.78	2.10	11,168,310.46

Composite Average Remaining Life ... 2.10 Years

Shared Services
Shared Services Division
392.10 Transportation Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *10* ***Survivor Curve:*** *L3*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2014	75,107.56	10.00	7,510.87	7.52	56,478.00
Total	75,107.56	10.00	7,510.87	7.52	56,478.00

Composite Average Remaining Life ... 7.52 Years

Shared Services
Shared Services Division
394.10 Tools, Shop and Garage Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *20* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2014	19,605.88	20.00	980.29	17.50	17,155.15
Total	19,605.88	20.00	980.29	17.50	17,155.15

Composite Average Remaining Life ... *17.50 Years*

Shared Services
Shared Services Division
397.10 Communication Equipment

Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: *15* ***Survivor Curve:*** *SQ*

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2005	91,790.45	15.00	6,119.36	3.50	21,417.77
2008	31,847.91	15.00	2,123.19	6.50	13,800.76
2010	33,275.92	15.00	2,218.39	8.50	18,856.35
2011	99,062.45	15.00	6,604.16	9.50	62,739.55
2012	42,641.10	15.00	2,842.74	10.50	29,848.77
2013	959,220.23	15.00	63,948.02	11.50	735,402.18
2014	2,492,351.80	15.00	166,156.79	12.50	2,076,959.83
2015	208,667.64	15.00	13,911.18	13.50	187,800.88
Total	3,958,857.50	15.00	263,923.83	11.92	3,146,826.09

Composite Average Remaining Life ... ***11.92 Years***

Shared Services
Shared Services Division
398.10 Other Equipment
Original Cost Of Utility Plant In Service
And Development Of Composite Remaining Life as of December 31, 2016
Based Upon Broad Group/Remaining Life Procedure and Technique

Average Service Life: ***20*** ***Survivor Curve:*** ***SQ***

Year	*Original Cost*	*Avg. Service Life*	*Avg. Annual Accrual*	*Avg. Remaining Life*	*Future Annual Accruals*
(1)	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*
2005	34,582.00	20.00	1,729.10	8.50	14,697.35
2006	8,750.00	20.00	437.50	9.50	4,156.25
2007	5,610.78	20.00	280.54	10.50	2,945.66
2008	20,022.50	20.00	1,001.13	11.50	11,512.94
2012	6,617.90	20.00	330.90	15.50	5,128.87
2013	349,852.19	20.00	17,492.61	16.50	288,628.06
Total	425,435.37	20.00	21,271.77	15.38	327,069.13

Composite Average Remaining Life ... 15.38 Years