

**TENNESSEE-AMERICAN WATER COMPANY, INC.**

**DOCKET NO. 24-00032**

**DIRECT TESTIMONY**

**OF**

**LARRY E. KENNEDY**

**ON**

**DEPRECIATION**

**SPONSORING PETITIONER'S EXHIBITS:**

**EXHIBIT LEK-2 – CALCULATED ANNUAL DEPRECIATION RATES APPLICATION TO PLANT IN  
SERVICE AS OF DECEMBER 31, 2023**

**DIRECT TESTIMONY  
LARRY E. KENNEDY  
TENNESSEE AMERICAN WATER COMPANY  
DOCKET NO. 24-XXXXXX**

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1     **I.       INTRODUCTION**

2     **Q1.    Please state your name and business address.**

3     A1.   My name is Larry E. Kennedy. My business address is 200 Rivercrest Drive SE, Suite  
4       277, Calgary, Alberta, T2C 2X5.

5     **Q2.    By whom are you employed?**

6     A2.   I am employed by Concentric Energy Advisors, Inc.

7     **Q3.    What is your position with Concentric Energy Advisors, Inc. (“Concentric”)?**

8     A3.   I am a Senior Vice President, where I oversee a team of depreciation analysts.

9     **Q4.    On whose behalf are you submitting this Direct Testimony?**

10    A4.   I am submitting this Direct Testimony before the Tennessee Public Utility Commission  
11       (“Commission” OR “TPUC”) on behalf of Tennessee American Water Company  
12       (“TAWC” or the “Company”).

13    **Q5.    Please describe your education and experience.**

14    A5.   I am a Certified Depreciation Professional, with over 40 years of regulatory plant  
15       accounting and depreciation experience, and 24 years of depreciation and plant  
16       accounting consulting to the regulated utility industry. I have advised numerous energy  
17       and utility clients on a wide range of accounting, property tax and utility depreciation  
18       matters. Many of these assignments have included the determination of appropriate  
19       annual depreciation accrual rates.

1 **Q6. Have you testified before any regulatory authorities?**

2 A6. Yes. A list of proceedings in which I have provided testimony is provided in  
3 Appendix A.

4 **Q7. Please describe Concentric's activities in energy and utility engagements.**

5 A7. Concentric provides financial and economic advisory services to numerous energy and  
6 utility clients across North America. Our regulatory, economic, and market analysis  
7 services include utility ratemaking and regulatory advisory services; energy market  
8 assessments; market entry and exit analysis; corporate and business unit strategy  
9 development; demand forecasting; resource planning; and energy contract  
10 negotiations. Our financial advisory activities include buy and sell-side merger,  
11 acquisition and divestiture assignments; due diligence and valuation assignments;  
12 project and corporate finance services; and transaction support services. In addition,  
13 Concentric provides litigation support services on a wide range of financial and  
14 economic issues on behalf of clients throughout North America.

15 **Q8. Are you sponsoring any exhibits?**

16 A8. Yes, I am. I am sponsoring the following exhibits:

- 17 • Exhibit LEK-2 – Calculated Annual Depreciation Rates Application to Plant in  
18 Service as of December 31, 2023.

19 I will discuss these exhibits in further detail in my testimony below.

20 **Q9. Was the exhibit listed above prepared by you or under your direction and**  
21 **supervision?**

22 A9. Yes.

1     **II.     PURPOSE AND OVERVIEW OF DIRECT TESTIMONY**

2     **Q10.   What is the purpose of your Direct Testimony?**

3     A10.   The purpose of my Direct Testimony is to set forth the results of Concentric’s full and  
4           comprehensive depreciation study of the distribution and general plant in service of the  
5           Tennessee American Water Company (“TAWC” or the “Company”), as of December  
6           31, 2023. Concentric’s detailed report, including our analyses and recommendations,  
7           is provided in Exhibit LEK-2, titled “Calculated Annual Depreciation Rates  
8           Application to Plant in Service as of December 31, 2023”. The detailed depreciation  
9           study report was prepared by me or under my direction.

10    **Q11.   Please provide a brief overview of the analyses that led to your depreciation**  
11       **recommendations.**

12    A11.   In preparing the depreciation study report, my Concentric colleagues and I analyzed  
13           the historic plant account data of TAWC to prepare an analysis of the Company’s past  
14           retirement experience. We also met with the Company’s management and operations  
15           representatives to determine the extent to which the historic indications would be  
16           reflective of the future retirement patterns. We also reviewed the average service life  
17           and net salvage indications of many North American based water utilities to test the  
18           results of our analysis against the water industry peers. A detailed peer review is  
19           compiled to establish a range of reasonableness for the Iowa curve and net salvage  
20           estimate for each account. While the peer review is considered an appropriate test of  
21           the estimates, it should never be viewed as definitive. Differences in characteristics

1 such as the account structure, climate conditions, regulatory environment, and area of  
2 service must always be considered when reviewing a peer study.

3 A fulsome discussion of the depreciation parameters selected for each account can be  
4 reviewed in Section 3.1.5 of my depreciation study.

5 **Q12. How is the remainder of your Direct Testimony organized?**

6 A12. Section III of my testimony provides the scope of the depreciation study and a summary  
7 of our analyses and conclusions. This section also includes a discussion of the major  
8 causes of changes in the depreciation accrual rate and amounts as compared to the last  
9 TAWC depreciation study. Section IV provides a background on utility depreciation,  
10 depreciation methods and procedures. Section V provides concluding comments.

### 11 **III. SCOPE OF THE DEPRECIATION STUDY**

12 **Q13. Please outline the Scope of the Depreciation Study.**

13 A13. The depreciation study report sets forth the results of the depreciation study for the  
14 water assets of TAWC, to determine the annual depreciation accrual rates and amounts  
15 for book purposes applicable to the original cost of investment, as of December 31,  
16 2023. The rates and amounts are based on the Straight-Line Method, incorporating the  
17 Average Life Group Procedure applied on a Remaining Life Basis. This study also  
18 describes the concepts, methods and judgments which underlie the recommended  
19 annual depreciation accrual rates related to the TAWC water assets in service, as of  
20 December 31, 2023.

**Q14. Please outline the information included in your depreciation study report.**

A14. The depreciation study report, Exhibit LEK-2, is presented in nine (9) sections outlined as follows:

- |           |  |
|-----------|--|
| Section 1 | Study Highlights, presents a summary of the depreciation study and results.  |
| Section 2 | Basis of the Study, contains statements with respect to the plan and the basis of the study.   |
| Section 3 | Development of the Required Depreciation Rates, presents descriptions of the methods used and factors considered in the service life study.    |
| Section 4 | Calculation of Annual and Accrued Depreciation, presents the methods and procedures used in the calculation of depreciation.                   |
| Section 5 | Results of Study, presents summaries by depreciable group of annual and accrued depreciation in Tables 1, 1A, and 1B.                          |
| Section 6 | Retirement Rate Analysis, presents the results of the retirement rate analysis, including the life table and survivor curves for all accounts. |
| Section 7 | Net Salvage Calculations, presents the net salvage calculations for all accounts.  |
| Section 8 | Detailed Depreciation Calculations presents the depreciation calculations by vintage for each account.   |
| Section 9 | Estimation of Survivor Curves, is an overview of Tennessee curves and the Retirement Rate Analysis.  |

**Q15. Was the depreciation study prepared using generally accepted standard methods and practices?**

A15. Yes. This study utilized a widely accepted method for the study of the Company's historic retirement data, known as the Retirement Rate Analysis Method. The Retirement Rate Analysis Method is generally accepted as the correct method to use when aged data is available for review<sup>1</sup>. Given the availability of reliable aged data, we prepared the historic study of mortality history using the retirement rate method. A

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<sup>1</sup> Please see Section 9 of the depreciation study for an in-depth discussion of the Retirement Rate Analysis Method. This method is described in Depreciation Systems, authored by Frank K. Wolf and W. Chester Fitch, in Engineering Valuation and Depreciation authored by Anson Marston, Robley Winfrey, and Jean C. Hempstead, and in Statistical Analysis of Industrial Property Retirements authored by Anson Marston, Robley Winfrey, and Jean C. Hempstead.

1 detailed discussion of the retirement rate analysis is presented in Section 9 of the  
2 depreciation study report, Exhibit LEK-2.

3 Additionally, the service life study included:

- 4 • A review of TAWC company practice and outlook, as those policies relate to  
5 plant operation and retirement;
- 6 • A physical plant tour of Tennessee water plant facilities;
- 7 • Consideration of current practice in the water system industry, including  
8 knowledge of service life estimates used for other regulated water system  
9 companies; and
- 10 • Informed professional judgment which incorporated analyses of all of the  
11 above factors.

12  
13 Our study of the net salvage percentages was based on detailed study prepared under  
14 the standard approach, which has commonly become known as the “Traditional  
15 Approach<sup>2</sup>”. Within this method, the net salvage transactions (gross salvage proceeds,  
16 re-use salvage, and costs of removal or retirement) are compared to the original cost of  
17 the item being retired. The analysis is prepared on an actual transaction year basis, for  
18 as many years as reliable data is available. The analysis then includes a series of 3-  
19 year rolling average bands, 5-year rolling average bands, and life to date bands covering  
20 all years of transactional data.

21 As described in later sections of this testimony, the depreciation accrual rates presented  
22 herein are based on generally accepted methods and procedures for calculating  
23 depreciation.

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<sup>2</sup> Please see Section 10 of the depreciation study for a thorough discussion of the Traditional Approach to net salvage.



1 **Q16. Please provide a summary of the results of the depreciation study.**

2 A16. This study results in a depreciation rate related to Structures and Improvements of  
3 2.09%, Transmission and Distribution plant of 2.52%, and a depreciation rate related  
4 to general plant of 10.84%.

5 **Q17. How do the above depreciation rates compare to the currently approved**  
6 **depreciation rates?**

7 A17. The following chart outlines the proposed changes by functional group:

Functional Group	Currently Used	Proposed
Structures and Improvements	4.16%	2.09%
Transmission and Distribution	1.73%	2.52%
General Plant	5.10%	10.84%
Total	2.06%	3.08%

8

9 **Q18. Please outline the reasons for the change in the composite depreciation rate.**

10 A18. Depreciation rates are comprised of the return of initial investment and the return of  
11 future net salvage. One significant cause of the change in depreciation rates is the  
12 change in average service life of many accounts. The following is a summary of the  
13 proposed average service life estimates compared to the currently used estimates,  
14 demonstrating the shortening of the average service life in 7 accounts, and the  
15 lengthening of the average service life in 10 accounts.

Account	Account Description	Recommended in 2007	Recommended
<b>Structures and Improvements</b>			
304.1	Source of Supply		55-R1.5
304.2	Pumping	50-R2	60-R1.5
304.3	Treatment	60-R1	65-R1.5
304.301	Treat Dpr Paint		10-SQ
	Treat Dpr Paint - Post 2023 Additions		10-SQ
304.31	Treatment Handl		10-SQ
	Treatment Handl - Post 2023 Additions		10-SQ
304.4	Transmission and Distribution	35-R2.5	35-R2.5
304.5	General		30-R1.5
304.6	Office Buildings	31-R1.5	25-R3
304.7	Stores, Shop and Garage	50-S1.5	50-S1.5
304.8	Miscellaneous	60-R4	60-R1.5
306	Lake, River, and Other Intakes	70-R1	70-R1
309	Supply Mains	50-R2.5	50-R2.5
310	Power Generation Equipment	22-R4	35-R3
	Power Generation Equipment - Post 2023 Additions		35-R3
311.2	Pumping Equipment - Electric	45-R2.5	55-R1
311.3	Pumping Equipment - Diesel	45-R2.5	50-R2.5
311.5	Pumping Equipment - Other	45-R2.5	40-R2.5
311.52	Pumping Equipment - SOS & Pumping		40-S0
320.1	Water Treatment Equipment - Non-Media	40-R1	50-S0.5
320.2	Water Treatment Equipment - Filter Media		10-S0
330	Distribution Reservoirs and Standpipes	60-R3	60-S0
330.003	Tank Repainting	10-SQ	10-SQ
330.1	Elevated Tanks and Standpipes	35-R3	35-R3
330.2	Ground Level Tanks		35-R3
330.3	Below Ground Tanks		35-R3
330.4	Clearwell	60-R3	60-R3
331.001	Mains- Transmission and Distribution	95-R2	90-R3
333	Services	70-R3	75-R3
334.1	Meters	18-L1.5	15-R1.5
334.11	Meters - Bronze Case	18-L1.5	15-R1.5
334.13	Meters - Other	18-L1.5	15-R1.5
334.131	Meter Reading Units	18-L1.5	15-R1.5
334.2	Meter Installations	45-R3	50-R3
334.3	Meter Vaults		50-R3
335	Fire Hydrants	55-R1.5	65-R3
339.2	Miscellaneous Intangible Plant - Supply	25-R3	25-R3
339.6	Miscellaneous Intangible Plant - Comprehensive Planning Studies	10-SQ	10-SQ
341.1	Light Trucks	9-L1.5	9-L1.5
	Light Trucks - Post 2023 Additions		9-L1.5
341.2	Heavy Trucks	8-L1	8-L1.5
	Heavy Trucks - Post 2023 Additions		8-L1.5
341.3	Autos	8-S2.5	8-S2.5
	Autos - Post 2023 Additions		8-S2.5
341.4	Other	12-L2.5	12-L2.5
	Other - Post 2023 Additions		12-L2.5
343	Tools, Shop, and Garage Equipment	20-SQ	20-SQ
344	Laboratory Equipment	15-SQ	15-SQ
345	Power Operated Equipment	15-O1	20-S1.5
346.1	Communication Equipment - Non-Telephone	15-SQ	15-SQ
346.19	Remote Control & Instrument		15-SQ
346.2	Communication Equipment - Telephone	10-SQ	10-SQ
347	Miscellaneous Equipment	20-SQ	20-SQ
348	Other Tangible Property	20-SQ	20-SQ

1

2       The following is a summary of the proposed net salvage estimates compared to the  
3       currently used estimates, demonstrating a need for more negative net salvage rates in  
4       20 accounts and less negative net salvage rates in 7 accounts.

Account	Account Description	Recommended in 2007	Recommended
304.1	Source of Supply		-20%
304.2	Pumping	-15.0%	-20%
304.3	Treatment	-15.0%	-20%
304.301	Treat Dpr Paint		0%
	Treat Dpr Paint - Post 2023 Additions		0%
304.31	Treatment Handl		0%
	Treatment Handl - Post 2023 Additions		0%
304.4	Transmission and Distribution	-15.0%	-15%
304.5	General		-5%
304.6	Office Buildings	-15.0%	-15%
304.7	Stores, Shop and Garage	-15.0%	-5%
304.8	Miscellaneous	-15.0%	-10%
306	Lake, River, and Other Intakes	-5.0%	-10%
309	Supply Mains		0%
310	Power Generation Equipment	-5.0%	-5%
	Power Generation Equipment - Post 2023 Additions		-5%
311.2	Pumping Equipment - Electric	-10.0%	-10%
311.3	Pumping Equipment - Diesel	-10.0%	0%
311.5	Pumping Equipment - Other	-10.0%	-10%
311.52	Pumping Equipment - SOS & Pumping		-10%
320.1	Water Treatment Equipment - Non-Media		-15%
320.2	Water Treatment Equipment - Filter Media		-15%
330	Distribution Reservoirs and Standpipes	-20.0%	-25%
330.003	Tank Repainting		0%
330.1	Elevated Tanks and Standpipes	-20.0%	-25%
330.2	Ground Level Tanks		-25%
330.3	Below Ground Tanks		-25%
330.4	Clearwell	-20.0%	-25%
331.001	Mains- Transmission and Distribution	-15.9%	-20%
333	Services	-0.3%	-40%
334.1	Meters	-2.9%	-15%
334.11	Meters - Bronze Case	-2.9%	-15%
334.13	Meters - Other	-2.9%	-15%
334.131	Meter Reading Units		0%
334.2	Meter Installations	-2.9%	-25%
334.3	Meter Vaults		-15%
335	Fire Hydrants	-16.5%	-30%
339.2	Miscellaneous Intangible Plant - Supply		0%
339.6	Miscellaneous Intangible Plant - Comprehensive Planning Studies		0%
341.1	Light Trucks	15.0%	20%
	Light Trucks - Post 2023 Additions		20%
341.2	Heavy Trucks	15.0%	20%
	Heavy Trucks - Post 2023 Additions		20%
341.3	Autos	15.0%	20%
	Autos - Post 2023 Additions		20%
341.4	Other	15.0%	20%
	Other - Post 2023 Additions		20%
343	Tools, Shop, and Garage Equipment		0%
344	Laboratory Equipment		0%
345	Power Operated Equipment	5.0%	5%
346.1	Communication Equipment - Non-Telephone		0%
346.19	Remote Control & Instrument		0%
346.2	Communication Equipment - Telephone		0%
347	Miscellaneous Equipment		0%
348	Other Tangible Property		0%

1 The specific reasons for the average service life and net salvage changes for each of  
2 the large accounts are discussed in Section 3.1.5 of our report. Additionally, the  
3 results of the statistical mortality study are presented for each account, in Section 6 of  
4 our report and the results of the net salvage study are presented in Section 7 of our  
5 report.

6 **Q19. Are the average service life changes, as noted above, typical for utility assets?**

7 A19. Yes. In a number of recent depreciation studies that Concentric has completed, we  
8 have noted that the average service life of many asset classes is lengthening throughout  
9 North America. While there are a number of factors causing this lengthening of life  
10 estimates, the most prevalent reason is the increased focus of utilities in maintaining  
11 and life extending the infrastructure. Likewise, we have noted that the life of water  
12 line assets has benefited from enhanced technology and proactive maintenance  
13 programs undertaken by water utilities.

14 While there has been a trend towards lengthening average service lives for some asset  
15 classes, it has been common throughout North America for there to be a shortening in  
16 other asset classes. The quickening pace of technological change in some industries  
17 results in a trend towards average service life decreases. For example, the pace of  
18 technological change in metering assets has resulted in the life of metering classes to  
19 be shortened industry wide. The move from analogue meters to digital meters using  
20 first generation communication technology, and now to modern two-way  
21 communication technology has resulted in meters having a significantly shorter life.

1 As such, the average service life changes observed in this study are consistent with our  
2 observations in a number of other water utilities.

3 **Q20. Are the net salvage changes, as noted above, typical for utility assets?**

4 A20. Yes. As the net salvage ratio describes the relationship between the cost of removal  
5 and the original cost of investment, net salvage ratios are directly related to the impact  
6 of inflation over the life of the assets. Consequently, utilities throughout North  
7 America are seeing an increase in the net salvage ratios required. The net salvage  
8 recommendations as noted above are gradual changes to better match the historical  
9 costs of retirement with the approved recovery of these costs. It is my opinion that  
10 these changes are consistent with the changes we have seen in other water utilities.

11 **Q21. Are there any other changes in this depreciation study that impacted the total**  
12 **depreciation rate?**

13 A21. Yes. There are a number of accounts where the accumulated depreciation variance has  
14 become large. In some cases, this is leading to accrual rates that cannot provide the  
15 recovery of investment over the expected useful life of the assets, or accrual rates that  
16 will substantially over-recover the investment in the account before the next  
17 depreciation study. As such, we recommend that a number of these accounts should  
18 be closed with any outstanding net book value amortized over the composite remaining  
19 life of these accounts. New accounts, with the theoretically correct depreciation rates,  
20 can be opened for new additions. This allows new additions to be depreciated at the  
21 correct rate without risking stranded costs or overburdening ratepayers.

1    **IV.    DEPRECIATION METHODS AND PROCEDURES**

2    **Q22.    Please outline the depreciation methods and procedures used in your depreciation**  
3    **study.**

4    A22.    The calculation of annual and accrued depreciation, based on the Straight-Line Method,  
5    requires the estimation of survivor curves and the selection of group depreciation  
6    procedures, as discussed below.

7    Depreciation Grouping Procedures - When more than a single item of property is under  
8    consideration, a group procedure for depreciation is appropriate because normally all  
9    of the items within a group do not have identical service lives but have lives that are  
10    dispersed over a range of time. There are two primary group procedures, namely, the  
11    Average Life Group and Equal Life Group procedures.

12    In the Average Life Group Procedure, the rate of annual depreciation is based on the  
13    average service life of the group. This rate is applied to the surviving balances of the  
14    group's cost. A characteristic of this procedure is that the cost of plant retired prior to  
15    average life is not fully recouped at the time of retirement, whereas the cost of plant  
16    retired subsequent to the average life is more than fully recouped. Over the entire life  
17    cycle, the portion of cost not recouped prior to average life is balanced by the cost  
18    recouped subsequent to average life.

19    In the Equal Life Group Procedure, also known as the Unit Summation Procedure, the  
20    property group is subdivided according to service life. That is, each equal life group  
21    includes that portion of the property which experiences the life of that specific group.

1 The relative size of each equal life group is determined from the property's life  
2 dispersion curve. The calculated depreciation for the property group is the summation  
3 of the calculated depreciation based on the service life of each equal life unit. In the  
4 determination of the depreciation rates in this study, the use of the Average Life Group  
5 Procedure has been continued.

6 Amortization accounting is used for certain general plant accounts because of the  
7 disproportionate plant accounting effort required in these accounts. Many regulated  
8 utilities in North America have received approval to adopt amortization accounting for  
9 these accounts. This study calculates the annual and accrued depreciation using the  
10 Straight-Line Method and Average Life Group Procedure for most accounts. For  
11 certain general plant accounts, the annual and accrued depreciation are based on  
12 amortization accounting. Both types of calculations were based on original cost,  
13 attained ages, and estimates of service lives. Variances between the calculated accrued  
14 depreciation and the book accumulated depreciation are amortized over the composite  
15 remaining life of each account within the remaining life calculations. Amortization  
16 accounting has been continued in this study in a manner largely consistent with the  
17 prior study.

18 A detailed account-by-account analysis of the factors considered in the selection of my  
19 recommended average service life estimates is provided in Section 3.1.5 of the  
20 depreciation study report.



1 **Q23. Please outline any changes that you made in the depreciation method, grouping**  
2 **procedures or remaining life calculations as compared to previous depreciation**  
3 **studies.**

4 A23. The depreciation rates calculated in this study were calculated on the same manner as  
5 used in the prior full depreciation study – i.e. using the Straight-Line Method, the  
6 Average Life Group Procedure was applied on a remaining life basis. Further, the  
7 underlying calculations related to the annual accrual amounts for all accounts have not  
8 changed in this depreciation study. However, the calculation of the composite  
9 remaining life for the account as a whole has been slightly modified in this depreciation  
10 study. This does not impact the annual depreciation accrual amount or rate  
11 calculations.

12 The previous depreciation study calculated the composite remaining life by dividing  
13 the sum of all annual accrual amounts by the net book value for the account as a whole.  
14 As such, the composite remaining life was an output of the depreciation calculations  
15 not an input into the depreciation formula. This depreciation study calculates the  
16 remaining life of the account through the weighted average original cost amount.

17 The differences in the remaining life can be seen in a simple example. The former  
18 method calculates the composite remaining life in the following manner:

1

Previous Method of Calculating Remaining Life					
	Original Cost	Accumulated Depreciation	Net Book Value	Remaining Life	Annual Accrual
2019	2,498,108	199,449	2,673,375	45.76	58,425
2020	196,449	12,332	213,585	46.66	4,577
2021	284,175	12,886	313,915	47.59	6,596
2022	158,875	4,375	178,331	48.54	3,674
2023	1,329,960	12,383	1,517,071	49.51	30,645
Total	4,467,566	241,425	4,896,277		103,917

2 The previous depreciation study would have calculated the remaining life to be equal  
3 to  $\$4,896,277/\$103,917 = 47.12$  years.

4 The current depreciation study requires a more detailed calculation for the remaining  
5 life. The original cost for each vintage is multiplied by remaining life for that vintage.  
6 This number is then summed and divided by the total original cost for the account as a  
7 whole. In the above example, the remaining life calculations are as follows:

Current Method of Calculating Remaining Life						
	Original Cost	Accumulated Depreciation	Net Book Value	Remaining Life	Annual Accrual	Weighted Remaining Life
2019	2,498,108	199,449	2,673,375	45.76	58,425	114,313,429
2020	196,449	12,332	213,585	46.66	4,577	9,166,318
2021	284,175	12,886	313,915	47.59	6,596	13,523,876
2022	158,875	4,375	178,331	48.54	3,674	7,711,774
2023	1,329,960	12,383	1,517,071	49.51	30,645	65,846,303
Total	4,467,566	241,425	4,896,277		103,917	210,561,700

8 The Concentric model calculates the remaining life to be  $\$210,561,700/\$4,467,566 =$   
9  $47.13$  years. As in the example, the difference in composite remaining life is generally  
10 very small between the two methods and there is no difference in the underlying annual  
11 accrual calculation. Both methods use the same depreciation formulas to calculate the  
12 annual accrual amount.

1 **Q24. Was there any change to the remaining life by vintage as used in the depreciation**  
2 **study?**

3 A24. No. This depreciation study maintains the currently approved use of a minimum  
4 remaining life of one year for all annual accrual calculations. When the remaining life  
5 for a given vintage is less than one year, the depreciation expense was calculated as the  
6 remaining net book value.

7 **V. CONCLUDING REMARKS**

8 **Q25. What is your conclusion with respect to American Water's proposed Depreciation**  
9 **expense?**

10 A25. Our conclusion is that American Water's requested depreciation rates, resulting in a  
11 composite depreciation rate of 3.08%, reasonably reflects the annual consumption of  
12 the undepreciated service value of the utility plant in service. The use of the  
13 depreciation rates as presented in our report, by account, will provide for an appropriate  
14 amount of depreciation expense in the Company's revenue requirement. Therefore, we  
15 recommend that the proposed depreciation rates set forth in the depreciation study, that  
16 we prepared for this proceeding, be adopted by the Commission for regulatory purposes  
17 as well as by the Company for financial reporting purposes.

18 **Q26. Does this conclude your Direct Testimony?**

19 A26. Yes, it does.



## **LARRY E. KENNEDY, CDP**

Senior Vice President

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Mr. Kennedy has been in the pipeline, electric, gas utility and municipal infrastructure business for 40 years. As Senior Vice President, Concentric Advisors, ULC, Mr. Kennedy has provided professional consulting services to gas and electric utilities including generation facilities (including nuclear facilities), and high voltage transmission lines, large diameter transmission pipelines, railway systems and municipally owned utility systems. Previously, Mr. Kennedy was with Gannett Fleming Canada ULC, for over 17 years, where he was responsible for completing depreciation studies and provided advice related to large capital program spending and controls for many regulated North American utilities. Mr. Kennedy was also employed by Interprovincial Pipelines Limited (now Enbridge Pipelines) for 15 years in several plant accounting and regulatory positions and with Nova Gas Transmission Pipelines (now TC Energy) for three years as a Depreciation Specialist.

Mr. Kennedy has provided expert witness testimony related to depreciation, stranded costs, capital accounting issues, utility valuation, and property tax issues before several North American regulatory bodies. Mr. Kennedy has completed numerous seminars and all courses offered by Depreciation Programs, Inc. Mr. Kennedy is a member of the teaching faculty of the Society of Depreciation Professionals ("SDP") and has presented depreciation, stranded cost, and capital accounting related topics to the SDP, Canadian Electric Association, Canadian Gas Association, Canadian Property Taxpayers Association, Alberta Utilities Commission, British Columbia Utilities Commission and the Canadian Energy Pipeline Association. Mr. Kennedy is a past Society of Depreciation Professionals President.

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## **PERSONAL INFORMATION**

- Diploma, Applied Arts - Business Administration, Northern Alberta Institute of Technology, 1978
- Member, Society of Depreciation Professionals
- Certified Depreciation Professional

## **EXPERIENCE**

### **Representative Project Experience**

- Alliance Pipeline L.P. A number of depreciation studies have been completed by Mr. Kennedy for both the Canadian and US assets of Alliance Pipelines. The most recent studies completed in 2012 for Submission to the National Energy Board of Canada and in 2015 for submission to the FERC (Docket No. RP15-1022-000) to the Federal Energy Regulatory included operational discussions related to the gas transmission plant, the service life analysis for all accounts using the retirement rate analysis, discussion with management regarding outlook, and the inclusion of an Economic Planning Horizon.
- Viking Gas Transmission Company - The assignment included working with the company to develop the appropriate depreciation policy to align with the organization's overall goals and objectives. The resulting depreciation study, which was submitted to the Federal Energy and



Regulatory Commission, incorporated the concepts of time-based depreciation for gas transmission accounts and development of Economic Planning Horizons, including discussion related to the long demand of natural gas.

- **Midwestern Gas Transmission Company:** The assignment included development of a detailed depreciation study and Testimony to develop the appropriate depreciation policy to align with the organization's overall goals and objectives. The resulting depreciation study, which was submitted to the Federal Energy and Regulatory Commission, incorporated the concepts of time-based depreciation for gas transmission accounts and development of Economic Planning Horizons. The Direct Testimony included significant discussion related to the topics of Decarbonization and changing political climate towards removal of fossil fuel demand forecasts.
- **Enbridge Lakehead System:** A Technical Update to a 2016 full depreciation study was prepared and filed with the FERC in 2021 in support of updating depreciation rate and resultant depreciation expense. The technical update also included an analysis and recommendation of a 20-year Economic Planning Horizon (Economic Life).
- **Consolidated Edison Company of New York, Inc.:** Mr. Kennedy co-authored a study and report which presented the results of research focusing on prior periods of transformative change and more recent discussions of policy tools that could address the impacts of climate change on the Company's electric, steam, and natural gas businesses.
- **Montana-Dakota Utilities Co.:** A study was developed to determine the appropriate depreciation parameters for all electric generation, transmission and distribution assets. The study and associated expert testimony were submitted to the Montana Public Service Commission in 2018 and to the North Dakota Public Service Commission in 2022. Elements of the study included a field review of electric generation and transmission plant, the service life analysis for all accounts using the retirement rate analysis, discussion with management regarding outlook and the estimation of the retirement of generation facilities due to environmental legislation and estimation of net salvage requirements.
- **Commonwealth Edison Company:** Mr. Kennedy sponsored extensive Rebuttal Testimony related to the average service life, net salvage estimations, and appropriate depreciation practices in a 2020 rate proceeding.
- **Great Plains Natural Gas Co.:** Annual updates of depreciation rates and net salvage requirements were calculated and submitted to the Minnesota Department of Commerce annually since 2017.
- **National Grid USA Service Company Limited:** A depreciation study was completed in 2020 for the National Grid High Voltage Direct Current (HVDC) electric interstate transmission line. The study included consideration of the average service life of the system components, the level of components of the system and the compliance of the recommended componentization to the FERC Uniform System of Accounts. The resultant study was used by the company in filings with the Federal Energy and Regulatory Commission (FERC)
- **Society of Depreciation Professionals (SDP):** Mr. Kennedy has presented at the annual conferences on the topic of the erosion of the regulatory compact throughout North America, the Future of Energy transition and its impacts on recovery of investment. Additionally, Mr. Kennedy is a member of the SDP teaching faculty and has lead a number of workshops on various aspects of decarbonization and has co-instructed on the topic of the future of energy.



### Other Representative Project Experience

- Alberta Departments of Energy and Forestry and Agriculture: Detailed toll comparison and valuation models were developed to provide a comparison of the toll fairness of each of the Provinces Rural Electrification Associations ("REA") to the comparable Investor Owned Utilities ("IOU") for the 32 REA's currently operating in Alberta. In addition to providing a toll comparison of the REA and IOU, a fair market valuation for each of the REA's was also prepared. The final report of the toll compatibility and specific valuations were submitted to the Alberta Department of Energy and the Alberta Department of Forestry and Agriculture. Mr. Kennedy was the Responsible Officer on this project.
- Alliance Pipeline L.P. A number of depreciation studies have been completed by Mr. Kennedy for both the Canadian and US assets of Alliance Pipelines. The most recent studies completed in 2012 for Submission to the National Energy Board of Canada and to the Federal Energy Regulatory included operational discussions related to the gas transmission plant, the service life analysis for all accounts using the retirement rate analysis, discussion with management regarding outlook, and the inclusion of an Economic Planning Horizon.
- AltaGas Utilities Inc.: A number of depreciation studies have been completed, which included the assembly of basic data from the Company's accounting systems, statistical analysis of retirements for service life and net salvage indications, discussions with management regarding the outlook for property, and the calculations of annual and accrued depreciation. The studies were prepared for submission to the Alberta Energy and Utilities Board ("Board"). Mr. Kennedy has appeared before the Alberta Utilities Commission on behalf of AltaGas on a number of occasions.
- AltaLink LP: An initial study was developed for submission to the Alberta Utilities Commission ("AUC") in 2002. The study included the estimation of service life characteristics, and the estimation of net salvage requirements for all electric transmission assets. A net salvage study and technical update was also filed with the Board in 2004. Since 2004, additional depreciation studies were filed in 2005, 2010 and 2012, 2016 and 2018. The 2010, 2012, 2016 and 2018 studies included a number of provisions in order to ensure compliance to Alberta's Minimum Filing Requirements for depreciation studies and for compliance to the International Financial Reporting Standards. These studies also specifically analyzed the pace of technical change in the Alberta Electric system, and recently have specifically considered the impacts of early retirements caused by storms and forest fires.
- ATCO Electric: Studies have included the development of annual and accrued depreciation rates for the electric transmission and distribution systems for the Alberta assets of ATCO Electric, in addition to the generation, transmission, and distribution assets of Northland Utilities Inc. (NWT) and the distribution assets of Northland Utilities (Yellowknife) Inc. The ATCO Electric studies were submitted to the AUC for review, while the NWT and Northland Utilities (Yellowknife) Inc. studies were submitted to the Northwest Territories Utilities Board and Yukon Electric Company Limited (YECL) was submitted to the Yukon Public Utilities Board. These studies also specifically analyzed the pace of technical and recently



have specifically considered the impacts of early retirements caused by storms and forest fires.

- ATCO Gas: Studies were prepared in 2010 and 2018 which were the subject of a review by the AUC. Elements of all of the studies included the service life analysis for all accounts using the retirement rate analysis, discussion with management regarding outlook, and the estimation of net salvage requirements. These studies also specifically analyzed the pace of technical change in the Alberta Gas system, and recently have specifically considered the impacts of early retirements caused by storms and forest fires.
- Centra Gas Manitoba, Inc.: The study included development of annual and accrued depreciation rates for all gas plant in service. Elements of the study included a field inspection of metering and compression facilities, service buildings and other gas plant; service life analysis for all accounts using the retirement rate analysis on a combined database developed from actuarial data and data developed through the computed method; discussions with management regarding outlook; and the estimation of net salvage requirements. A similar study was completed in 2006, 2011, and 2015. The 2011 and 2015 studies were the subject of a review by the Manitoba Public Utilities Board in 2012 and 2016. Mr. Kennedy has also consulted on issues regarding International Financial Reporting Standards ("IFRS") compliance and required componentization.
- Enbridge Gas Distribution Inc.: Full and comprehensive depreciation studies have been completed in 2009 and 2011. The 2009 study also included review of the company's gas storage operations. Both studies included the development of annual and accrued depreciation rates for all depreciable natural gas distribution, transmission and general plant assets. Elements of the studies included the service life analysis for all accounts using the computed mortality method of analysis, discussion with management regarding outlook and the estimation of net salvage requirements. Studies were prepared for submission to the Ontario Energy Board.
- Mr. Kennedy has also completed an allocation of the accumulated depreciation accounts into the amounts related to the recovery of original cost and the amounts recovered in tolls for the future removal of assets currently in service. The allocations were determined as of December 31, 2009 and were deemed by the company's external auditors to be in conformance with proper accounting standards and procedures. In 2013, a review of the reserve required for the future removal of assets currently in service was undertaken by Mr. Kennedy. The results of the review were summarized in evidence presented by Mr. Kennedy to the Ontario Energy Board.
- ENMAX Power Corporation: Studies have included the development of annual and accrued depreciation rates for all depreciable electric transmission assets. Elements of the studies included the service life analysis for all accounts using the retirement rate analysis, discussion with management regarding outlook, and the estimation of net salvage requirements. Studies were prepared for submission to the Alberta Department of Energy and more recently for submission to the Alberta Energy and Utilities Board. Similar studies have also been completed for submission for the ENMAX Electric Distribution assets for





submission to the AUC. The ENMAX distribution asset assignments also included an extensive asset verification project where the plant accounting and operational asset records were verified to the field assets actually in service.

- Fortis Group of Companies: Studies have included the development of annual and accrued depreciation rates for the electric distribution assets in Alberta and for the generation, transmission, and distribution assets in British Columbia. The FortisBC Inc. studies were completed and filed with the British Columbia Utilities Commission (“BCUC”) in 2005, 2010, 2011 and 2018 encompassing both the FortisBC electric and natural gas companies. FortisAlberta Inc. studies were completed in 2004 (updated in 2005), 2009 and 2010. Elements of the studies included the development of average service lives using the retirement rate method of analysis, development of net salvage estimates, compliance with IFRS, and the determination of appropriate annual accrual and accrued depreciation rates. The most recent studies also specifically analyzed the pace of technical change in the Electric systems, and specifically considered the impacts of retirements, system modernization and technical enhancements to the assets.
- International Financial Reporting Standards (“IFRS”): Mr. Kennedy has been retained by numerous clients encompassing most Canadian Provinces and Territories. The assignments included the review of company's assets and depreciation practices to provide opinion on the compliance to the IFRS. The assignments have also included the issuance of opinion to the External Auditors of Utilities to comment on the manner in which the Utilities can minimize differences in the regulatory ledgers and the accounting records used for financial disclosure purposes. Mr. Kennedy has also presented to the Canadian Electric Association, the Society of Depreciation Professionals, the Canadian Energy Pipeline Association and to the BCUC on this topic.
- Mackenzie Valley Pipeline Project: This assignment included the review of the proposed depreciation schedule for the proposed Mackenzie Valley Pipeline. The review included a discussion of the policies used by the company and the depreciation concepts to be included in a depreciation schedule for a Greenfield pipeline. The review was supported through appearance at the oral public hearings before the National Energy Board of Canada (“NEB”).
- Manitoba Hydro: A study was developed to determine the appropriate depreciation parameters for all electric generation, transmission and distribution assets. The study was submitted to the Manitoba Public Utilities Board. Elements of the study included a field review of electric generation and transmission plant, the service life analysis for all accounts using the retirement rate analysis, discussion with management regarding outlook and the estimation of net salvage requirements. A similar study was also completed in 2006 and in 2011. The 2011 depreciation study was the subject of a review by the Manitoba Public Utilities Board in 2012. Mr. Kennedy has also consulted with Manitoba Hydro on issues regarding IFRS compliance and required componentization.
- New Brunswick Power: Mr. Kennedy completed a comprehensive depreciation review of the electric generation (including the nuclear facilities), transmission, distribution and general plant assets. The review, which was prepared for submission to the New Brunswick Public





Utilities Board, included a significant amount of discussion regarding the development of depreciation policy for the company. The study also included development of procedures to extract data from the company databases, tours of the company facilities, interviews with operational and management representatives, development of appropriate net salvage rates, development of average service life estimates, and the compilation of the report.

- Newfoundland and Labrador Hydro (NALCOR): Mr. Kennedy developed comprehensive depreciation studies that included the development of depreciation policy and rates for NALCOR. The studies provided a significant review of the previous depreciation policy, which included use of a sinking fund depreciation method and provided justification for the conversation to the straight-line depreciation method. The study, which was prepared for submission to the Newfoundland and Labrador Utilities Commission, included a significant amount of discussion regarding the development of depreciation policy for the company. The study also included development of procedures to extract data from the company databases, tours of the company facilities, interviews with operational and management representatives, development of appropriate net salvage rates, development of average service life estimates, and the compilation of the report for submission in a General Tariff Application. Additional studies were also completed in 2008 and 2010. The 2010 and 2017 studies were the subject of Regulatory Review in 2012 and 2019.
- Ontario Power Generation: Assignments have included a review of the Depreciation Review Committee process completed in 2007. This review provided recommendations for enhanced internal processes and controls in order to ensure that the depreciation expense reflects the annual consumption of service value. Additionally, full assessments of the lives of the regulated assets of the company's electric generation hydro and nuclear plants were completed in 2011 and 2013 and were submitted to the Ontario Energy Board for review.
- TransCanada Pipelines Limited - Alberta Facilities: The assignment included working with the company to develop the appropriate depreciation policy to align with the organization's overall goals and objectives. The resulting depreciation study, which was submitted to the Alberta Energy and Utilities Board, incorporated the concepts of time-based depreciation for gas transmission accounts and unit-based depreciation for gathering facilities. The data was assembled from two different accounting systems and statistical analysis of service life and net salvage were performed. For gathering accounts, the assignment included the oversight of the development of appropriate gas production and ultimate gas potential studies for specific areas of gas supply. Field inspections of gas compression, metering and regulating, and service operations were conducted. Studies were completed in 2002 and 2004, 2007, 2009 and 2012, 2015, and 2018.
- TransCanada Pipelines Limited - Mainline Facilities: The study prepared for submission to the NEB included the development of annual and accrued depreciation rates for gas transmission plant east of the Alberta - Saskatchewan border. Elements of the study included a field inspection of compression and metering facilities, service life and net salvage analysis for all accounts. The study was completed in 2002 and was supported through an appearance before the NEB. Study updates have been completed in 2005, 2007, 2009 and an additional



full and comprehensive study was completed in 2011, and 2017. The 2011 study was fully supported through an appearance before the NEB in 2012.

#### Designations and Professional Affiliations

- Society of Depreciation Professionals -Certified Depreciation Professional
- Society of Depreciation Professionals (former President)



**EVIDENCE ENTERED INTO PROCEEDINGS IN THE UNITED STATES**

<b>YEAR</b>	<b>CLIENT</b>	<b>APPLICANT</b>	<b>REGULATORY BOARD</b>	<b>PROCEEDING NUMBER</b>
2015	Alliance Pipeline LP	Alliance Pipeline LP	Federal Energy and Regulatory Commission	Docket No. RP15-1022
2019	Viking Gas Transmission Company	Viking Gas Transmission Company	Federal Energy Regulatory Commission	RP19-1340
2020	National Grid USA Service Company Limited	National Grid USA Service Company Limited	Federal Energy Regulatory Commission	Settled through Negotiation
2018	Great Plains Natural Gas Co.	Great Plains Natural Gas Co.	Minnesota Department of Commerce	Annual Depreciation Filing
2018	Montana-Dakota Utilities	Montana-Dakota Utilities	Montana Public Service Commission	Docket D2019.9
2019	Great Plains Natural Gas Co	Great Plains Natural Gas Co	Minnesota Department of Commerce	Annual Depreciation Filing
2020	Cascade Natural Gas Corporation	Cascade Natural Gas Corporation	Oregon Public Utility Commission	UM - 2073
2020	Missouri-American Water Company	Missouri-American Water Company	Missouri Public Service Commission	WR-2020-0344
2020	Great Plains Natural Gas Co	Great Plains Natural Gas Co	Minnesota Department of Commerce	Annual Depreciation Filing
2020	Commonwealth Edison Company	Commonwealth Edison Company	State of Illinois - Illinois Commerce Commission	Docket 20-0393
2021	Intermountain Gas Company	Intermountain Gas Company	Idaho Public Utilities Commission	Case No. INT-21-01
2021	Midwestern Gas Transmission Company	Midwestern Gas Transmission Company	Federal Energy Regulatory Commission	RP21-525-000
2021	Enbridge Lakehead System	Enbridge Lakehead System	Federal Energy Regulatory Commission	DO21-15-000
2021	Consolidated Edison of New York	Consolidated Edison of New York	New York State Public Service Commission	19-G-0066
2022	United Illuminating Company	United Illuminating Company	Connecticut Public Utilities Regulatory Authority	22-08-08
2022	Montana-Dakota Utilities	Montana-Dakota Utilities	North Dakota Utilities Commission	Case No. PU-22-194
2022	Evergy Missouri West	Evergy Missouri West	Evergy Missouri West	ER-2022-0130
2022	Evergy Missouri West	Evergy Missouri West	Evergy Missouri West	ER-2022-0155



YEAR	CLIENT	APPLICANT	REGULATORY BOARD	PROCEEDING NUMBER
2022	Northern Natural Gas Company	Northern Natural Gas Company	Federal Energy Regulatory Commission	RP22-1033-0000
2023	Indiana American Water Company	Indiana American Water Company	Indiana Utility Regulatory Commission	Cause No. 45870
2023	Kentucky American Water Company	Kentucky American Water Company	Commonwealth of Kentucky Public Service Commission	Case No. 2022-00299
2023	Kentucky American Water Company	Kentucky American Water Company	Commonwealth of Kentucky Public Service Commission	Case No. 2023-00191
2023	DCR Transmission, L.L.C.	DCR Transmission, L.L.C	Federal Energy Regulatory Commission	ER23-2309-000
2023	Montana-Dakota Utilities	Montana-Dakota Utilities	Public Service Commission of the State of Montana	2022.11.099
2023	Montana-Dakota Utilities	Montana-Dakota Utilities	South Dakota Public Utilities Commission	NG23
2023	Virginia American Water Company	Kentucky American Water Company	Commonwealth of Kentucky Public Service Commission	Case No. 2023-Pending

#### EVIDENCE ENTERED INTO PROCEEDINGS IN CANADA

YEAR	CLIENT	APPLICANT	REGULATORY BOARD	PROCEEDING NUMBER
1999	ENMAX Power Corporation	Edmonton Power Corporation	Alberta Energy and Utilities Board	980550
2000	AltaGas Utilities Inc.	AltaGas Utilities Inc.	Alberta Energy and Utilities Board	Decision 2002-43
2001	City of Calgary	ATCO Pipelines South	Alberta Energy and Utilities Board	2000-365
2001	City of Calgary	ATCO Gas South	Alberta Energy and Utilities Board	2000-350
2001	City of Calgary	ATCO Affiliate Proceeding	Alberta Energy and Utilities Board	1237673
2001	ENMAX Power Corporation	ENMAX Power Corporation - Transmission	Alberta Department of Energy	N/A
2002	Centra Gas British Columbia	Centra Gas British Columbia	British Columbia Utilities Commission	N/A
2002	ENMAX Power Corporation	ENMAX Power Corporation - Transmission	Alberta Department of Energy	N/A



YEAR	CLIENT	APPLICANT	REGULATORY BOARD	PROCEEDING NUMBER
2003	AltaLink LP	AltaLink LP	Alberta Energy and Utilities Board	1279345
2003	Centra Gas Manitoba	Centra Gas Manitoba	Manitoba Public Utilities Board	N/A
2003	City of Calgary	ATCO Pipelines	Alberta Energy and Utilities Board	1292783
2003	City of Calgary	ATCO Electric-ISO Issues	Alberta Energy and Utilities Board	N/A
2003	City of Calgary	ATCO Gas	Alberta Energy and Utilities Board	1275466
2003	City of Calgary	ATCO Electric	Alberta Energy and Utilities Board	1275494
2003	Manitoba Hydro	Manitoba Hydro	Manitoba Public Utilities Board	N/A
2003	TransCanada Pipelines Limited	TransCanada Pipelines Limited	National Energy Board of Canada	RH-1-2002
2004	AltaGas Utilities Inc.	AltaGas Utilities Inc.	Alberta Energy and Utilities Board	1305995
2004	AltaLink LP	AltaLink LP	Alberta Energy and Utilities Board	1336421
2004	Central Alberta Midstream	Central Alberta Midstream	Municipal Government Board of Alberta	N/A
2004	Central Alberta Midstream	Central Alberta Midstream	Municipal Government Board of Alberta	N/A
2004	ENMAX Power Corporation	ENMAX Power Corporation	Alberta Energy and Utilities Board	1306819
2004	Heritage Gas Ltd.	Heritage Gas Ltd.	Nova Scotia Utility and Review Board	N/A
2004	NOVA Gas Transmission Limited	NOVA Gas Transmission Limited	Alberta Energy and Utilities Board	1315423
2004	Westridge Utilities Inc.	Westridge Utilities Inc.	Alberta Energy and Utilities Board	1279926
2005	AltaGas Utilities Inc.	AltaGas Utilities Inc.	Alberta Energy and Utilities Board	1378000
2005	ATCO Electric	ATCO Electric	Alberta Energy and Utilities Board	1399997
2005	ATCO Power	ATCO Power	Municipal Government Board of Alberta	N/A
2005	British Columbia Transmission Corporation	British Columbia Transmission Corporation	British Columbia Utilities Commission	N/A
2005	Centra Gas Manitoba	Centra Gas Manitoba	Manitoba Public Utilities Board	N/A



YEAR	CLIENT	APPLICANT	REGULATORY BOARD	PROCEEDING NUMBER
2005	ENMAX Corporation Power	ENMAX Corporation Power – Transmission	Alberta Energy and Utilities Board	N/A
2005	ENMAX Corporation Power	ENMAX Corporation Power – Distribution Assets	Alberta Energy and Utilities Board	1380613
2005	FortisAlberta Inc.	FortisAlberta Inc.	Alberta Energy and Utilities Board	1371998
2005	FortisAlberta Inc.	FortisAlberta Inc.	Alberta Energy and Utilities Board	N/A
2005	FortisBC, Inc.	FortisBC, Inc.	British Columbia Utilities Commission	N/A
2005	Manitoba Hydro	Manitoba Hydro	Manitoba Public Utilities Board	N/A
2005	New Brunswick Board of Commissioners of Public Utilities	New Brunswick Power Distribution and Customer Service Company	New Brunswick Board of Commissioners of Public Utilities	N/A
2005	Northland Utilities (NWT) Inc.	Northland Utilities (NWT) Inc.	Northwest Territories Utilities Board	N/A
2005	Northland Utilities (Yellowknife) Inc.	Northland Utilities (Yellowknife) Inc.	Northwest Territories Utilities Board	N/A
2005	NOVA Gas Transmission Ltd.	NOVA Gas Transmission Ltd.	Alberta Energy and Utilities Board	1375375
2005	City of Red Deer	City of Red Deer Electric System	Alberta Energy and Utilities Board	1402729
2005	Yukon Energy Corporation	Yukon Energy Corporation	Yukon Utilities Board	N/A
2006	AltaLink LP	AltaLink LP	Alberta Energy and Utilities Board	1456797
2006	BC Hydro	BC Hydro	British Columbia Utilities Commission	N/A
2006	Imperial Oil Resources Ventures Limited	McKenzie Valley Pipeline Project	National Energy Board of Canada	GH-1-2004
2007	Enbridge Pipelines Limited	Enbridge Pipelines Limited	National Energy Board of Canada	RH-2-2007
2007	FortisAlberta Inc.	Fortis Alberta Inc.	Alberta Energy and Utilities Board	1514140
2007	Kinder Morgan	Terasen (Jet fuel) Pipeline Limited	British Columbia Utilities Commission	N/A
2008	ATCO Electric	Yukon Electrical Company Limited	Yukon Utilities Board	N/A
2008	ATCO Gas	ATCO Gas	Alberta Utilities Commission	1553052
2008	City of Lethbridge Electric System	City of Lethbridge	Alberta Utilities Commission	N/A
2008	ENMAX Corporation Power	ENMAX Corporation Power	Alberta Utilities Commission	1512089



YEAR	CLIENT	APPLICANT	REGULATORY BOARD	PROCEEDING NUMBER
2008	Heritage Gas Ltd.	Heritage Gas Ltd.	Nova Scotia Utility and Review Board	N/A
2009	AltaGas Utilities Inc.	AltaGas Utilities Inc.	Alberta Utilities Commission	N/A
2009	Fortis Alberta Inc.	Fortis Alberta, Inc.	Alberta Utilities Commission	1605170
2010	ATCO Electric	ATCO Electric	Alberta Utilities Commission	1606228
2010	Enbridge Pipelines Limited - Line 9	Enbridge Pipelines Limited - Line 9	National Energy Board of Canada	N/A
2010	Gazifere	Gazifere	La Regie de L'Energie	R-3724-2010
2010	Kinder Morgan	Kinder Morgan	National Energy Board of Canada	N/A
2010	Pacific Northern Gas	Pacific Northern Gas	British Columbia Utilities Commission	N/A
2011	AltaGas Utilities Inc.	AltaGas Utilities Inc.	Alberta Utilities Commission	1606694
2011	AltaLink LP	AltaLink LP	Alberta Utilities Commission	1606895
2011	ATCO Electric	Northland Utilities (NWT) Inc.	Northwest Territories Utility Board	N/A
2011	ATCO Gas	ATCO Gas	Alberta Utilities Commission	1606822
2011	FortisAlberta Inc.	Fortis Alberta Inc.	Alberta Utilities Commission	1607159
2011	FortisBC Energy, Inc.	FortisBC Energy, Inc.	British Columbia Utilities Commission	3698627
2011	GazMetro	GazMetro	La Regie de L'Energie	R-3752-2011
2011	Heritage Gas Ltd.	Heritage Gas Ltd.	Nova Scotia Utility and Review Board	N/A
2011	Qulliq	Qulliq	Utilities Rates Review Council	N/A
2011	SaskPower	SaskPower	Internal Review Committee	N/A
2011	TransAlta Utilities Corporation	TransAlta Utilities Corporation	Municipal Government Board of Alberta	N/A
2012	City of Red Deer	City of Red Deer	Alberta Utilities Commission	1608641
2012	Enbridge Gas Distribution Inc.	Enbridge Gas Distribution Inc.	Ontario Energy Board	EB 2011-0345
2012	FortisBC, Inc.	FortisBC, Inc.	British Columbia Utilities Commission	3698620
2012	Manitoba Hydro	Manitoba Hydro	Manitoba Public Utilities Board	2013/2013 GRA





YEAR	CLIENT	APPLICANT	REGULATORY BOARD	PROCEEDING NUMBER
2012	Newfoundland and Labrador Hydro	Newfoundland and Labrador Hydro	Newfoundland and Labrador Board of Commissioners of Public Utilities	N/A
2012	Northwest Territories Power Corporation	Northwest Territories Power Corporation	Northwest Territories Public Utilities Board	N/A
2012	TransCanada Pipelines Limited	TransCanada Pipelines Limited	National Energy Board of Canada	RH-003 -2011
2013	AltaLink LP	AltaLink LP	Alberta Utilities Commission	1608711
2013	IntraGaz Incorporated	IntraGaz Incorporated	La Regie de L'Energie	R-3807-2012
2013	Yukon Electrical Company Limited (YECL)	Yukon Electrical Company Limited (YECL)	Yukon Utilities Board	2013-2015 GRA
2014	Enbridge Gas Distribution	Enbridge Gas Distribution	Ontario Energy Board	EB-2012-0459
2014	ENMAX Power Corporation	ENMAX Power Corporation	Alberta Utilities Commission	1609674
2015	AltaLink LP	AltaLink LP	Alberta Utilities Commission	Proceeding 3524
2015	EPCOR Distribution & Transmission	EPCOR Distribution & Transmission	Alberta Utilities Commission	Proceeding 20407
2015	FortisBC Energy, Inc.	FortisBC Energy, Inc.	British Columbia Utilities Commission	N/A
2015	FortisBC, Inc.	FortisBC, Inc.	British Columbia Utilities Commission	N/A
2015	GazMetro	GazMetro	La Regie de L'Energie	N/A
2015	Manitoba Hydro	Manitoba Hydro	Manitoba Public Utilities Board	2014/15 & 2015/16 GRA
2015	Newfoundland and Labrador Hydro	Newfoundland and Labrador Hydro	Newfoundland and Labrador Board of Commissioners of Public Utilities	N/A
2016	ATCO Electric	ATCO Electric	Alberta Utilities Commission	Proceeding 20272
2017	NALCOR	NALCOR	Newfoundland Public Utilities Board	Settled
2017	TransCanada Pipelines Limited - Mainline Facilities	TransCanada Pipelines Limited - Mainline Facilities	National Energy Board of Canada	RH-1-2018
2017	TransCanada Pipelines Limited - NGTL Facilities	TransCanada Pipelines Limited - NGTL Facilities	National Energy Board of Canada	RH-001-2019
2018	WestCoast Transmission System	WestCoast Transmission System	National Energy Board of Canada	Settled





YEAR	CLIENT	APPLICANT	REGULATORY BOARD	PROCEEDING NUMBER
2018	ATCO Electric	ATCO Electric	Alberta Utilities Commission	Proceeding 24195
2018	ATCO Gas	ATCO Gas	Alberta Utilities Commission	Proceeding 24188
2018	SaskEnergy Inc.	SaskEnergy Inc.	Saskatchewan Review Board	N/A
2018	SaskPower	SaskPower	Saskatchewan Review Board	N/A
2018	AltaGas Utilities Inc.	AltaGas Utilities Inc.	Alberta Utilities Commission	Proceeding 24161
2018	AltaLink LP	AltaLink LP	Alberta Utilities Commission	Proceeding 23848
2018	FortisBC Energy Inc.	FortisBC Energy Inc.	British Columbia Utilities Commission	N/A
2018	FortisBC Inc.	FortisBC Inc.	British Columbia Utilities Commission	N/A
2019	Capital Power Corporation	Capital Power Corporation	Municipal Government Board of Alberta	N/A
2019	TransAlta Corporation	TransAlta Corporation	Municipal Government Board of Alberta	N/A
2019	Trans Mountain Pipeline ULC	Trans Mountain Pipeline ULC	Canadian Energy Regulator	T260-2019-04-01
2019	NB Power	NB Power	New Brunswick Energy Utility Regulator	Pending
2019	ATCO Electric	ATCO Electric Transmission	Alberta Utilities Commission	Proceeding 24964
2020	Enbridge Pipelines Inc.	Enbridge Pipelines Inc.	Canada Energy Regulator (CER)	RH-001-2020
2021	Ontario Power Generation	Ontario Power Generation	Ontario Energy Board	N/A
2021	AltaLink L.P	AltaLink L.P	Alberta Utilities Commission	Proceeding 26059
2022	Enbridge Gas Inc.	Enbridge Gas Inc.	Ontario Energy Board	EB-2022-0200
2022	IntraGaz LP	IntraGaz LP	La Regie de L'Energie	R-4189-2022
2022	BC Hydro	BC Hydro	British Columbia Utilities Commission	Project 1599243
2022	Manitoba Hydro	Manitoba Hydro	Manitoba Public Utilities Board	Manitoba Hydro 2023/24 & 2024/25 General Rate Application
2023	Pacific Northern Gas	Pacific Northern Gas	British Columbia Utilities Commission	Application No. PNG NE2023 to 2024 RRA



YEAR	CLIENT	APPLICANT	REGULATORY BOARD	PROCEEDING NUMBER
2023	ENMAX Corporation Power	ENMAX Corporation Power	Alberta Utilities Commission	Proceeding 27581



## **2023 DEPRECIATION STUDY**

Prepared for Tennessee American Water Company

Prepared April, 2024

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## SECTION 1

### 1 STUDY HIGHLIGHTS

Pursuant to Tennessee American Water's ("TNAW" or the "Company") request, Concentric Energy Advisors ("Concentric") conducted a depreciation study related to the Company's Water Treatment, Distribution, Transmission and General Plant accounts. The purpose of the study is to determine the annual depreciation accrual rates and amounts applicable to the original cost of water utility plant, as of December 31, 2023.

The depreciation rates are based on the Straight-Line method using the Average Life Group procedure and were applied on a Remaining Life basis. The calculations were based on attained ages, estimated average service life and forecasting net salvage

characteristics for each depreciable group of assets.

Concentric recommends the calculated annual depreciation accrual rates set forth herein apply specifically to Water Treatment, Distribution, Transmission, and General Plant assets in service, as of December 31, 2023, summarized in Tables 1, 1A, and 1B starting on pages 5-2. Supporting data and calculations are also provided within this report.

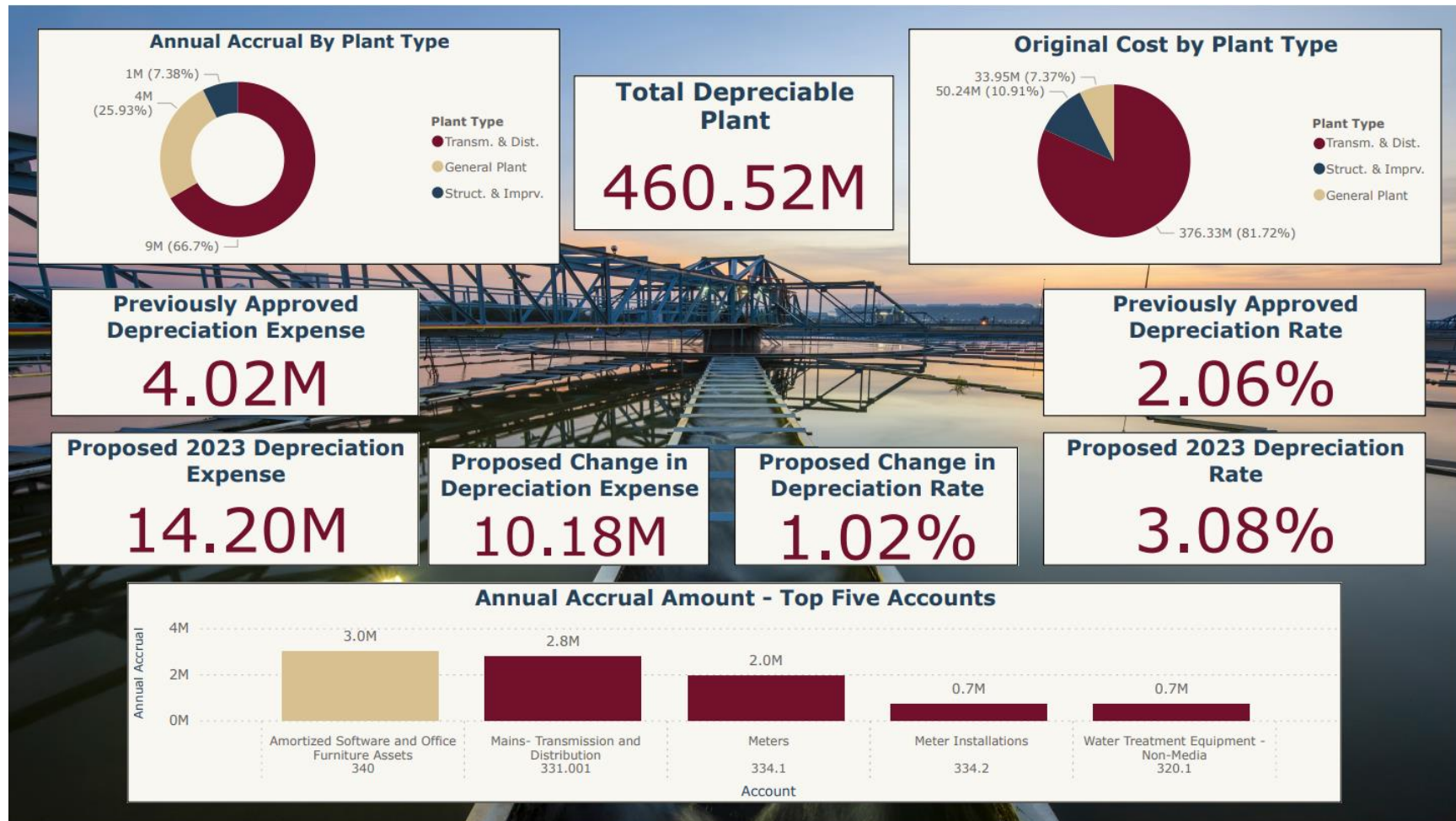
Concentric's study results in an annual depreciation expense accrual of \$14.20 million when applied to depreciable plant balances of \$460.5 million, as of December 31, 2023. The report study results are summarized at an aggregate functional group level as follows:

#### SUMMARY OF ORIGINAL COST, ACCRUAL PERCENTAGES AND AMOUNTS

Plant Group / Accounts	Original Cost	Annual Accrual Amount	Annual Accrual Rate
Structures and Improvements	\$50,238,372	\$1,047,625	2.09%
Transmission and Distribution	\$376,333,053	\$9,471,616	2.52%
General Plant	\$33,953,555	\$3,681,603	10.84%
<b>TOTAL DEPRECIABLE PLANT STUDY BALANCE</b>	<b>\$460,524,980</b>	<b>\$14,200,844</b>	<b>3.08%</b>



## 1.1 Executive Summary





## SECTION 2

## 2 BASIS OF THE STUDY

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### 2.1 Scope

This study sets forth the results of the depreciation study for the treatment, distribution, transmission, and general water plant assets of TNAW, to determine the annual depreciation accrual rates and amounts for book purposes applicable to the original cost of investment as of December 31, 2023. The rates and amounts are based on the Straight-Line Method, incorporating the ALG Procedure applied on a Remaining Life Basis. This study also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to the TNAW assets in service, as of December 31, 2023.

The service life estimates resulting from the study were based on:

- informed professional judgment which incorporated analyses of historical plant retirement data recorded through December 31, 2023;
- a review of TNAW company practice and outlook, as they relate to plant operation and retirement; and
- consideration of current practice in the Water system industry, including knowledge of service life estimates used for other Water system companies.

The depreciation accrual rates presented herein are based on generally-accepted methods and procedures for calculating depreciation. The estimated survivor curves used in this study are based on studies incorporating actual data through 2023 for most accounts.

### 2.2 Plan of Study

The report is presented in the following order:

SECTION 1	Study Highlights presents a brief summary of the depreciation study and results
SECTION 2	Basis of the Update contains statements with respect to the plan and the basis of the study
SECTION 3	Development of the Required Depreciation Rates presents descriptions of the methods used and factors considered in the service life study
SECTION 4	Calculation of Annual and Accrued Depreciation presents the methods and procedures used in the calculation of depreciation
SECTION 5	Results of Study presents summaries by depreciable group of annual and accrued depreciation in Tables 1, 1A, and 1B
SECTION 6	Presents the results of the Retirement Rate Analysis
SECTION 7	Presents the results of the Net Salvage Study
SECTION 8	Presents the results of the Detailed Depreciation Calculations
SECTION 9	Estimation of Survivor Curves is an overview of Iowa curves and the Retirement Rate Analysis



## 2.3 Depreciation

A full and comprehensive depreciation study includes the following components:

1. supported recommendations regarding Average Service Life estimates for each account;
2. supported recommendations regarding estimated Net Salvage requirements for each account;
3. selection of an appropriate grouping procedure;
4. detailed calculation of the depreciation rate utilizing the estimated Average Service Life and Net Salvage requirements; and
5. a document explaining the procedures followed and justifying the results in a format suitable for submission to senior management and regulatory authorities.

A diagram of the nine primary processes followed by Concentric in the development of the depreciation study is provided below. Each of the steps is undertaken by Concentric using proprietary software.

For most accounts, the annual and accrued depreciation were calculated by the Straight-Line Method using the ALG Procedure. For certain general plant accounts, the annual and accrued depreciation are based on amortization accounting. Both types of calculations were based on original cost, attained ages and an estimate of service lives.

Consistent with the current TNAW practice, amortization accounting continues to be recommended for certain general plant accounts because of the disproportionate plant accounting effort required in these accounts. Many regulated utilities in North America have received approval to adopt amortization accounting for these accounts.

### Primary Depreciation Processes

1) Project  
Initiation  
Meeting

2) Data  
Assembly and  
Review

3) Statistical  
Analysis of Data

4) Field Review  
and  
Management  
Conference

5) Preliminary  
Estimates and  
Depreciation  
Calculations

6) Management  
Review

7) Final Estimates  
and  
Calculations

8) Draft and  
Final Reports

9) Regulatory  
Proceedings





## 2.4 Information Provided by TNAW

TNAW has provided Concentric with the required information, as of December 31, 2023 for all accounts being studied. This information has been compiled from the plant accounting records and includes the following:

- current balances by vintage year for each account (aged balances). The balances provide the amount of investment sorted by installation year currently in operation. This file is only inclusive of current plant in service and does not include any retirement information;
- detailed retirement transactions for all accounts. The transactions include information regarding the transaction year of the retirement, the installation year of the asset being retired, and the original cost of the asset being retired; and
- detailed cost of removal and gross salvage transactions for all accounts requiring the recovery of net salvage. The transactions include information regarding the transaction year of the retirement, the costs associated with the retirement, and any gross salvage proceeds from the sale or reuse of the property; and
- Accumulated Depreciation balances as of December 31, 2023 for accounts studied.

## 2.5 Data Reconciliation

The above data was reviewed and reconciled to Company control schedules to ensure accuracy and reasonableness in use of the calculations developed in this study. These checks include:

- that the surviving investment by account equals (or can be reconciled to) the Company's gross plant in service and accumulated depreciation ledger balances;
- that the surviving investment in each vintage is not negative. In other words, this check confirms that the sum of retirements from any given vintage have not exceeded the amount of plant additions to the vintage; and
- that any adjusting transactions are properly accounted for within the databases.



## SECTION 3

### 3 DEVELOPMENT OF THE REQUIRED DEPRECIATION RATES

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#### 3.1 Depreciation

The development of the depreciation calculations requires the input of an Average Service Life, a retirement dispersion curve (“Survivor Curve” or “Iowa curve”), Net Salvage estimates, and Life Span dates for a number of accounts. (the “depreciation parameters”). Additionally, to complete the depreciation calculations, the calculation methods must be established. Specifically, the selection of the depreciation method must establish three types of additional input:

1. the choice of a depreciation method;
2. a basis upon which to apply the method, and
3. in the case of group assets, a procedure to use in grouping the assets.

In this study, the depreciation rates for TNAW have been calculated in accordance with the Straight-Line method, the ALG procedure and applied using the Remaining Life technique, with any accumulated depreciation variances trued-up over the composite remaining life of each account.

Depreciation, as applied to depreciable plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of water plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art and changes in demand and requirements of public authorities.<sup>1</sup>

When considering the action of the elements, the average service life and net salvage calculations have considered large catastrophic events that have occurred and impacted the life estimates of utilities across North America. The average service life of utilities has been influenced by events including:

- forest fires;
- earthquakes;
- tornadoes;
- ice storms;
- wind-storms;
- large scale flooding;
- fires;
- lightning;
- intentional actions of third parties;
- hoar frost; and
- other natural forces of nature.

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<sup>1</sup> The National Association of Railroad and Utilities Commissioners, Uniform System of Accounts for Gas Utilities.



Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a time period by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing water utility service. Normally, the time over which the fixed capital cost is allocated to the cost of service, is equal to the time over which an item renders service - that is the item's service life. The most prevalent method of allocation is to distribute an equal amount of cost to each year of service life. This method is known as the Straight-Line method of depreciation.

The calculation of annual and accrued depreciation based on the Straight-Line method when applied to utility group accounts requires the estimation of survivor curves and is described in the following sections of this study. The development of the proposed depreciation rates also requires the selection of group depreciation procedures, as discussed below.

### 3.1.1 Study Depreciation Methods and Procedures

When more than a single item of property is under consideration, a group procedure for depreciation is appropriate because normally all of the items within a group do not have identical service lives but have lives that are dispersed over a range of time. There are two primary group procedures, namely, the Average Life Group (ALG) and Equal Life Group (ELG) procedures.

In the ALG Procedure, the rate of annual depreciation is based on the average service life of the group. This rate is applied to the surviving balances of the group's cost. A characteristic of this procedure is that the cost of plant retired prior to average life is not fully recouped at the time of retirement, whereas the cost of plant retired subsequent to the average life is more than fully recouped. Over the entire life cycle, the portion of cost not recouped prior to average life is balanced by the cost recouped subsequent to average life.

In the Equal Life Group Procedure, also known as the Unit Summation Procedure, the property group is subdivided according to service life. That is, each equal life group includes that portion of the property which experiences the life of that specific group. The relative size of each equal life group is determined from the property's life dispersion curve. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each equal life unit.

For most accounts, the annual and accrued depreciation were calculated by the Straight-Line Method using the ALG Procedure. For certain Structures & Improvements, Transmission & Distribution, and General plant accounts, the annual and accrued depreciation are based on amortization accounting. Both types of calculations were based on original cost, attained ages and an estimate of service lives.

While the Equal Life Group Procedure provides an enhanced matching of depreciation expense to the consumption of service value, the Straight-Line Method, Average Life Group Procedure is a commonly used depreciation calculation that has been widely accepted in jurisdictions throughout North America including TNAW in prior studies. Concentric recommends its continued use.

Amortization accounting is used for certain transmission and compression plant accounts because of the disproportionate plant accounting effort required in these accounts. Many regulated utilities in North America have received approval to adopt amortization accounting for these accounts. This study calculates the annual and accrued depreciation using the Straight-Line Method and ALG



Procedure for most accounts. For certain general plant accounts, the annual and accrued depreciation are based on amortization accounting. Both types of calculations were based on original cost, attained ages and estimates of service lives.

Continued monitoring and maintenance of the accumulated depreciation reserve at the account level is recommended. Concentric has determined an amortization amount to correct the present variance with the calculated accrued depreciation (theoretical reserve) over the composite remaining life of each account.

### 3.1.2 Remaining Life Calculations

The depreciation rates calculated in this study were calculated on the same manner as used in the prior full depreciation study – i.e. using the straight-line method, the ALG Procedure applied on a remaining life basis. The vintaged remaining life approach weighs the calculations of remaining life on an allocation of the actual book accumulated depreciation account by the Calculated Accumulated Depreciation (CAD) factor determined for each vintage of plant in service. This method is described as a CAD weighted calculation in the textbook *Depreciation Systems* by Frank K. Wolf and W. Chester Fitch, published by the Iowa State University in 1994 under the title “Adjustments” within the Broad Group Model. This approach to the calculation of remaining life has not changed since the last depreciation study.

When depreciation rates are calculated utilizing a remaining life technique, the depreciation rate is established by dividing the undepreciated value of each group of assets (after consideration to the net salvage requirements) by the composite remaining life of the group of assets. This calculation is made for each vintage surviving investment as of the date of the study (December 31, 2023), and then composited into a calculation for the account or group as a whole. This calculation requires two estimates:

1. The actual booked accumulated depreciation for each vintage within each account.

TNAW does not track the booked accumulated depreciation reserve by vintage within each account. Rather the depreciation expense is calculated at an account level and booked to accumulated depreciation at the same account level. Concentric notes that this is the practice employed by virtually all regulated utilities. As such, the accumulated depreciation by account is allocated within the account to each vintage, on the basis of the calculated accumulated depreciation by vintage. The calculated accumulated depreciation is a function of the estimated survivor curve, the average service life estimate, the net salvage estimates and the achieved age of each vintage.

2. The estimated remaining life of each vintage with each account. The estimated remaining life of each vintage is a direct function of the achieved age of each vintage, the estimated survivor curve and the average service life estimate.

Once the above two estimates are determined (the allocated booked reserve by vintage and the average remaining life of each vintage), an annual accrual requirement for each vintage is determined by dividing the net book value for each vintage (considering the estimated future salvage requirements) by the average remaining life of the vintage. The annual requirement for each vintage



is summed at the account level and divided into the sum of the accounts original cost surviving as of December 31, 2023.

This process results in each vintage's calculated net book value to be depreciated over an appropriate remaining life. This vintage weighting on CAD approach to the remaining life calculations is widely considered to be the most accurate. Concentric agrees and views this methodology as the correct and most appropriate calculation.

### 3.1.3 Truncation Cuts

It is commonly accepted within depreciation texts that some data points, particularly towards the end of the Iowa curve, may be less reliable due to the lower amount of exposures that the retirements are calculated on. It is widespread practice to place lesser weighting on these data points, through the use of a Truncation Cut (or "T-Cut"). This practice is described in detail in the text "Public Utility Depreciation Practices" compiled and edited by the Staff Subcommittee on Depreciation of the Finance and Technology Committee of the National Association of Regulatory Utility Commissioners on page 122 where it is stated:

*"A T-cut is used to mathematically perform a function that is automatic in visual fitting (i.e., setting a point beyond which the observed data are considered irrelevant or unreliable and are, therefore, ignored).*

*Careful selection of a T-cut can greatly enhance the reliability of the resulting analysis. Conversely, since the use of a T-cut involves truncating the observed data, careless selection can impair the reliability of subsequent work."*

Concentric has utilized T-cuts throughout the Iowa curve selection where necessary. Where a T-cut is utilized, Concentric has indicated such in the account-by-account write up below.

### 3.1.4 Survivor Curves

The use of an average service life or a property group implies that the various units in the group have different lives. Thus, the average life may be obtained by determining the separate lives of each of the units, or by constructing a survivor curve plotting the number of units which survive at successive ages using the retirement rate method of analysis.

The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. The Iowa curves "...were sorted into three groups according to whether the mode was to the left, approximately coincident with, or to the right of the average-life ordinate. The curves in each of these three groups were then sub-classified in accordance with the height of the mode, taking also into consideration the distance of the mode to the left or right of the average life."<sup>2</sup> The Iowa curves are described as L-type (i.e. left-moded), R-type (i.e. right-moded), and S-type (i.e. symmetrical). Further development resulted in the introduction of O-type (i.e. origin-moded curves) where the greatest frequency of retirement occurs at the origin, or immediately after age zero. Individual type curves are further

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<sup>2</sup> Robley Winfrey, Statistical Analyses of Industrial Property Retirements, Bulletin 125 revised (Engineering Research Institute, Iowa State University, 1935) 65



depicted with numerical subscripts which represent the relative heights of the modes of the frequency curves within each family.

The program that is used by Concentric for statistical smooth curve fitting utilizes an internal “goodness-of-fit” criterion known as the Residual Measure. This Residual Measure is based on a least squares solution of the differences between the stub curve (or original data points) and smooth survivor curve which also requires a balancing of the differences above and below the stub curve.

The criterion of goodness-of-fit is the mean square of the differences between the points on the stub and fitted smooth survivor curves. The residual measure, or standard error of estimate, shown in the output format is the square root of this mean square. As such, the lower the Residual Measure the better the statistical fit between the analyzed Iowa curve and the observed data points. Concentric follows the widely used practice of fitting Iowa curves up to one percent of the maximum exposures. This standard practice is utilized to minimize the influence of typically small retirements applied to similarly small exposures which may unduly affect the Iowa curve fitting process. However, Concentric will recognize the observed data points beyond the one percent of maximum exposures if it is determined that the additional data is a valid consideration for life recommendation.

A discussion of the general concept of survivor curves and retirement rate method is presented in Section 9.

### 3.1.5 Survivor Curve and Net Salvage Judgments

The service life and net salvage estimates used in the depreciation and amortization calculations were based on informed professional judgment which incorporated a review of management’s plans, policies and outlook, a general knowledge of the water utility industry, and comparisons of the service life and net salvage estimates from Concentric’s studies of other water utilities. The use of survivor curves, to reflect the expected dispersion of retirement, provides a consistent method of estimating depreciation for water plant. Iowa type survivor curves were used to depict the estimated survivor curves for the plant accounts not subject to amortization accounting.

The procedure for estimating service lives consisted of compiling historical data for the plant accounts or depreciable groups, analyzing this history through the use of widely accepted techniques, and forecasting the survivor characteristics for each depreciable group on the basis of interpretations of the historical data and the probable future. The forecasting of a probable future included management and operational staff interviews. The combination of the historical experience and the probable future yielded estimated survivor curves from which the average service lives were derived.

The resultant depreciation rates are summarized in the applicable tables of this study (Section 5). The depreciation rates should be reviewed periodically to reflect the changes that result from plant and reserve account activity. A depreciation reserve deficiency or surplus will develop if future capital expenditures vary significantly from those anticipated in this study.

The estimates of net salvage for the mass property accounts were based mostly in part on historical data related to actual retirement activity for the years 1975 through 2023, for some larger accounts and 2005 through 2023 for most accounts. Gross salvage and cost of removal as recorded to the depreciation reserve account and related to experienced retirements were used. Concentric notes



the data from the previous depreciation consultant was used and considered in the historic net salvage analysis, but more relevancy was placed on the more recent data from 2005 through 2023 provided directly to Concentric by TNAW. Percentages of the cost of plant retired were calculated for each component of net salvage on an annual, three-year, five-year, and on a cumulative moving average basis.

The following discussion, dealing with a number of accounts which comprise the majority of the investment analyzed, presents an overview of the factors considered by Concentric in the determination of the average service life and net salvage estimates. The survivor curve estimates for the remainder of the accounts not discussed in the following sections were based on similar considerations.

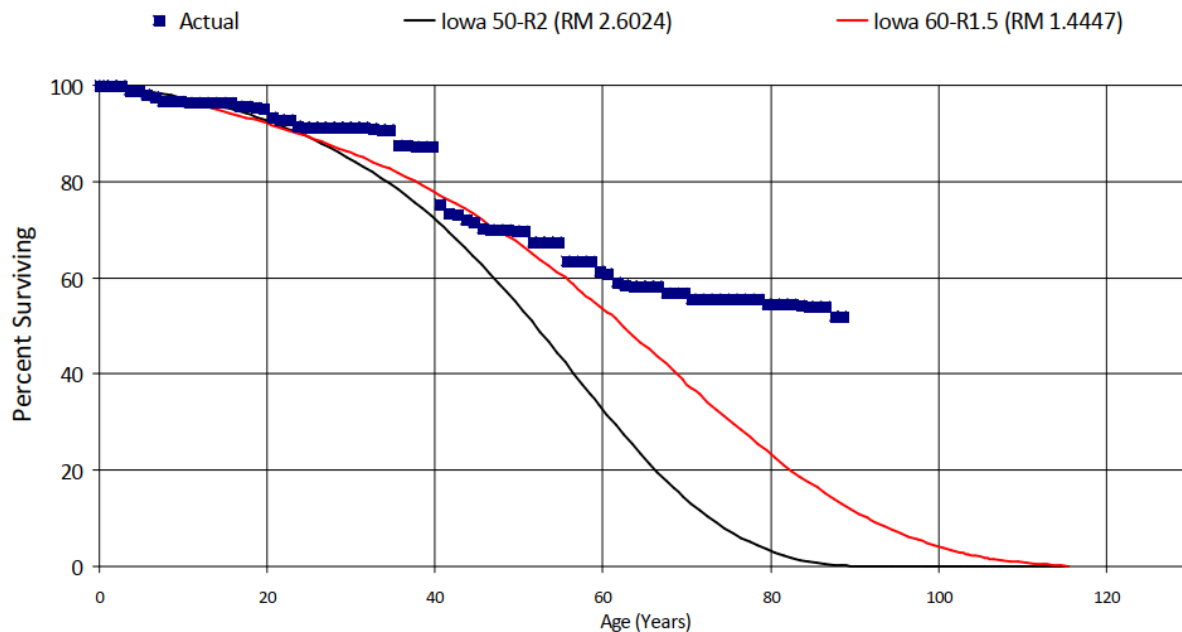




ACCOUNT 304.20 – STRUCTURES AND IMPROVEMENTS – PUMPING

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$8,125,602	1.76%	50-R2	60-R1.5	-15%	-20%

The investment in Structures and Improvements – Pumping is approximately \$8 million representing 1.76 percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 50-R2 and the previously approved rate in service was 1.98 percent. Some of the assets in this account include fencing, lighting, process pumping equipment, HVAC/plumbing equipment, pump house structures, and pump station buildings and controls. The retirements, additions, and other plant transactions, for the plant installed between 1919 through 2023 were analyzed by the retirement rate method. Retirements that occurred between 2007 and 2023 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-cut at age 89, when exposures remaining in service dipped below 1% of total exposures at age 0. As such, retirements of \$916,987 were considered in the retirement rate analysis.



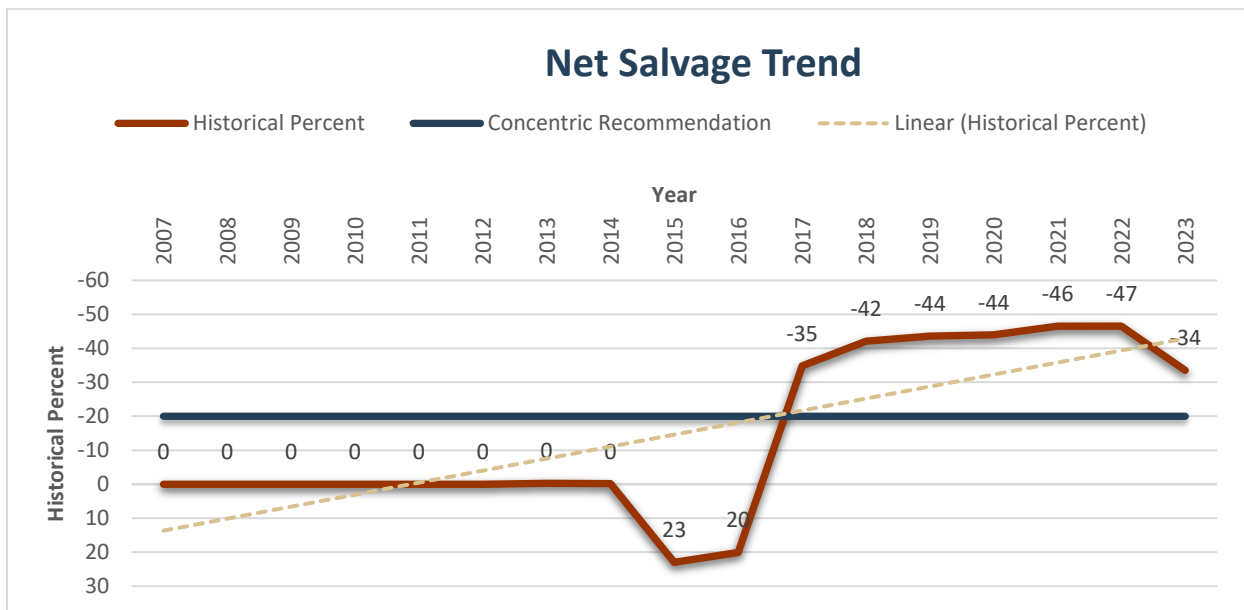
The previously approved Iowa 50-R2 has a related Residual Measure of 2.6024, while the Iowa 60-R1.5 has a Residual Measure of 1.4447 as depicted above and on page 6-4 of this report. The recommended curve has the better visual fit to the experienced data as well, as it captures the retirements between ages 40 and 60 more robustly (the range from approximately 75% of plant surviving through 60% of plant surviving). The flatter R1.5 curve should also do a better job in the future of capturing the retirement pattern that is continuing at a gradual pace between age intervals 60 and 89. Having the additional years of data since the previous study has shown that this account





does fit a longer average service life curve. The average age of retirement has marginally increased since the last study date of 2007 where it was 41, to 41.5 in 2023, with more dollars retired in 2023.

Conversations with TNAW operational staff and subject matter experts indicated that the recommended 60-year life for this account is consistent with their opinion that there is no material change in the retirement practice and that future retirement activity will not be drastically different than what has been experienced in the past. A peer comparison of American water utilities studied produced a range from 45 to 75 years, with an average service life recommendation of 63 years within the peers. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 60-R1.5 is a reasonable expectation for the investment in this account. As such, Concentric recommends the Iowa 60-R1.5 to represent the future expectations for the investment in this account.



The previously approved net salvage percentage for this account was negative 15 percent. The historical net salvage activity for this account shows a range from 23 percent to negative 47 percent. The three-year rolling band produces a range from 34 percent to negative 228 percent and the five-year rolling band shows a range from 25 percent to negative 225 percent. The full depth band shows an amount of negative 34 percent. The peers for this account are between negative 10 and negative 25 percent. In the previous study, the net salvage analysis was done on a combined basis for all Structures and Improvements accounts. Concentric has now separated these accounts out separately, while also analyzing them on a combined basis for a true comparison.

On a combined basis in the last study, the previous all-in historical net salvage band showed negative eight percent. On a combined basis currently, the all-in band has increased to negative 102 percent. Looking at this account individually shows that since 2016 especially there has been a steady increase in the negative net salvage on this account, reflected in the increase to the negative 34 percent all-in band. Even with a decrease in net salvage in 2023 from negative 47 percent in 2022,



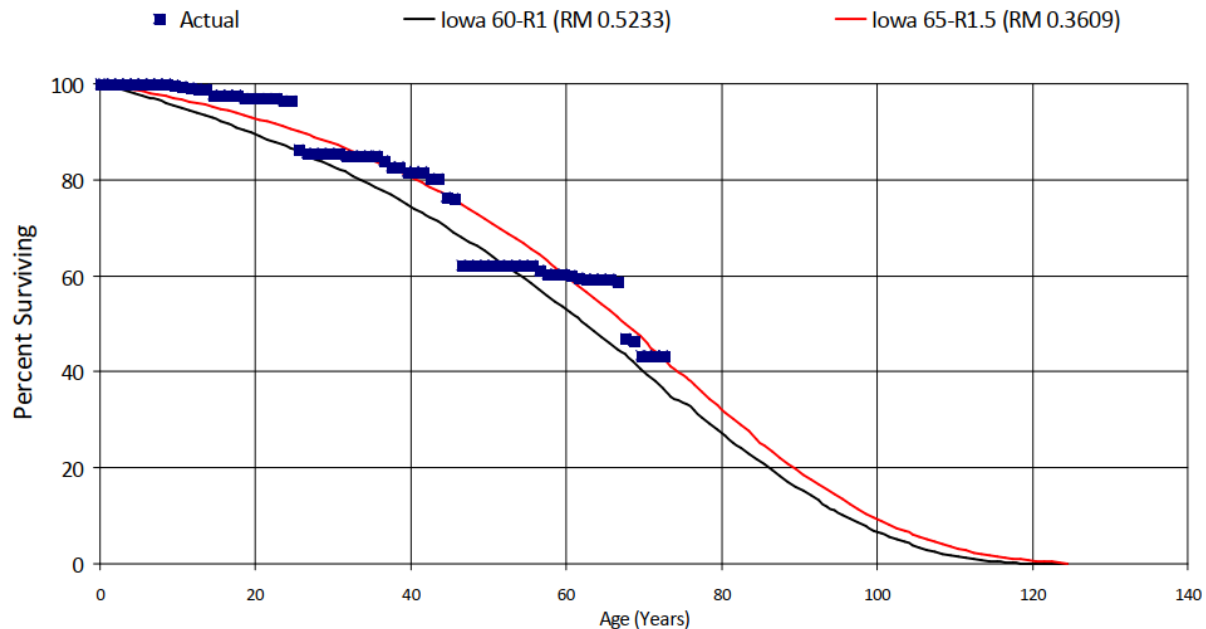
the net salvage on this account is currently too low. As such, Concentric proposes a moderate increase to a negative 20 net salvage percentage for this account due to the above, and the knowledge provided by TNAW personnel on future cost of removal activity.



ACCOUNT 304.30 – STRUCTURES AND IMPROVEMENTS – TREATMENT

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$30,619,055	6.65%	60-R1	65-R1.5	-15%	-20%

The investment in Structures and Improvements – Treatment is approximately \$30.6 million representing 6.7 percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 60-R1 and the previously approved rate in service was 4.11 percent. Some of the assets in this account include filter buildings, flow controls, aspects of sedimentation basins, and various electrical equipment. The retirements, additions, and other plant transactions for the period 1949 through 2023, were analyzed by the retirement rate method. There was no T-cut utilized for this account and retirements of \$585,157 were recorded for the period 2005 through 2023.

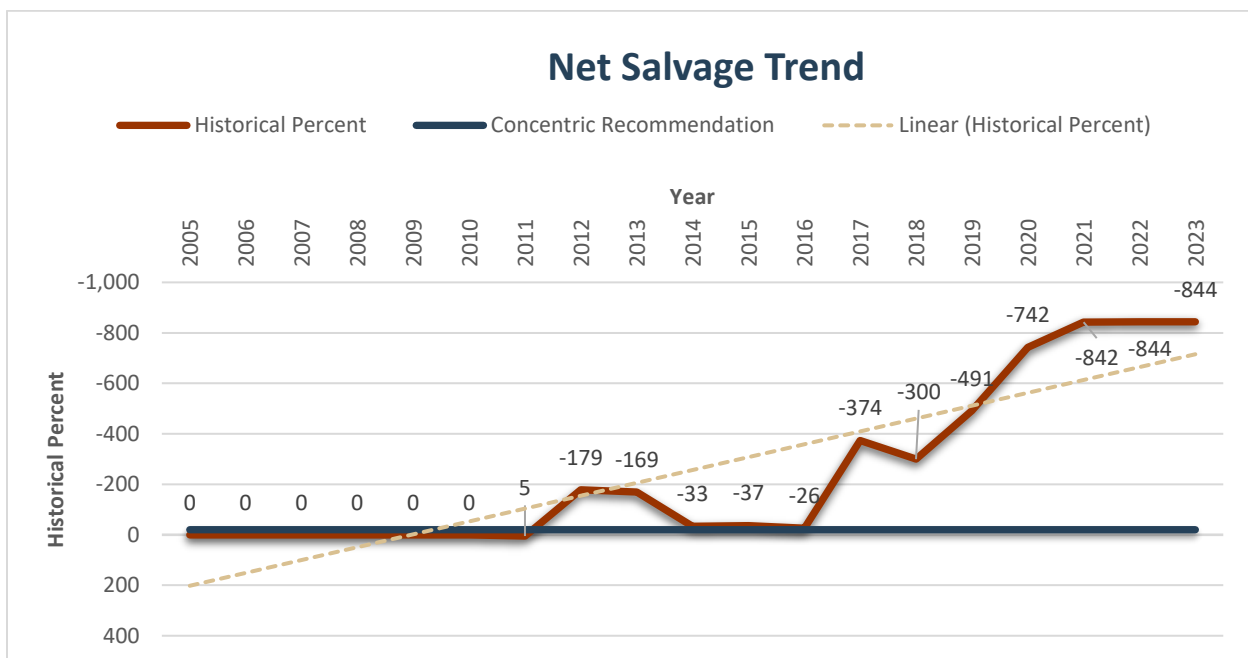


The previously approved Iowa 60-R1 has a related Residual Measure of 0.5233, as opposed to the Iowa 65-R1.5 which produces a better Residual Measure of 0.3609 as depicted above and on page 6-9 of this report. Although both curves provide strong fits to the experienced data, the Iowa 65-R1.5 has a stronger fit visually along the most significant portion of the curve; along the stretch from 80 percent to roughly 40 percent surviving, the recommended Iowa 65-R1.5 tracks the retirement dispersion extremely better than the currently approved 60-R1. This account has consequential retirements reaching out to the last data point at age 73, where there is still 43 percent of plant surviving that has been exposed to retirement. The average age of retirements has not shown a strong trend over the last ten years, being as low as 18 years in 2013 and as high as 66 years in



2015. The weighted average age of retirement is 35.19 years, an increase from the previous study's 22.82 years.

Conversations with TNAW operational staff and subject matter experts indicated that the recommended 65-year life for this account is consistent with their opinion that there is no material change in the retirement practice and that future retirement activity will not be drastically different than what has been experienced in the past. A peer comparison of American water utilities studied produced a range of average service lives between 40 and 70 years. The average of these recommendations is a 63-year average service life. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 65-R1.5 is a reasonable expectation for the investment in this account. As such, Concentric recommends the Iowa 65-R1.5 to represent the future expectations for the investment in this account.



The previously approved net salvage percentage for this account was negative 15 percent. The historical net salvage activity for this account shows a range from five percent to negative 844 percent. The three-year rolling band produces a range from six percent to over negative 1,000 percent and the five-year rolling band shows a range from five percent to over negative 1,000 percent. The full depth band shows an amount of negative 844 percent. The peers for this account are between negative five and negative 25 percent. In the previous study, the net salvage analysis was done on a combined basis for all Structures and Improvements accounts. Concentric has now separated these accounts out separately, while also analyzing them on a combined basis for a true comparison.

On a combined basis, the previous all-in historical net salvage band showed negative eight percent. On a combined basis currently, the all-in band has increased to negative 102 percent. There have been three large cost of removal transaction years in the last seven years, where retirements have not been nearly as large. This is the main driver for the extraordinarily high three- and five-year



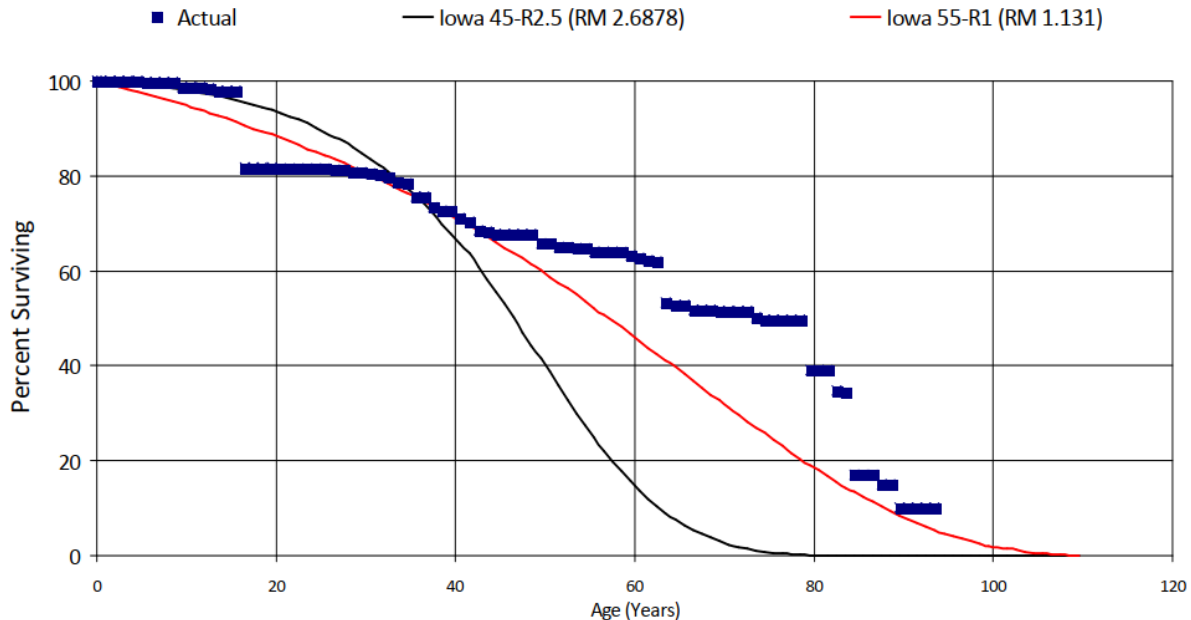
moving averages. As the data for this account is much higher than industry standards for this account, more emphasis was placed on industry peers and the relative position of this account at the time of the last study. Keeping in mind the large anomalous activity, the net salvage on this account has still been historically low. As such, Concentric proposes a moderate increase to a negative 20 net salvage percentage for this account due to the above, and the knowledge provided by TNAW personnel on future cost of removal activity.



ACCOUNT 311.20 – PUMPING EQUIPMENT - ELECTRIC

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curves	Previously Approved Salvage	Concentric Recommended Salvage
\$6,112,627	1.33%	45-R2.5	55-R1	-10%	-10%

The investment in Electric Pumping Equipment is approximately \$6.1 million representing 1.3 percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 45-R2.5 and the previously approved rate in service was 2.45 percent. The assets within this account relate to electric pumping equipment and associated paraphernalia (such as motors/motor starters, vertical turbine pumps, and valves). The retirements, additions, and other plant transactions, for the period 1923 through 2023, were analyzed by the retirement rate method. There was no T-cut utilized for this account and retirements of \$1,912,284 were recorded for the period 2006 through 2023.



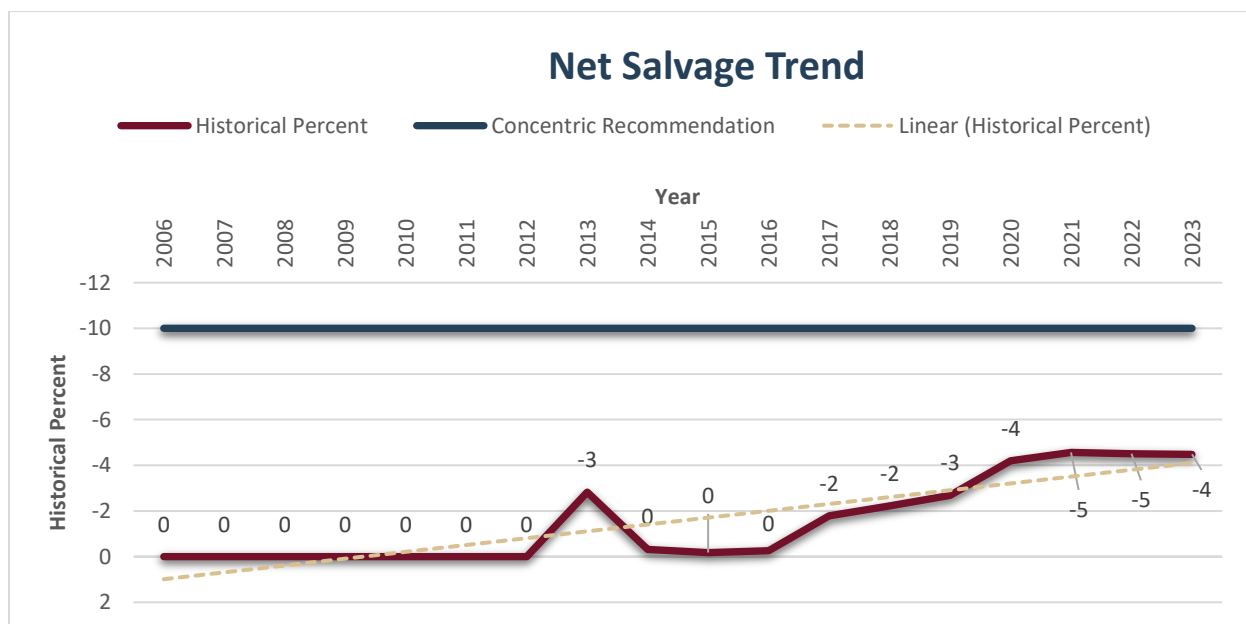
Concentric notes that in the previous study this account was combined with Accounts 311.3 and 311.5. However, with the additional years of retirement experience, the data is robust enough to study this account for life analysis on its own. The previously approved Iowa 45-R2.5 has a related Residual Measure of 2.6878, as opposed to the proposed Iowa 55-R1 which produces a better Residual Measure of 1.131 as depicted above and on page 6-40 of this report. From roughly 70 percent of plant surviving through 20 percent surviving, the Iowa 55-R1 fits the experienced data points well from a visual perspective. Moving the mode of the curve from a R2.5 to an R1 results in the curve aligning with the more gradual nature of the retirements in this account.

There are consistent retirements in this account from age 1 through age 67 of plant in service, when they start to dissipate until the last recorded retirement at age 90. The maximum life of an Iowa 45-R2.5 curve is 80 years versus 111 years from the Iowa 55-R1 curve. Currently at age 80, there is still



39% of plant exposed to retirement in service, so a maximum life extension past age 80 is reasonable. Since the date of the last study in 2007 the average age of retirements has been trending higher. This trend results in a 2023 average age of retirement of 36.33, as compared to an average age of retirement of 30 years in 2007. The overall weighted average age of retirement in this account is 26.13 years, compared to the previous study where the combined weighted average age of retirements for all Pumping Equipment accounts was 21.68 years.

Conversations with TNAW operational staff and subject matter experts indicated that the recommended 55-year life for this account is consistent with their opinion that there is no material change in the retirement practice and that future retirement activity will not be drastically different than what has been experienced in the past. A peer comparison of American water utilities studied produced a range of average service lives between 29 and 55 years. The average of these recommendations is a 43-year average service life. Concentric notes that the recommendation will move this account to the long end of the peer comparable group, however the strength of the retirement history indicates that this move is necessary. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 55-R1 is a reasonable expectation for the investment in this account. As such, Concentric recommends the Iowa 55-R1 to represent the future expectations for the investment in this account.



Concentric notes that in the previous study the net salvage analysis for this account was performed on a combined basis of all Pumping Equipment accounts. Since that time, Concentric has now analyzed this account independently as there is sufficient historical data to rely upon. For the sake of continuity and comparison, however, Concentric has also analyzed the net salvage for this account on a combined basis with the other Pumping Equipment accounts.

The previously approved net salvage percentage for this account was negative 10 percent. Looking at the account individually, the historical net salvage activity for this account shows a range from negative two percent to negative five percent. The three-year rolling band produces a range from



negative two percent to negative 123 percent and the five-year rolling band shows a range from negative two percent to negative 64 percent. The full depth band shows an amount of negative four percent. The peers for this account studied are between negative five and negative 20 percent.

Considering the combined account, the net salvage percentages have dipped in the mid 2010's and have just started to climb again, reaching up to negative 22 percent in 2023. This is largely due to large costs of removal incurred in the 2021 and 2022 transaction years. While Electric Pumping Equipment has shown a slightly lower cost of removal historically, when considering the pumping equipment accounts together, the currently approved negative 10 percent net salvage is still reasonable.

Concentric proposes maintaining the negative 10 net salvage percentage for this account knowing that the costs to remove these assets are very similar across all 311 – Pumping Equipment accounts, the above discussion, and the knowledge provided by TNAW personnel on future cost of removal activity.

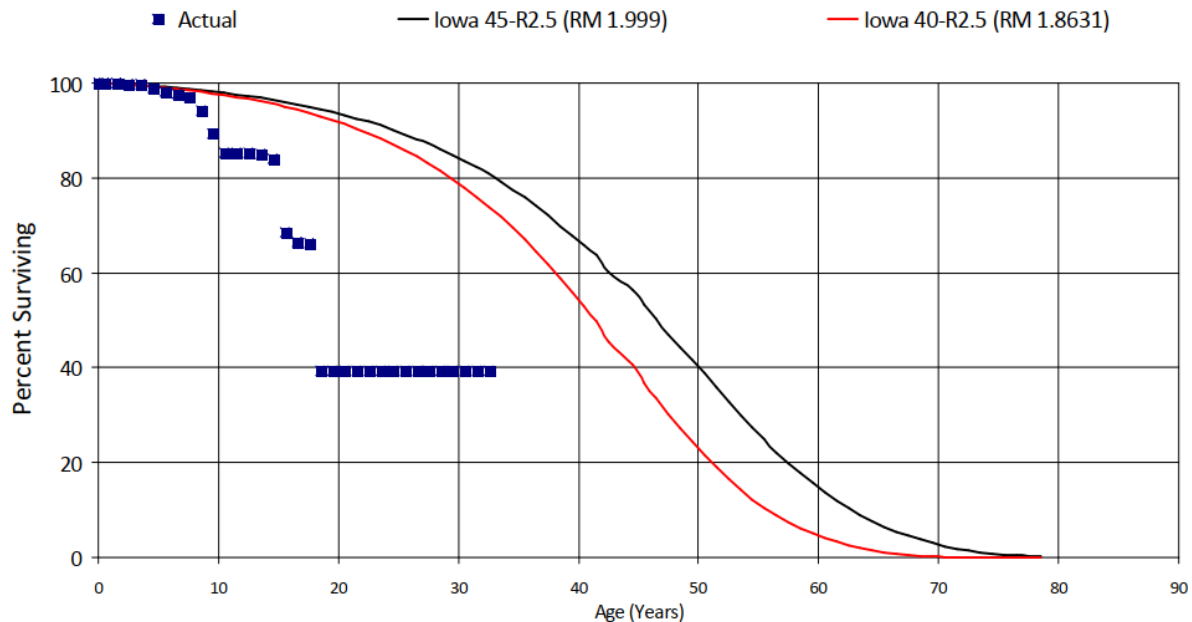




ACCOUNT 311.50 – PUMPING EQUIPMENT - OTHER

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curves	Previously Approved Salvage	Concentric Recommended Salvage
\$8,953,419	1.94%	45-R2.5	40-R2.5	-10%	-10%

The investment in Other Pumping Equipment is approximately \$8.9 million representing 1.9 percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 45-R2.5 and the previously approved rate in service was 1.83 percent. The retirements, additions, and other plant transactions, for the plant installed between 1980 through 2023 were analyzed by the retirement rate method. Retirements that occurred between 2010 and 2023 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-cut at age 33. As such, retirements of \$120,221 were considered in the retirement rate analysis.



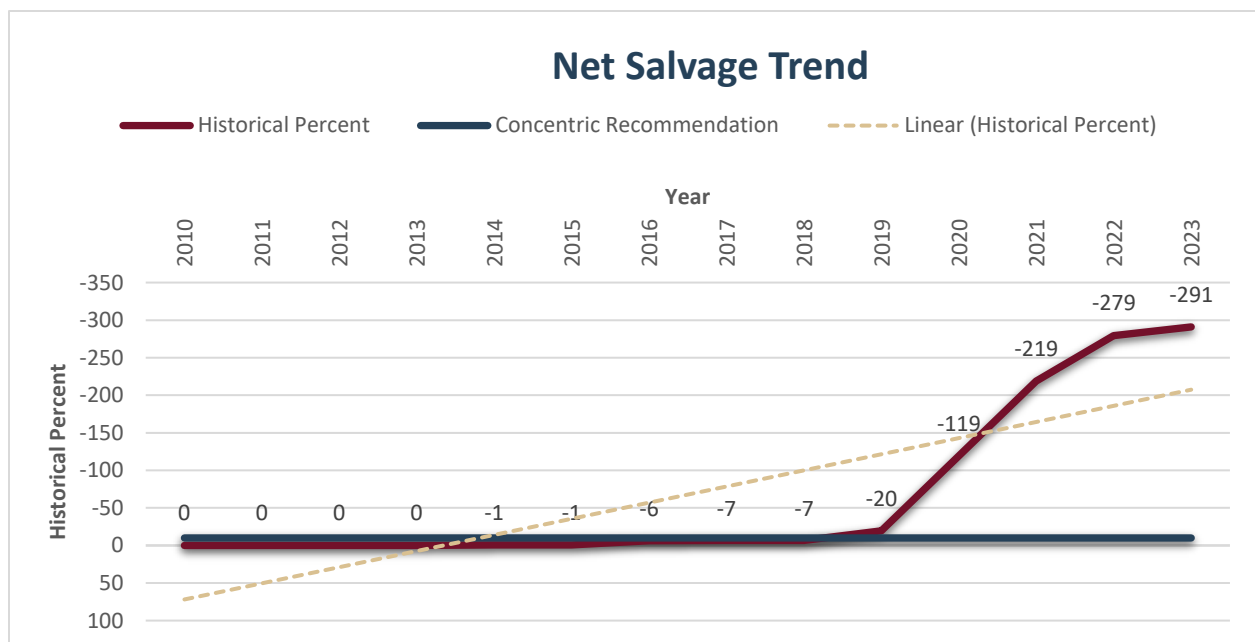
Concentric notes that in the previous study this account was combined with Accounts 311.2 and 311.3. However, with the additional years of retirement experience, the data is robust enough to study this account for life analysis on its own. The previously approved Iowa 45-R2.5 has a related Residual Measure of 2.1811, as opposed to the proposed Iowa 40-R2.5 which produces a better Residual Measure of 2.0146 as depicted above and on page 6-48 of this report. Since the time of the last study, the previously approved curve no longer fits the historical retirement experience of this account. The dollars retired are small relative to the original cost remaining in service in this account, however all of these retirements have occurred before age 18 and therefore the recommendation to shorten the life by five years is prudent.

Concentric has recognized that the separation of Account 311.20 from 311.50 for the purposes of the selection of an average service life results in assets with a shorter average service life being examined



within this account, while those with a longer life are examined in the Electric Pumping Equipment account. As such, Concentric recommends extending the life of Electric Pumping Equipment, as discussed above in the discussion regarding Account 311.20, while shortening the life of Account 311.50. This allows both account groups to have lives that are appropriate. The average age of retirement for the assets within this account 7.67 years. The overall weighted average age of retirement in this account is 10.89 years, compared to the previous study where the combined weighted average age of retirements for all Pumping Equipment accounts was 21.68 years.

Conversations with TNAW operational staff and subject matter experts indicated that the recommended 40-year life for this account is a reasonable reduction to recognize the shorter lives of the assets within this account. A peer comparison of American water utilities studied produced a range of average service lives between 29 and 45 years. The average of these recommendations is a 38-year average service life. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 40-R2.5 is a reasonable expectation for the investment in this account, that is still within the comparable group. As such, Concentric recommends the Iowa 40-R2.5 to represent the future expectations for the investment in this account.



Concentric notes that in the previous study the net salvage analysis for this account was performed on a combined basis of all Pumping Equipment accounts. Since that time, Concentric has now analyzed this account independently as there is sufficient historical data to rely upon. For the sake of continuity and comparison, however, Concentric has also analyzed the net salvage for this account on a combined basis with the other Pumping Equipment accounts.

The previously approved net salvage percentage for this account was negative 10 percent. Looking at the account individually, the historical net salvage activity for this account shows a range from negative one percent to negative 291 percent. The three-year rolling band produces a range from negative one percent to negative 662 percent and the five-year rolling band shows a range from negative one percent to negative 406 percent. The full depth band shows an amount of negative 291



percent. The peers for this account studied are between negative 15 and negative 20 percent. There are two larger cost of removal transaction years that force the net salvage on the account higher, but the other years dating back to 2010 show that negative 10 percent is still a reasonable estimate for future costs of removal.

Looking at the account from the combined perspective, the net salvage percentages have dipped in the mid 2010's and have just started to climb again, reaching up to negative 22 percent in 2023. This is largely due to large costs of removal incurred in the 2021 and 2022 transaction years.

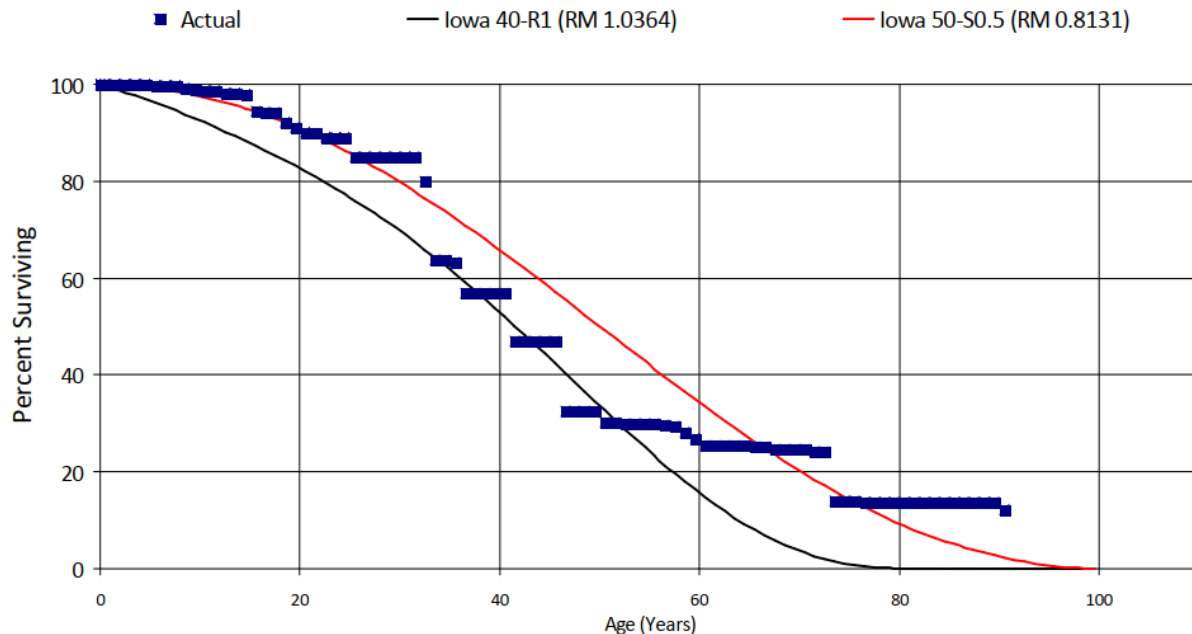
Concentric proposes maintaining the negative 10 net salvage percentage for this account knowing that the costs to remove these assets are very similar across all 311 – Pumping Equipment accounts, the above discussion, and the knowledge provided by TNAW personnel on future cost of removal activity.



ACCOUNT 320.10 – WATER TREATMENT EQUIPMENT – NON-MEDIA

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$29,313,136	6.37%	40-R1	50-S0.5	-10%	-15%

The investment in Water Treatment Equipment – Non-Media is approximately \$29.3 million representing 6.4 percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 40-R1 and the approved rate in service is 1.09%. Some of the assets within this account include chemical pumps, chlorine pumps, chlorine scrubbers, instrumentation control systems, instrumentation level measurement devices, instrumentation pressure measurement devices, and various other aspects of the water treatment process. The retirements, additions, and other plant transactions, for the plant installed between 1892 through 2023 were analyzed by the retirement rate method. Retirements that occurred between 2005 and 2023 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-cut at age 91. As such, retirements of \$6,902,692 were considered in the retirement rate analysis.

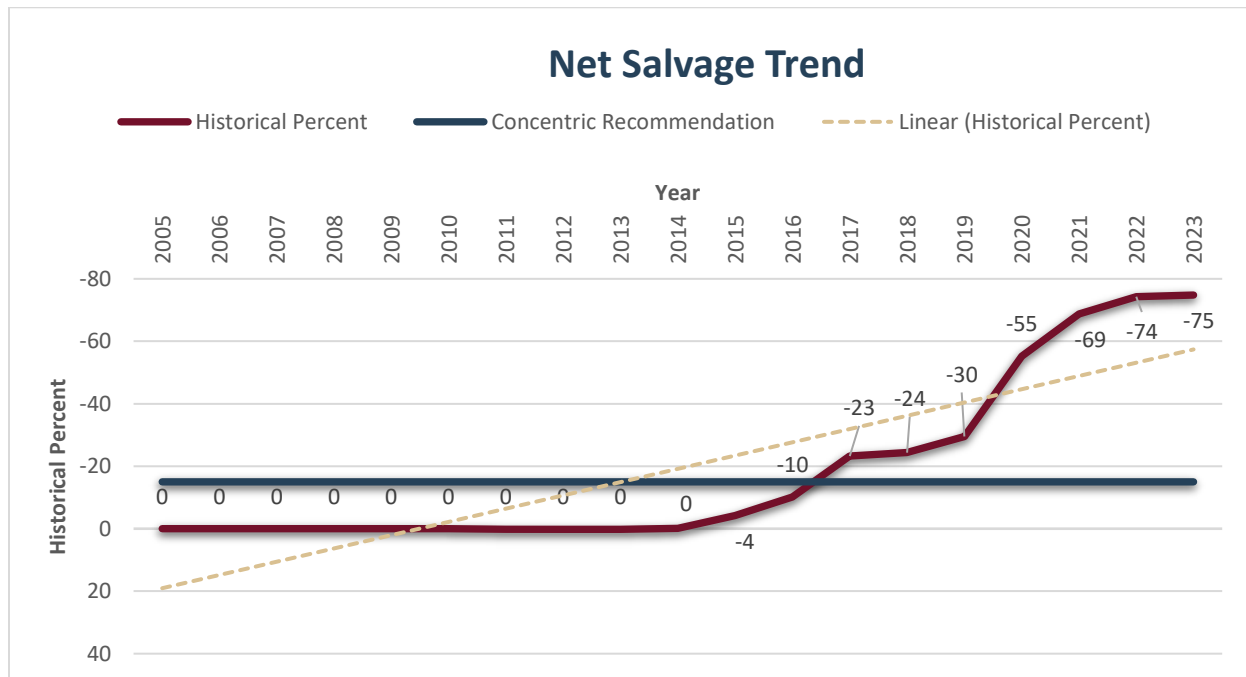


The previously approved Iowa 40-R1 has a related Residual Measure of 1.0364, as opposed to the Iowa 50-S0.5 which produces a better Residual Measure of 0.8131 as depicted above and on page 6-53 of this report. The proposed Iowa 50-S0.5 visually fits the portion from age 0 through age 35 extremely well, capturing all early age retirements. While the visual fit of the previously approved 40-R1 is better from age 35 through age 50, Concentric views that the early retirement history in this account is more representative of the account as a whole.



The overall weighted average age of retirement in this account is 37.45 years, compared to the previous study where the weighted average age of retirement was 16.18 years. This indicates the that there may be a need for a higher average service life since the last depreciation study.

Conversations with TNAW operational staff and subject matter experts indicated that the recommended 50-year life for this account is consistent with their opinion of the average service life for the assets within this account. A peer comparison of American water utilities studied produced a range from 40 to 60 years. The average of these recommendations was 48 years. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 50-S0.5 is a reasonable expectation for the investment in this account. As such, Concentric recommends the Iowa 50-S0.5 to represent the future expectations for the investment in this account.



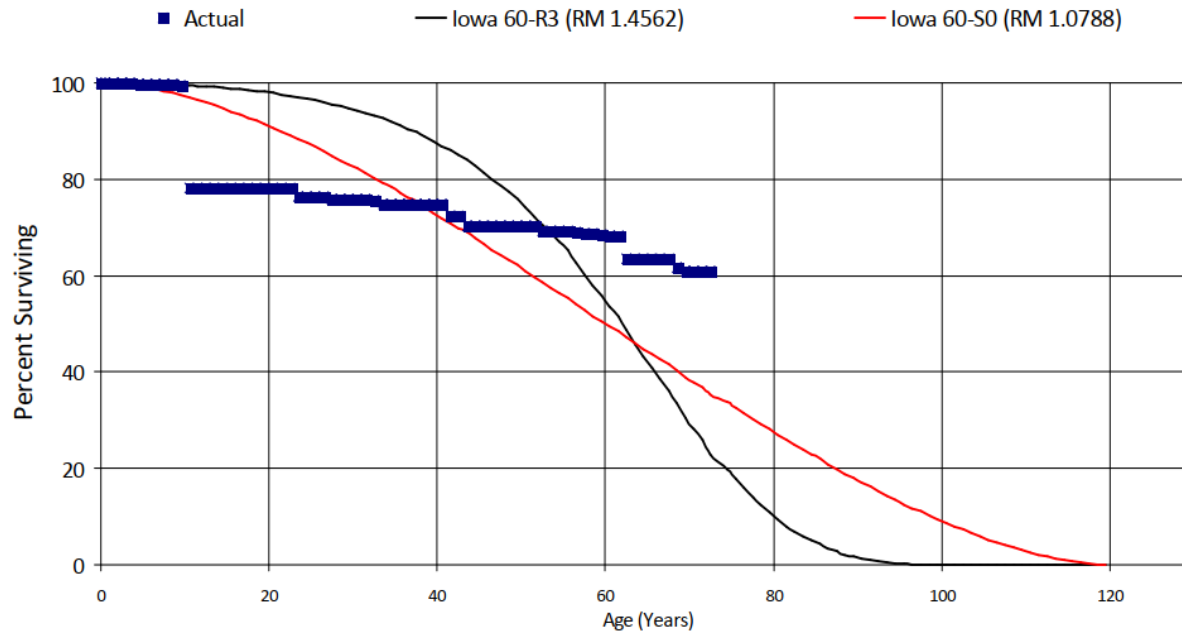
The previously approved net salvage percentage for this account was negative 10 percent. The historical net salvage activity for this account shows a range from negative four percent to negative 75 percent. The three-year rolling band produces a range from negative four percent to over negative 1,000 percent and the five-year rolling band shows a range from negative four percent to over negative 1,000 percent. The full depth band shows an amount of negative 75 percent. The peers for this account are between negative 10 and negative 30 percent. There have been steady costs of removal since the previous study, particularly from 2014 onward. Concentric proposes increasing to a negative 15 net salvage percentage for this account due to the above, and the knowledge provided by TNAW personnel on future cost of removal activity.



#### ACCOUNT 330 – DISTRIBUTION RESERVOIRS AND STANDPIPES

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$9,240,124	2.01%	60-R3	60-S0	-20%	-25%

The investment in Distribution Reservoirs and Standpipes is approximately \$9.2 million representing 2.01 percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 60-R3 and has an approved rate in service of 2.08%. The retirements, additions, and other plant transactions, for the period 1950 through 2023, were analyzed by the retirement rate method. There was no T-cut utilized for this account and retirements of \$1,733,028 were recorded for the period 2007 through 2023.

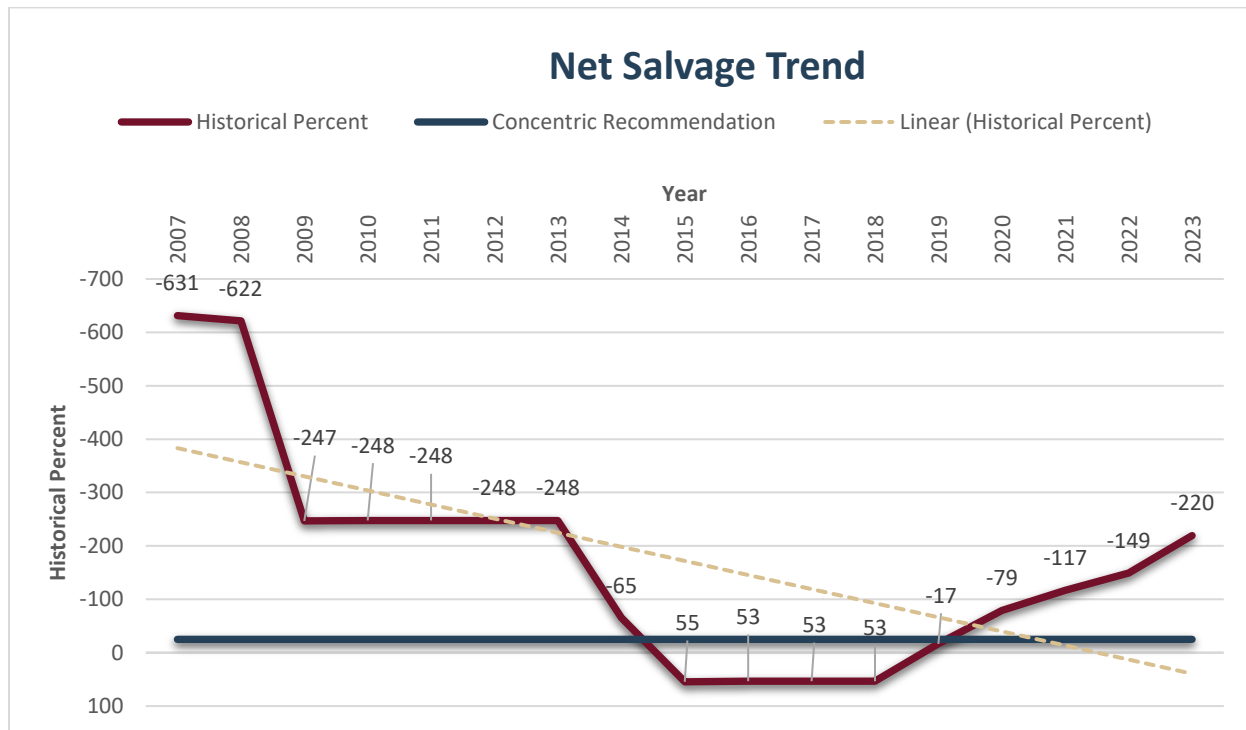


The previously approved Iowa 60-R3 has a related Residual Measure of 1.4562, as opposed to the Iowa 60-S0 which produces a Residual Measure of 1.0788 as depicted above and on page 6-60 of this report. The currently approved 60-year average service life is still applicable, and changing from the R3 curve to the S0 curve is necessary to reflect the experienced retirement pattern. This results in an extension of the maximum life from 101 years to 119. However, the last recorded data point shows more than 60 percent of plant surviving at the beginning of age 73, so an extension of the maximum life is reasonable.

Conversations with TNAW operational staff and subject matter experts indicated that the recommended 60-year life for this account is consistent with their opinion that there is no material change in the retirement practice and that future retirement activity will not be drastically different than what has been experienced in the past. A peer comparison of American water utilities studied produced a range from 35 to 75 years with an average recommendation of a 60-year average service



life. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 60-S0 continues to be a reasonable expectation for the investment in this account. As such, Concentric recommends the Iowa 60-S0 to represent the future expectations for the investment in this account.



Concentric notes that this account was combined with Accounts 330.1 and 330.4 in the previous study for net salvage analysis. Concentric has analyzed the data in the same fashion, by combining accounts 330, 330.1, and 330.2 together. Accounts 330.3 and 330.4 were considered as part of this analysis, however, did not ultimately factor in due to the lack of retirement experience. The previously approved net salvage percentage for this account was negative 20 percent.

The historical net salvage activity shows a range from 55 percent to negative 631 percent. The three-year rolling band produces a range from 63 percent to over negative 1,000 percent. The five-year rolling band produces a range from 61 percent to over negative 1,000 percent. The full depth band shows an amount of negative 220 percent.

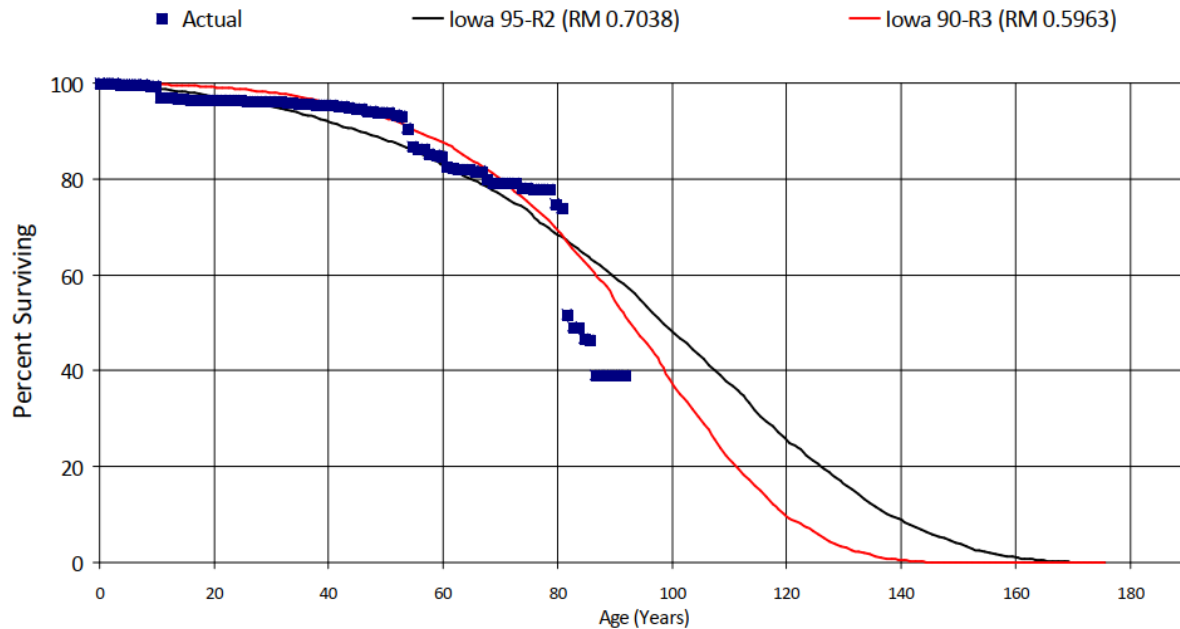
This account has had a sum of over \$4.5 million in costs of removal in the last five years, and removing these, or normalizing them to match previous years, would have the effect of dropping the full depth band much closer to zero, or even into the positive salvage. These last five years are therefore the main drivers of the increase in the net salvage for this account and highlight how costs have increased since the last study. The peers for this account are between negative 15 and negative 30 percent. Concentric proposes a moderate increase to a negative 25 net salvage percentage for this account due to the above, and the knowledge provided by TNAW personnel on future cost of removal activity.



ACCOUNT 331.001 – MAINS - TRANSMISSION AND DISTRIBUTION

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$196,592,319	42.69%	95-R2	90-R3	-15.9%	-20%

The investment in Transmission and Distribution Mains is approximately \$196 million representing over 42 percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 95-R2 with an approved rate in service of 1.25%. Some of the assets within this account include cast iron, concrete, copper, ductile iron, PVC, and steel pipes and fittings, as well as valves and valve actuators. The retirements, additions, and other plant transactions, for the plant installed between 1902 through 2023 were analyzed by the retirement rate method. Retirements that occurred between 2005 and 2023 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-cut at age 92. As such, retirements of \$6,737,433 were considered in the retirement rate analysis.



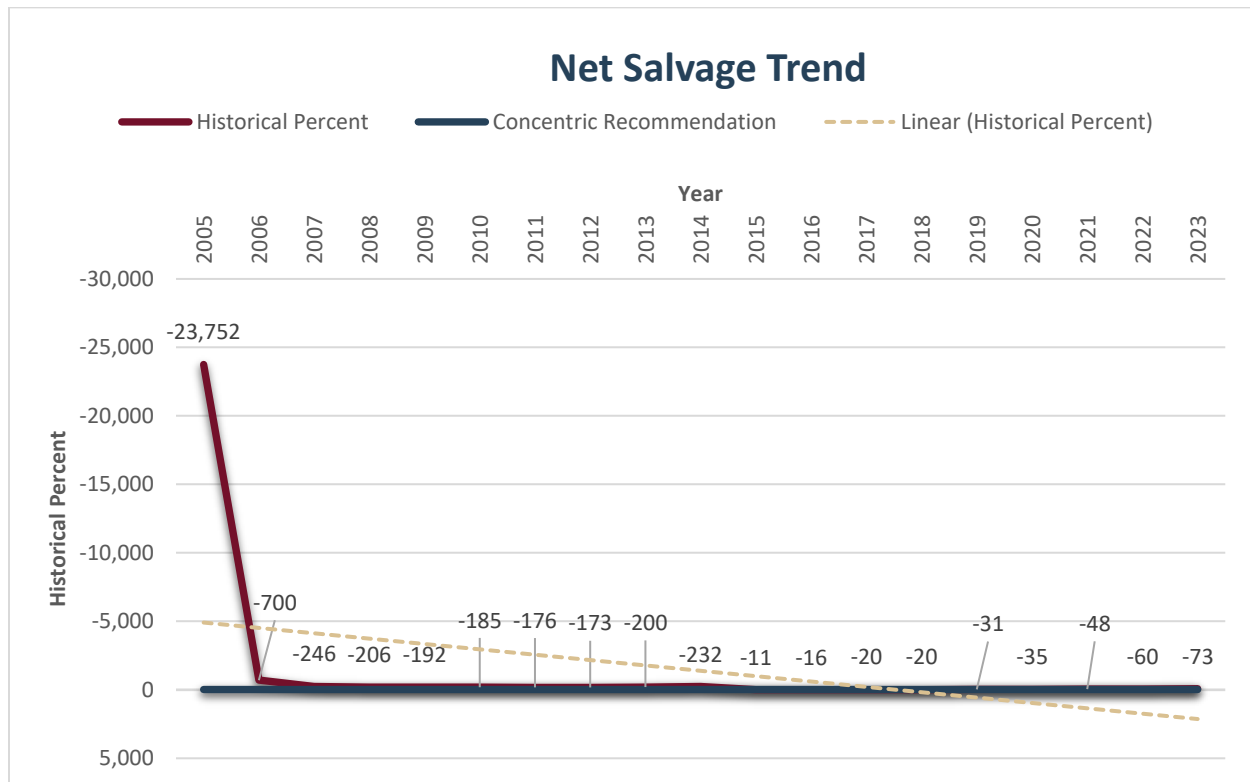
The previously approved Iowa 95-R2 has a related Residual Measure of 0.7038 as opposed to the proposed Iowa 90-R3 which has a related Residual Measure of 0.5963, as depicted above and on page 6-73 of this report. The visual fit to data with the proposed Iowa 90-R3 is superior to the currently approved 95-R2 for much of the life of this account. The large retirements at age 10 that cause the Iowa 95-R2 to momentarily have a stronger fit are retirements due to the sale of assets, not obsolescence, and are not indicative of the retirement behavior of most of this account moving forward. From that point of the curve forward, the Iowa 90-R3 captures all the major retirement experience. Shifting the mode of the curve from a R2 to an R3 curve further improves the fit of the Iowa curve to the historical data.





The average age of retirements has remained consistent since the last study, with retirements in 2023 averaging 30.03 years old, compared to 29.45 years old in 2007. However, the overall weighted average age of retirement in this account is 23.18 years, down from the previous study weighted average age of retirement of 31.85 years.

Conversations with TNAW operational staff and subject matter experts indicated that the 90-year life for this account is consistent with their opinion that there is no material change in the retirement practice and that future retirement activity will not be drastically different than what has been experienced in the past. A peer comparison of American water utilities studied produced a range from 70 to 110 years with an average recommendation of a 96-year average service life. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 90-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends the Iowa 90-R3 to represent the future expectations for the investment in this account.



The previously approved net salvage for this account was negative 15.9 percent. The historical net salvage ranges from negative 11 percent to over negative 1,000 percent. The three-year rolling band produces a range from over 1,000 percent to over negative 1,000 percent and the five-year rolling band shows a range from 27 percent to over negative 1,000 percent. The full depth band shows an amount of negative 73 percent.

The peers for this account are between negative 15 and negative 70 percent. Absent the 2015 transaction year, where the gross salvage was recognized for the sale of assets, all other years have net salvage costs that exceed what is currently approved for this account. It is noted that the last three years have averaged over \$800,000 in cost of removal as compared with just under \$250,000



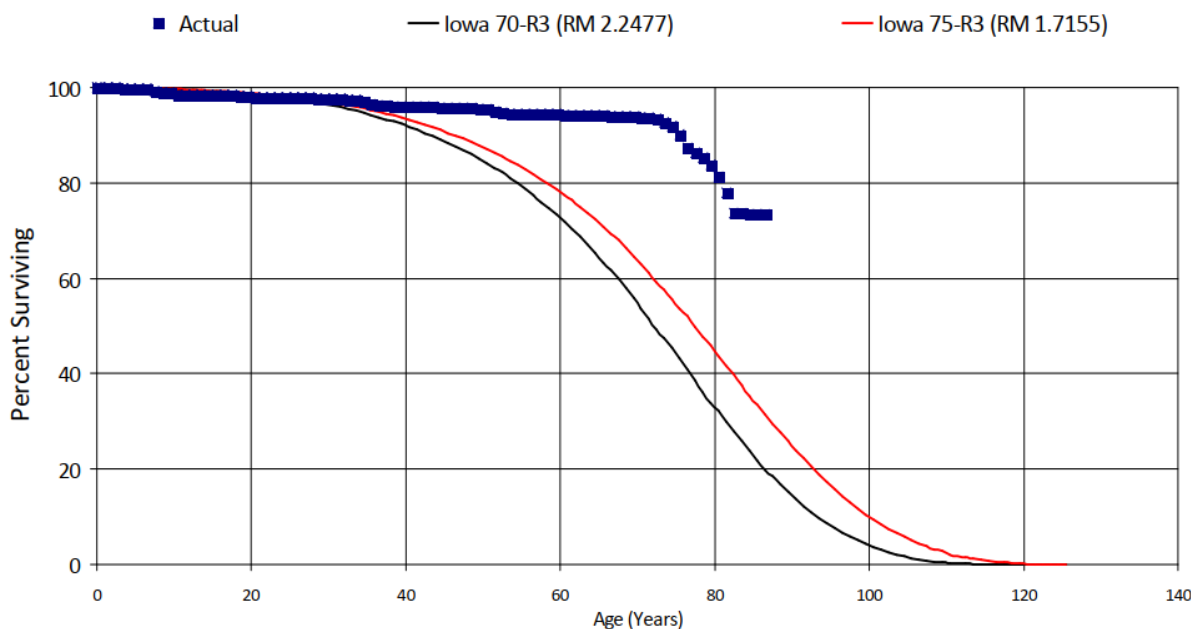
ten years prior. Concentric proposes a moderate increase to a negative 20 net salvage percentage for this account due to the above, and the knowledge provided by TNAW personnel on future cost of removal activity.



ACCOUNT 333.00 – SERVICES

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$34,262,617	7.44%	70-R3	75-R3	-0.3%	-40%

The investment in Services is approximately \$34.3 million representing roughly 7.4 percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 70-R3, and the approved rate in service is 1.11 percent. Some of the assets within this account include cast iron, copper, ductile iron, PVC, and steel service lines between ½” and 10”. The retirements, additions, and other plant transactions, for the period 1912 through 2023, were analyzed by the retirement rate method. Retirements that occurred between 2005 and 2023 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-cut at age 87. As such, retirements of \$806,720 were considered in the retirement rate analysis.

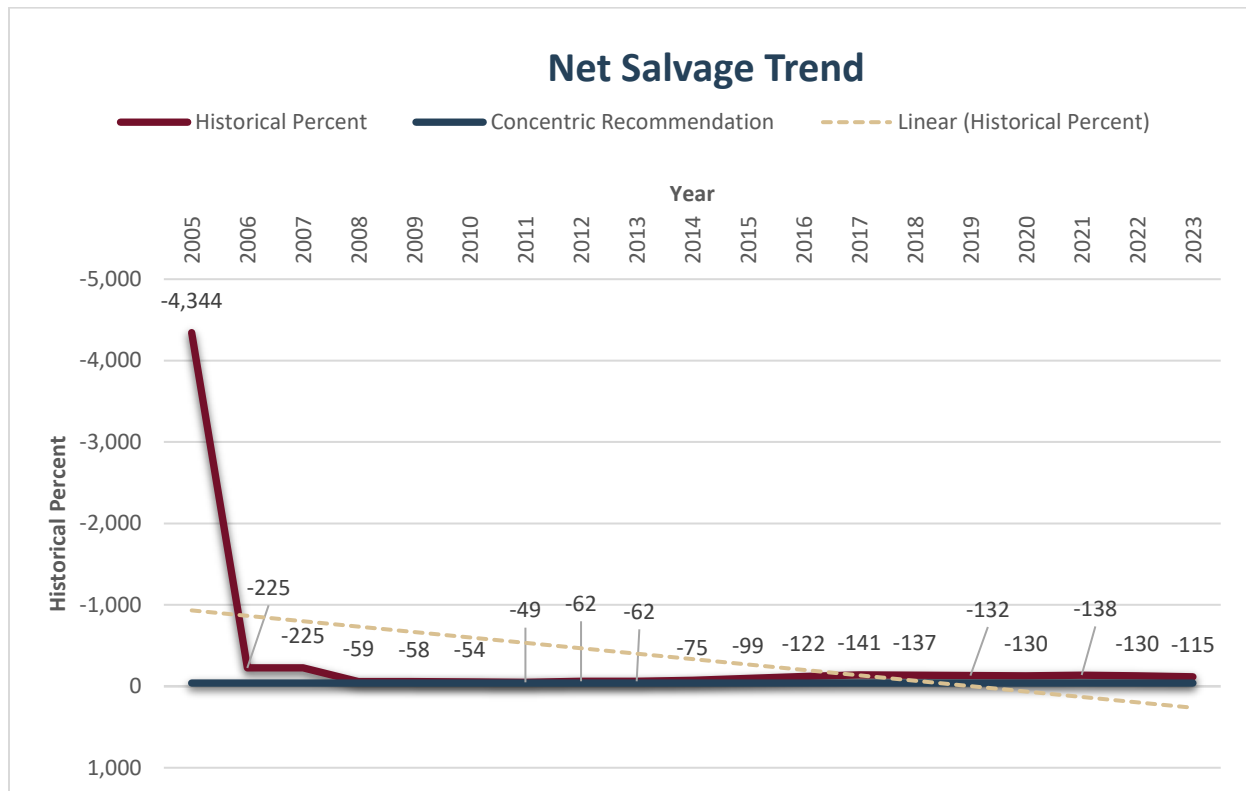


The previously approved Iowa 70-R3 has a related Residual Measure of 2.2477 as opposed to the proposed Iowa 75-R3 which has a related Residual Measure of 1.7155, as depicted above and on page 6-78 of this report. The overall weighted average age of retirement in this account is 23.13 years, compared with 32.83 years in the previous study. However, the proposed Iowa 75-R3 provides a better mathematical fit to the data as referenced by the Residual Measure, and it also aligns closer to the observed retirements between roughly 95 percent and 75 percent of surviving plant.

There are consistent retirements throughout the life of this account, and there is not a singular age interval causing a steep decline in the plant in service. The largest retirements within a specific age interval account for only 5.5% of the beginning exposures in that age interval, and this does not occur until age 82.



Conversations with TNAW operational staff and subject matter experts indicated that the 75-year life for this account is a reasonable estimate for the life of the assets within this account. A peer comparison of American water utilities studied produced a range from 45 to 75 with an average recommendation of a 66-year average service life. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 75-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends the Iowa 75-R3 to represent the future expectations for the investment in this account.



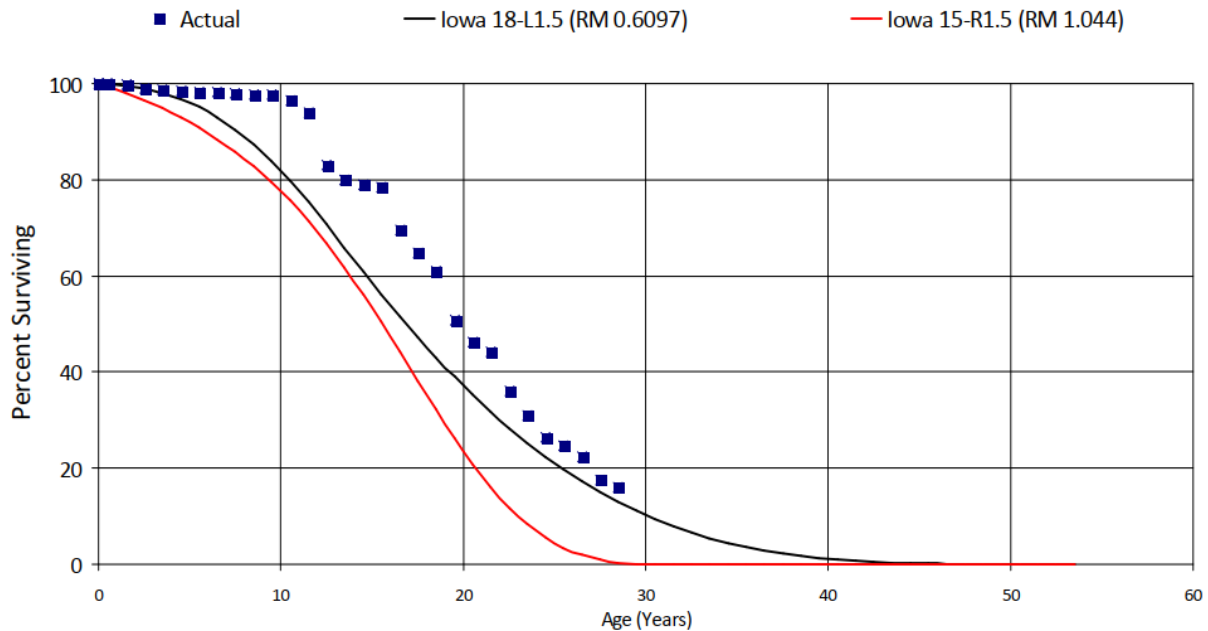
The previously approved net salvage percentage for this account was negative 0.3 percent. The historical net salvage activity for this account shows a range from negative 49 percent to over negative 1,000 percent. The three-year rolling band produces a range from negative 67 percent to over negative 1,000 percent and the five-year rolling band shows a range from negative 19 percent to over negative 1,000 percent. The full depth band shows an amount of negative 115 percent. The peers for this account are between negative 25 and negative 125 percent. When analyzing this account, the historical band has increased from the time of the last study. The historical net salvage percentage has not dipped below negative 49 at any point in the last 19 years. Currently the approved salvage rate for this account is too low and does not adequately capture the activity seen through the analysis. As such, Concentric proposes increasing the net salvage percentage for this account to negative 40 due to the above, and the knowledge provided by TNAW personnel on future cost of removal activity.



ACCOUNTS 334.1 AND 334.11 – METERS AND METERS – BRONZE CASE

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curves	Previously Approved Salvage	Concentric Recommended Salvage
\$30,044,000	6.52%	18-L1.5	15-R1.5	-2.9%	-15%

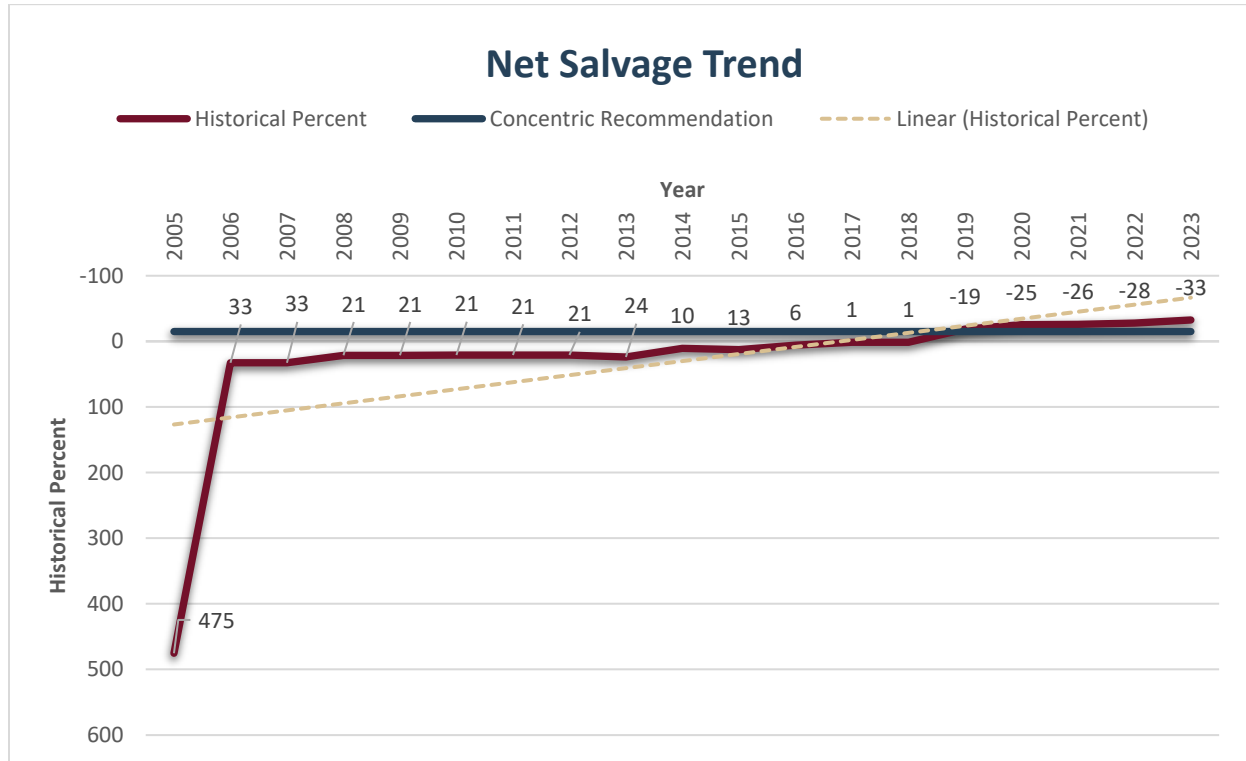
The investment in Meters is approximately \$22.9 million representing roughly 5 percent of the total depreciable plant studied. The investment in Meters – Bronze Case is approximately \$7.1 million, representing roughly 1.5 percent of the total depreciable plant studied. The previously approved life parameter for both accounts is an Iowa 18-L1.5 and the approved rate in service for Meters is 7.47% and 7.24% for Meters – Bronze Case. The retirements, additions, and other plant transactions, for the period 1964 through 2023, were analyzed by the retirement rate method. Retirements that occurred between 2005 and 2023 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-cut at age 29. As such, retirements of \$4,370,390 were considered in the retirement rate analysis.



For the Actuarial Analysis, Concentric has combined Accounts 334.1 through 334.131. The previously applied for Iowa 18-L1.5 has a related Residual Measure of 0.6097 as opposed to the proposed Iowa 15-R1.5 which has a related Residual Measure of 1.0440, as depicted above and on page 6-82 of this report. Although the Residual Measure and visual fit are slightly worse with the recommended 15-year average service life, this is an account that has undergone significant technological change in the last twenty years. As such, Concentric has placed less weighting on the visual and mathematical fits to data and more weight on the corporate company policy which indicates that these assets are to be replaced every 10-12 years. As such, in the interests of gradualism and moderation, Concentric is recommending a 15-year average service life. The overall weighted average age of retirement in this account is 17.07 years compared to 23.53 years in the previous study.



Conversations with TNAW operational staff and subject matter experts indicated that the 15-year life for this account is consistent with their opinion on expected average service life for assets within this account, based on company policy. A peer comparison of American water utilities studied produced a range from 10 to 30 years with an average recommendation of a 17-year average service life. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 15-R1.5 is a reasonable expectation for the investment in this account at this time. As such, Concentric recommends the Iowa 15-R1.5 to represent the future expectations for the investment in this account.



This account was combined with Account 334.2 – Meter Installations in the previous study for the net salvage analysis. Concentric has analyzed this account on a combined basis of Accounts 334.1 through 334.131. The previously approved net salvage percentage for this account was negative 2.9 percent. The historical net salvage activity for this account shows a range from 475 percent to negative 33 percent. The three-year rolling band produces a range from 530 percent to negative 190 percent and the five-year rolling band shows a range from 448 percent to negative 124 percent. The full depth band shows an amount of negative 33 percent. The peers for this account studied are between negative three and negative 25 percent. When analyzing this account, the historical band has increased from the time of the last study, moving from positive four to negative 33 percent. The cost of removal activity has also increased in the last five years.

At the time of the last study, there was more gross salvage being collected in this account than costs of removal spent. This has now flipped, with over two million dollars in costs of removal, and approximately \$600,000 in gross salvage. Of those amounts, \$1.9 million in costs of removal and \$275,000 in gross salvage are since the date of the last study. This trend appears poised to continue.



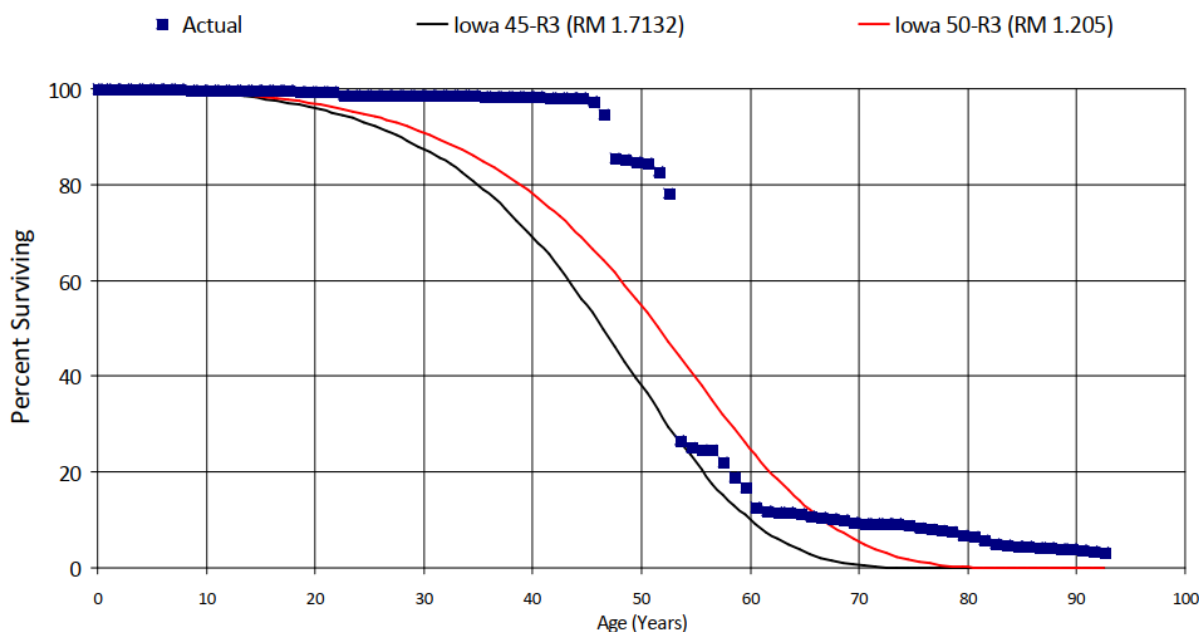
As such, Concentric proposes a moderate increase to a negative 15 net salvage percentage for this account due to the above, and the knowledge provided by TNAW personnel on future cost of removal activity.



#### ACCOUNT 334.20 – METER INSTALLATIONS

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$26,145,509	5.68%	45-R3	50-R3	-2.9%	-15%

The investment in Meter Installations is approximately \$26.1 million representing roughly 5.7 percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 45-R3 with an approved rate in service of 2.73%. The retirements, additions, and other plant transactions, for the period 1900 through 2023, were analyzed by the retirement rate method. Retirements that occurred between 2005 and 2023 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-cut at age 93. As such, retirements of \$757,605 were considered in the retirement rate analysis.



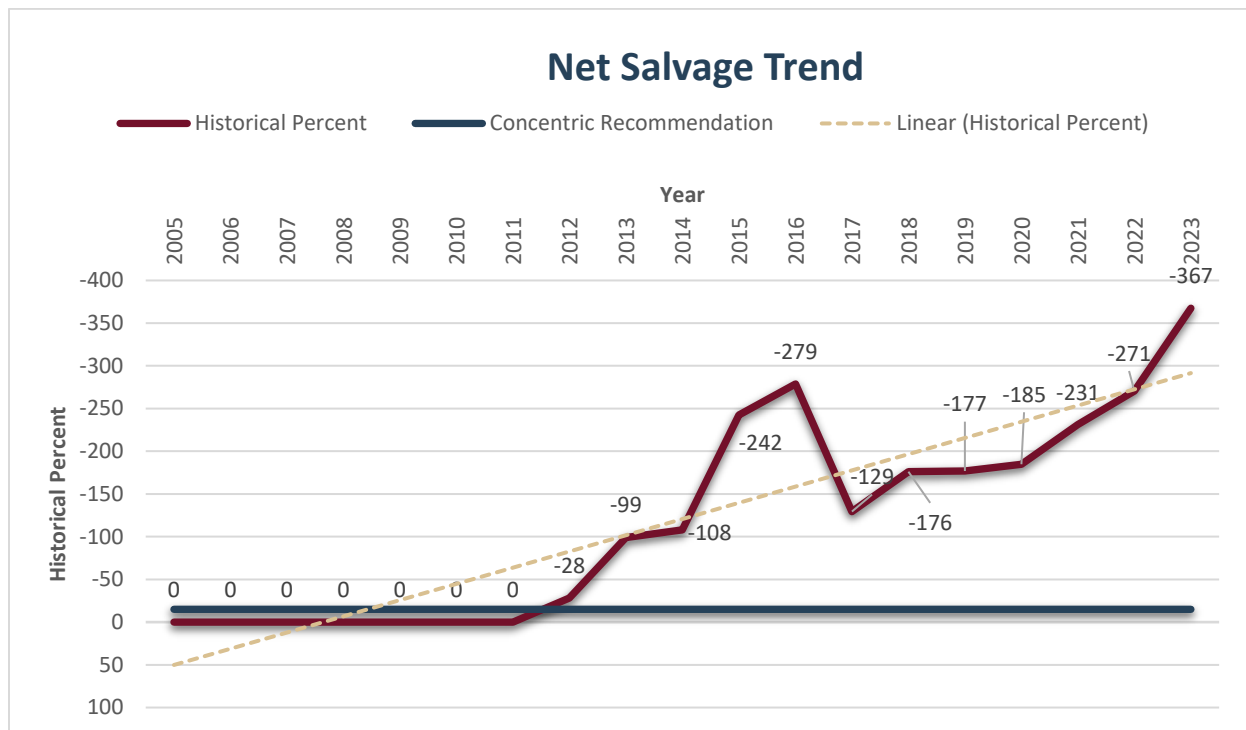
The previously applied for Iowa 45-R3 has a related Residual Measure of 1.7132 as opposed to the proposed Iowa 50-R3 which has a related Residual Measure of 1.2050, as depicted above and on page 6-85 of this report. The average age of retirements has decreased in recent years; however, the dollars being retired in these transaction years are small relative to the total retirements in this account. The overall weighted average age of retirement in this account is 45.85 years, compared to 27.36 in the previous study. The proposed Iowa 50-R3 provides a much stronger mathematical fit to the data as referenced by the Residual Measure, and it aligns with company practice for replacement of these types of assets.

A peer comparison of American water utilities studied produced a range from 22 to 60 years with an average recommendation of a 45-year average service life. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 50-R3 is a reasonable expectation for the





investment in this account. As such, Concentric recommends the Iowa 50-R3 to represent the future expectations for the investment in this account.



This account was combined with Account 334.1 in the previous study for the net salvage analysis. Concentric has now analyzed this independently as there is enough reliable data to utilize for the analysis. The previously approved net salvage percentage for this account was negative 2.9 percent. The historical net salvage activity for this account shows a range from negative 28 percent to negative 367 percent. The three-year rolling band produces a range from negative 35 percent to over negative 1,000 percent and the five-year rolling band shows a range from negative 31 percent to over negative 1,000 percent. The full depth band shows an amount of negative 367 percent. The peers studied for this account are between negative three and negative 25 percent.

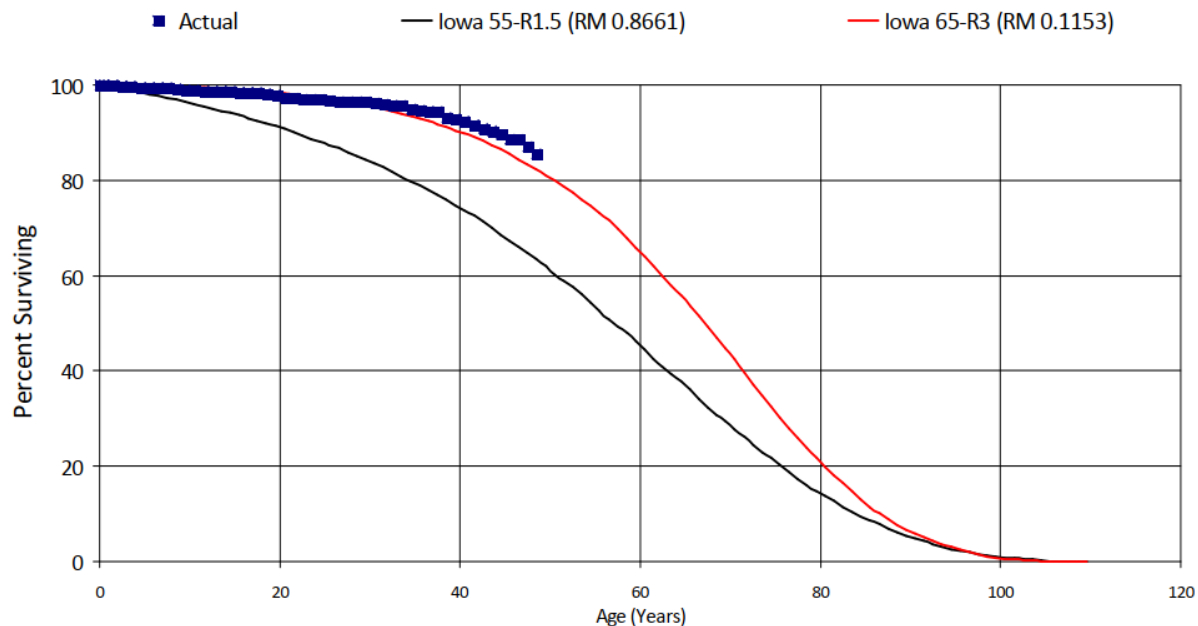
When analyzing this account, the need to increase the net salvage recommendation for TNAW to adequately recover their prudently spent costs of removal became evident. The historical percentage has been above 100 percent each of the last 10 years, and throughout this period, any gross salvage collected has been heavily outweighed by the costs of removal. Concentric proposes an increase to a negative 15 net salvage percentage for this account due to the above, and the knowledge provided by TNAW personnel on future cost of removal activity. Concentric also recognizes that this recommendation may still need to be adjusted higher in future studies if these current trends persist.



ACCOUNT 335 – FIRE HYDRANTS

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$14,284,463	3.10%	55-R1.5	65-R3	-16.5%	-30%

The investment in Fire Hydrants is approximately \$14.3 million representing 3.1percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 55-R1.5, with an approved rate in service of 2.30%. The retirements, additions, and other plant transactions, for the period 1911 through 2023, were analyzed by the retirement rate method. Retirements that occurred between 2005 and 2023 were utilized in the development of the depreciation parameters. In conducting the retirement rate analysis, this account included the use of a T-cut at age 49. As such, retirements of \$553,846 were considered in the retirement rate analysis.

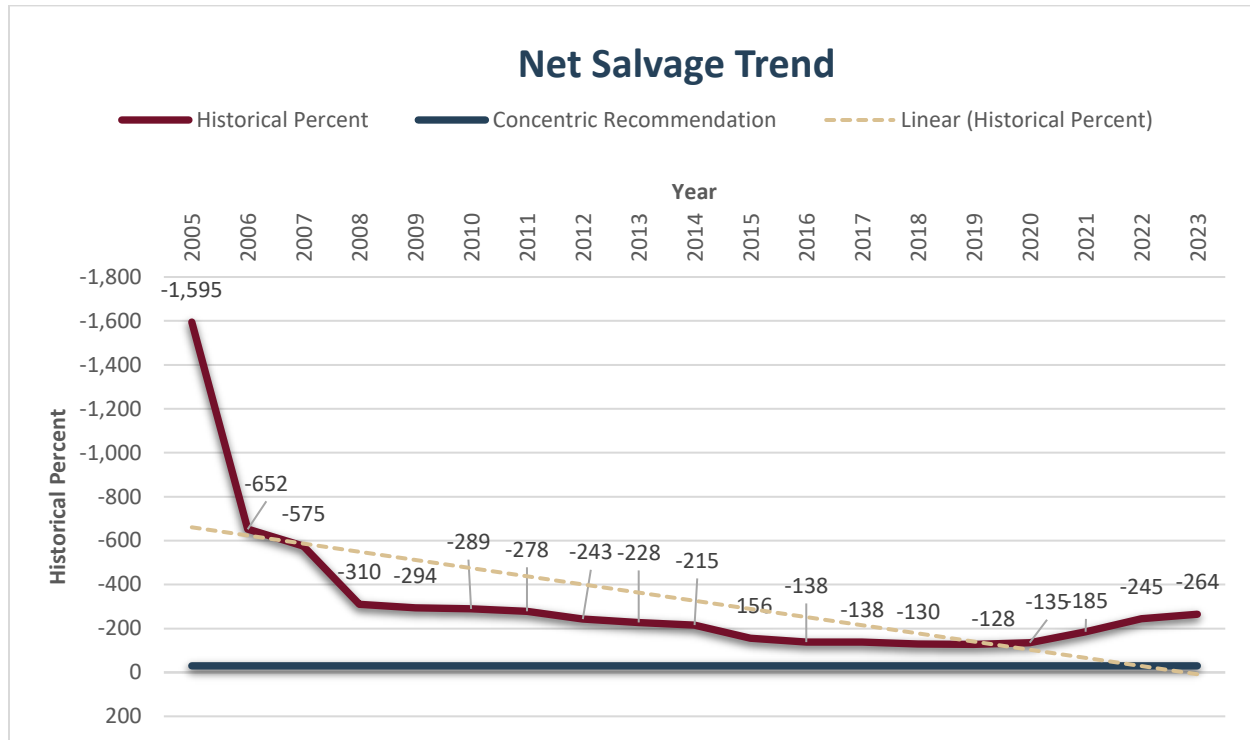


The previously approved Iowa 55-R1.5 has a related Residual Measure of 0.8661 as opposed to the proposed Iowa 65-R3 which has a related Residual Measure of 0.1153, as depicted above and on page 6-92 of this report. The proposed Iowa 65-R3 provides a much stronger mathematical fit to the data as referenced by the Residual Measure, and it has a strong visual alignment with the observed data on the stub curve through 85.53% of plant surviving. There are consistent retirements from age 1 through to age 49, with no specific age interval contributing a large portion of retirements. The average age of retirements has decreased since the date of the last study, from 35.81 years in 2007 to 26.36 years in 2023. However, the weighted average age of retirement in this account is 27.76 years, compared to the previous study where it was 18.29 years, showing that the larger retirements are occurring at older ages.

A peer comparison of American water utilities studied produced a range from 60 to 70 years with an average recommendation of a 64-year average service life. Based on the above discussion and



considerations, and on Concentric's experience, the Iowa 65-R3 is a reasonable expectation for the investment in this account. As such, Concentric recommends the Iowa 65-R3 to represent the future expectations for the investment in this account.



The previously approved net salvage percentage for this account was negative 16.5 percent. The historical net salvage activity for this account shows a range from negative 128 percent to over negative 1,000 percent. The three-year rolling band produces a range from one percent to over negative 1,000 percent and the five-year rolling band shows a range from negative seven percent to over negative 1,000 percent. The full depth band shows an amount of negative 264 percent. The peers for this account are between negative five and negative 60 percent.

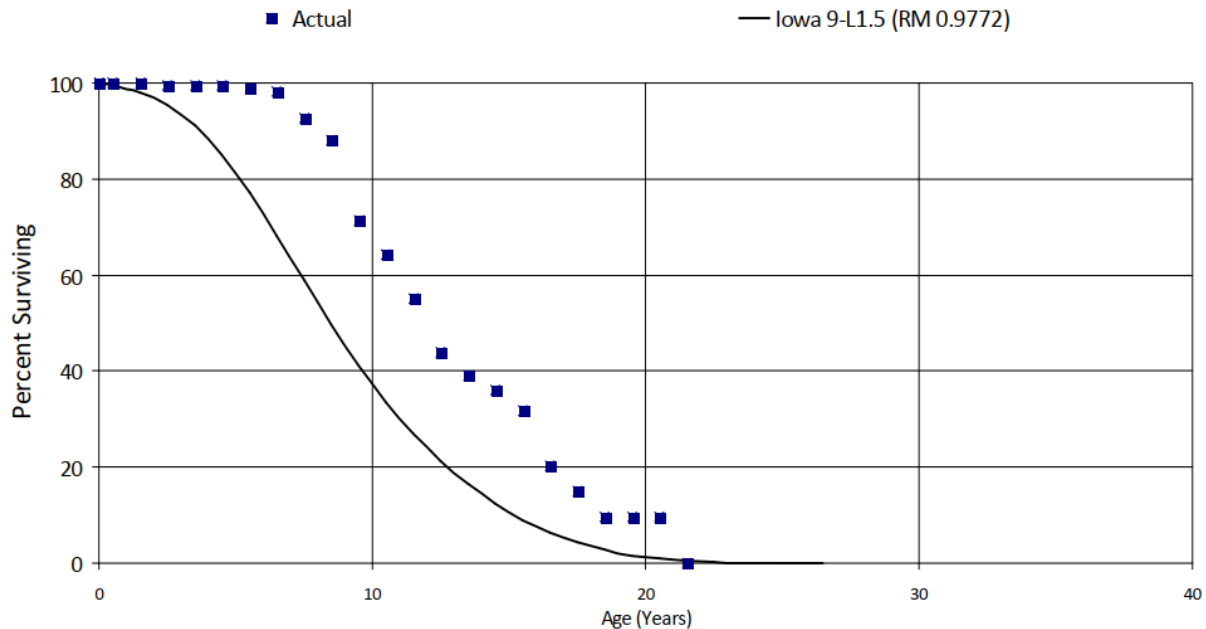
At the time of the previous study, the all-in full depth band showed a net salvage percentage of negative 25 percent. Concentric proposes a moderate increase to a negative 30 net salvage percentage for this account due to the above, and the knowledge provided by TNAW personnel on future cost of removal activity. Concentric recognizes that this recommendation may need to be increased in future studies if the trend in increased costs of removal continues.



ACCOUNT 341.1 – TRANSPORTATION EQUIPMENT – LIGHT DUTY TRUCKS

Investment \$	Investment %	Previously Approved Curve	Concentric Recommended Curve	Previously Approved Salvage	Concentric Recommended Salvage
\$6,599,162	1.43%	9-L1.5	9-L1.5	15%	20%

The investment in Transportation Equipment – Light Duty Trucks is approximately \$6.6 million representing roughly 1.4 percent of the total depreciable plant studied. The previously approved life parameter for this account is an Iowa 9-L1.5 with an approved rate in service of 16%. The retirements, additions, and other plant transactions, for the period 1990 through 2023, were analyzed by the retirement rate method. There was no T-cut utilized for this account and retirements of \$1,702,701 were recorded for the period 2005 through 2023.

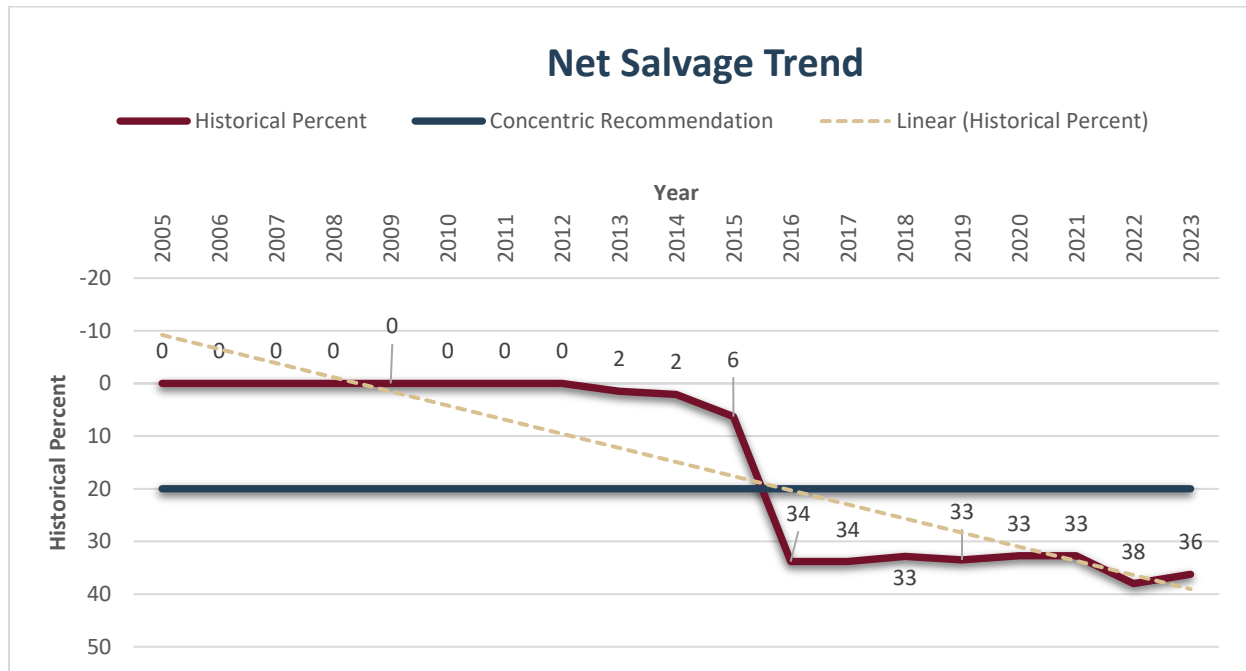


The previously applied for and proposed Iowa 9-L1.5 has a related Residual Measure of 0.9772 as depicted above and on page 6-98 of this report. The average age of retirements has been steady since 2005, moving from 9.18 years old to 9 years old in 2023. The overall weighted average age of retirement is 11.30 years, compared to 7.64 years in the previous study. The visual fit to data with the proposed Iowa 9-L1.5 does not have a robust fit to the observed data; however this is an account in which TNAW policy drives decisions regarding the assets in this account, and therefore Concentric has proposed to align this life with that policy. As this account will have an Original Cost and Accumulated Depreciation Reserve balance of zero dollars beginning in 2024, the effective depreciation rate will be 8.89% moving forward. This rate is derived from the life portion (1/9 years) adjusted for the future net salvage requirement (positive 20%). The remaining future accruals within this account will be depreciated over the composite remaining life of 6.7 years.

Conversations with TNAW operational staff and subject matter experts indicated that the 9-year life for this account is consistent with their opinion on expected average service life for assets within this



account, based on company policy. A peer comparison of American water utilities studied produced a range from 5 to 13 years with an average recommendation of a 10-year average service life. Based on the above discussion and considerations, and on Concentric's experience, the Iowa 9-L1.5 is a reasonable expectation for the investment in this account. As such, Concentric recommends the Iowa 9-L1.5 to continue to represent the future expectations for the investment in this account.



The previously approved net salvage percentage for this account was 15 percent. The historical net salvage activity for this account shows a range from two percent to 38 percent. The three-year rolling band produces a range from six percent to 36 percent and the five-year rolling band shows a range from five percent to 33 percent. The full depth band shows an amount of 36 percent. The peers for this account are between five and 25 percent. There have not been consistent costs of removal or gross salvage in the transaction years since the previous study. However, there has been enough collected in gross salvage to justify a minor increase in the positive net salvage percentage. Concentric proposes increasing the net salvage on this account to a positive 20 net salvage percentage for this account due to the above, and the knowledge provided by TNAW personnel on future cost of removal and gross salvage activity.



#### OTHER ACCOUNTS

The above analysis provides the consideration relating to over 86 percent of the depreciable plant. Many of the accounts related to the remaining 14 percent of the depreciable plant studied as of December 31, 2023, are subject to amortization accounting. This is proposed for a number of accounts that represent numerous units of property, but very small portions of depreciable water plant in service.



## SECTION 4

### 4 CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

#### 4.1 Calculation of Annual and Accrued Amortization

Amortization is the gradual extinguishment of an amount in an account by distributing such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized. Normally, the distribution of the amount is in equal amounts to each year of the amortization period.

The calculation of annual and accrued amortization requires the selection of an amortization period. The amortization periods used in this report were based on judgment which incorporated a consideration of the period during which the assets will render most of their service, the amortization period and service lives used by other utilities, and the service life estimates previously used for the asset under depreciation accounting.

Amortization accounting is proposed for a number of accounts that represent numerous units of property, but a very small portion of depreciable water plant in service. The accounts and their amortization periods are as follows:

Account	Title	Amortization Period-Years
304.301	Treat Dpr Paint	10
304.301	Treat Dpr Paint – Post 2023 Additions	10
304.31	Treatment Handl	10
304.31	Treatment Handl – Post 2023 Additions	10
330.003	Tank Repainting	10
339.6	Misc. Intangible Plant – Comprehensive Planning Studies	10
340.10	Office Furniture and Equipment – Post 2023 Additions	20
340.20	Computer Periphery & Equipment – Post 2023 Additions	7
340.30	Computer Software – Post 2023 Additions	10
343.00	Tools, Shop, and Garage Equipment	20
344.00	Laboratory Equipment	15
346.10	Communication Equipment – Non-Telephone	15
346.19	Remote Control & Instrument	15
346.20	Communication Equipment – Telephone	10
347.00	Miscellaneous Equipment	20
348.00	Other Tangible Property	20

For the purpose of calculating annual amortization amounts, as of December 31, 2023, the book depreciation reserve for each plant account or subaccount is assigned or allocated to vintages. The book reserve assigned to vintages with an age greater than the amortization period is equal to the



vintage's original cost where possible. The remaining book reserve is allocated among vintages with an age less than the amortization period in proportion to the calculated accrued amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period. The annual amortization amount is determined by dividing the future amortizations (original cost less allocated book reserve) by the remaining period of amortization for the vintage.

## 4.2 Monitoring of Book Accumulated Depreciation

The calculated accrued depreciation or amortization represents that portion of the depreciable cost which will not be allocated to expense through future depreciation accruals, if current forecasts of service life characteristics materialize and are used as a basis for depreciation accounting. Thus, the calculated accrued depreciation provides a measure of the book accumulated depreciation. The use of this measure is recommended in the amortization of book accumulated depreciation variances to insure complete recovery of capital over the life of the property.

The composite remaining life for use in the calculation of depreciation accruals is derived by developing the composite sum of the individual remaining lives in accordance with the following equation:

$$\text{Composite Remaining Life} = \frac{\sum \left( \frac{\text{Book Cost}}{\text{Life}} \times \text{Remaining Life} \right)}{\sum \frac{\text{Book Cost}}{\text{Life}}} \quad (1)$$

The book costs and lives of the several vintages, which are summed in the foregoing equation, are defined by the estimated future survivor curve. In as much as book cost divided by life equals the whole life annual accrual, the foregoing equation reduces to the following form:

$$\text{Composite Remaining Life} = \frac{\sum \text{Whole Life Future Accruals}}{\sum \text{Whole Life Annual Accrual}} \quad (2)$$

or

$$\text{Composite Remaining Life} = \frac{\sum \text{Book Cost} - \text{Calc. Reserve}}{\sum \text{Whole Life Annual Accrual}} \quad (3)$$





## SECTION 5

# 5 RESULTS OF THE STUDY

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## 5.1 Qualification of Results

The calculated annual and accrued depreciation are the principal results of the study. Continued surveillance and periodic revisions are normally required to maintain continued use of appropriate annual depreciation accrual rates. An assumption that accrual rates can remain unchanged over a long period of time implies a disregard for the inherent variability in service lives and salvage, and for the change of the composition of property in service. The annual accrual rates and the accrued depreciation were calculated in accordance with the Straight-line method, using the ALG procedure based on estimates which reflect considerations of current historical evidence and expected future conditions.

## 5.2 Description of Detailed Tabulations

The following tables provides summaries by account of the original cost of investment, booked accumulated depreciation amounts, the required amount of annual depreciation expense, the required depreciation rate to be applied against the original cost of the account and the estimated composite remaining life of the surviving plant in service.

The detailed calculations of annual depreciation applicable to depreciable assets, as of December 31, 2023, are presented in account sequence starting in Section 5 – Page 5-2. The tables indicate the estimated average survivor curves used in the calculations. The tables set forth (for each installation year) the original cost, calculated accrued depreciation and the calculated annual accrual.

# Tennessee American Water Company

**TABLE 1 - ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DEC 31, 2023**  
**DEPRECIATION RELATED TO RECOVERY OF ORIGINAL COST OF INVESTMENT**  
**TOTAL**

Account (1)	Account Description (2)	Survivor Curve (3)	Net Salvage (4)	Investment Percentage (5)	Original Cost as of Dec. 31, 2023 (6)	Book Depreciation Reserve (7)	Future Accruals (8)	Annual Accrual Amount (9)	Annual Accrual Rate (10)	Composite Remaining Life (11)
<b>Structures and Improvements</b>										
304.1	Source of Supply	55-R1.5	-20%	0.68%	3,127,711	140,879	3,612,374	68,818	2.20%	52.52
304.2	Pumping	60-R1.5	-20%	1.76% *	8,125,602	3,832,463	5,918,259	125,681	1.55%	44.36
304.3	Treatment	65-R1.5	-20%	6.65% *	30,619,055	4,701,594	32,041,272	542,246	1.77%	58.63
304.301	Treat Dpr Paint	10-SQ	0%	0.27%	1,250,689	1,250,689	0	0	0.00%	3.00
	Treat Dpr Paint - Post 2023 Additions	10-SQ	0%						10.00%	
304.31	Treatment Handl	10-SQ	0%	0.00%	1,189	1,189	0	0	0.00%	3.00
	Treatment Handl - Post 2023 Additions	10-SQ	0%						10.00%	
<b>Total Water Treatment</b>					<b>43,124,246</b>	<b>9,926,814</b>	<b>41,571,905</b>	<b>736,745</b>	<b>1.71%</b>	
304.4	Transmission and Distribution	35-R2.5	-15%	0.37%	1,725,569	812,057	1,172,347	60,517	3.51%	19.85
304.5	General	30-R1.5	-5%	0.51%	2,356,785	83,282	2,391,342	99,501	4.22%	24.32
304.6	Office Buildings	25-R3	-15%	0.48%	2,204,741	179,271	2,356,181	143,385	6.50%	16.82
304.7	Stores, Shop and Garage	50-S1.5	-5%	0.05%	238,445	125,768	124,600	4,425	1.86%	26.26
304.8	Miscellaneous	60-R1.5	-10%	0.13%	588,587	494,908	152,538	3,052	0.52%	41.60
<b>Total Structures and Improvements</b>					<b>50,238,372</b>	<b>11,622,099</b>	<b>47,768,913</b>	<b>1,047,625</b>	<b>2.09%</b>	
<b>Transmission and Distribution</b>										
306	Lake, River, and Other Intakes	70-R1	-10%	0.60%	2,751,125	242,163	2,784,074	42,200	1.53%	65.13
<b>Total Lake, River, and Other Intakes</b>					<b>2,751,125</b>	<b>242,163</b>	<b>2,784,074</b>	<b>42,200</b>	<b>1.53%</b>	
309	Supply Mains	50-R2.5	0%	0.32%	1,458,918	-229,689	1,688,608	38,032	2.61%	44.95
310	Power Generation Equipment	35-R3	-5%	0.19%	856,116	1,160,056	-261,134	0	0.00%	22.31
	Power Generation Equipment - Post 2023 Additions	35-R3	-5%						3.00%	
<b>Pumping Equipment</b>										
311.2	Pumping Equipment - Electric	55-R1	-10%	1.33% *	6,112,627	3,243,080	3,480,810	88,568	1.45%	35.00
311.3	Pumping Equipment - Diesel	50-R2.5	0%	0.02%	92,937	71,209	21,728	1,060	1.14%	19.29
311.5	Pumping Equipment - Other	40-R2.5	-10%	1.94% *	8,953,419	-35,715	9,884,475	262,289	2.93%	37.89
311.52	Pumping Equipment - SOS & Pumping	40-S0	-10%	0.59%	2,726,236	234,599	2,764,261	82,683	3.03%	33.51
<b>Total Pumping Equipment</b>					<b>17,885,219</b>	<b>3,513,173</b>	<b>16,151,274</b>	<b>434,600</b>	<b>2.43%</b>	
<b>Water Treatment Equipment</b>										
320.1	Water Treatment Equipment - Non-Media	50-S0.5	-15%	6.37% *	29,313,136	5,738,779	27,971,328	724,660	2.47%	39.62
320.2	Water Treatment Equipment - Filter Media	10-S0	-15%	0.60%	2,754,327	1,139,350	2,028,126	375,807	13.64%	5.62
<b>Total Water Treatment Equipment</b>					<b>32,067,463</b>	<b>6,878,129</b>	<b>29,999,453</b>	<b>1,100,467</b>	<b>3.43%</b>	

# Tennessee American Water Company

**TABLE 1 - ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DEC 31, 2023  
DEPRECIATION RELATED TO RECOVERY OF ORIGINAL COST OF INVESTMENT  
TOTAL**

Account (1)	Account Description (2)	Survivor Curve (3)	Net Salvage (4)	Investment Percentage (5)	Original Cost as of Dec. 31, 2023 (6)	Book Depreciation Reserve (7)	Future Accruals (8)	Annual Accrual Amount (9)	Annual Accrual Rate (10)	Composite Remaining Life (11)
330	Distribution Reservoirs and Standpipes	60-S0	-25%	2.01% *	9,240,124	1,844,716	9,705,439	212,765	2.30%	46.93
330.003	Tank Repainting	10-SQ	0%	0.58%	2,684,955	602,567	2,082,389	313,494	11.68%	7.10
330.1	Elevated Tanks and Standpipes	35-R3	-25%	0.64%	2,926,121	976,372	2,681,279	122,738	4.19%	22.26
330.2	Ground Level Tanks	35-R3	-25%	0.54%	2,478,155	402,248	2,695,445	96,376	3.89%	28.80
330.3	Below Ground Tanks	35-R3	-25%	0.01%	39,869	8,665	41,171	1,555	3.90%	26.70
330.4	Clearwell	60-R3	-25%	0.15%	680,784	202,747	648,233	16,003	2.35%	40.51
<b>Total Account 330</b>					<b>18,050,008</b>	<b>4,037,315</b>	<b>17,853,956</b>	<b>762,931</b>	<b>4.23%</b>	
331.001	Mains- Transmission and Distribution	90-R3	-20%	42.69% *	196,592,319	38,254,119	197,656,664	2,808,812	1.43%	71.51
333	Services	75-R3	-40%	7.44% *	34,262,617	10,737,635	37,230,028	712,014	2.08%	54.18
334.1	Meters	15-R1.5	-15%	4.98% *	22,931,139	3,714,380	22,656,429	1,976,305	8.62%	12.10
334.11	Meters - Bronze Case	15-R1.5	-15%	1.54% *	7,112,862	5,225,086	2,954,704	354,177	4.98%	7.40
334.13	Meters - Other	15-R1.5	-15%	0.04%	162,809	50,286	136,944	12,299	7.55%	11.12
334.131	Meter Reading Units	15-R1.5	0%	0.02%	96,132	45,953	50,179	5,275	5.49%	8.99
334.2	Meter Installations	50-R3	-25%	5.68% *	26,145,509	3,903,027	28,778,859	740,141	2.83%	37.93
334.3	Meter Vaults	50-R3	-15%	0.02%	94,129	-37,344	145,593	3,087	3.28%	47.31
<b>Total Meters</b>					<b>56,542,579</b>	<b>12,901,389</b>	<b>54,722,708</b>	<b>3,091,284</b>	<b>5.47%</b>	
335	Fire Hydrants	65-R3	-30%	3.10% *	14,284,463	3,728,331	14,841,470	325,544	2.28%	47.49
<b>Miscellaneous Intangible Plant</b>										
339.2	Miscellaneous Intangible Plant - Supply	25-R3	0%	0.05%	222,421	72,684	149,738	8,401	3.78%	17.82
339.6	Miscellaneous Intangible Plant - Comprehensive Planning S	10-SQ	0%	0.30%	1,359,806	325,462	1,034,344	147,331	10.83%	7.11
<b>Total Miscellaneous Intangible Plant</b>					<b>1,582,227</b>	<b>398,146</b>	<b>1,184,081</b>	<b>155,732</b>	<b>9.84%</b>	
<b>Total Transmission and Distribution</b>					<b>376,333,053</b>	<b>81,620,767</b>	<b>373,851,182</b>	<b>9,471,616</b>	<b>2.52%</b>	
<b>General Plant</b>										
	Amortized Software and Office Furniture Assets	6 +	0%		17,172,279	-886,676	18,058,955	3,009,826	17.53%	6.00
	Office Furniture and Equipment - Post 2023 Additions	20-SQ	0%						5.00%	
	Computer & Periphery Equipment - Post 2023 Additions	7-SQ	0%						14.29%	
	Computer Software - Post 2023 Additions	10-SQ	0%						10.00%	
<b>Transportation Equipment</b>										
341.1	Light Trucks	9-L1.5	20%	1.43% *	6,599,162	3,609,083	1,670,247	249,419	**	6.70
	Light Trucks - Post 2023 Additions	9-L1.5	20%						8.89%	
341.2	Heavy Trucks	8-L1.5	20%	0.66%	3,060,309	4,995,068	-2,546,821	0	0.00%	3.77
	Heavy Trucks - Post 2023 Additions	8-L1.5	20%						10.00%	

# Tennessee American Water Company

**TABLE 1 - ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DEC 31, 2023  
DEPRECIATION RELATED TO RECOVERY OF ORIGINAL COST OF INVESTMENT  
TOTAL**

Account (1)	Account Description (2)	Survivor Curve (3)	Net Salvage (4)	Investment Percentage (5)	Original Cost as of Dec. 31, 2023 (6)	Book Depreciation Reserve (7)	Future Accruals (8)	Annual Accrual Amount (9)	Annual Accrual Rate (10)	Composite Remaining Life (11)
341.3	Autos	8-S2.5	20%	0.18%	816,886	1,062,272	0	0	0.00%	3.24
	Autos - Post 2023 Additions	8-S2.5	20%						10.00%	
341.4	Other	12-L2.5	20%	0.19%	888,804	632,592	78,452	15,996	**	4.90
	Other - Post 2023 Additions	12-L2.5	20%						6.67%	
<b>Total Transportation Equipment</b>					<b>11,365,161</b>	<b>10,299,015</b>	<b>-798,122</b>	<b>265,416</b>	<b>2.34%</b>	
343	Tools, Shop, and Garage Equipment	20-SQ	0%	0.28%	1,304,617	427,355	877,262	53,314	4.09%	15.36
344	Laboratory Equipment	15-SQ	0%	0.01%	63,274	16,398	46,876	7,668	12.12%	7.87
345	Power Operated Equipment	20-S1.5	5%	0.08%	379,488	356,571	3,943	243	0.06%	10.48
346.1	Communication Equipment - Non-Telephone	15-SQ	0%	0.20%	900,638	51,892	848,746	68,278	7.58%	12.77
346.19	Remote Control & Instrument	15-SQ	0%	0.38%	1,756,269	362,575	1,393,694	207,330	11.81%	7.06
346.2	Communication Equipment - Telephone	10-SQ	0%	0.00%	14,624	-9,063	23,687	3,585	24.51%	6.63
347	Miscellaneous Equipment	20-SQ	0%	0.21%	976,466	56,376	920,090	64,364	6.59%	15.46
348	Other Tangible Property	20-SQ	0%	0.00%	20,739	5,016	15,723	1,580	7.62%	12.54
<b>Total General Plant</b>					<b>33,953,555</b>	<b>10,679,457</b>	<b>21,390,855</b>	<b>3,681,603</b>	<b>10.84%</b>	
<b>Total Depreciable Plant</b>					<b>460,524,980</b>	<b>103,922,323</b>	<b>443,010,950</b>	<b>14,200,844</b>	<b>3.08%</b>	
<b>Non-Depreciable Plant</b>										
303.3	Land and Land Rights - Pumping				108,582					
303.4	Land and Land Rights - Water Treatment				18,009					
303.5	Land and Land Rights - Transmission and Distribution				145,766					
303.501	Land - T&D				360,906					
303.502	Land and Land Rights - T&D RoW				132,294					
303.6	Land and Land Rights - Administrative				2,661,881					
<b>Total Non-Depreciable Plant</b>					<b>3,427,438</b>					
<b>TOTAL PLANT</b>					<b>463,952,417</b>	<b>103,922,323</b>	<b>443,010,950</b>	<b>14,200,844</b>		

\*\* Future accruals amortized over the composite remaining life of the account

+ 6-Year amortization period - No survivor curve assigned

# Tennessee American Water Company

**TABLE 1A - ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DEC 31, 2023  
DEPRECIATION RELATED TO RECOVERY OF ORIGINAL COST OF INVESTMENT  
LIFE**

Account (1)	Account Description (2)	Survivor Curve (3)	Net Salvage (4)	Investment Percentage (5)	Original Cost as of Dec. 31, 2023 (6)	Book Depreciation Reserve (7)	Future Accruals (8)	Annual Accrual Amount (9)	Annual Accrual Rate (10)	Composite Remaining Life (11)
<b>Structures and Improvements</b>										
304.1	Source of Supply	55-R1.5	0%	0.68%	3,127,711	165,475	2,962,236	56,370	1.80%	52.52
304.2	Pumping	60-R1.5	0%	1.76%	8,125,602	3,695,540	4,430,061	91,361	1.12%	44.36
304.3	Treatment	65-R1.5	0%	6.65%	30,619,055	8,650,307	21,968,748	365,617	1.19%	58.63
304.301	Treat Depr Paint	10-SQ	0%	0.27%	1,250,689	1,250,689	0	0	0.00%	3.00
	Treat Dpr Paint - Post 2023 Additions	10-SQ							10.00%	
304.31	Treatment Handl	10-SQ	0%	0.00%	1,189	1,189	0	0	0.00%	3.00
	Treatment Handl - Post 2023 Additions	10-SQ							10.00%	
<b>Total Water Treatment</b>					<b>43,124,246</b>	<b>13,763,200</b>	<b>29,361,046</b>	<b>513,348</b>	<b>1.19%</b>	
304.4	Transmission and Distribution	35-R2.5	0%	0.37%	1,725,569	678,350	1,047,218	54,902	3.18%	19.85
304.5	General	30-R1.5	0%	0.51%	2,356,785	104,295	2,252,490	93,660	3.97%	24.32
304.6	Office Buildings	25-R3	0%	0.48%	2,204,741	181,059	2,023,682	123,056	5.58%	16.82
304.7	Stores, Shop and Garage	50-S1.5	0%	0.05%	238,445	113,585	124,861	4,738	1.99%	26.26
304.8	Miscellaneous	60-R1.5	0%	0.13%	588,587	476,903	111,683	2,173	0.37%	41.60
<b>Total Structures and Improvements</b>					<b>50,238,372</b>	<b>15,317,393</b>	<b>34,920,979</b>	<b>791,877</b>	<b>1.58%</b>	
<b>Transmission and Distribution</b>										
306	Lake, River, and Other Intakes	70-R1	0%	0.60%	2,751,125	239,036	2,512,089	37,765	1.37%	65.13
<b>Total Lake, River, and Other Intakes</b>					<b>2,751,125</b>	<b>239,036</b>	<b>2,512,089</b>	<b>37,765</b>	<b>1.37%</b>	
309	Supply Mains	50-R2.5	0%	0.32%	1,458,918	-229,689	1,688,608	38,032	2.61%	44.95
310	Power Generation Equipment	35-R3	0%	0.19%	856,116	1,098,176	-242,060	0	0.00%	22.31
	Power Generation Equipment - Post 2023 Additions	35-R3	0%						2.86%	
<b>Pumping Equipment</b>										
311.2	Pumping Equipment - Electric	55-R1	0%	1.33%	6,112,627	3,112,657	2,999,970	74,831	1.22%	35.00
311.3	Pumping Equipment - Diesel	50-R2.5	0%	0.02%	92,937	66,102	26,835	1,348	1.45%	19.29
311.5	Pumping Equipment - Other	40-R2.5	0%	1.94%	8,953,419	286,551	8,666,868	229,218	2.56%	37.89
311.52	Pumping Equipment - SOS & Pumping	40-S0	0%	0.59%	2,726,236	298,162	2,428,074	72,569	2.66%	33.51
<b>Total Pumping Equipment</b>					<b>17,885,219</b>	<b>3,763,472</b>	<b>14,121,747</b>	<b>377,966</b>	<b>2.11%</b>	
<b>Water Treatment Equipment</b>										
320.1	Water Treatment Equipment - Non-Media	50-S0.5	0%	6.37%	29,313,136	9,755,680	19,557,456	468,339	1.60%	39.62
320.2	Water Treatment Equipment - Filter Media	10-S0	0%	0.60%	2,754,327	1,936,846	817,480	110,983	4.03%	5.62
<b>Total Water Treatment Equipment</b>					<b>32,067,463</b>	<b>11,692,526</b>	<b>20,374,937</b>	<b>579,322</b>	<b>1.81%</b>	

# Tennessee American Water Company

**TABLE 1A - ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DEC 31, 2023  
DEPRECIATION RELATED TO RECOVERY OF ORIGINAL COST OF INVESTMENT  
LIFE**

Account (1)	Account Description (2)	Survivor Curve (3)	Net Salvage (4)	Investment Percentage (5)	Original Cost as of Dec. 31, 2023 (6)	Book Depreciation Reserve (7)	Future Accruals (8)	Annual Accrual Amount (9)	Annual Accrual Rate (10)	Composite Remaining Life (11)
330	Distribution Reservoirs and Standpipes	60-S0	0%	2.01%	9,240,124	3,652,875	5,587,249	106,286	1.15%	46.93
330.003	Tank Repainting	10-SQ	0%	0.58%	2,684,955	1,491,490	1,193,466	125,628	4.68%	7.10
330.1	Elevated Tanks and Standpipes	35-R3	0%	0.64%	2,926,121	1,933,394	992,726	39,126	1.34%	22.26
330.2	Ground Level Tanks	35-R3	0%	0.54%	2,478,155	796,524	1,681,630	55,050	2.22%	28.80
330.3	Below Ground Tanks	35-R3	0%	0.01%	39,869	17,159	22,710	819	2.05%	26.70
330.4	Clearwell	60-R3	0%	0.15%	680,784	401,475	279,309	6,895	1.01%	40.51
<b>Total Account 330</b>					<b>18,050,008</b>	<b>8,292,918</b>	<b>9,757,090</b>	<b>333,804</b>	<b>1.85%</b>	
331.001	Mains- Transmission and Distribution	90-R3	0%	42.69%	196,592,319	40,216,586	156,375,733	2,187,431	1.11%	71.51
333	Services	75-R3	0%	7.44%	34,262,617	10,436,374	23,826,243	430,760	1.26%	54.18
334.1	Meters	15-R1.5	0%	4.98%	22,931,139	5,336,773	17,594,365	1,384,183	6.04%	12.10
334.11	Meters - Bronze Case	15-R1.5	0%	1.54%	7,112,862	5,255,429	1,857,433	187,758	2.64%	7.40
334.13	Meters - Other	15-R1.5	0%	0.04%	162,809	64,550	98,259	8,628	5.30%	11.12
334.131	Meter Reading Units	15-R1.5	0%	0.02%	96,132	46,634	49,498	5,171	5.38%	8.99
334.2	Meter Installations	50-R3	0%	5.68%	26,145,509	7,122,092	19,023,417	489,426	1.87%	37.93
334.3	Meter Vaults	50-R3	0%	0.02%	94,129	-20,507	114,636	2,429	2.58%	47.31
<b>Total Meters</b>					<b>56,542,579</b>	<b>17,804,970</b>	<b>38,737,609</b>	<b>2,077,595</b>	<b>3.67%</b>	
335	Fire Hydrants	65-R3	0%	3.10%	14,284,463	4,247,746	10,036,717	207,284	1.45%	47.49
<b>Miscellaneous Intangible Plant</b>										
339.2	Miscellaneous Intangible Plant - Supply	25-R3	0%	0.05%	222,421	72,684	149,738	8,401	3.78%	17.82
339.6	Miscellaneous Intangible Plant - Comprehensive Planning S	10-SQ	0%	0.30%	1,359,806	325,462	1,034,344	147,331	10.83%	7.11
<b>Total Miscellaneous Intangible Plant</b>					<b>1,582,227</b>	<b>398,146</b>	<b>1,184,081</b>	<b>155,732</b>	<b>9.84%</b>	
<b>Total Transmission and Distribution</b>					<b>376,333,053</b>	<b>97,960,260</b>	<b>278,372,793</b>	<b>6,425,691</b>	<b>1.71%</b>	
<b>General Plant</b>										
	Amortized Software and Office Furniture Assets	6 +	0%		17,172,279	-886,676	18,058,955	3,009,826	17.53%	6.00
	Office Furniture and Equipment - Post 2023 Additions	20-SQ	0%						5.00%	
	Computer & Periphery Equipment - Post 2023 Additions	7-SQ	0%						14.29%	
	Computer Software - Post 2023 Additions	10-SQ	0%						10.00%	
<b>Transportation Equipment</b>										
341.1	Light Trucks	9-L1.5	20%	1.43%	6,599,162	3,609,083	1,670,247	249,419 **		6.70
	Light Trucks - Post 2023 Additions	9-L1.5	20%						8.89%	
341.2	Heavy Trucks	8-L1.5	20%	0.66%	3,060,309	4,995,068	-2,546,821	0	0.00%	3.77
	Heavy Trucks - Post 2023 Additions	8-L1.5	20%						10.00%	

# Tennessee American Water Company

**TABLE 1A - ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DEC 31, 2023  
DEPRECIATION RELATED TO RECOVERY OF ORIGINAL COST OF INVESTMENT  
LIFE**

Account (1)	Account Description (2)	Survivor Curve (3)	Net Salvage (4)	Investment Percentage (5)	Original Cost as of Dec. 31, 2023 (6)	Book Depreciation Reserve (7)	Future Accruals (8)	Annual Accrual Amount (9)	Annual Accrual Rate (10)	Composite Remaining Life (11)
341.3	Autos	8-S2.5	20%	0.18%	816,886	1,062,272	0	0	0.00%	3.24
	Autos - Post 2023 Additions	8-S2.5	20%						10.00%	
341.4	Other	12-L2.5	20%	0.19%	888,804	632,592	78,452	15,996 **		4.90
	Other - Post 2023 Additions	12-L2.5	20%						6.67%	
<b>Total Transportation Equipment</b>					<b>11,365,161</b>	<b>10,299,015</b>	<b>-798,122</b>	<b>265,416</b>	<b>2.34%</b>	
343	Tools, Shop, and Garage Equipment	20-SQ	0%	0.28%	1,304,617	427,355	877,262	53,314	4.09%	15.36
344	Laboratory Equipment	15-SQ	0%	0.01%	63,274	16,398	46,876	7,668	12.12%	7.87
345	Power Operated Equipment	20-S1.5	5%	0.08%	379,488	356,571	3,943	243	0.06%	10.48
346.1	Communication Equipment - Non-Telephone	15-SQ	0%	0.20%	900,638	51,892	848,746	68,278	7.58%	12.77
346.19	Remote Control & Instrument	15-SQ	0%	0.38%	1,756,269	362,575	1,393,694	207,330	11.81%	7.06
346.2	Communication Equipment - Telephone	10-SQ	0%	0.00%	14,624	-9,063	23,687	3,585	24.51%	6.63
347	Miscellaneous Equipment	20-SQ	0%	0.21%	976,466	56,376	920,090	64,364	6.59%	15.46
348	Other Tangible Property	20-SQ	0%	0.00%	20,739	5,016	15,723	1,580	7.62%	12.54
<b>Total General Plant</b>					<b>33,953,555</b>	<b>10,679,457</b>	<b>21,390,855</b>	<b>3,681,603</b>	<b>10.84%</b>	
<b>Total Depreciable Plant</b>					<b>460,524,980</b>	<b>123,957,110</b>	<b>334,684,627</b>	<b>10,899,171</b>	<b>2.37%</b>	
<b>Non-Depreciable Plant</b>										
303.3	Land and Land Rights - Pumping				108,582					
303.4	Land and Land Rights - Water Treatment				18,009					
303.5	Land and Land Rights - Transmission and Distribution				145,766					
303.501	Land - T&D				360,906					
303.502	Land and Land Rights - T&D RoW				132,294					
303.6	Land and Land Rights - Administrative				2,661,881					
<b>Total Non-Depreciable Plant</b>					<b>3,427,438</b>					
<b>TOTAL PLANT</b>					<b>463,952,418</b>	<b>123,957,110</b>	<b>334,684,627</b>	<b>10,899,171</b>		

\*\* Future accruals amortized over the composite remaining life of the account

+ 6-Year amortization period - No survivor curve assigned

# Tennessee American Water Company

**TABLE 1B - ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DEC 31, 2023  
DEPRECIATION RELATED TO RECOVERY OF ORIGINAL COST OF INVESTMENT  
COR**

Account (1)	Account Description (2)	Survivor Curve (3)	Net Salvage (4)	Investment Percentage (5)	Original Cost as of Dec. 31, 2023 (6)	Book Depreciation Reserve (7)	Future Accruals (8)	Annual Accrual Amount (9)	Annual Accrual Rate (10)
<b>Structures and Improvements</b>									
304.1	Source of Supply	55-R1.5	-20%	0.68%	3,127,711	-24,596	650,138	12,448	0.40%
304.2	Pumping	60-R1.5	-20%	1.76%	8,125,602	136,923	1,488,198	34,320	0.42%
304.3	Treatment	65-R1.5	-20%	6.65%	30,619,055	-3,948,713	10,072,524	176,629	0.58%
304.301	Treat Depr Paint	10-SQ	0%	0.27%	1,250,689	0	0	0	0.00%
304.301	Treat Dpr Paint - Post 2023 Additions	10-SQ							0.00%
304.31	Treatment Handl	10-SQ	0%	0.00%	1,189	0	0	0	0.00%
304.311	Treatment Handl - Post 2023 Additions	10-SQ							0.00%
<b>Total Water Treatment</b>					<b>43,124,246</b>	<b>-3,836,386</b>	<b>12,210,860</b>	<b>223,397</b>	<b>0.52%</b>
304.4	Transmission and Distribution	35-R2.5	-15%	0.37%	1,725,569	133,707	125,129	5,615	0.33%
304.5	General	30-R1.5	-5%	0.51%	2,356,785	-21,013	138,852	5,841	0.25%
304.6	Office Buildings	25-R3	-15%	0.48%	2,204,741	-1,788	332,499	20,329	0.92%
304.7	Stores, Shop and Garage	50-S1.5	-5%	0.05%	238,445	12,183	-261	0	0.00%
304.8	Miscellaneous	60-R1.5	-10%	0.13%	588,587	18,004	40,854	879	0.15%
<b>Total Structures and Improvements</b>					<b>50,238,372</b>	<b>-3,695,293</b>	<b>12,847,933</b>	<b>256,061</b>	<b>0.51%</b>
<b>Transmission and Distribution</b>									
306	Lake, River, and Other Intakes	70-R1	-10%	0.60%	2,751,125	3,127	271,985	4,435	0.16%
<b>Total Lake, River, and Other Intakes</b>					<b>2,751,125</b>	<b>3,127</b>	<b>271,985</b>	<b>4,435</b>	<b>0.16%</b>
309	Supply Mains	50-R2.5	0%	0.32%	1,458,918	0	0	0	0.00%
310	Power Generation Equipment	35-R3	-5%	0.19%	856,116	61,880	-19,074	0	0.00%
	Power Generation Equipment - Post 2023 Additions	35-R3	-5%						0.14%
<b>Pumping Equipment</b>									
311.2	Pumping Equipment - Electric	55-R1	-10%	1.33%	6,112,627	130,423	480,840	13,737	0.22%
311.3	Pumping Equipment - Diesel	50-R2.5	0%	0.02%	92,937	5,106	0	0	0.00%
311.5	Pumping Equipment - Other	40-R2.5	-10%	1.94%	8,953,419	-322,266	1,217,608	33,071	0.37%
311.52	Pumping Equipment - SOS & Pumping	40-S0	-10%	0.59%	2,726,236	-63,563	336,187	10,114	0.37%
<b>Total Pumping Equipment</b>					<b>17,885,219</b>	<b>-250,299</b>	<b>2,034,634</b>	<b>56,922</b>	<b>0.32%</b>
<b>Water Treatment Equipment</b>									
320.1	Water Treatment Equipment - Non-Media	50-S0.5	-15%	6.37%	29,313,136	-4,016,901	8,413,871	256,321	0.87%
320.2	Water Treatment Equipment - Filter Media	10-S0	-15%	0.60%	2,754,327	-797,496	1,210,645	264,824	9.61%



# Tennessee American Water Company

## TABLE 1B - ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DEC 31, 2023 DEPRECIATION RELATED TO RECOVERY OF ORIGINAL COST OF INVESTMENT COR

Account (1)	Account Description (2)	Survivor Curve (3)	Net Salvage (4)	Investment Percentage (5)	Original Cost as of Dec. 31, 2023 (6)	Book Depreciation Reserve (7)	Future Accruals (8)	Annual Accrual Amount (9)	Annual Accrual Rate (10)
<b>Total Water Treatment Equipment</b>					<b>32,067,463</b>	<b>-4,814,397</b>	<b>9,624,517</b>	<b>521,145</b>	<b>1.63%</b>
330	Distribution Reservoirs and Standpipes	60-S0	-25%	2.01%	9,240,124	-1,808,158	4,118,190	106,479	1.15%
330.003	Tank Repainting	10-SQ	0%	0.58%	2,684,955	-888,923	888,923	0	0.00%
330.1	Elevated Tanks and Standpipes	35-R3	-25%	0.64%	2,926,121	-957,022	1,688,553	83,612	2.86%
330.2	Ground Level Tanks	35-R3	-25%	0.54%	2,478,155	-394,276	1,013,815	41,326	1.67%
330.3	Below Ground Tanks	35-R3	-25%	0.01%	39,869	-8,494	18,461	736	1.85%
330.4	Clearwell	60-R3	-25%	0.15%	680,784	-198,729	368,925	9,108	1.34%
<b>Total Account 330</b>					<b>18,050,008</b>	<b>-4,255,603</b>	<b>8,096,866</b>	<b>241,261</b>	<b>1.34%</b>
331.001	Mains- Transmission and Distribution	90-R3	-20%	42.69%	196,592,319	-1,962,467	41,280,931	621,381	0.32%
333	Services	75-R3	-40%	7.44%	34,262,617	301,262	13,403,785	281,254	0.82%
334.1	Meters	15-R1.5	-15%	4.98%	22,931,139	-1,622,393	5,062,064	592,122	2.58%
334.11	Meters - Bronze Case	15-R1.5	-15%	1.54%	7,112,862	-30,343	1,097,272	166,419	2.34%
334.13	Meters - Other	15-R1.5	-15%	0.04%	162,809	-14,263	38,684	3,671	2.25%
334.131	Meter Reading Units	15-R1.5	0%	0.02%	96,132	-681	681	0	0.00%
334.2	Meter Installations	50-R3	-25%	5.68%	26,145,509	-3,219,064	9,755,442	250,715	0.96%
334.3	Meter Vaults	50-R3	-15%	0.02%	94,129	-16,837	30,956	3,087	3.28%
<b>Total Meters</b>					<b>56,542,579</b>	<b>-4,903,582</b>	<b>15,985,099</b>	<b>1,016,014</b>	<b>1.80%</b>
335	Fire Hydrants	65-R3	-30%	3.10%	14,284,463	-519,415	4,804,754	118,260	0.83%
<b>Miscellaneous Intangible Plant</b>									
339.2	Miscellaneous Intangible Plant - Supply	25-R3	0%	0.05%	222,421	0	0	0	0.00%
339.6	Miscellaneous Intangible Plant - Comprehensive Planning &	10-SQ	0%	0.30%	1,359,806	0	0	0	0.00%
<b>Total Miscellaneous Intangible Plant</b>					<b>1,582,227</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00%</b>
<b>Total Transmission and Distribution</b>					<b>376,333,053</b>	<b>-21,762,489</b>	<b>116,273,349</b>	<b>2,860,672</b>	<b>0.76%</b>
<b>General Plant</b>									
	Amortized Software and Office Furniture Assets	6 +	0%		17,172,279	0	0	0	0.00%
	Office Furniture and Equipment - Post 2023 Additions	20-SQ	0%						0.00%
	Computer & Periphery Equipment - Post 2023 Additions	7-SQ	0%						0.00%
	Computer Software - Post 2023 Additions	10-SQ	0%						0.00%

# Tennessee American Water Company

**TABLE 1B - ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO UTILITY PLANT AS OF DEC 31, 2023  
DEPRECIATION RELATED TO RECOVERY OF ORIGINAL COST OF INVESTMENT  
COR**

Account (1)	Account Description (2)	Survivor Curve (3)	Net Salvage (4)	Investment Percentage (5)	Original Cost as of Dec. 31, 2023 (6)	Book Depreciation Reserve (7)	Future Accruals (8)	Annual Accrual Amount (9)	Annual Accrual Rate (10)
<b>Transportation Equipment</b>									
341.1	Light Trucks	9-L1.5	0%	1.43%	6,599,162	0	0	0	0.00%
	Light Trucks - Post 2023 Additions	9-L1.5	0%					0	0.00%
341.2	Heavy Trucks	8-L1.5	0%	0.66%	3,060,309	0	0	0	0.00%
	Heavy Trucks - Post 2023 Additions	8-L1.5	0%					0	0.00%
341.3	Autos	8-S2.5	0%	0.18%	816,886	0	0	0	0.00%
	Autos - Post 2023 Additions	8-S2.5	0%					0	0.00%
341.4	Other	12-L2.5	0%	0.19%	888,804	0	0	0	0.00%
	Other - Post 2023 Additions	12-L2.5	0%					0	0.00%
<b>Total Transportation Equipment</b>					<b>11,365,161</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00%</b>
343	Tools, Shop, and Garage Equipment	20-SQ	0%	0.28%	1,304,617	0	0	0	0.00%
344	Laboratory Equipment	15-SQ	0%	0.01%	63,274	0	0	0	0.00%
345	Power Operated Equipment	20-S1.5	0%	0.08%	379,488	0	0	0	0.00%
346.1	Communication Equipment - Non-Telephone	15-SQ	0%	0.20%	900,638	0	0	0	0.00%
346.19	Remote Control & Instrument	15-SQ	0%	0.38%	1,756,269	0	0	0	0.00%
346.2	Communication Equipment - Telephone	10-SQ	0%	0.00%	14,624	0	0	0	0.00%
347	Miscellaneous Equipment	20-SQ	0%	0.21%	976,466	0	0	0	0.00%
348	Other Tangible Property	20-SQ	0%	0.00%	20,739	0	0	0	0.00%
<b>Total General Plant</b>					<b>33,953,555</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00%</b>
<b>Total Depreciable Plant</b>					<b>460,524,980</b>	<b>-25,457,783</b>	<b>129,121,282</b>	<b>3,116,733</b>	<b>0.68%</b>
<b>Non-Depreciable Plant</b>									
303.3	Land and Land Rights - Pumping				108,582				
303.4	Land and Land Rights - Water Treatment				18,009				
303.5	Land and Land Rights - Transmission and Distribution				145,766				
303.501	Land - T&D				360,906				
303.502	Land and Land Rights - T&D RoW				132,294				
303.6	Land and Land Rights - Administrative				2,661,881				
<b>Total Non-Depreciable Plant</b>					<b>3,427,438</b>				
<b>TOTAL PLANT</b>					<b>463,952,417</b>	<b>-25,457,783</b>	<b>129,121,282</b>	<b>3,116,733</b>	

+ 6-Year amortization period - No survivor curve assigned

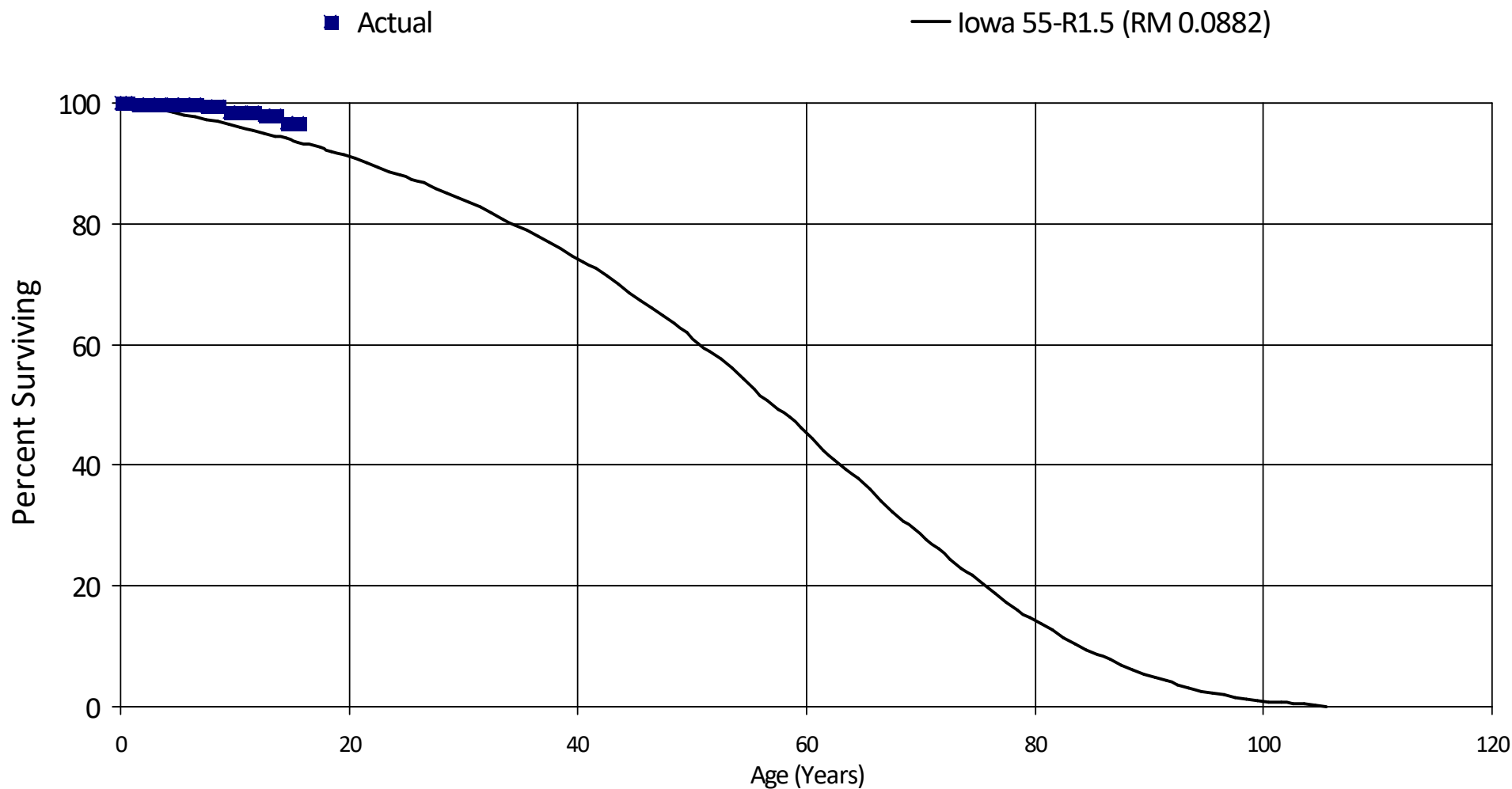


SECTION 6

## 6 RETIREMENT RATE ANALYSIS

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**Tennessee - American Water Company**  
**Account 304.100 - Structures & Improvements - Supply**  
Placement Band - 2007 - 2023    Experience Band - 2014 - 2023  
**Actual and Smooth Survivor Curves**

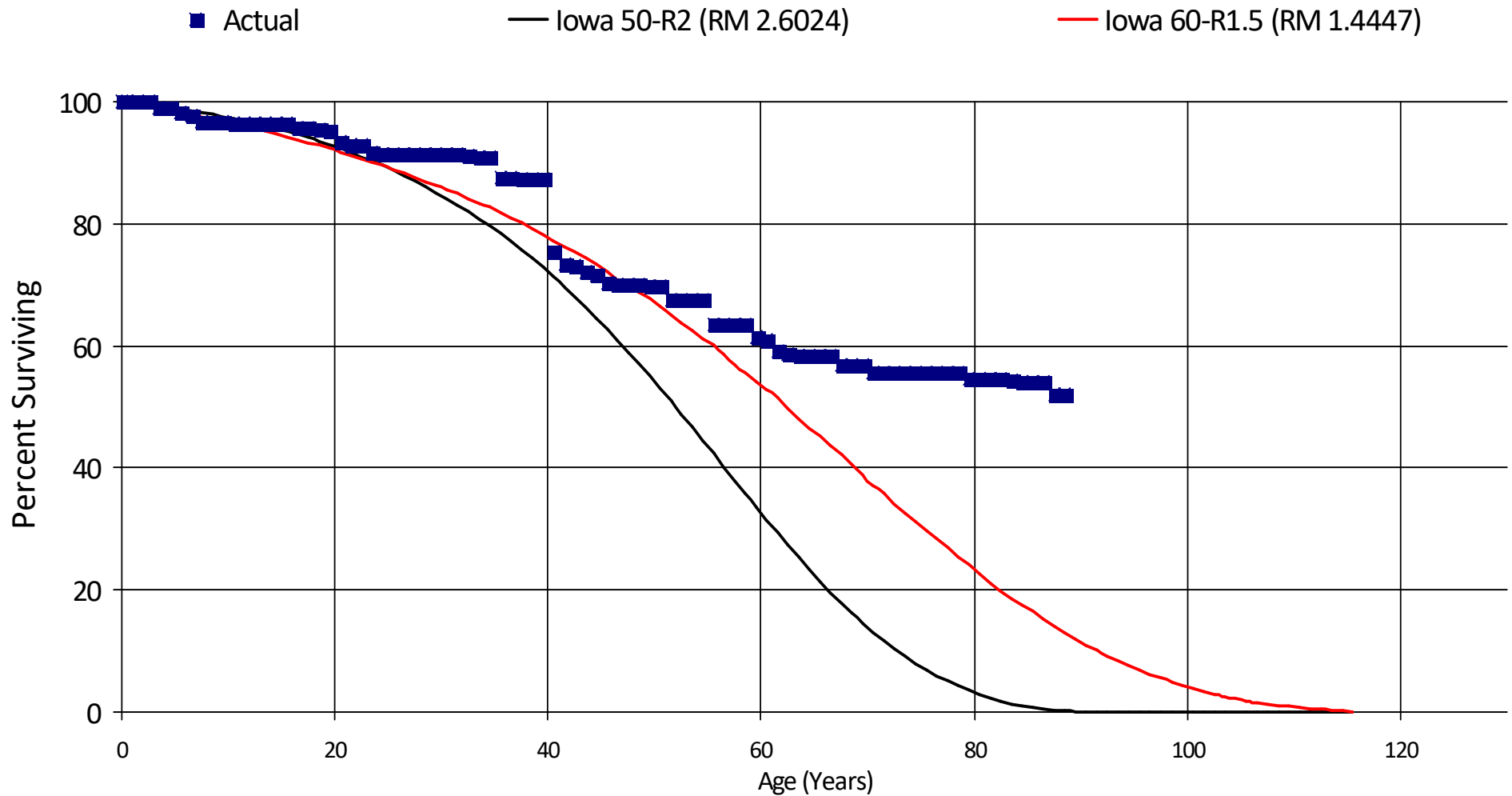


**Tennessee - American Water Company**  
**Account 304.100 - Structures & Improvements - Supply**  
Placement Band - 2007 - 2023    Experience Band - 2014 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	3,144,054	0	0.00000	1.00000	100.00
0.5	2,781,320	10,538	0.00379	0.99621	100.00
1.5	697,042	0	0.00000	1.00000	99.62
2.5	692,493	0	0.00000	1.00000	99.62
3.5	676,331	0	0.00000	1.00000	99.62
4.5	653,745	0	0.00000	1.00000	99.62
5.5	648,898	0	0.00000	1.00000	99.62
6.5	546,502	1,240	0.00227	0.99773	99.62
7.5	505,001	0	0.00000	1.00000	99.39
8.5	396,685	3,554	0.00896	0.99104	99.39
9.5	112,868	0	0.00000	1.00000	98.50
10.5	112,868	0	0.00000	1.00000	98.50
11.5	79,924	490	0.00613	0.99387	98.50
12.5	48,959	0	0.00000	1.00000	97.90
13.5	46,891	521	0.01111	0.98889	97.90
14.5	46,370	0	0.00000	1.00000	96.81
15.5	7,410	0	0.00000	1.00000	96.81
Totals:		16,343			

**Tennessee - American Water Company**  
**Account 304.200 - Structures & Improvements - Pumping**  
Placement Band - 1919 - 2023    Experience Band - 2007 - 2023  
**Actual and Smooth Survivor Curves**



**Tennessee - American Water Company**  
**Account 304.200 - Structures & Improvements - Pumping**  
Placement Band - 1919 - 2023    Experience Band - 2007 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	9,043,397	0	0.00000	1.00000	100.00
0.5	9,043,397	0	0.00000	1.00000	100.00
1.5	9,043,397	0	0.00000	1.00000	100.00
2.5	8,579,407	86,064	0.01003	0.98997	100.00
3.5	8,403,963	0	0.00000	1.00000	99.00
4.5	7,541,350	57,880	0.00768	0.99232	99.00
5.5	7,483,471	49,728	0.00665	0.99335	98.24
6.5	6,915,203	66,512	0.00962	0.99038	97.59
7.5	6,498,973	0	0.00000	1.00000	96.65
8.5	6,498,973	0	0.00000	1.00000	96.65
9.5	6,498,973	9,953	0.00153	0.99847	96.65
10.5	6,489,019	631	0.00010	0.99990	96.50
11.5	6,383,449	0	0.00000	1.00000	96.49
12.5	6,131,828	2,586	0.00042	0.99958	96.49
13.5	5,445,426	3,118	0.00057	0.99943	96.45
14.5	5,432,145	1,522	0.00028	0.99972	96.40
15.5	5,427,088	31,488	0.00580	0.99420	96.37
16.5	5,376,954	0	0.00000	1.00000	95.81
17.5	5,185,172	19,724	0.00380	0.99620	95.81
18.5	5,043,757	8,368	0.00166	0.99834	95.45
19.5	3,353,926	62,373	0.01860	0.98140	95.29
20.5	3,291,554	22,238	0.00676	0.99324	93.52
21.5	3,269,316	0	0.00000	1.00000	92.89
22.5	3,253,776	45,187	0.01389	0.98611	92.89
23.5	3,208,589	4,900	0.00153	0.99847	91.60
24.5	3,092,031	0	0.00000	1.00000	91.46
25.5	2,356,523	0	0.00000	1.00000	91.46
26.5	2,351,684	947	0.00040	0.99960	91.46

# Tennessee - American Water Company

## Account 304.200 - Structures & Improvements - Pumping

Placement Band - 1919 - 2023    Experience Band - 2007 - 2023

27.5	2,338,737	1,000	0.00043	0.99957	91.42
28.5	2,337,737	0	0.00000	1.00000	91.38
29.5	2,337,737	0	0.00000	1.00000	91.38
30.5	2,337,737	2,000	0.00086	0.99914	91.38
31.5	2,335,737	1,855	0.00079	0.99921	91.30
32.5	2,333,883	9,630	0.00413	0.99587	91.23
33.5	2,121,785	0	0.00000	1.00000	90.85
34.5	2,120,790	76,471	0.03606	0.96394	90.85
35.5	1,924,250	2,559	0.00133	0.99867	87.57
36.5	1,920,607	1,000	0.00052	0.99948	87.45
37.5	1,918,607	0	0.00000	1.00000	87.40
38.5	1,885,567	0	0.00000	1.00000	87.40
39.5	1,875,237	257,482	0.13731	0.86269	87.40
40.5	416,871	11,695	0.02805	0.97195	75.40
41.5	404,250	417	0.00103	0.99897	73.29
42.5	365,112	5,874	0.01609	0.98391	73.21
43.5	314,618	2,144	0.00681	0.99319	72.03
44.5	312,474	5,791	0.01853	0.98147	71.54
45.5	306,683	388	0.00127	0.99873	70.21
46.5	303,794	0	0.00000	1.00000	70.12
47.5	303,794	332	0.00109	0.99891	70.12
48.5	303,462	886	0.00292	0.99708	70.04
49.5	238,437	0	0.00000	1.00000	69.84
50.5	231,132	8,059	0.03487	0.96513	69.84
51.5	221,602	0	0.00000	1.00000	67.40
52.5	221,602	0	0.00000	1.00000	67.40
53.5	221,602	0	0.00000	1.00000	67.40
54.5	220,062	13,073	0.05941	0.94059	67.40
55.5	206,819	0	0.00000	1.00000	63.40
56.5	188,525	0	0.00000	1.00000	63.40
57.5	182,841	68	0.00037	0.99963	63.40



# Tennessee - American Water Company

## Account 304.200 - Structures & Improvements - Pumping

Placement Band - 1919 - 2023    Experience Band - 2007 - 2023

58.5	176,150	5,200	0.02952	0.97048	63.38
59.5	170,951	1,756	0.01027	0.98973	61.51
60.5	169,195	4,977	0.02942	0.97058	60.88
61.5	164,218	1,497	0.00912	0.99088	59.09
62.5	162,721	176	0.00108	0.99892	58.55
63.5	162,369	322	0.00198	0.99802	58.49
64.5	158,783	0	0.00000	1.00000	58.37
65.5	158,783	0	0.00000	1.00000	58.37
66.5	158,510	4,000	0.02523	0.97477	58.37
67.5	150,448	0	0.00000	1.00000	56.90
68.5	150,448	0	0.00000	1.00000	56.90
69.5	146,273	3,629	0.02481	0.97519	56.90
70.5	142,420	0	0.00000	1.00000	55.49
71.5	141,101	0	0.00000	1.00000	55.49
72.5	110,642	0	0.00000	1.00000	55.49
73.5	109,618	0	0.00000	1.00000	55.49
74.5	109,618	0	0.00000	1.00000	55.49
75.5	109,618	0	0.00000	1.00000	55.49
76.5	109,618	0	0.00000	1.00000	55.49
77.5	109,618	0	0.00000	1.00000	55.49
78.5	109,618	1,748	0.01595	0.98405	55.49
79.5	107,869	0	0.00000	1.00000	54.60
80.5	107,869	0	0.00000	1.00000	54.60
81.5	107,869	82	0.00076	0.99924	54.60
82.5	107,787	348	0.00323	0.99677	54.56
83.5	107,439	795	0.00740	0.99260	54.38
84.5	106,644	0	0.00000	1.00000	53.98
85.5	106,644	0	0.00000	1.00000	53.98
86.5	106,644	3,840	0.03601	0.96399	53.98
87.5	102,804	0	0.00000	1.00000	52.04
88.5	102,804	14,674	0.14274	0.85726	52.04

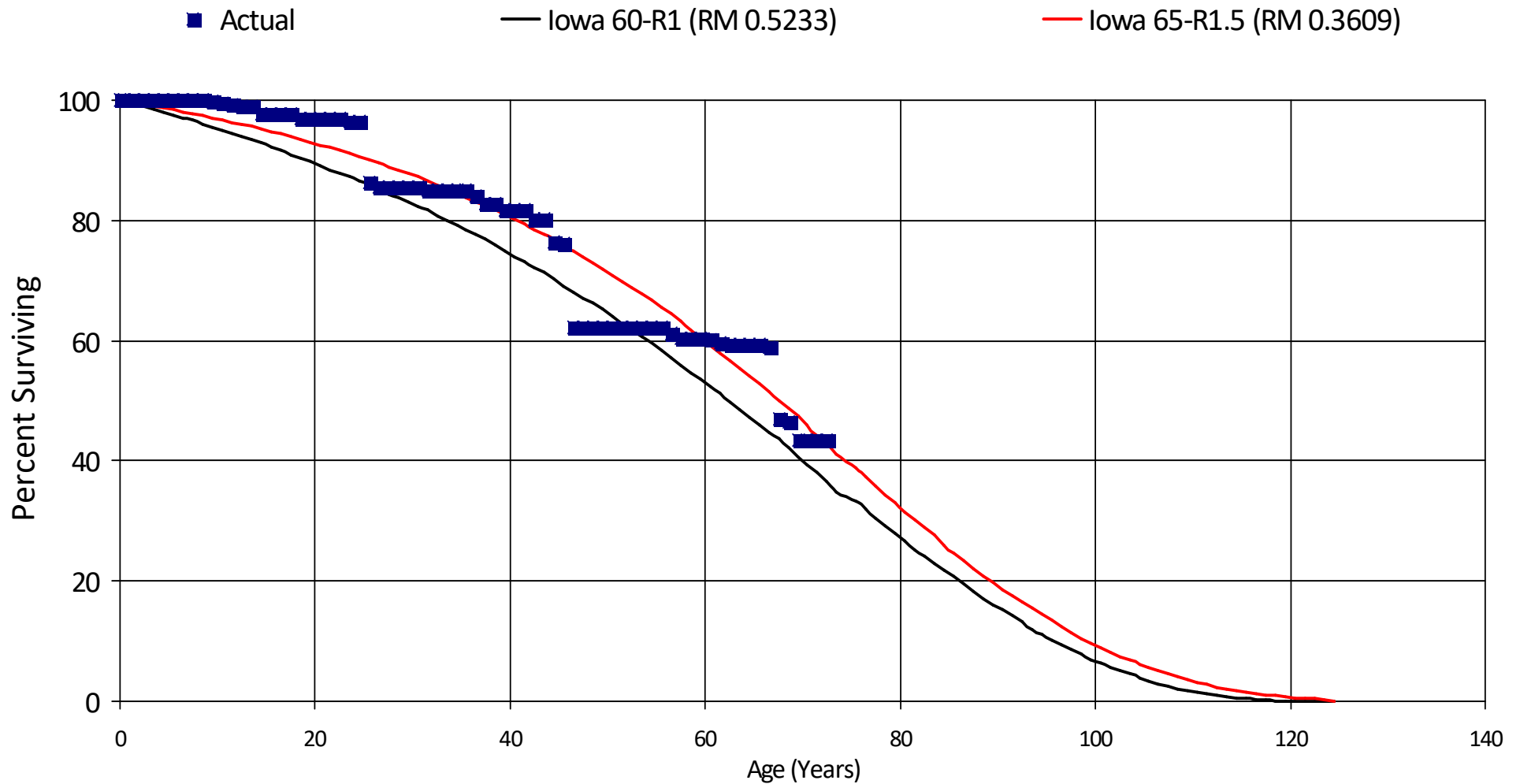
**Tennessee - American Water Company**  
**Account 304.200 - Structures & Improvements - Pumping**

Placement Band - 1919 - 2023    Experience Band - 2007 - 2023

Totals: 

916,987
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**Tennessee - American Water Company**  
**Account 304.300 - Structures & Improvements - Treatment**  
Placement Band - 1949 - 2023    Experience Band - 2005 - 2023  
**Actual and Smooth Survivor Curves**



**Tennessee - American Water Company**  
**Account 304.300 - Structures & Improvements - Treatment**  
Placement Band - 1949 - 2023    Experience Band - 2005 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	31,204,211	0	0.00000	1.00000	100.00
0.5	31,204,211	0	0.00000	1.00000	100.00
1.5	31,204,211	0	0.00000	1.00000	100.00
2.5	28,679,646	0	0.00000	1.00000	100.00
3.5	21,347,594	0	0.00000	1.00000	100.00
4.5	16,932,512	0	0.00000	1.00000	100.00
5.5	16,859,518	0	0.00000	1.00000	100.00
6.5	16,156,870	3,500	0.00022	0.99978	100.00
7.5	9,983,358	0	0.00000	1.00000	99.98
8.5	5,687,448	20,154	0.00354	0.99646	99.98
9.5	5,667,294	10,671	0.00188	0.99812	99.63
10.5	5,538,834	6,631	0.00120	0.99880	99.44
11.5	4,758,254	9,908	0.00208	0.99792	99.32
12.5	4,714,687	3,167	0.00067	0.99933	99.11
13.5	2,152,018	27,185	0.01263	0.98737	99.04
14.5	2,015,460	0	0.00000	1.00000	97.79
15.5	1,998,593	0	0.00000	1.00000	97.79
16.5	1,975,262	0	0.00000	1.00000	97.79
17.5	1,975,262	15,007	0.00760	0.99240	97.79
18.5	1,911,526	2,733	0.00143	0.99857	97.05
19.5	1,908,792	0	0.00000	1.00000	96.91
20.5	1,908,792	759	0.00040	0.99960	96.91
21.5	1,908,034	290	0.00015	0.99985	96.87
22.5	1,907,744	7,638	0.00400	0.99600	96.86
23.5	1,667,576	0	0.00000	1.00000	96.47
24.5	1,663,876	177,049	0.10641	0.89359	96.47
25.5	1,486,827	9,786	0.00658	0.99342	86.20
26.5	1,418,152	0	0.00000	1.00000	85.63

# Tennessee - American Water Company

## Account 304.300 - Structures & Improvements - Treatment

Placement Band - 1949 - 2023    Experience Band - 2005 - 2023

27.5	1,410,032	1,074	0.00076	0.99924	85.63
28.5	1,408,265	925	0.00066	0.99934	85.56
29.5	1,407,340	1,360	0.00097	0.99903	85.50
30.5	1,405,980	5,606	0.00399	0.99601	85.42
31.5	1,320,468	0	0.00000	1.00000	85.08
32.5	1,320,468	0	0.00000	1.00000	85.08
33.5	1,293,837	0	0.00000	1.00000	85.08
34.5	872,936	0	0.00000	1.00000	85.08
35.5	872,936	10,605	0.01215	0.98785	85.08
36.5	861,199	12,272	0.01425	0.98575	84.05
37.5	811,791	699	0.00086	0.99914	82.85
38.5	804,595	9,263	0.01151	0.98849	82.78
39.5	795,332	55	0.00007	0.99993	81.83
40.5	795,277	0	0.00000	1.00000	81.82
41.5	795,277	15,444	0.01942	0.98058	81.82
42.5	779,833	325	0.00042	0.99958	80.23
43.5	778,373	37,540	0.04823	0.95177	80.20
44.5	740,833	1,022	0.00138	0.99862	76.33
45.5	597,425	109,309	0.18297	0.81703	76.22
46.5	481,073	0	0.00000	1.00000	62.27
47.5	481,073	33	0.00007	0.99993	62.27
48.5	481,040	0	0.00000	1.00000	62.27
49.5	481,040	0	0.00000	1.00000	62.27
50.5	481,040	172	0.00036	0.99964	62.27
51.5	368,294	0	0.00000	1.00000	62.25
52.5	368,294	0	0.00000	1.00000	62.25
53.5	368,294	379	0.00103	0.99897	62.25
54.5	367,740	0	0.00000	1.00000	62.19
55.5	367,740	6,475	0.01761	0.98239	62.19
56.5	361,265	4,362	0.01207	0.98793	61.09
57.5	356,903	100	0.00028	0.99972	60.35

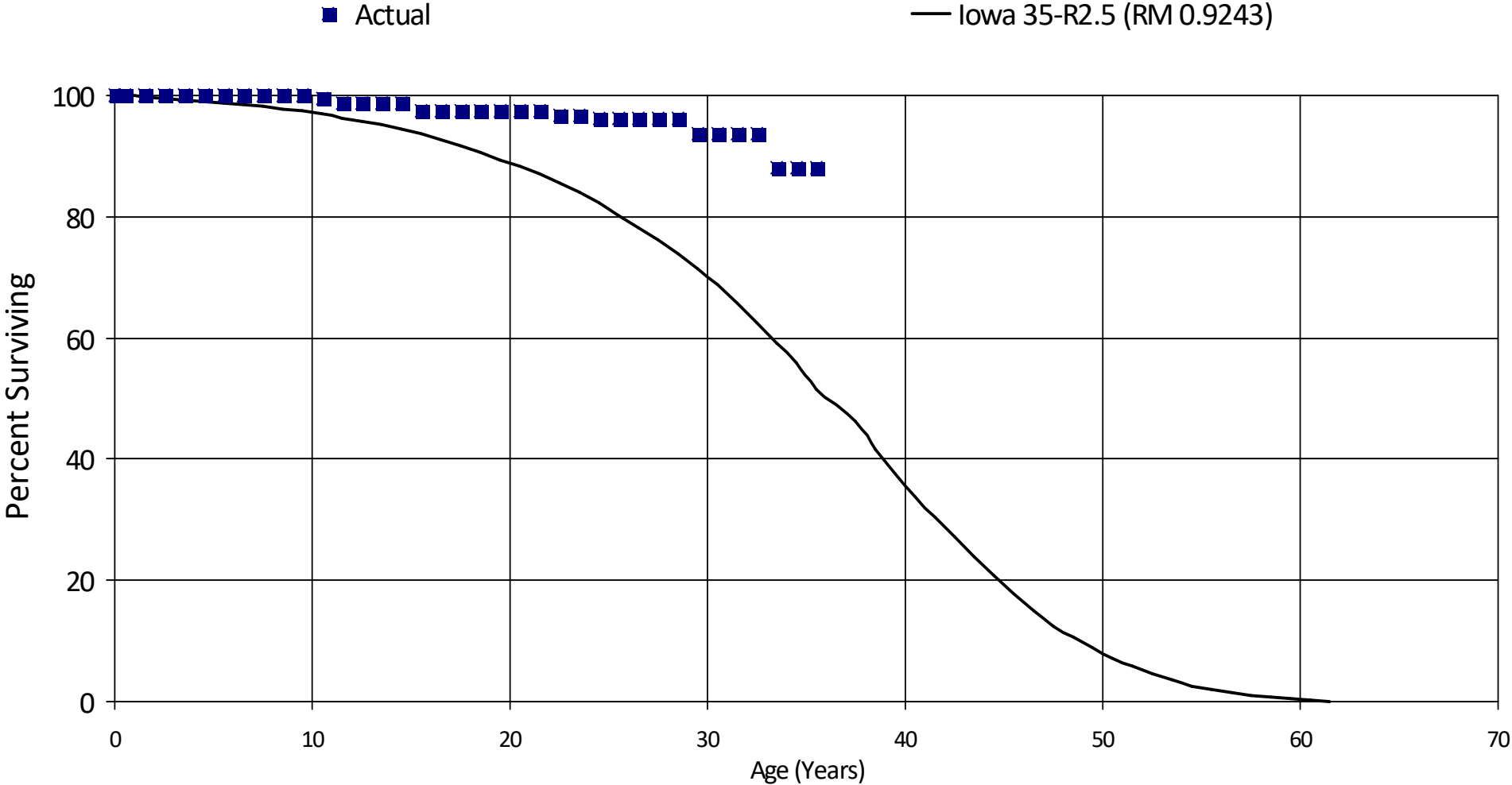
# Tennessee - American Water Company

## Account 304.300 - Structures & Improvements - Treatment

Placement Band - 1949 - 2023    Experience Band - 2005 - 2023

58.5	356,804	0	0.00000	1.00000	60.33
59.5	289,110	1,127	0.00390	0.99610	60.33
60.5	287,984	2,636	0.00915	0.99085	60.09
61.5	285,348	234	0.00082	0.99918	59.54
62.5	285,114	187	0.00066	0.99934	59.49
63.5	282,312	131	0.00046	0.99954	59.45
64.5	282,182	0	0.00000	1.00000	59.42
65.5	272,618	2,932	0.01075	0.98925	59.42
66.5	269,569	54,646	0.20272	0.79728	58.78
67.5	212,402	1,545	0.00727	0.99273	46.86
68.5	150,883	10,186	0.06751	0.93249	46.52
69.5	136,051	0	0.00000	1.00000	43.38
70.5	123,981	35	0.00028	0.99972	43.38
71.5	30,660	0	0.00000	1.00000	43.37
72.5	0	0	0.00000	0.00000	43.37
Totals:		585,157			

Tennessee - American Water Company  
Account 304.400 - Structures & Improvements - T&D  
Placement Band - 1987 - 2023    Experience Band - 2009 - 2023  
Actual and Smooth Survivor Curves



**Tennessee - American Water Company**  
**Account 304.400 - Structures & Improvements - T&D**  
Placement Band - 1987 - 2023    Experience Band - 2009 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	1,796,198	0	0.00000	1.00000	100.00
0.5	1,796,198	0	0.00000	1.00000	100.00
1.5	1,796,198	0	0.00000	1.00000	100.00
2.5	1,796,198	0	0.00000	1.00000	100.00
3.5	1,796,198	0	0.00000	1.00000	100.00
4.5	1,796,198	0	0.00000	1.00000	100.00
5.5	1,661,605	0	0.00000	1.00000	100.00
6.5	1,631,048	0	0.00000	1.00000	100.00
7.5	1,587,258	0	0.00000	1.00000	100.00
8.5	1,561,579	0	0.00000	1.00000	100.00
9.5	1,561,579	7,650	0.00490	0.99510	100.00
10.5	1,553,929	10,932	0.00704	0.99296	99.51
11.5	1,542,997	0	0.00000	1.00000	98.81
12.5	1,542,997	0	0.00000	1.00000	98.81
13.5	514,382	0	0.00000	1.00000	98.81
14.5	514,382	6,946	0.01350	0.98650	98.81
15.5	506,694	0	0.00000	1.00000	97.48
16.5	492,719	0	0.00000	1.00000	97.48
17.5	492,719	0	0.00000	1.00000	97.48
18.5	492,719	0	0.00000	1.00000	97.48
19.5	489,465	0	0.00000	1.00000	97.48
20.5	489,465	0	0.00000	1.00000	97.48
21.5	489,465	4,337	0.00886	0.99114	97.48
22.5	485,128	0	0.00000	1.00000	96.62
23.5	482,928	1,700	0.00352	0.99648	96.62
24.5	472,370	0	0.00000	1.00000	96.28
25.5	472,370	0	0.00000	1.00000	96.28
26.5	472,370	0	0.00000	1.00000	96.28



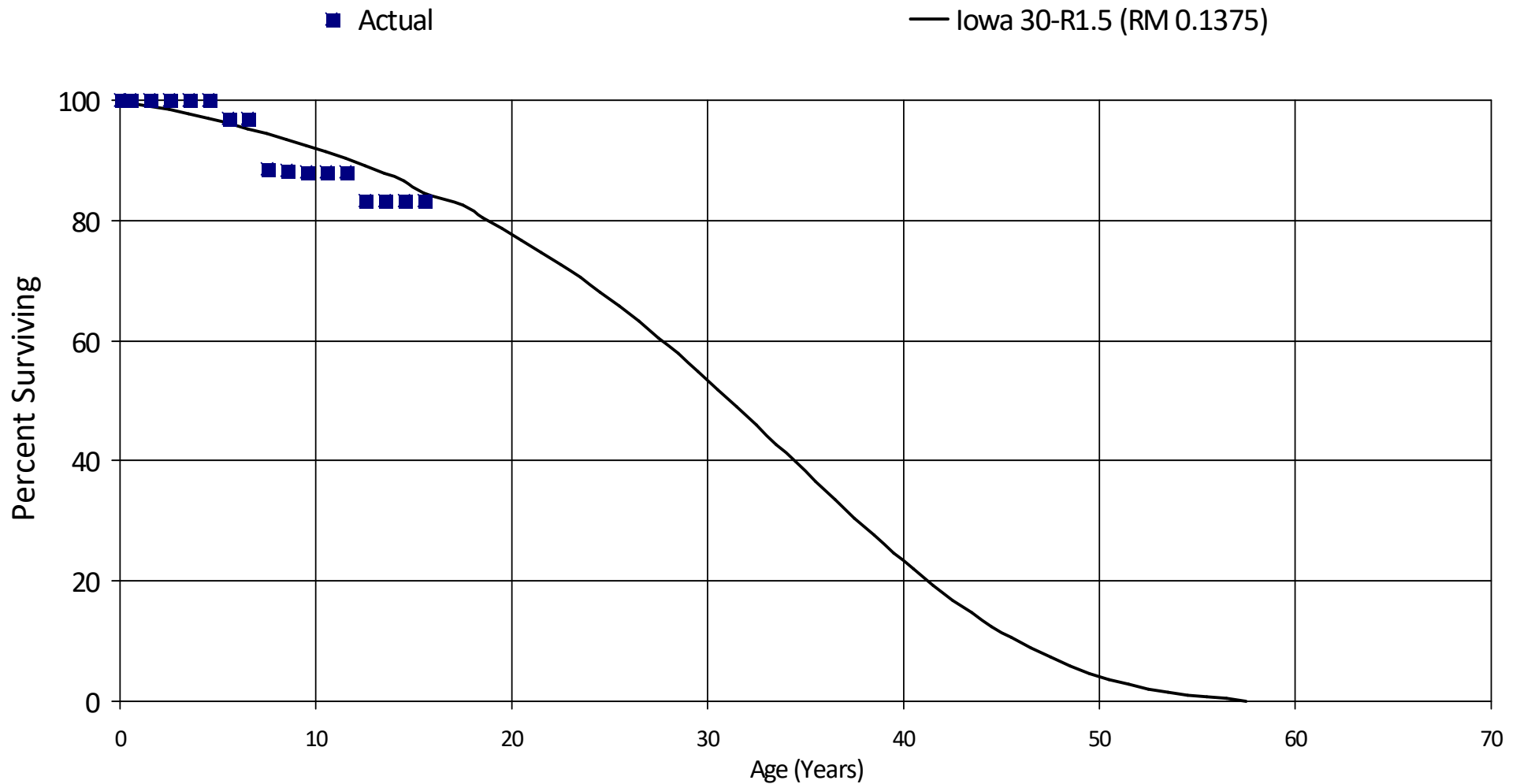
# Tennessee - American Water Company

## Account 304.400 - Structures & Improvements - T&D

Placement Band - 1987 - 2023    Experience Band - 2009 - 2023

27.5	464,937	0	0.00000	1.00000	96.28
28.5	464,937	12,417	0.02671	0.97329	96.28
29.5	452,520	0	0.00000	1.00000	93.71
30.5	452,520	0	0.00000	1.00000	93.71
31.5	450,900	0	0.00000	1.00000	93.71
32.5	450,900	26,647	0.05910	0.94090	93.71
33.5	424,253	0	0.00000	1.00000	88.17
34.5	424,253	0	0.00000	1.00000	88.17
35.5	424,253	0	0.00000	1.00000	88.17
Totals:		70,629			

**Tennessee - American Water Company**  
**Account 304.500 - Structures & Improvements - General**  
Placement Band - 2007 - 2023   Experience Band - 2012 - 2023  
**Actual and Smooth Survivor Curves**

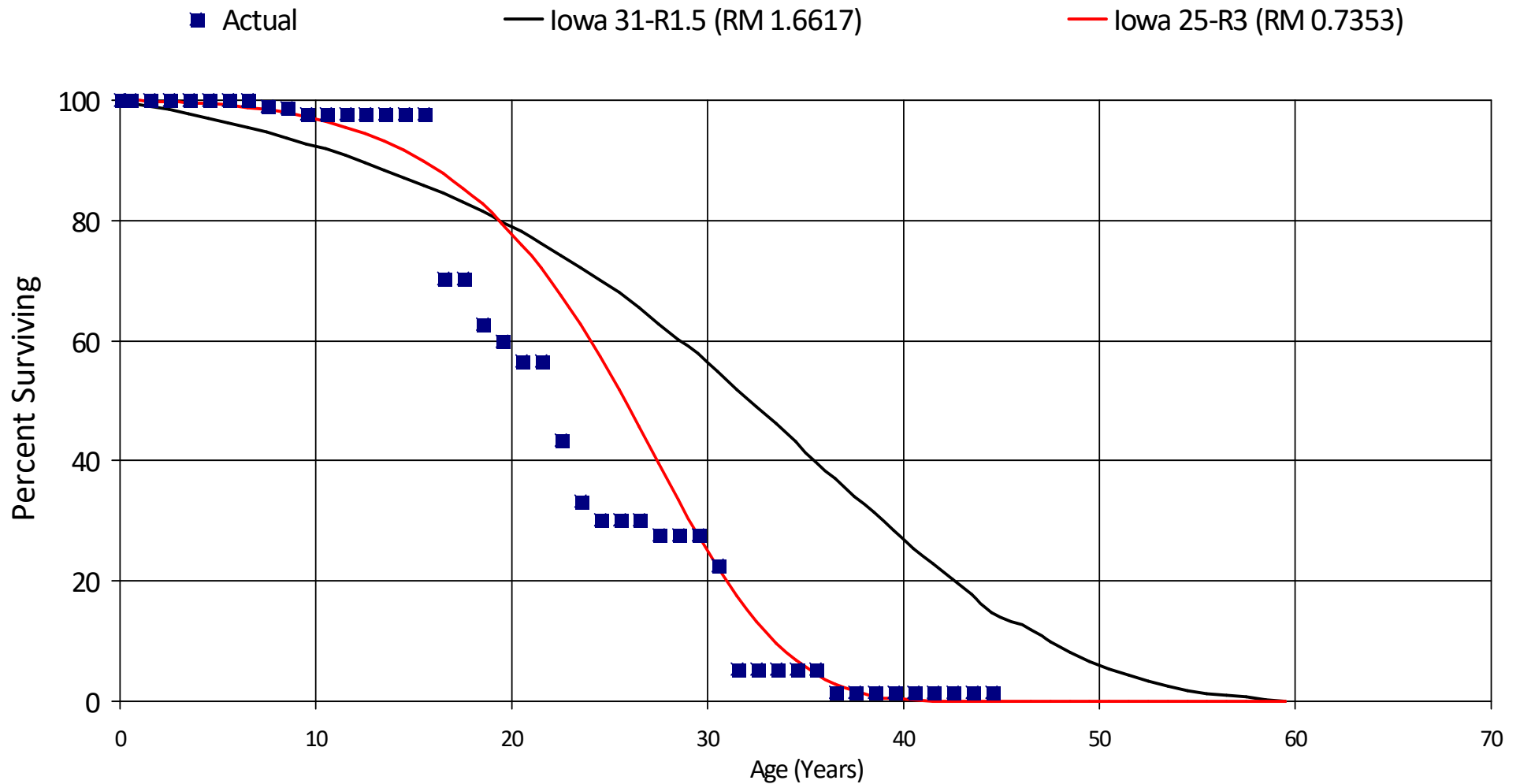


**Tennessee - American Water Company**  
**Account 304.500 - Structures & Improvements - General**  
Placement Band - 2007 - 2023    Experience Band - 2012 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	2,583,603	0	0.00000	1.00000	100.00
0.5	2,402,009	0	0.00000	1.00000	100.00
1.5	2,327,907	0	0.00000	1.00000	100.00
2.5	2,087,793	0	0.00000	1.00000	100.00
3.5	1,962,384	0	0.00000	1.00000	100.00
4.5	1,865,228	55,416	0.02971	0.97029	100.00
5.5	1,732,004	0	0.00000	1.00000	97.03
6.5	1,683,466	145,026	0.08615	0.91385	97.03
7.5	1,538,440	6,217	0.00404	0.99596	88.67
8.5	442,099	999	0.00226	0.99774	88.31
9.5	435,906	0	0.00000	1.00000	88.11
10.5	435,906	0	0.00000	1.00000	88.11
11.5	339,541	19,160	0.05643	0.94357	88.11
12.5	53,423	0	0.00000	1.00000	83.14
13.5	28,228	0	0.00000	1.00000	83.14
14.5	22,772	0	0.00000	1.00000	83.14
15.5	0	0	0.00000	0.00000	83.14
Totals:		226,818			

**Tennessee - American Water Company**  
**Account 304.600 - Structures & Improvements - Offices**  
Placement Band - 1978 - 2023    Experience Band - 2005 - 2023  
**Actual and Smooth Survivor Curves**



**Tennessee - American Water Company**  
**Account 304.600 - Structures & Improvements - Offices**  
Placement Band - 1978 - 2023    Experience Band - 2005 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	2,352,662	0	0.00000	1.00000	100.00
0.5	2,352,662	0	0.00000	1.00000	100.00
1.5	2,351,349	0	0.00000	1.00000	100.00
2.5	2,351,349	0	0.00000	1.00000	100.00
3.5	2,351,349	0	0.00000	1.00000	100.00
4.5	1,710,938	0	0.00000	1.00000	100.00
5.5	1,710,938	0	0.00000	1.00000	100.00
6.5	1,703,421	18,254	0.01072	0.98928	100.00
7.5	1,685,167	2,363	0.00140	0.99860	98.93
8.5	1,600,160	15,901	0.00994	0.99006	98.79
9.5	1,437,261	0	0.00000	1.00000	97.81
10.5	128,097	0	0.00000	1.00000	97.81
11.5	128,097	0	0.00000	1.00000	97.81
12.5	128,097	0	0.00000	1.00000	97.81
13.5	128,097	0	0.00000	1.00000	97.81
14.5	128,097	0	0.00000	1.00000	97.81
15.5	124,297	35,055	0.28203	0.71797	97.81
16.5	85,218	0	0.00000	1.00000	70.22
17.5	85,218	9,289	0.10900	0.89100	70.22
18.5	75,929	3,163	0.04166	0.95834	62.57
19.5	72,766	4,082	0.05610	0.94390	59.96
20.5	68,684	0	0.00000	1.00000	56.60
21.5	68,684	15,964	0.23243	0.76757	56.60
22.5	52,721	12,413	0.23545	0.76455	43.44
23.5	40,308	3,703	0.09187	0.90813	33.21
24.5	36,530	0	0.00000	1.00000	30.16
25.5	29,283	0	0.00000	1.00000	30.16
26.5	29,283	2,410	0.08230	0.91770	30.16

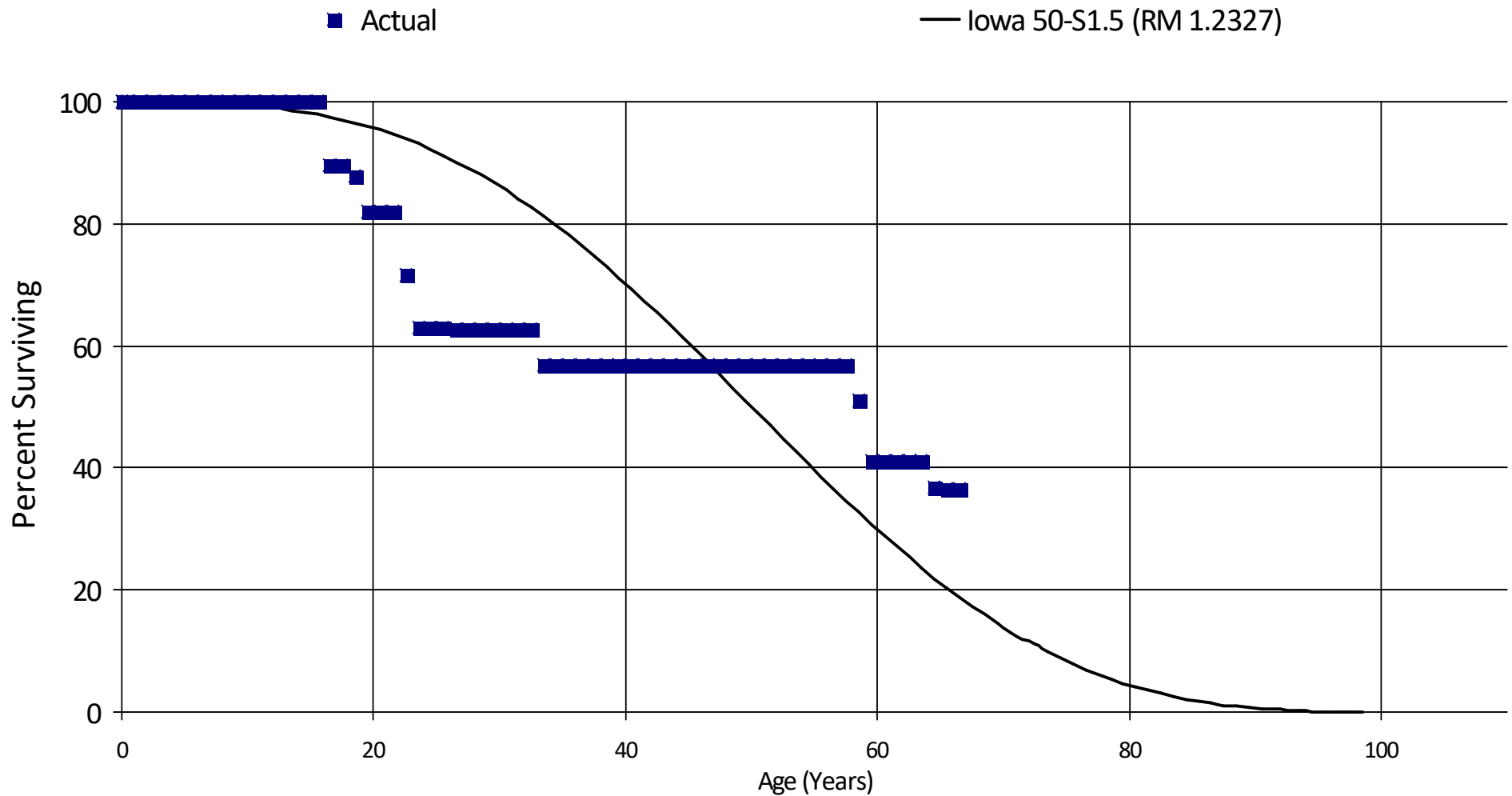
# Tennessee - American Water Company

## Account 304.600 - Structures & Improvements - Offices

Placement Band - 1978 - 2023    Experience Band - 2005 - 2023

27.5	26,873	0	0.00000	1.00000	27.68
28.5	26,873	0	0.00000	1.00000	27.68
29.5	26,873	5,062	0.18837	0.81163	27.68
30.5	21,811	16,628	0.76236	0.23764	22.47
31.5	5,183	0	0.00000	1.00000	5.34
32.5	5,183	0	0.00000	1.00000	5.34
33.5	5,183	0	0.00000	1.00000	5.34
34.5	5,183	0	0.00000	1.00000	5.34
35.5	5,183	3,634	0.70118	0.29882	5.34
36.5	1,548	0	0.00000	1.00000	1.60
37.5	1,548	0	0.00000	1.00000	1.60
38.5	1,548	0	0.00000	1.00000	1.60
39.5	1,548	0	0.00000	1.00000	1.60
40.5	1,548	0	0.00000	1.00000	1.60
41.5	1,548	0	0.00000	1.00000	1.60
42.5	1,548	0	0.00000	1.00000	1.60
43.5	786	0	0.00000	1.00000	1.60
44.5	0	0	0.00000	0.00000	1.60
Totals:		147,921			

**Tennessee - American Water Company**  
**Account 304.700 - Structures & Improvements - Store, Shop, Garage**  
Placement Band - 1952 - 2023    Experience Band - 2012 - 2023  
**Actual and Smooth Survivor Curves**



**Tennessee - American Water Company**  
**Account 304.700 - Structures & Improvements - Store, Shop, Garage**  
 Placement Band - 1952 - 2023    Experience Band - 2012 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	418,460	0	0.00000	1.00000	100.00
0.5	418,460	0	0.00000	1.00000	100.00
1.5	418,460	0	0.00000	1.00000	100.00
2.5	418,460	0	0.00000	1.00000	100.00
3.5	418,460	0	0.00000	1.00000	100.00
4.5	375,104	0	0.00000	1.00000	100.00
5.5	375,104	0	0.00000	1.00000	100.00
6.5	375,104	0	0.00000	1.00000	100.00
7.5	375,104	0	0.00000	1.00000	100.00
8.5	336,096	0	0.00000	1.00000	100.00
9.5	336,096	51	0.00015	0.99985	100.00
10.5	336,045	0	0.00000	1.00000	99.98
11.5	312,642	0	0.00000	1.00000	99.98
12.5	312,642	0	0.00000	1.00000	99.98
13.5	312,642	0	0.00000	1.00000	99.98
14.5	312,642	0	0.00000	1.00000	99.98
15.5	312,642	32,460	0.10382	0.89618	99.98
16.5	280,182	0	0.00000	1.00000	89.60
17.5	280,182	5,388	0.01923	0.98077	89.60
18.5	274,794	18,808	0.06844	0.93156	87.88
19.5	255,986	0	0.00000	1.00000	81.87
20.5	255,986	0	0.00000	1.00000	81.87
21.5	255,986	32,071	0.12528	0.87472	81.87
22.5	223,916	27,074	0.12091	0.87909	71.61
23.5	196,841	0	0.00000	1.00000	62.95
24.5	196,841	0	0.00000	1.00000	62.95
25.5	196,841	748	0.00380	0.99620	62.95
26.5	196,093	0	0.00000	1.00000	62.71



# Tennessee - American Water Company

## Account 304.700 - Structures & Improvements - Store, Shop, Garage

Placement Band - 1952 - 2023    Experience Band - 2012 - 2023

27.5	192,731	0	0.00000	1.00000	62.71
28.5	192,731	0	0.00000	1.00000	62.71
29.5	192,731	0	0.00000	1.00000	62.71
30.5	192,731	0	0.00000	1.00000	62.71
31.5	192,731	0	0.00000	1.00000	62.71
32.5	192,731	18,321	0.09506	0.90494	62.71
33.5	154,062	0	0.00000	1.00000	56.75
34.5	154,062	0	0.00000	1.00000	56.75
35.5	154,062	0	0.00000	1.00000	56.75
36.5	154,062	0	0.00000	1.00000	56.75
37.5	154,062	0	0.00000	1.00000	56.75
38.5	154,062	0	0.00000	1.00000	56.75
39.5	154,062	0	0.00000	1.00000	56.75
40.5	154,062	0	0.00000	1.00000	56.75
41.5	126,762	0	0.00000	1.00000	56.75
42.5	126,762	0	0.00000	1.00000	56.75
43.5	126,762	0	0.00000	1.00000	56.75
44.5	126,762	0	0.00000	1.00000	56.75
45.5	126,762	0	0.00000	1.00000	56.75
46.5	126,762	0	0.00000	1.00000	56.75
47.5	126,762	0	0.00000	1.00000	56.75
48.5	126,762	0	0.00000	1.00000	56.75
49.5	126,762	0	0.00000	1.00000	56.75
50.5	126,762	0	0.00000	1.00000	56.75
51.5	126,762	0	0.00000	1.00000	56.75
52.5	126,762	0	0.00000	1.00000	56.75
53.5	126,762	0	0.00000	1.00000	56.75
54.5	126,762	0	0.00000	1.00000	56.75
55.5	126,762	0	0.00000	1.00000	56.75
56.5	126,762	0	0.00000	1.00000	56.75
57.5	126,762	12,851	0.10138	0.89862	56.75

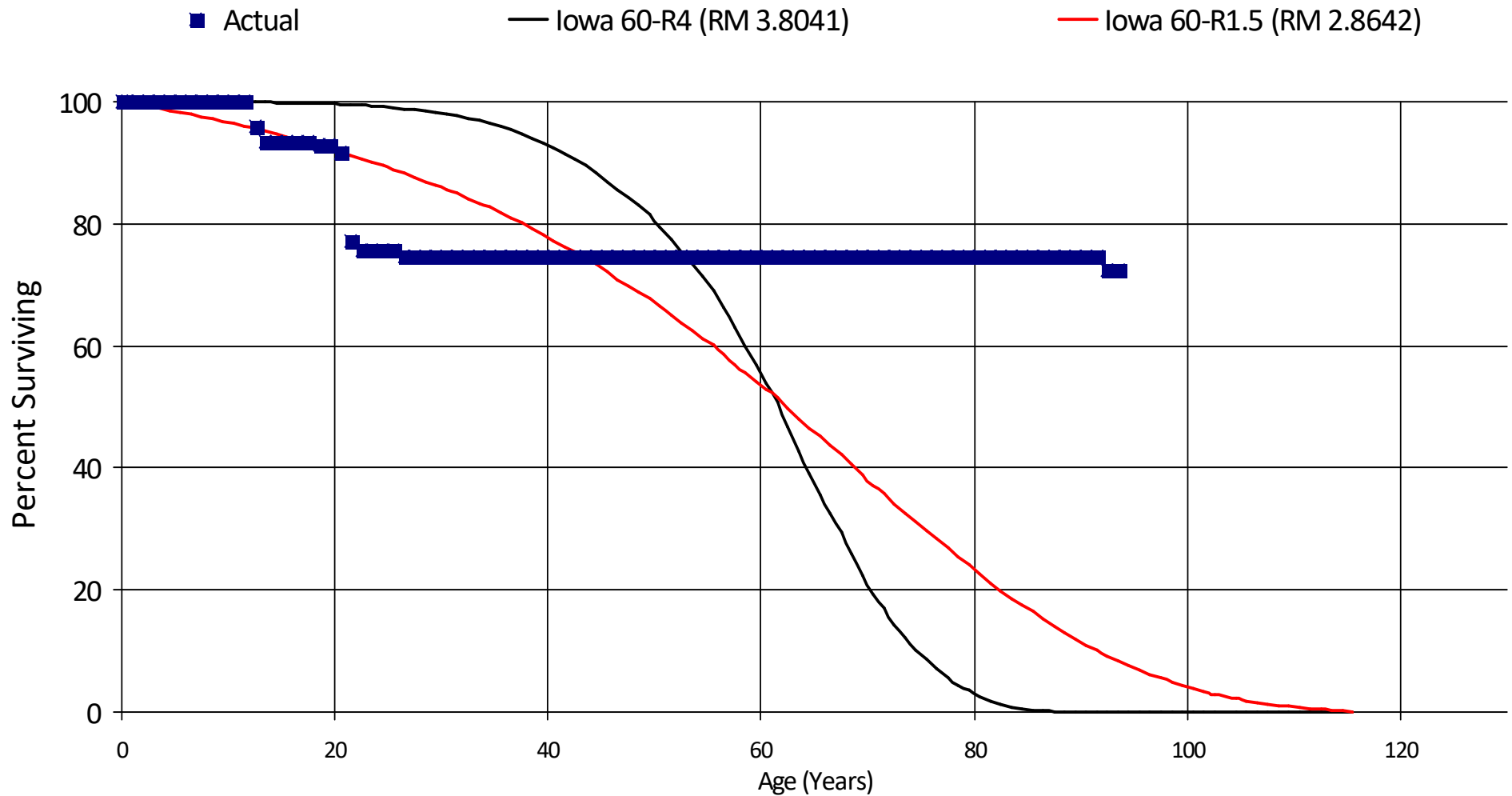
# Tennessee - American Water Company

## Account 304.700 - Structures & Improvements - Store, Shop, Garage

Placement Band - 1952 - 2023    Experience Band - 2012 - 2023

58.5	113,911	22,088	0.19391	0.80609	51.00
59.5	91,823	0	0.00000	1.00000	41.11
60.5	91,823	0	0.00000	1.00000	41.11
61.5	91,823	0	0.00000	1.00000	41.11
62.5	91,823	0	0.00000	1.00000	41.11
63.5	91,823	9,780	0.10651	0.89349	41.11
64.5	82,043	375	0.00457	0.99543	36.73
65.5	81,668	0	0.00000	1.00000	36.56
66.5	0	0	0.00000	0.00000	36.56
Totals:		180,015			

**Tennessee - American Water Company**  
**Account 304.800 - Structures & Improvements - Miscellaneous**  
Placement Band - 1920 - 2023    Experience Band - 2008 - 2023  
**Actual and Smooth Survivor Curves**



**Tennessee - American Water Company**  
**Account 304.800 - Structures & Improvements - Miscellaneous**  
Placement Band - 1920 - 2023    Experience Band - 2008 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	726,367	0	0.00000	1.00000	100.00
0.5	717,151	0	0.00000	1.00000	100.00
1.5	709,719	0	0.00000	1.00000	100.00
2.5	657,573	0	0.00000	1.00000	100.00
3.5	657,573	0	0.00000	1.00000	100.00
4.5	657,573	0	0.00000	1.00000	100.00
5.5	657,573	0	0.00000	1.00000	100.00
6.5	657,573	0	0.00000	1.00000	100.00
7.5	657,573	0	0.00000	1.00000	100.00
8.5	657,573	0	0.00000	1.00000	100.00
9.5	657,573	0	0.00000	1.00000	100.00
10.5	657,573	0	0.00000	1.00000	100.00
11.5	657,573	26,479	0.04027	0.95973	100.00
12.5	631,094	16,695	0.02645	0.97355	95.97
13.5	614,400	0	0.00000	1.00000	93.43
14.5	614,400	0	0.00000	1.00000	93.43
15.5	614,400	0	0.00000	1.00000	93.43
16.5	614,400	0	0.00000	1.00000	93.43
17.5	614,400	3,294	0.00536	0.99464	93.43
18.5	611,106	0	0.00000	1.00000	92.93
19.5	363,868	5,057	0.01390	0.98610	92.93
20.5	358,811	57,146	0.15926	0.84074	91.64
21.5	301,665	5,352	0.01774	0.98226	77.05
22.5	296,313	0	0.00000	1.00000	75.68
23.5	296,313	0	0.00000	1.00000	75.68
24.5	295,788	0	0.00000	1.00000	75.68
25.5	295,788	4,540	0.01535	0.98465	75.68
26.5	290,808	0	0.00000	1.00000	74.52

# Tennessee - American Water Company

## Account 304.800 - Structures & Improvements - Miscellaneous

Placement Band - 1920 - 2023    Experience Band - 2008 - 2023

27.5	290,808	0	0.00000	1.00000	74.52
28.5	290,808	0	0.00000	1.00000	74.52
29.5	290,808	0	0.00000	1.00000	74.52
30.5	282,930	0	0.00000	1.00000	74.52
31.5	282,930	0	0.00000	1.00000	74.52
32.5	282,930	0	0.00000	1.00000	74.52
33.5	24,862	0	0.00000	1.00000	74.52
34.5	24,862	0	0.00000	1.00000	74.52
35.5	20,322	0	0.00000	1.00000	74.52
36.5	20,322	0	0.00000	1.00000	74.52
37.5	20,322	0	0.00000	1.00000	74.52
38.5	20,322	0	0.00000	1.00000	74.52
39.5	20,322	0	0.00000	1.00000	74.52
40.5	20,322	0	0.00000	1.00000	74.52
41.5	20,322	0	0.00000	1.00000	74.52
42.5	20,322	0	0.00000	1.00000	74.52
43.5	20,322	0	0.00000	1.00000	74.52
44.5	20,322	0	0.00000	1.00000	74.52
45.5	20,322	0	0.00000	1.00000	74.52
46.5	20,322	0	0.00000	1.00000	74.52
47.5	20,322	0	0.00000	1.00000	74.52
48.5	20,322	0	0.00000	1.00000	74.52
49.5	20,322	0	0.00000	1.00000	74.52
50.5	20,322	0	0.00000	1.00000	74.52
51.5	19,622	0	0.00000	1.00000	74.52
52.5	19,622	0	0.00000	1.00000	74.52
53.5	19,622	0	0.00000	1.00000	74.52
54.5	19,622	0	0.00000	1.00000	74.52
55.5	19,622	0	0.00000	1.00000	74.52
56.5	19,622	0	0.00000	1.00000	74.52
57.5	19,622	0	0.00000	1.00000	74.52

# Tennessee - American Water Company

## Account 304.800 - Structures & Improvements - Miscellaneous

Placement Band - 1920 - 2023    Experience Band - 2008 - 2023

58.5	19,622	0	0.00000	1.00000	74.52
59.5	19,622	0	0.00000	1.00000	74.52
60.5	19,218	0	0.00000	1.00000	74.52
61.5	19,218	0	0.00000	1.00000	74.52
62.5	19,218	0	0.00000	1.00000	74.52
63.5	19,218	0	0.00000	1.00000	74.52
64.5	19,218	0	0.00000	1.00000	74.52
65.5	19,218	0	0.00000	1.00000	74.52
66.5	19,218	0	0.00000	1.00000	74.52
67.5	19,218	0	0.00000	1.00000	74.52
68.5	19,218	0	0.00000	1.00000	74.52
69.5	19,218	0	0.00000	1.00000	74.52
70.5	19,218	0	0.00000	1.00000	74.52
71.5	19,218	0	0.00000	1.00000	74.52
72.5	19,218	0	0.00000	1.00000	74.52
73.5	19,218	0	0.00000	1.00000	74.52
74.5	19,218	0	0.00000	1.00000	74.52
75.5	19,218	0	0.00000	1.00000	74.52
76.5	19,218	0	0.00000	1.00000	74.52
77.5	19,218	0	0.00000	1.00000	74.52
78.5	19,218	0	0.00000	1.00000	74.52
79.5	19,218	0	0.00000	1.00000	74.52
80.5	19,218	0	0.00000	1.00000	74.52
81.5	19,218	0	0.00000	1.00000	74.52
82.5	19,218	0	0.00000	1.00000	74.52
83.5	19,218	0	0.00000	1.00000	74.52
84.5	19,218	0	0.00000	1.00000	74.52
85.5	19,218	0	0.00000	1.00000	74.52
86.5	19,218	0	0.00000	1.00000	74.52
87.5	19,218	0	0.00000	1.00000	74.52
88.5	19,218	0	0.00000	1.00000	74.52

# Tennessee - American Water Company

## Account 304.800 - Structures & Improvements - Miscellaneous

Placement Band - 1920 - 2023    Experience Band - 2008 - 2023

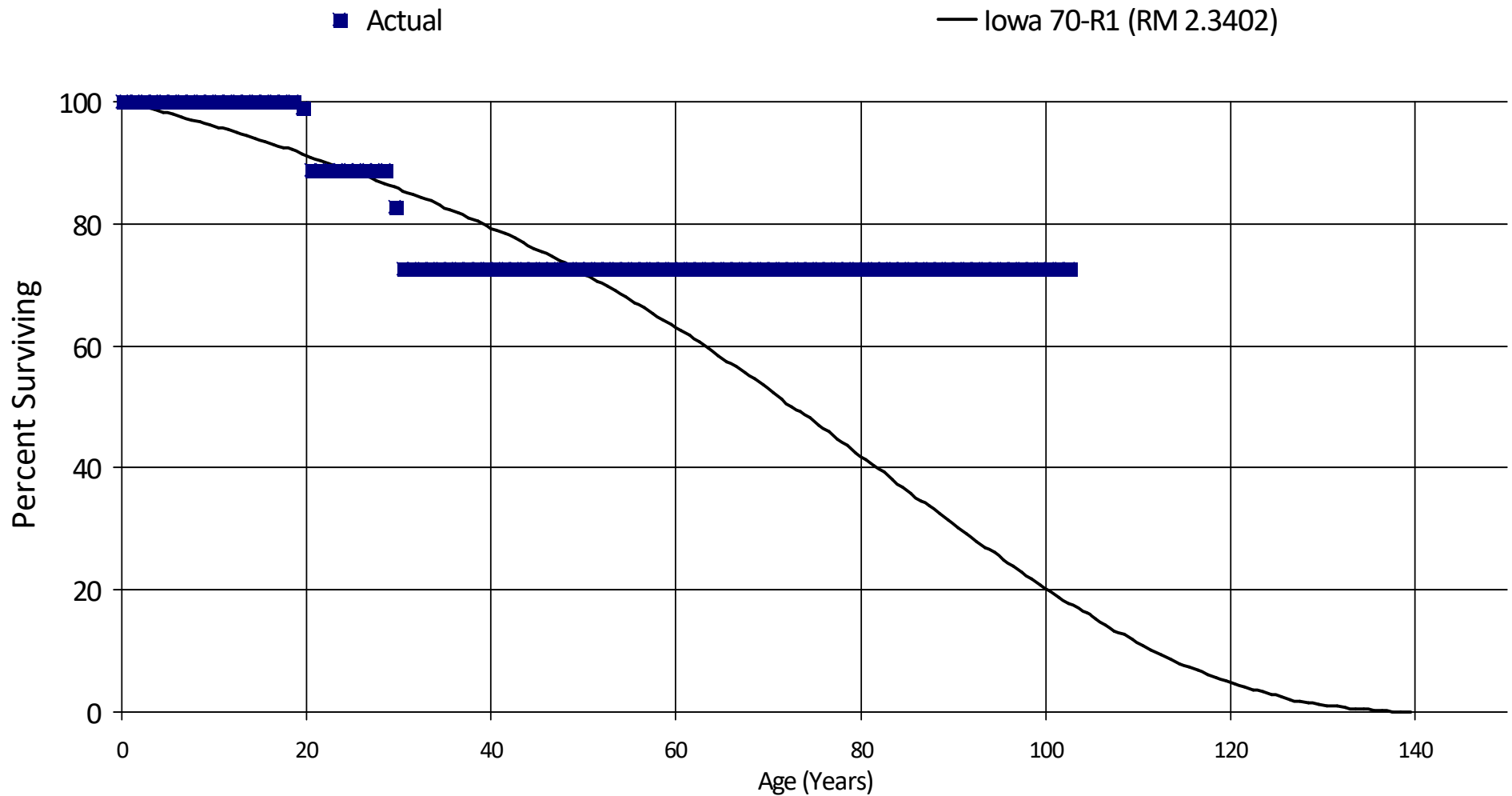
89.5	19,218	0	0.00000	1.00000	74.52
90.5	19,218	0	0.00000	1.00000	74.52
91.5	19,218	538	0.02799	0.97201	74.52
92.5	18,679	0	0.00000	1.00000	72.43
93.5	18,679	18,679	0.99998	0.00002	72.43
Totals:		137,780			

# Tennessee - American Water Company

Account 306.000 - Lake, River & Other Intakes

Placement Band - 1920 - 2023    Experience Band - 2014 - 2023

## Actual and Smooth Survivor Curves





# Tennessee - American Water Company

## Account 306.000 - Lake, River & Other Intakes

Placement Band - 1920 - 2023    Experience Band - 2014 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	2,832,249	0	0.00000	1.00000	100.00
0.5	1,085,033	0	0.00000	1.00000	100.00
1.5	1,085,033	0	0.00000	1.00000	100.00
2.5	1,085,033	0	0.00000	1.00000	100.00
3.5	670,336	0	0.00000	1.00000	100.00
4.5	658,243	0	0.00000	1.00000	100.00
5.5	513,370	0	0.00000	1.00000	100.00
6.5	513,370	0	0.00000	1.00000	100.00
7.5	489,123	0	0.00000	1.00000	100.00
8.5	489,123	0	0.00000	1.00000	100.00
9.5	489,123	0	0.00000	1.00000	100.00
10.5	489,123	0	0.00000	1.00000	100.00
11.5	489,123	0	0.00000	1.00000	100.00
12.5	489,123	0	0.00000	1.00000	100.00
13.5	489,123	0	0.00000	1.00000	100.00
14.5	489,123	0	0.00000	1.00000	100.00
15.5	489,123	0	0.00000	1.00000	100.00
16.5	489,123	0	0.00000	1.00000	100.00
17.5	489,123	0	0.00000	1.00000	100.00
18.5	489,123	4,702	0.00961	0.99039	100.00
19.5	484,421	49,616	0.10242	0.89758	99.04
20.5	434,805	0	0.00000	1.00000	88.90
21.5	434,805	0	0.00000	1.00000	88.90
22.5	434,805	0	0.00000	1.00000	88.90
23.5	227,135	0	0.00000	1.00000	88.90
24.5	227,135	0	0.00000	1.00000	88.90
25.5	170,413	0	0.00000	1.00000	88.90
26.5	170,413	0	0.00000	1.00000	88.90

# Tennessee - American Water Company

## Account 306.000 - Lake, River & Other Intakes

Placement Band - 1920 - 2023    Experience Band - 2014 - 2023

27.5	170,413	0	0.00000	1.00000	88.90
28.5	146,005	10,286	0.07045	0.92955	88.90
29.5	135,719	16,520	0.12172	0.87828	82.64
30.5	119,199	0	0.00000	1.00000	72.58
31.5	119,199	0	0.00000	1.00000	72.58
32.5	119,199	0	0.00000	1.00000	72.58
33.5	119,199	0	0.00000	1.00000	72.58
34.5	119,199	0	0.00000	1.00000	72.58
35.5	119,199	0	0.00000	1.00000	72.58
36.5	119,199	0	0.00000	1.00000	72.58
37.5	119,199	0	0.00000	1.00000	72.58
38.5	119,199	0	0.00000	1.00000	72.58
39.5	119,199	0	0.00000	1.00000	72.58
40.5	119,199	0	0.00000	1.00000	72.58
41.5	119,199	0	0.00000	1.00000	72.58
42.5	119,199	0	0.00000	1.00000	72.58
43.5	119,199	0	0.00000	1.00000	72.58
44.5	119,199	0	0.00000	1.00000	72.58
45.5	119,199	0	0.00000	1.00000	72.58
46.5	119,199	0	0.00000	1.00000	72.58
47.5	119,199	0	0.00000	1.00000	72.58
48.5	119,199	0	0.00000	1.00000	72.58
49.5	119,199	0	0.00000	1.00000	72.58
50.5	119,199	0	0.00000	1.00000	72.58
51.5	119,199	0	0.00000	1.00000	72.58
52.5	119,199	0	0.00000	1.00000	72.58
53.5	119,199	0	0.00000	1.00000	72.58
54.5	119,199	0	0.00000	1.00000	72.58
55.5	119,199	0	0.00000	1.00000	72.58
56.5	119,199	0	0.00000	1.00000	72.58
57.5	119,199	0	0.00000	1.00000	72.58

# Tennessee - American Water Company

## Account 306.000 - Lake, River & Other Intakes

Placement Band - 1920 - 2023    Experience Band - 2014 - 2023

58.5	119,199	0	0.00000	1.00000	72.58
59.5	119,199	0	0.00000	1.00000	72.58
60.5	116,713	0	0.00000	1.00000	72.58
61.5	116,713	0	0.00000	1.00000	72.58
62.5	116,713	0	0.00000	1.00000	72.58
63.5	116,713	0	0.00000	1.00000	72.58
64.5	116,713	0	0.00000	1.00000	72.58
65.5	116,713	0	0.00000	1.00000	72.58
66.5	116,713	0	0.00000	1.00000	72.58
67.5	116,713	0	0.00000	1.00000	72.58
68.5	116,713	0	0.00000	1.00000	72.58
69.5	116,713	0	0.00000	1.00000	72.58
70.5	116,713	0	0.00000	1.00000	72.58
71.5	116,713	0	0.00000	1.00000	72.58
72.5	116,713	0	0.00000	1.00000	72.58
73.5	116,713	0	0.00000	1.00000	72.58
74.5	116,713	0	0.00000	1.00000	72.58
75.5	116,713	0	0.00000	1.00000	72.58
76.5	116,713	0	0.00000	1.00000	72.58
77.5	116,713	0	0.00000	1.00000	72.58
78.5	116,713	0	0.00000	1.00000	72.58
79.5	116,713	0	0.00000	1.00000	72.58
80.5	116,713	0	0.00000	1.00000	72.58
81.5	7,321	0	0.00000	1.00000	72.58
82.5	7,321	0	0.00000	1.00000	72.58
83.5	7,321	0	0.00000	1.00000	72.58
84.5	7,321	0	0.00000	1.00000	72.58
85.5	7,321	0	0.00000	1.00000	72.58
86.5	7,321	0	0.00000	1.00000	72.58
87.5	7,321	0	0.00000	1.00000	72.58
88.5	7,321	0	0.00000	1.00000	72.58

# Tennessee - American Water Company

## Account 306.000 - Lake, River & Other Intakes

Placement Band - 1920 - 2023    Experience Band - 2014 - 2023

89.5	7,321	0	0.00000	1.00000	72.58
90.5	7,321	0	0.00000	1.00000	72.58
91.5	7,321	0	0.00000	1.00000	72.58
92.5	7,321	0	0.00000	1.00000	72.58
93.5	7,321	0	0.00000	1.00000	72.58
94.5	7,321	0	0.00000	1.00000	72.58
95.5	7,321	0	0.00000	1.00000	72.58
96.5	7,321	0	0.00000	1.00000	72.58
97.5	7,321	0	0.00000	1.00000	72.58
98.5	7,321	0	0.00000	1.00000	72.58
99.5	7,321	0	0.00000	1.00000	72.58
100.5	7,321	0	0.00000	1.00000	72.58
101.5	7,321	0	0.00000	1.00000	72.58
102.5	7,321	0	0.00000	1.00000	72.58

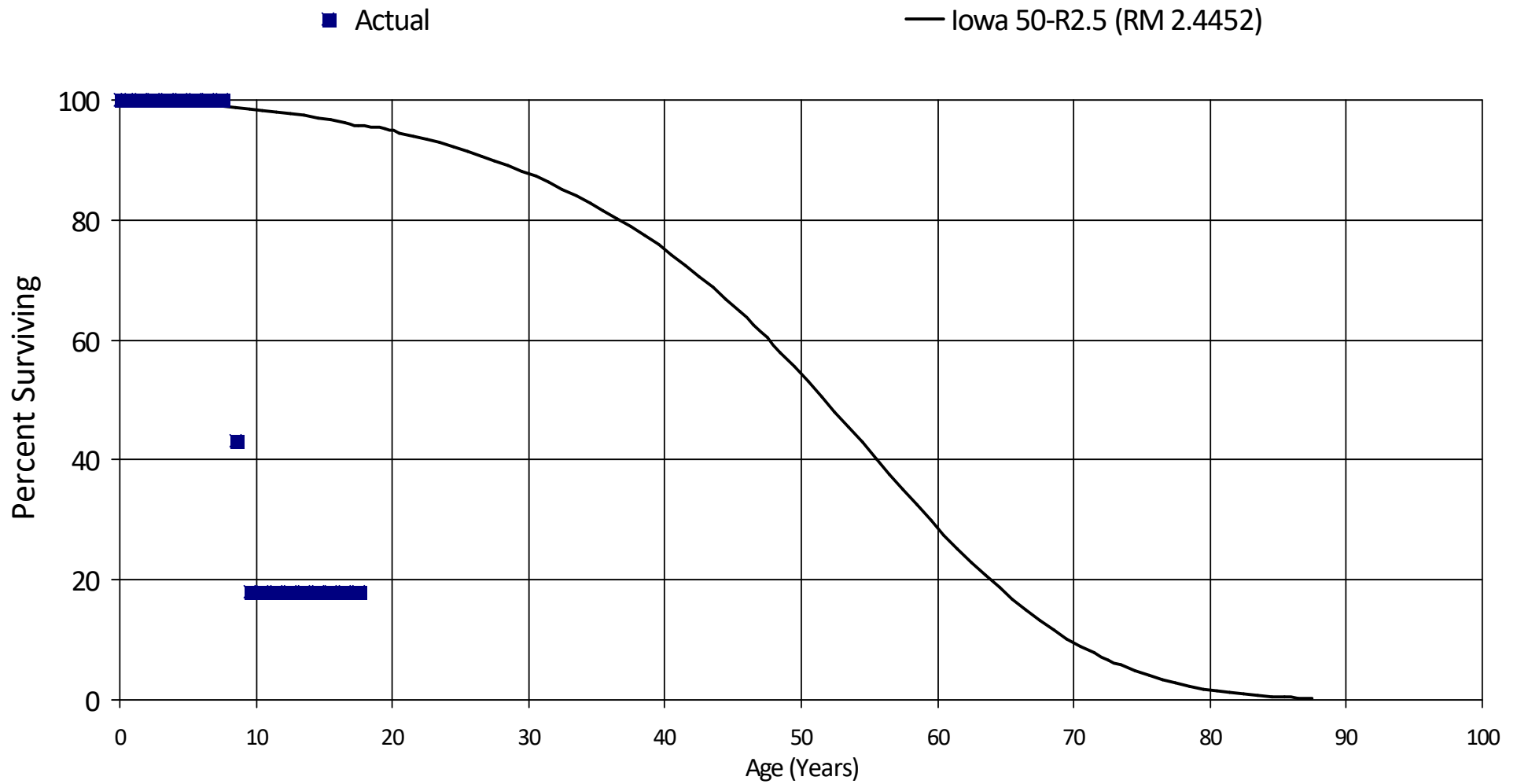
Totals: 81,124

# Tennessee - American Water Company

## Account 309.000 - Supply Mains

Placement Band - 2005 - 2023    Experience Band - 2014 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 309.000 - Supply Mains

Placement Band - 2005 - 2023 Experience Band - 2014 - 2023

### RETIREMENT RATE ANALYSIS

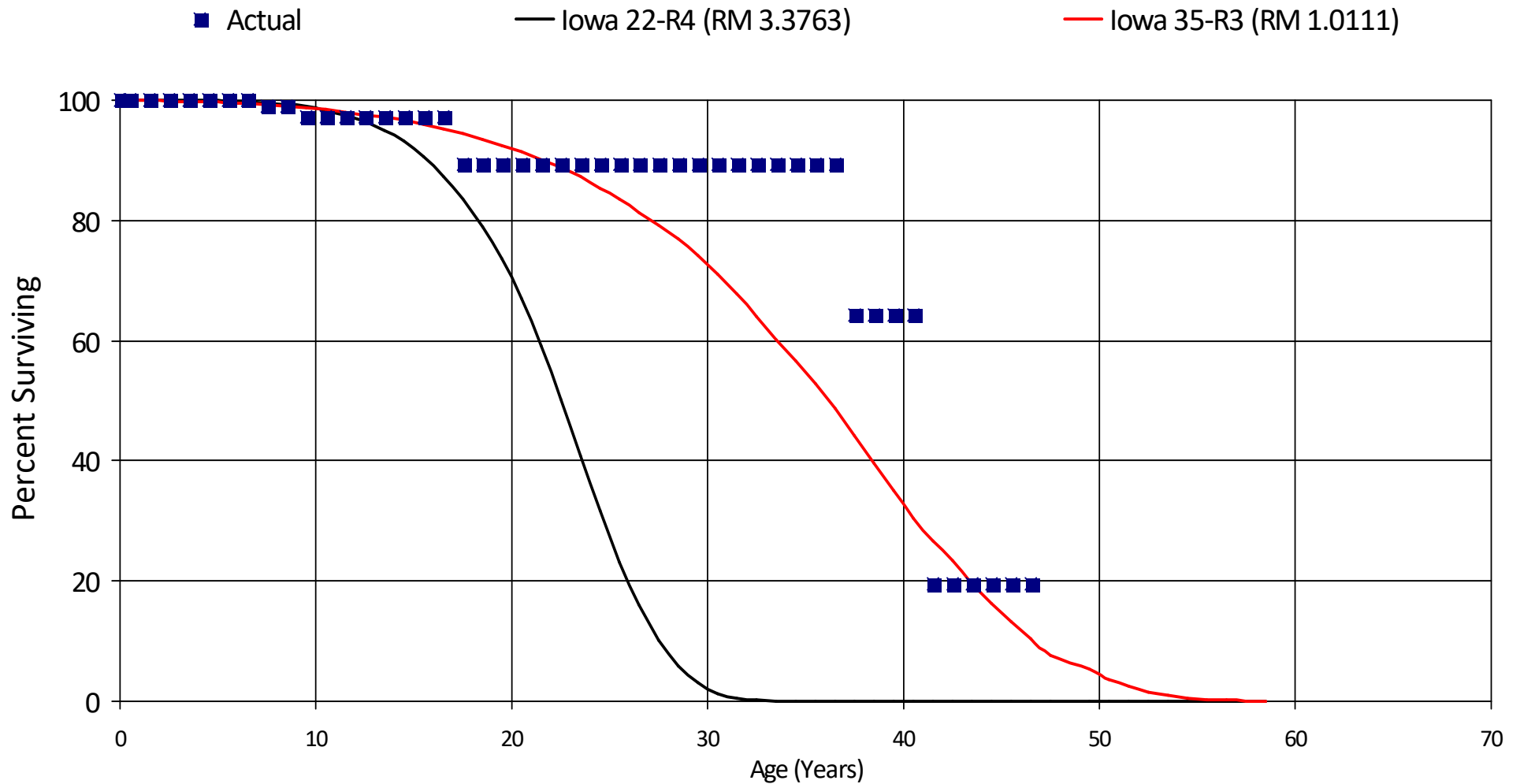
Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	1,962,741	0	0.00000	1.00000	100.00
0.5	1,962,741	0	0.00000	1.00000	100.00
1.5	1,962,741	0	0.00000	1.00000	100.00
2.5	1,962,741	0	0.00000	1.00000	100.00
3.5	1,962,741	0	0.00000	1.00000	100.00
4.5	613,696	0	0.00000	1.00000	100.00
5.5	613,696	0	0.00000	1.00000	100.00
6.5	613,696	0	0.00000	1.00000	100.00
7.5	613,696	349,564	0.56960	0.43040	100.00
8.5	264,132	154,259	0.58402	0.41598	43.04
9.5	100,012	0	0.00000	1.00000	17.90
10.5	100,012	0	0.00000	1.00000	17.90
11.5	100,012	0	0.00000	1.00000	17.90
12.5	100,012	0	0.00000	1.00000	17.90
13.5	100,012	0	0.00000	1.00000	17.90
14.5	100,012	0	0.00000	1.00000	17.90
15.5	100,012	0	0.00000	1.00000	17.90
16.5	100,012	0	0.00000	1.00000	17.90
17.5	6,973	0	0.00000	1.00000	17.90
Totals:		503,823			

# Tennessee - American Water Company

## Account 310.000 - Power Generation Equipment

Placement Band - 1975 - 2023    Experience Band - 2005 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 310.000 - Power Generation Equipment

Placement Band - 1975 - 2023    Experience Band - 2005 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	904,044	0	0.00000	1.00000	100.00
0.5	904,044	0	0.00000	1.00000	100.00
1.5	904,044	0	0.00000	1.00000	100.00
2.5	815,669	0	0.00000	1.00000	100.00
3.5	800,284	0	0.00000	1.00000	100.00
4.5	768,562	0	0.00000	1.00000	100.00
5.5	768,562	0	0.00000	1.00000	100.00
6.5	754,105	8,000	0.01061	0.98939	100.00
7.5	746,105	0	0.00000	1.00000	98.94
8.5	746,105	13,226	0.01773	0.98227	98.94
9.5	707,812	0	0.00000	1.00000	97.19
10.5	707,812	0	0.00000	1.00000	97.19
11.5	360,833	0	0.00000	1.00000	97.19
12.5	214,196	0	0.00000	1.00000	97.19
13.5	214,196	0	0.00000	1.00000	97.19
14.5	214,196	0	0.00000	1.00000	97.19
15.5	214,196	0	0.00000	1.00000	97.19
16.5	214,196	17,180	0.08021	0.91979	97.19
17.5	197,016	0	0.00000	1.00000	89.39
18.5	197,016	0	0.00000	1.00000	89.39
19.5	197,016	0	0.00000	1.00000	89.39
20.5	197,016	0	0.00000	1.00000	89.39
21.5	197,016	0	0.00000	1.00000	89.39
22.5	197,016	0	0.00000	1.00000	89.39
23.5	197,016	0	0.00000	1.00000	89.39
24.5	197,016	0	0.00000	1.00000	89.39
25.5	197,016	0	0.00000	1.00000	89.39
26.5	197,016	0	0.00000	1.00000	89.39



# Tennessee - American Water Company

## Account 310.000 - Power Generation Equipment

Placement Band - 1975 - 2023    Experience Band - 2005 - 2023

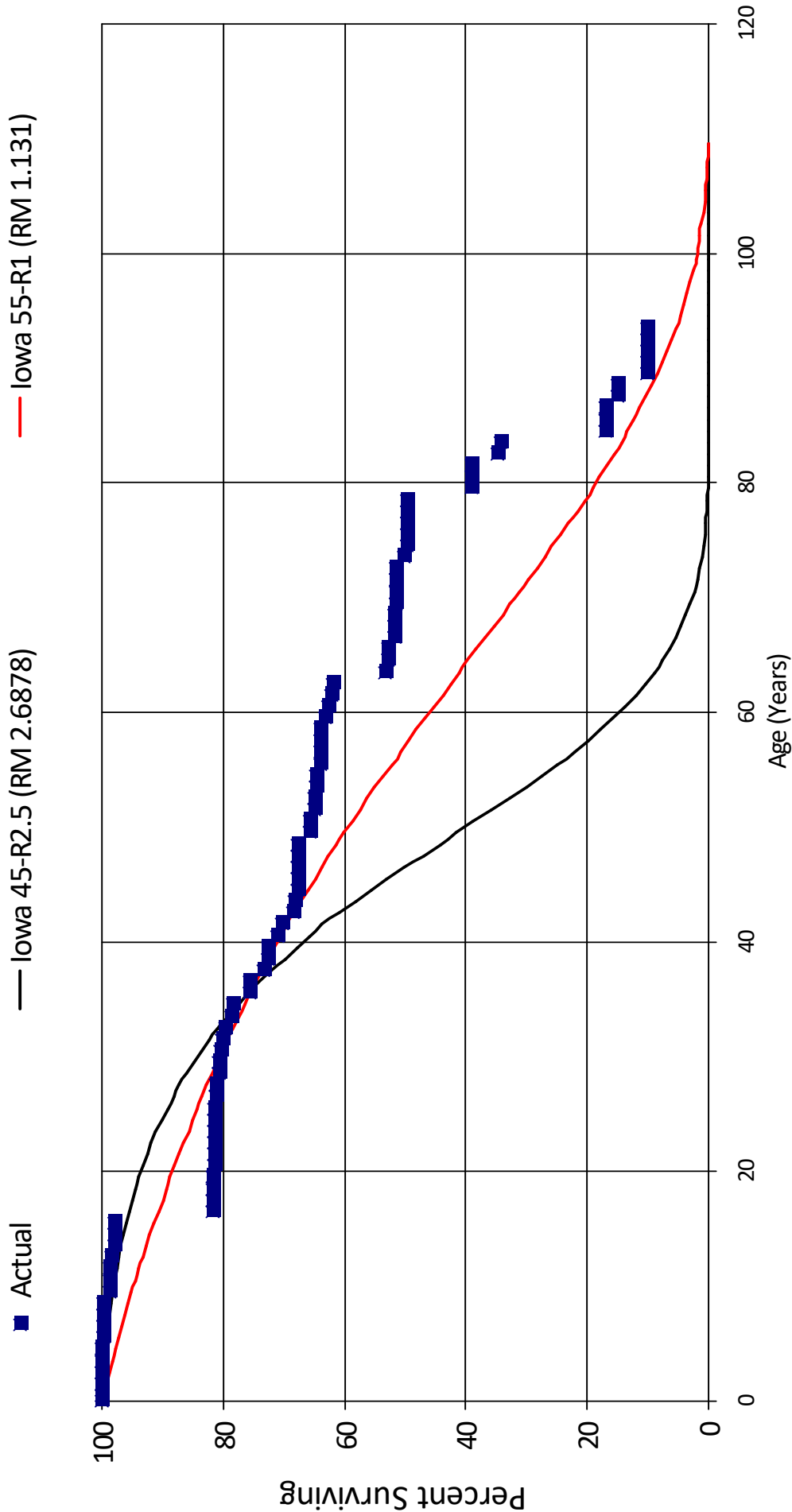
27.5	197,016	0	0.00000	1.00000	89.39
28.5	34,914	0	0.00000	1.00000	89.39
29.5	12,592	0	0.00000	1.00000	89.39
30.5	12,592	0	0.00000	1.00000	89.39
31.5	12,592	0	0.00000	1.00000	89.39
32.5	12,592	0	0.00000	1.00000	89.39
33.5	12,592	0	0.00000	1.00000	89.39
34.5	12,592	0	0.00000	1.00000	89.39
35.5	12,592	0	0.00000	1.00000	89.39
36.5	12,592	3,562	0.28288	0.71712	89.39
37.5	9,030	0	0.00000	1.00000	64.10
38.5	9,030	0	0.00000	1.00000	64.10
39.5	9,030	0	0.00000	1.00000	64.10
40.5	8,560	5,960	0.69627	0.30373	64.10
41.5	2,600	0	0.00000	1.00000	19.47
42.5	2,600	0	0.00000	1.00000	19.47
43.5	2,600	0	0.00000	1.00000	19.47
44.5	2,600	0	0.00000	1.00000	19.47
45.5	2,600	0	0.00000	1.00000	19.47
46.5	0	0	0.00000	0.00000	19.47
Totals:		47,928			

Tennessee - American Water Company

Account 311.200 - Pumping Equipment - Electric

Placement Band - 1923 - 2023    Experience Band - 2006 - 2023

Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 311.200 - Pumping Equipment - Electric

Placement Band - 1923 - 2023 Experience Band - 2006 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	8,024,908	0	0.00000	1.00000	100.00
0.5	8,024,908	1,839	0.00023	0.99977	100.00
1.5	7,937,766	0	0.00000	1.00000	99.98
2.5	7,846,526	6,234	0.00079	0.99921	99.98
3.5	6,862,950	0	0.00000	1.00000	99.90
4.5	6,656,444	10,776	0.00162	0.99838	99.90
5.5	6,623,439	4,828	0.00073	0.99927	99.74
6.5	6,594,773	1,029	0.00016	0.99984	99.67
7.5	6,591,422	0	0.00000	1.00000	99.65
8.5	6,574,165	58,148	0.00884	0.99116	99.65
9.5	6,516,017	3,365	0.00052	0.99948	98.77
10.5	6,500,233	0	0.00000	1.00000	98.72
11.5	6,494,304	12,761	0.00196	0.99804	98.72
12.5	6,450,598	29,960	0.00464	0.99536	98.53
13.5	6,420,638	1,706	0.00027	0.99973	98.07
14.5	6,418,932	6,392	0.00100	0.99900	98.04
15.5	6,406,744	1,052,354	0.16426	0.83574	97.94
16.5	5,354,390	0	0.00000	1.00000	81.85
17.5	5,342,753	3,931	0.00074	0.99926	81.85
18.5	5,338,821	11,125	0.00208	0.99792	81.79
19.5	5,292,903	1,696	0.00032	0.99968	81.62
20.5	5,277,696	603	0.00011	0.99989	81.59
21.5	5,214,610	12,952	0.00248	0.99752	81.58
22.5	4,768,640	1,508	0.00032	0.99968	81.38
23.5	4,531,092	0	0.00000	1.00000	81.35
24.5	4,519,705	0	0.00000	1.00000	81.35
25.5	4,319,106	5,910	0.00137	0.99863	81.35
26.5	4,312,314	0	0.00000	1.00000	81.24

# Tennessee - American Water Company

## Account 311.200 - Pumping Equipment - Electric

Placement Band - 1923 - 2023    Experience Band - 2006 - 2023

27.5	3,682,965	28,012	0.00761	0.99239	81.24
28.5	3,551,683	944	0.00027	0.99973	80.62
29.5	3,231,889	2,690	0.00083	0.99917	80.60
30.5	3,227,339	10,438	0.00323	0.99677	80.53
31.5	3,107,977	25,962	0.00835	0.99165	80.27
32.5	3,072,596	36,623	0.01192	0.98808	79.60
33.5	2,758,149	10,139	0.00368	0.99632	78.65
34.5	2,729,807	91,705	0.03359	0.96641	78.36
35.5	2,617,692	235	0.00009	0.99991	75.73
36.5	2,616,085	78,152	0.02987	0.97013	75.72
37.5	2,452,101	26,529	0.01082	0.98918	73.46
38.5	2,404,511	100	0.00004	0.99996	72.67
39.5	2,342,148	50,239	0.02145	0.97855	72.67
40.5	1,885,735	22,522	0.01194	0.98806	71.11
41.5	1,857,133	44,751	0.02410	0.97590	70.26
42.5	1,730,579	7,950	0.00459	0.99541	68.57
43.5	1,716,284	12,248	0.00714	0.99286	68.26
44.5	1,704,036	354	0.00021	0.99979	67.77
45.5	1,703,682	375	0.00022	0.99978	67.76
46.5	1,683,586	0	0.00000	1.00000	67.75
47.5	1,105,987	1,034	0.00093	0.99907	67.75
48.5	1,063,575	32,064	0.03015	0.96985	67.69
49.5	980,686	184	0.00019	0.99981	65.65
50.5	980,501	10,176	0.01038	0.98962	65.64
51.5	963,458	1,014	0.00105	0.99895	64.96
52.5	962,256	3,265	0.00339	0.99661	64.89
53.5	958,991	624	0.00065	0.99935	64.67
54.5	958,303	8,849	0.00923	0.99077	64.63
55.5	923,517	0	0.00000	1.00000	64.03
56.5	901,719	1,333	0.00148	0.99852	64.03
57.5	900,386	483	0.00054	0.99946	63.94

# Tennessee - American Water Company

## Account 311.200 - Pumping Equipment - Electric

Placement Band - 1923 - 2023    Experience Band - 2006 - 2023

58.5	899,903	11,191	0.01244	0.98756	63.91
59.5	863,273	6,435	0.00745	0.99255	63.11
60.5	856,839	6,383	0.00745	0.99255	62.64
61.5	822,870	3,300	0.00401	0.99599	62.17
62.5	731,013	100,451	0.13741	0.86259	61.92
63.5	630,562	6,513	0.01033	0.98967	53.41
64.5	603,797	1,941	0.00321	0.99679	52.86
65.5	599,475	9,606	0.01602	0.98398	52.69
66.5	589,356	0	0.00000	1.00000	51.85
67.5	554,299	0	0.00000	1.00000	51.85
68.5	554,299	3,461	0.00624	0.99376	51.85
69.5	531,619	0	0.00000	1.00000	51.53
70.5	251,439	0	0.00000	1.00000	51.53
71.5	251,439	0	0.00000	1.00000	51.53
72.5	158,392	3,854	0.02433	0.97567	51.53
73.5	154,538	1,896	0.01227	0.98773	50.28
74.5	77,596	0	0.00000	1.00000	49.66
75.5	38,617	0	0.00000	1.00000	49.66
76.5	38,617	0	0.00000	1.00000	49.66
77.5	38,617	0	0.00000	1.00000	49.66
78.5	38,617	8,186	0.21198	0.78802	49.66
79.5	30,432	0	0.00000	1.00000	39.13
80.5	30,432	0	0.00000	1.00000	39.13
81.5	28,832	3,267	0.11331	0.88669	39.13
82.5	13,689	151	0.01103	0.98897	34.70
83.5	13,538	6,842	0.50539	0.49461	34.32
84.5	6,696	0	0.00000	1.00000	16.98
85.5	6,604	0	0.00000	1.00000	16.98
86.5	6,604	800	0.12115	0.87885	16.98
87.5	5,804	0	0.00000	1.00000	14.92
88.5	5,804	1,896	0.32670	0.67330	14.92

# Tennessee - American Water Company

## Account 311.200 - Pumping Equipment - Electric

Placement Band - 1923 - 2023    Experience Band - 2006 - 2023

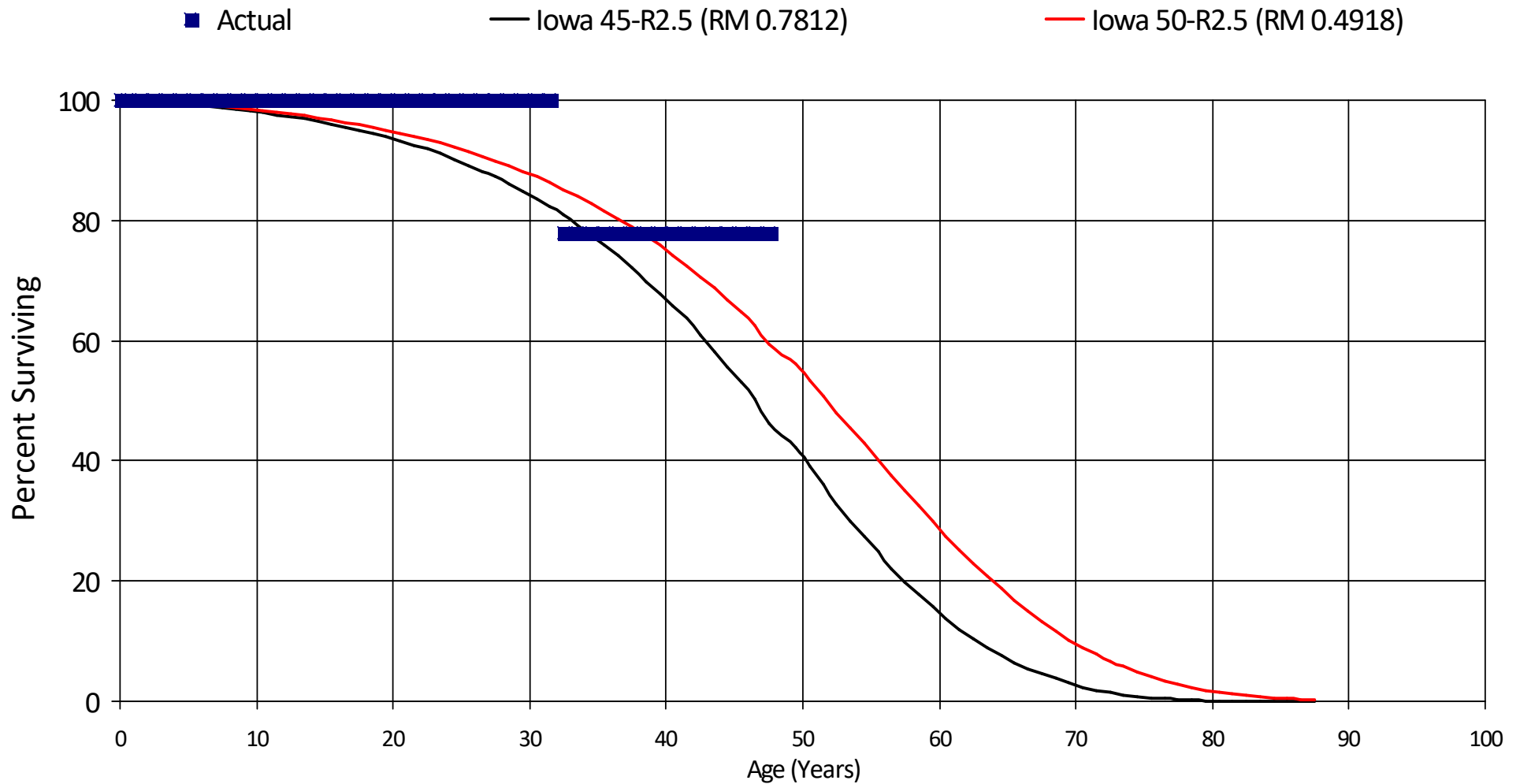
89.5	3,907	0	0.00000	1.00000	10.05
90.5	3,907	0	0.00000	1.00000	10.05
91.5	3,907	0	0.00000	1.00000	10.05
92.5	3,907	0	0.00000	1.00000	10.05
93.5	0	0	0.00000	0.00000	10.05
Totals:		1,912,284			

# Tennessee - American Water Company

## Account 311.300 - Pumping Equipment - Diesel

Placement Band - 1975 - 2023    Experience Band - 2022 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 311.300 - Pumping Equipment - Diesel

Placement Band - 1975 - 2023    Experience Band - 2022 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	119,296	0	0.00000	1.00000	100.00
0.5	119,296	0	0.00000	1.00000	100.00
1.5	119,296	0	0.00000	1.00000	100.00
2.5	119,296	0	0.00000	1.00000	100.00
3.5	119,296	0	0.00000	1.00000	100.00
4.5	119,296	0	0.00000	1.00000	100.00
5.5	119,296	0	0.00000	1.00000	100.00
6.5	119,296	0	0.00000	1.00000	100.00
7.5	119,296	0	0.00000	1.00000	100.00
8.5	119,296	0	0.00000	1.00000	100.00
9.5	119,296	0	0.00000	1.00000	100.00
10.5	119,296	0	0.00000	1.00000	100.00
11.5	119,296	0	0.00000	1.00000	100.00
12.5	119,296	0	0.00000	1.00000	100.00
13.5	119,296	0	0.00000	1.00000	100.00
14.5	119,296	0	0.00000	1.00000	100.00
15.5	119,296	0	0.00000	1.00000	100.00
16.5	119,296	0	0.00000	1.00000	100.00
17.5	119,296	0	0.00000	1.00000	100.00
18.5	119,296	0	0.00000	1.00000	100.00
19.5	119,296	0	0.00000	1.00000	100.00
20.5	119,296	0	0.00000	1.00000	100.00
21.5	119,296	0	0.00000	1.00000	100.00
22.5	119,296	0	0.00000	1.00000	100.00
23.5	119,296	0	0.00000	1.00000	100.00
24.5	119,296	0	0.00000	1.00000	100.00
25.5	119,296	0	0.00000	1.00000	100.00
26.5	119,296	0	0.00000	1.00000	100.00



# Tennessee - American Water Company

## Account 311.300 - Pumping Equipment - Diesel

Placement Band - 1975 - 2023    Experience Band - 2022 - 2023

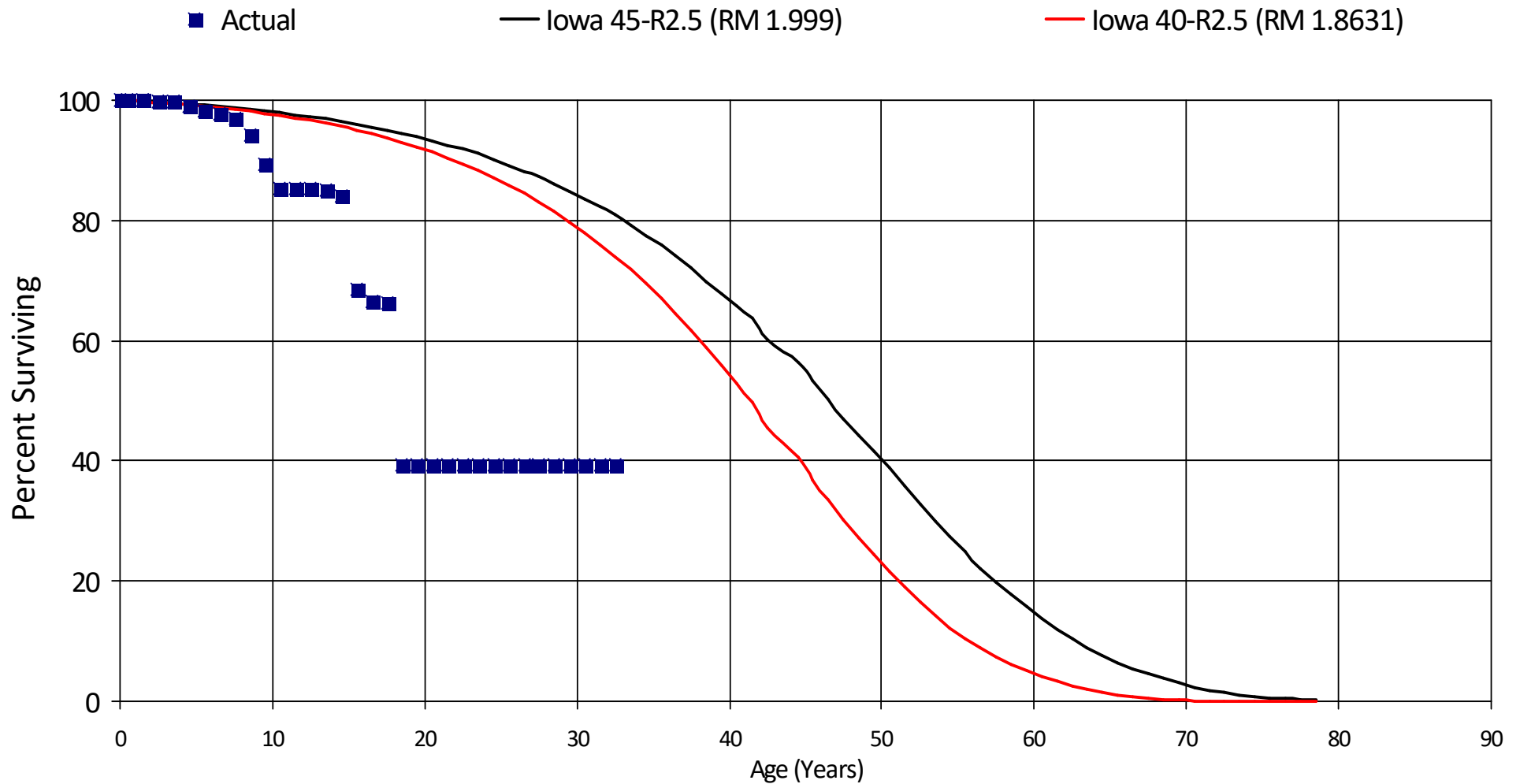
27.5	119,296	0	0.00000	1.00000	100.00
28.5	119,296	0	0.00000	1.00000	100.00
29.5	119,296	0	0.00000	1.00000	100.00
30.5	119,296	0	0.00000	1.00000	100.00
31.5	119,296	26,359	0.22095	0.77905	100.00
32.5	92,937	0	0.00000	1.00000	77.90
33.5	25,351	0	0.00000	1.00000	77.90
34.5	25,351	0	0.00000	1.00000	77.90
35.5	25,351	0	0.00000	1.00000	77.90
36.5	25,351	0	0.00000	1.00000	77.90
37.5	25,351	0	0.00000	1.00000	77.90
38.5	25,351	0	0.00000	1.00000	77.90
39.5	24,431	0	0.00000	1.00000	77.90
40.5	24,431	0	0.00000	1.00000	77.90
41.5	23,858	0	0.00000	1.00000	77.90
42.5	23,858	0	0.00000	1.00000	77.90
43.5	23,858	0	0.00000	1.00000	77.90
44.5	23,858	0	0.00000	1.00000	77.90
45.5	23,858	0	0.00000	1.00000	77.90
46.5	23,858	0	0.00000	1.00000	77.90
47.5	23,858	0	0.00000	1.00000	77.90
Totals:		26,359			

# Tennessee - American Water Company

## Account 311.500 - Pumping Equipment - Other

Placement Band - 1980 - 2023 Experience Band - 2010 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 311.500 - Pumping Equipment - Other

Placement Band - 1980 - 2023    Experience Band - 2010 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	9,075,805	2,200	0.00024	0.99976	100.00
0.5	6,131,243	4,336	0.00071	0.99929	99.98
1.5	5,280,379	5,876	0.00111	0.99889	99.91
2.5	1,641,665	1,478	0.00090	0.99910	99.80
3.5	421,273	3,052	0.00724	0.99276	99.71
4.5	372,530	3,147	0.00845	0.99155	98.99
5.5	369,383	1,151	0.00312	0.99688	98.15
6.5	368,231	3,646	0.00990	0.99010	97.84
7.5	364,585	10,250	0.02811	0.97189	96.87
8.5	354,335	17,816	0.05028	0.94972	94.15
9.5	336,519	15,935	0.04735	0.95265	89.42
10.5	224,497	0	0.00000	1.00000	85.19
11.5	224,497	0	0.00000	1.00000	85.19
12.5	224,497	144	0.00064	0.99936	85.19
13.5	224,353	3,204	0.01428	0.98572	85.14
14.5	221,149	40,863	0.18478	0.81522	83.92
15.5	180,286	5,351	0.02968	0.97032	68.41
16.5	174,935	290	0.00166	0.99834	66.38
17.5	3,646	1,482	0.40652	0.59348	66.27
18.5	2,164	0	0.00000	1.00000	39.33
19.5	2,164	0	0.00000	1.00000	39.33
20.5	2,164	0	0.00000	1.00000	39.33
21.5	2,164	0	0.00000	1.00000	39.33
22.5	2,164	0	0.00000	1.00000	39.33
23.5	2,164	0	0.00000	1.00000	39.33
24.5	2,164	0	0.00000	1.00000	39.33
25.5	2,164	0	0.00000	1.00000	39.33
26.5	2,164	0	0.00000	1.00000	39.33

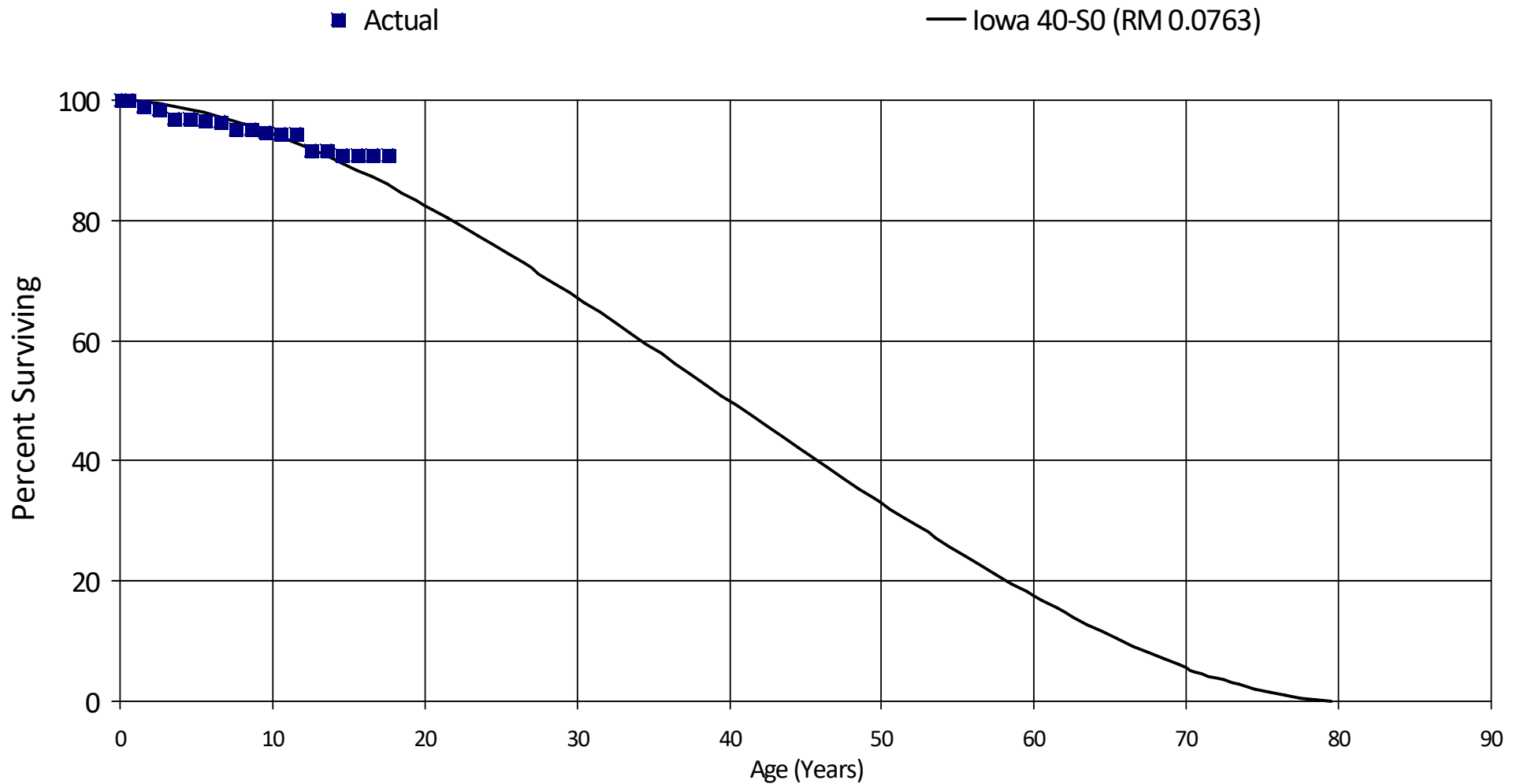
# Tennessee - American Water Company

## Account 311.500 - Pumping Equipment - Other

Placement Band - 1980 - 2023    Experience Band - 2010 - 2023

27.5	2,164	0	0.00000	1.00000	39.33
28.5	2,164	0	0.00000	1.00000	39.33
29.5	2,164	0	0.00000	1.00000	39.33
30.5	2,164	0	0.00000	1.00000	39.33
31.5	2,164	0	0.00000	1.00000	39.33
32.5	2,164	0	0.00000	1.00000	39.33
Totals:		120,221			

**Tennessee - American Water Company**  
**Account 311.520 - Pumping Equipment - SOS & Pumping**  
Placement Band - 1952 - 2023    Experience Band - 2010 - 2023  
**Actual and Smooth Survivor Curves**



**Tennessee - American Water Company**  
**Account 311.520 - Pumping Equipment - SOS & Pumping**  
Placement Band - 1952 - 2023    Experience Band - 2010 - 2023

**RETIREMENT RATE ANALYSIS**

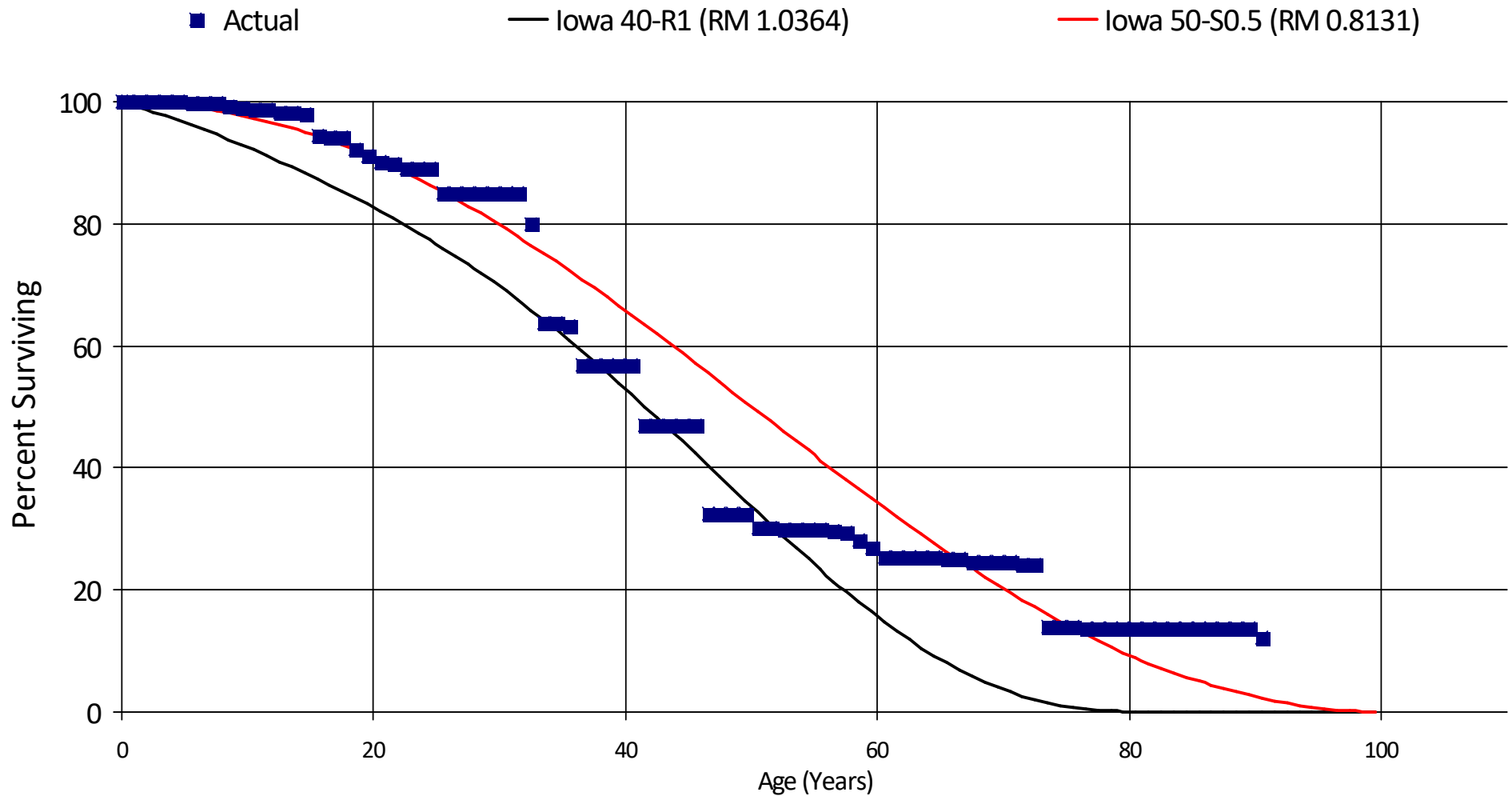
Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	2,866,929	0	0.00000	1.00000	100.00
0.5	2,809,515	25,267	0.00899	0.99101	100.00
1.5	2,735,429	14,314	0.00523	0.99477	99.10
2.5	2,721,115	43,428	0.01596	0.98404	98.58
3.5	2,677,687	0	0.00000	1.00000	97.01
4.5	2,627,074	8,177	0.00311	0.99689	97.01
5.5	2,402,138	9,679	0.00403	0.99597	96.71
6.5	1,518,565	16,277	0.01072	0.98928	96.32
7.5	1,100,128	0	0.00000	1.00000	95.29
8.5	739,487	5,333	0.00721	0.99279	95.29
9.5	459,745	1,504	0.00327	0.99673	94.60
10.5	293,099	0	0.00000	1.00000	94.29
11.5	283,580	8,112	0.02861	0.97139	94.29
12.5	249,763	0	0.00000	1.00000	91.59
13.5	129,733	1,124	0.00866	0.99134	91.59
14.5	128,610	0	0.00000	1.00000	90.80
15.5	118,560	0	0.00000	1.00000	90.80
16.5	7,478	0	0.00000	1.00000	90.80
17.5	7,478	7,370	0.98553	0.01447	90.80
Totals:		140,585			

# Tennessee - American Water Company

## Account 320.100 - Water Treatment Equipment - Non Media

Placement Band - 1892 - 2023    Experience Band - 2005 - 2023

### Actual and Smooth Survivor Curves



**Tennessee - American Water Company**  
**Account 320.100 - Water Treatment Equipment - Non Media**  
Placement Band - 1892 - 2023    Experience Band - 2005 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	36,362,263	0	0.00000	1.00000	100.00
0.5	35,032,303	484	0.00001	0.99999	100.00
1.5	34,872,945	7,019	0.00020	0.99980	100.00
2.5	34,581,751	883	0.00003	0.99997	99.98
3.5	34,384,419	25,130	0.00073	0.99927	99.98
4.5	31,861,181	16,567	0.00052	0.99948	99.91
5.5	31,372,477	22,865	0.00073	0.99927	99.86
6.5	30,361,525	7,229	0.00024	0.99976	99.79
7.5	28,185,734	143,436	0.00509	0.99491	99.77
8.5	16,220,054	40,215	0.00248	0.99752	99.26
9.5	15,304,983	62,341	0.00407	0.99593	99.01
10.5	15,021,161	0	0.00000	1.00000	98.61
11.5	15,015,428	41,694	0.00278	0.99722	98.61
12.5	14,927,747	25,825	0.00173	0.99827	98.34
13.5	12,517,769	34,906	0.00279	0.99721	98.17
14.5	12,482,863	456,939	0.03661	0.96339	97.90
15.5	11,860,755	29,806	0.00251	0.99749	94.32
16.5	11,756,849	3,260	0.00028	0.99972	94.08
17.5	11,753,589	243,586	0.02072	0.97928	94.05
18.5	11,494,700	128,831	0.01121	0.98879	92.10
19.5	11,338,229	109,969	0.00970	0.99030	91.07
20.5	11,219,077	41,142	0.00367	0.99633	90.19
21.5	11,177,935	89,278	0.00799	0.99201	89.86
22.5	11,088,656	256	0.00002	0.99998	89.14
23.5	11,036,094	280	0.00003	0.99997	89.14
24.5	11,002,584	519,623	0.04723	0.95277	89.14
25.5	6,490,835	0	0.00000	1.00000	84.93
26.5	6,487,392	336	0.00005	0.99995	84.93



# Tennessee - American Water Company

## Account 320.100 - Water Treatment Equipment - Non Media

Placement Band - 1892 - 2023    Experience Band - 2005 - 2023

27.5	6,487,055	834	0.00013	0.99987	84.93
28.5	6,486,222	0	0.00000	1.00000	84.92
29.5	6,486,222	0	0.00000	1.00000	84.92
30.5	6,486,222	600	0.00009	0.99991	84.92
31.5	6,485,622	385,214	0.05940	0.94060	84.91
32.5	6,100,054	1,226,514	0.20107	0.79893	79.87
33.5	4,873,540	0	0.00000	1.00000	63.81
34.5	4,873,540	38,159	0.00783	0.99217	63.81
35.5	4,835,381	490,664	0.10147	0.89853	63.31
36.5	4,344,717	0	0.00000	1.00000	56.89
37.5	4,344,717	1,659	0.00038	0.99962	56.89
38.5	4,343,058	614	0.00014	0.99986	56.87
39.5	4,342,443	0	0.00000	1.00000	56.86
40.5	4,342,443	755,659	0.17402	0.82598	56.86
41.5	3,586,785	0	0.00000	1.00000	46.97
42.5	3,586,785	3,813	0.00106	0.99894	46.97
43.5	3,582,971	4,485	0.00125	0.99875	46.92
44.5	3,578,487	0	0.00000	1.00000	46.86
45.5	3,578,487	1,093,444	0.30556	0.69444	46.86
46.5	2,467,809	2,771	0.00112	0.99888	32.54
47.5	2,465,038	1,029	0.00042	0.99958	32.50
48.5	2,464,009	3,215	0.00130	0.99870	32.49
49.5	2,460,794	161,450	0.06561	0.93439	32.45
50.5	2,284,634	2,607	0.00114	0.99886	30.32
51.5	2,279,611	18,623	0.00817	0.99183	30.29
52.5	2,260,988	0	0.00000	1.00000	30.04
53.5	2,258,381	0	0.00000	1.00000	30.04
54.5	2,258,381	0	0.00000	1.00000	30.04
55.5	2,258,381	27,099	0.01200	0.98800	30.04
56.5	2,231,282	26,328	0.01180	0.98820	29.68
57.5	1,167,696	41,991	0.03596	0.96404	29.33

# Tennessee - American Water Company

## Account 320.100 - Water Treatment Equipment - Non Media

Placement Band - 1892 - 2023    Experience Band - 2005 - 2023

58.5	1,124,146	59,660	0.05307	0.94693	28.28
59.5	1,049,055	57,456	0.05477	0.94523	26.78
60.5	991,599	225	0.00023	0.99977	25.31
61.5	991,374	445	0.00045	0.99955	25.30
62.5	990,929	0	0.00000	1.00000	25.29
63.5	990,929	1,196	0.00121	0.99879	25.29
64.5	989,733	1,267	0.00128	0.99872	25.26
65.5	988,466	0	0.00000	1.00000	25.23
66.5	963,569	18,946	0.01966	0.98034	25.23
67.5	834,342	0	0.00000	1.00000	24.73
68.5	774,686	499	0.00064	0.99936	24.73
69.5	774,187	24	0.00003	0.99997	24.71
70.5	774,163	21,258	0.02746	0.97254	24.71
71.5	751,890	198	0.00026	0.99974	24.03
72.5	730,697	306,798	0.41987	0.58013	24.02
73.5	423,899	0	0.00000	1.00000	13.93
74.5	423,524	0	0.00000	1.00000	13.93
75.5	423,524	3,532	0.00834	0.99166	13.93
76.5	419,992	0	0.00000	1.00000	13.81
77.5	419,992	5,674	0.01351	0.98649	13.81
78.5	414,318	0	0.00000	1.00000	13.62
79.5	414,318	0	0.00000	1.00000	13.62
80.5	414,318	0	0.00000	1.00000	13.62
81.5	414,318	0	0.00000	1.00000	13.62
82.5	414,318	0	0.00000	1.00000	13.62
83.5	414,318	0	0.00000	1.00000	13.62
84.5	414,318	0	0.00000	1.00000	13.62
85.5	414,318	0	0.00000	1.00000	13.62
86.5	414,318	0	0.00000	1.00000	13.62
87.5	414,318	1,175	0.00284	0.99716	13.62
88.5	413,143	0	0.00000	1.00000	13.58

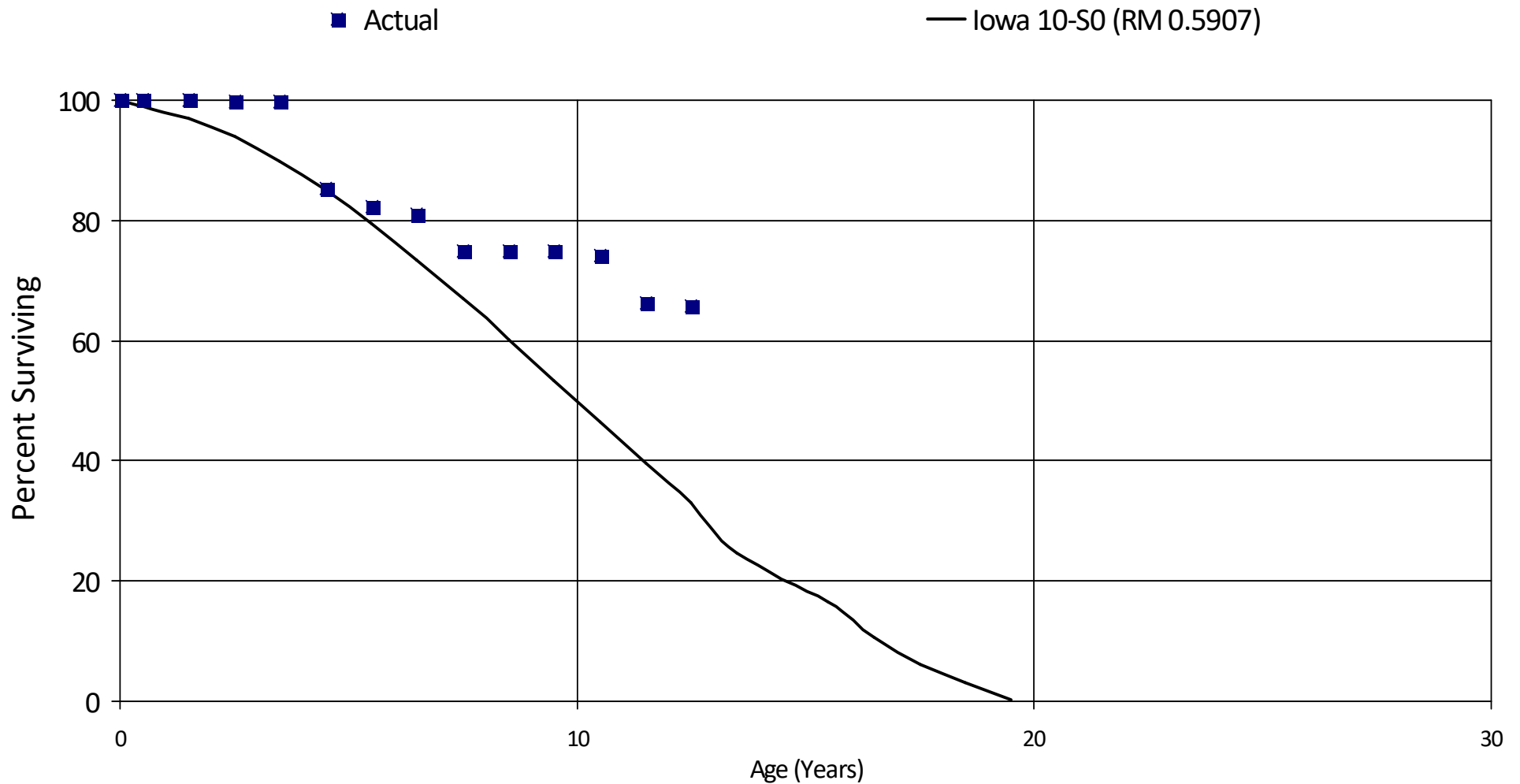
# Tennessee - American Water Company

## Account 320.100 - Water Treatment Equipment - Non Media

Placement Band - 1892 - 2023    Experience Band - 2005 - 2023

89.5	413,143	39,525	0.09567	0.90433	13.58
90.5	373,618	46,142	0.12350	0.87650	12.28
Totals:		6,902,692			

**Tennessee - American Water Company**  
**Account 320.200 - Water Treatment Equipment Filter Media**  
Placement Band - 2009 - 2023    Experience Band - 2011 - 2023  
**Actual and Smooth Survivor Curves**

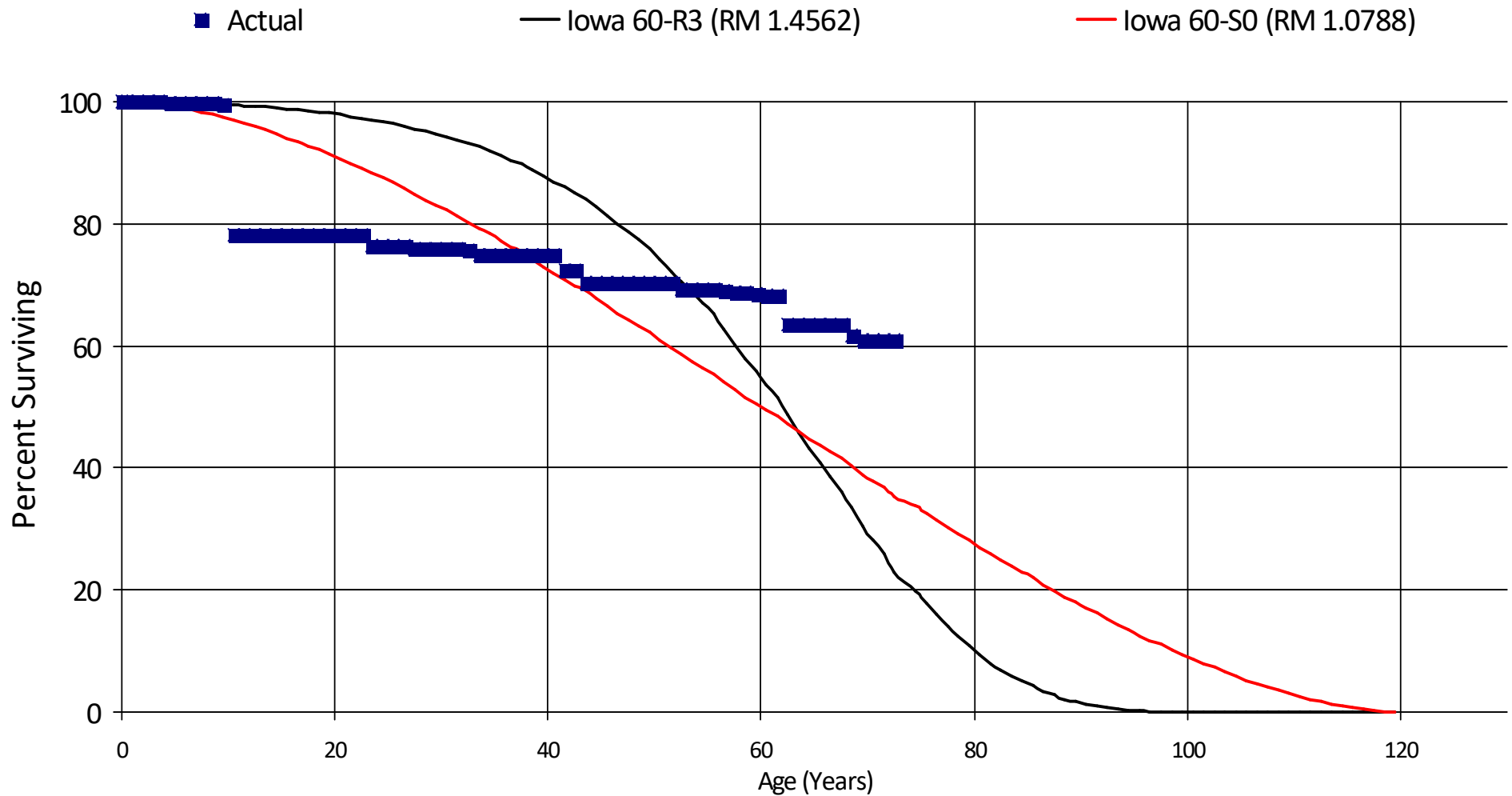


**Tennessee - American Water Company**  
**Account 320.200 - Water Treatment Equipment Filter Media**  
 Placement Band - 2009 - 2023    Experience Band - 2011 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	3,492,691	0	0.00000	1.00000	100.00
0.5	3,492,691	0	0.00000	1.00000	100.00
1.5	2,844,715	8,518	0.00299	0.99701	100.00
2.5	2,836,197	0	0.00000	1.00000	99.70
3.5	2,836,197	412,300	0.14537	0.85463	99.70
4.5	2,169,818	72,908	0.03360	0.96640	85.21
5.5	1,880,461	34,538	0.01837	0.98163	82.35
6.5	1,612,584	118,209	0.07330	0.92670	80.84
7.5	1,494,375	0	0.00000	1.00000	74.91
8.5	849,097	0	0.00000	1.00000	74.91
9.5	760,040	6,958	0.00915	0.99085	74.91
10.5	753,082	80,258	0.10657	0.89343	74.22
11.5	497,393	4,675	0.00940	0.99060	66.31
12.5	0	0	0.00000	0.00000	65.69
Totals:		738,364			

**Tennessee - American Water Company**  
**Account 330.000 - Distribution Reservoirs & Standpipes**  
Placement Band - 1950 - 2023    Experience Band - 2007 - 2023  
**Actual and Smooth Survivor Curves**



**Tennessee - American Water Company**  
**Account 330.000 - Distribution Reservoirs & Standpipes**  
Placement Band - 1950 - 2023    Experience Band - 2007 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	10,973,152	0	0.00000	1.00000	100.00
0.5	10,243,488	0	0.00000	1.00000	100.00
1.5	8,519,634	0	0.00000	1.00000	100.00
2.5	7,130,320	0	0.00000	1.00000	100.00
3.5	6,859,282	17,955	0.00262	0.99738	100.00
4.5	6,841,327	0	0.00000	1.00000	99.74
5.5	6,524,745	0	0.00000	1.00000	99.74
6.5	6,501,066	0	0.00000	1.00000	99.74
7.5	6,501,066	0	0.00000	1.00000	99.74
8.5	6,501,066	12,097	0.00186	0.99814	99.74
9.5	6,465,924	1,384,678	0.21415	0.78585	99.55
10.5	5,079,308	0	0.00000	1.00000	78.23
11.5	5,079,308	0	0.00000	1.00000	78.23
12.5	5,079,308	7,592	0.00149	0.99851	78.23
13.5	5,071,716	0	0.00000	1.00000	78.11
14.5	5,071,716	0	0.00000	1.00000	78.11
15.5	5,071,716	0	0.00000	1.00000	78.11
16.5	5,071,716	0	0.00000	1.00000	78.11
17.5	4,832,736	0	0.00000	1.00000	78.11
18.5	4,832,736	0	0.00000	1.00000	78.11
19.5	4,832,736	0	0.00000	1.00000	78.11
20.5	4,832,736	0	0.00000	1.00000	78.11
21.5	4,832,736	0	0.00000	1.00000	78.11
22.5	4,832,736	103,320	0.02138	0.97862	78.11
23.5	3,323,679	760	0.00023	0.99977	76.44
24.5	3,322,919	0	0.00000	1.00000	76.42
25.5	3,322,919	0	0.00000	1.00000	76.42
26.5	3,322,919	23,056	0.00694	0.99306	76.42

# Tennessee - American Water Company

## Account 330.000 - Distribution Reservoirs & Standpipes

Placement Band - 1950 - 2023    Experience Band - 2007 - 2023

27.5	2,023,598	0	0.00000	1.00000	75.89
28.5	2,023,598	0	0.00000	1.00000	75.89
29.5	2,020,661	0	0.00000	1.00000	75.89
30.5	2,020,661	0	0.00000	1.00000	75.89
31.5	1,958,030	3,982	0.00203	0.99797	75.89
32.5	1,954,048	20,297	0.01039	0.98961	75.74
33.5	1,933,751	0	0.00000	1.00000	74.95
34.5	1,933,751	0	0.00000	1.00000	74.95
35.5	1,933,751	0	0.00000	1.00000	74.95
36.5	1,933,751	0	0.00000	1.00000	74.95
37.5	1,933,751	0	0.00000	1.00000	74.95
38.5	1,933,751	1,540	0.00080	0.99920	74.95
39.5	1,932,211	1,772	0.00092	0.99908	74.89
40.5	1,930,438	66,912	0.03466	0.96534	74.82
41.5	1,539,582	376	0.00024	0.99976	72.23
42.5	1,484,681	37,913	0.02554	0.97446	72.21
43.5	1,446,768	449	0.00031	0.99969	70.37
44.5	890,810	1,775	0.00199	0.99801	70.35
45.5	889,036	0	0.00000	1.00000	70.21
46.5	889,036	73	0.00008	0.99992	70.21
47.5	888,963	0	0.00000	1.00000	70.20
48.5	888,963	0	0.00000	1.00000	70.20
49.5	888,963	0	0.00000	1.00000	70.20
50.5	886,513	0	0.00000	1.00000	70.20
51.5	886,513	11,641	0.01313	0.98687	70.20
52.5	874,872	1,054	0.00120	0.99880	69.28
53.5	870,966	0	0.00000	1.00000	69.20
54.5	861,827	0	0.00000	1.00000	69.20
55.5	861,827	1,777	0.00206	0.99794	69.20
56.5	860,051	2,355	0.00274	0.99726	69.06
57.5	857,695	124	0.00014	0.99986	68.87



# Tennessee - American Water Company

## Account 330.000 - Distribution Reservoirs & Standpipes

Placement Band - 1950 - 2023    Experience Band - 2007 - 2023

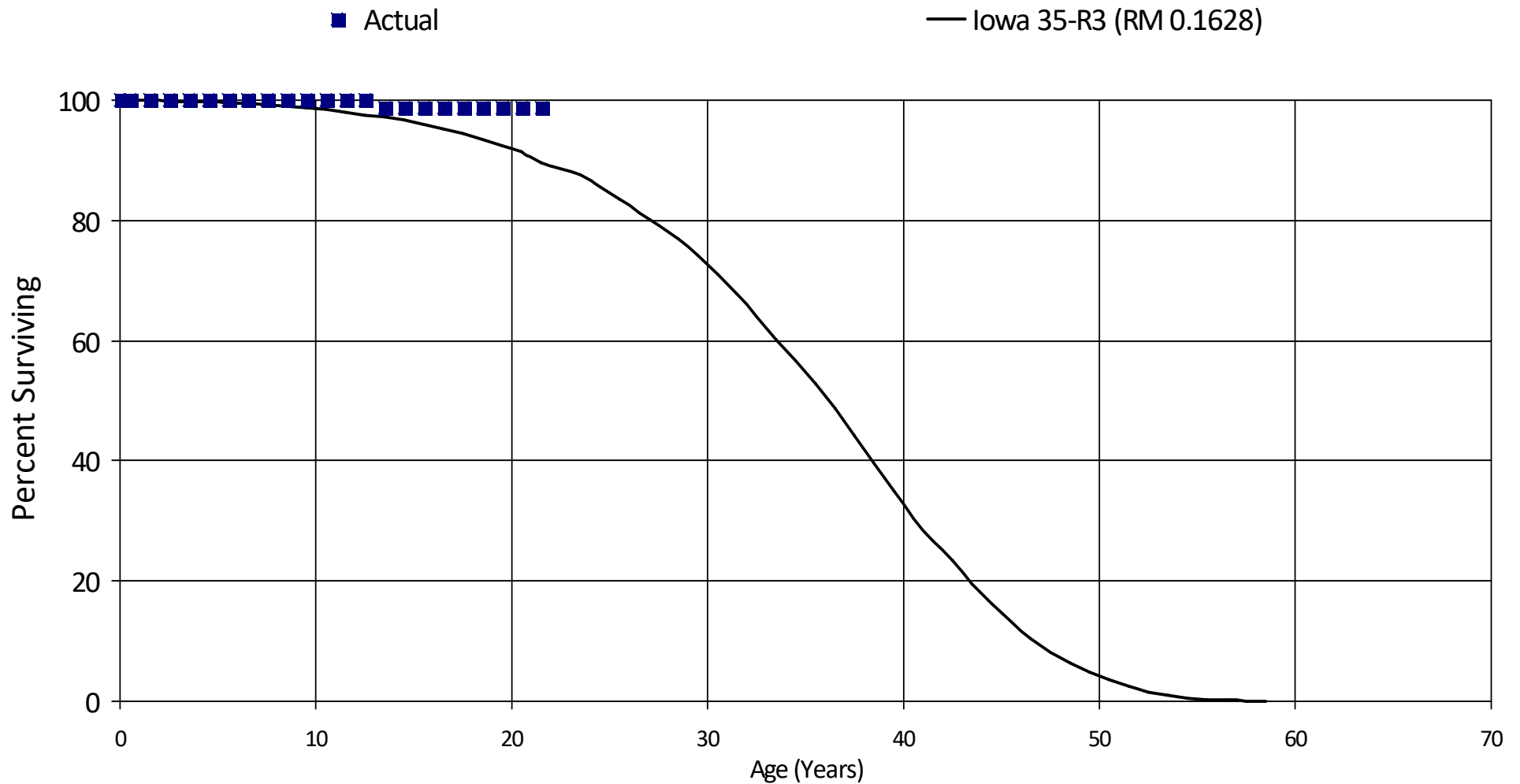
58.5	351,212	2,273	0.00647	0.99353	68.86
59.5	348,299	1,076	0.00309	0.99691	68.41
60.5	347,223	0	0.00000	1.00000	68.20
61.5	345,365	24,174	0.07000	0.93000	68.20
62.5	209,102	0	0.00000	1.00000	63.43
63.5	152,128	0	0.00000	1.00000	63.43
64.5	152,128	0	0.00000	1.00000	63.43
65.5	152,128	0	0.00000	1.00000	63.43
66.5	151,018	0	0.00000	1.00000	63.43
67.5	105,428	2,956	0.02804	0.97196	63.43
68.5	82,165	1,051	0.01279	0.98721	61.65
69.5	81,114	0	0.00000	1.00000	60.86
70.5	79,030	0	0.00000	1.00000	60.86
71.5	992	0	0.00000	1.00000	60.86
72.5	100	0	0.00000	1.00000	60.86
Totals:		1,733,028			

# Tennessee - American Water Company

## Account 330.100 - Elevated Tanks & Standpipes

Placement Band - 2001 - 2023    Experience Band - 2014 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 330.100 - Elevated Tanks & Standpipes

Placement Band - 2001 - 2023    Experience Band - 2014 - 2023

### RETIREMENT RATE ANALYSIS

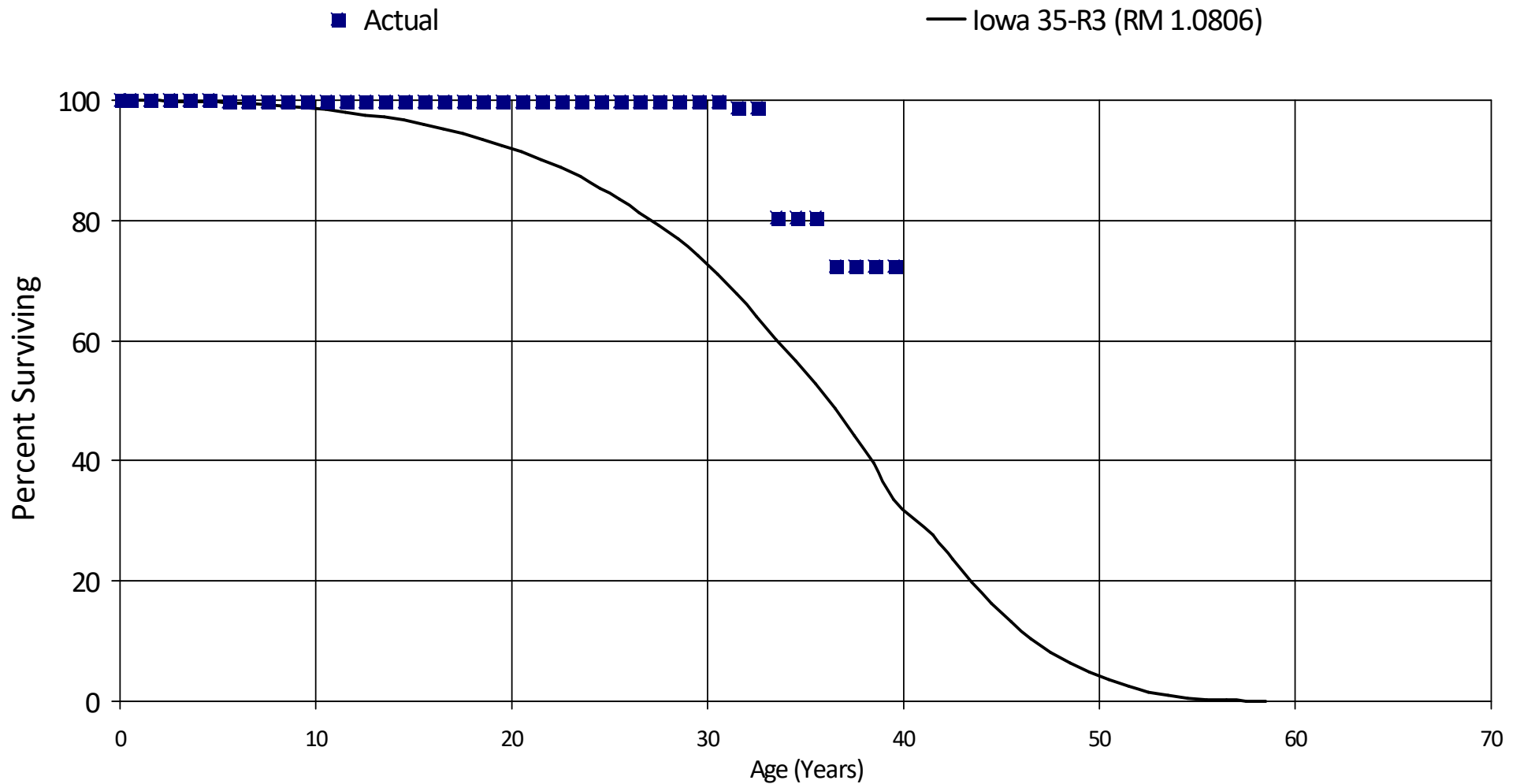
Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	2,950,863	0	0.00000	1.00000	100.00
0.5	2,950,863	0	0.00000	1.00000	100.00
1.5	2,950,863	0	0.00000	1.00000	100.00
2.5	2,950,863	0	0.00000	1.00000	100.00
3.5	2,950,863	0	0.00000	1.00000	100.00
4.5	2,235,069	0	0.00000	1.00000	100.00
5.5	2,235,069	0	0.00000	1.00000	100.00
6.5	2,235,069	0	0.00000	1.00000	100.00
7.5	2,235,069	0	0.00000	1.00000	100.00
8.5	2,144,470	0	0.00000	1.00000	100.00
9.5	2,144,470	0	0.00000	1.00000	100.00
10.5	1,905,554	0	0.00000	1.00000	100.00
11.5	1,905,554	0	0.00000	1.00000	100.00
12.5	1,905,554	24,742	0.01298	0.98702	100.00
13.5	1,880,812	0	0.00000	1.00000	98.70
14.5	1,880,812	0	0.00000	1.00000	98.70
15.5	1,873,951	0	0.00000	1.00000	98.70
16.5	1,873,951	0	0.00000	1.00000	98.70
17.5	154,727	0	0.00000	1.00000	98.70
18.5	154,727	0	0.00000	1.00000	98.70
19.5	149,427	0	0.00000	1.00000	98.70
20.5	146,153	0	0.00000	1.00000	98.70
21.5	137,570	0	0.00000	1.00000	98.70
Totals:		24,742			

# Tennessee - American Water Company

## Account 330.200 - Ground Level Tanks

Placement Band - 1983 - 2023    Experience Band - 2014 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 330.200 - Ground Level Tanks

Placement Band - 1983 - 2023    Experience Band - 2014 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	2,492,245	0	0.00000	1.00000	100.00
0.5	2,492,245	0	0.00000	1.00000	100.00
1.5	2,492,245	0	0.00000	1.00000	100.00
2.5	2,492,245	0	0.00000	1.00000	100.00
3.5	1,665,703	0	0.00000	1.00000	100.00
4.5	820,761	2,571	0.00313	0.99687	100.00
5.5	583,649	0	0.00000	1.00000	99.69
6.5	298,687	0	0.00000	1.00000	99.69
7.5	298,687	0	0.00000	1.00000	99.69
8.5	298,687	0	0.00000	1.00000	99.69
9.5	298,687	0	0.00000	1.00000	99.69
10.5	298,687	0	0.00000	1.00000	99.69
11.5	298,687	0	0.00000	1.00000	99.69
12.5	276,842	0	0.00000	1.00000	99.69
13.5	276,842	0	0.00000	1.00000	99.69
14.5	276,842	0	0.00000	1.00000	99.69
15.5	276,842	0	0.00000	1.00000	99.69
16.5	276,842	0	0.00000	1.00000	99.69
17.5	276,842	0	0.00000	1.00000	99.69
18.5	276,842	0	0.00000	1.00000	99.69
19.5	133,926	0	0.00000	1.00000	99.69
20.5	133,926	0	0.00000	1.00000	99.69
21.5	133,926	0	0.00000	1.00000	99.69
22.5	133,926	0	0.00000	1.00000	99.69
23.5	86,100	0	0.00000	1.00000	99.69
24.5	86,100	0	0.00000	1.00000	99.69
25.5	86,100	0	0.00000	1.00000	99.69
26.5	86,100	0	0.00000	1.00000	99.69

# Tennessee - American Water Company

## Account 330.200 - Ground Level Tanks

Placement Band - 1983 - 2023    Experience Band - 2014 - 2023

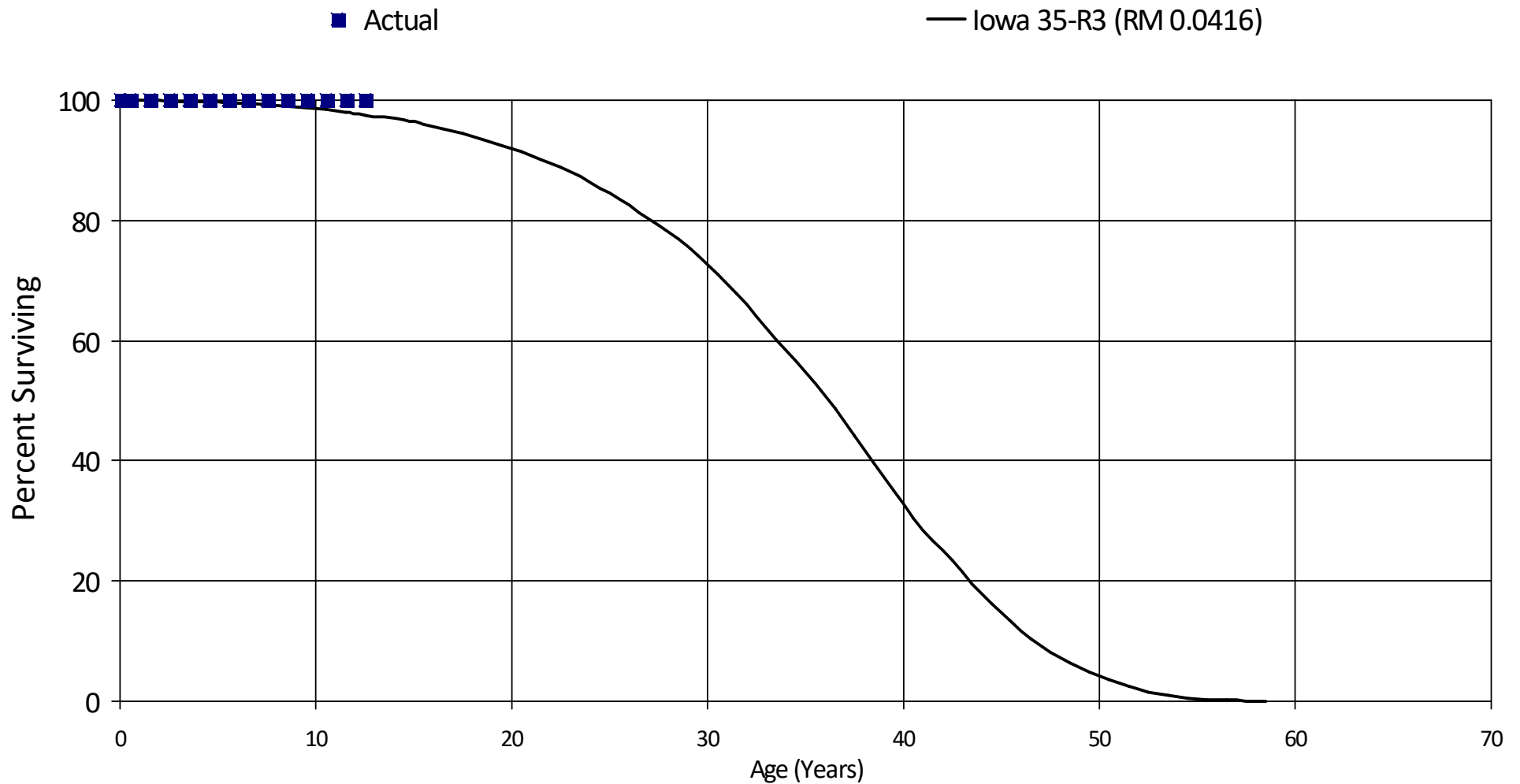
27.5	42,100	0	0.00000	1.00000	99.69
28.5	42,100	0	0.00000	1.00000	99.69
29.5	42,100	0	0.00000	1.00000	99.69
30.5	42,100	446	0.01059	0.98941	99.69
31.5	41,654	0	0.00000	1.00000	98.63
32.5	41,654	7,704	0.18495	0.81505	98.63
33.5	33,950	0	0.00000	1.00000	80.39
34.5	33,950	0	0.00000	1.00000	80.39
35.5	33,950	3,369	0.09924	0.90076	80.39
36.5	30,580	0	0.00000	1.00000	72.41
37.5	30,580	0	0.00000	1.00000	72.41
38.5	30,580	0	0.00000	1.00000	72.41
39.5	30,580	0	0.00000	1.00000	72.41
Totals:		14,090			

# Tennessee - American Water Company

## Account 330.300 - Below Ground Tanks

Placement Band - 2010 - 2023    Experience Band - 2023 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 330.300 - Below Ground Tanks

Placement Band - 2010 - 2023    Experience Band - 2023 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	39,869	0	0.00000	1.00000	100.00
0.5	39,869	0	0.00000	1.00000	100.00
1.5	39,869	0	0.00000	1.00000	100.00
2.5	39,869	0	0.00000	1.00000	100.00
3.5	39,869	0	0.00000	1.00000	100.00
4.5	18,648	0	0.00000	1.00000	100.00
5.5	18,648	0	0.00000	1.00000	100.00
6.5	18,648	0	0.00000	1.00000	100.00
7.5	18,648	0	0.00000	1.00000	100.00
8.5	18,648	0	0.00000	1.00000	100.00
9.5	18,648	0	0.00000	1.00000	100.00
10.5	18,648	0	0.00000	1.00000	100.00
11.5	18,648	0	0.00000	1.00000	100.00
12.5	18,648	0	0.00000	1.00000	100.00
Totals:		0			

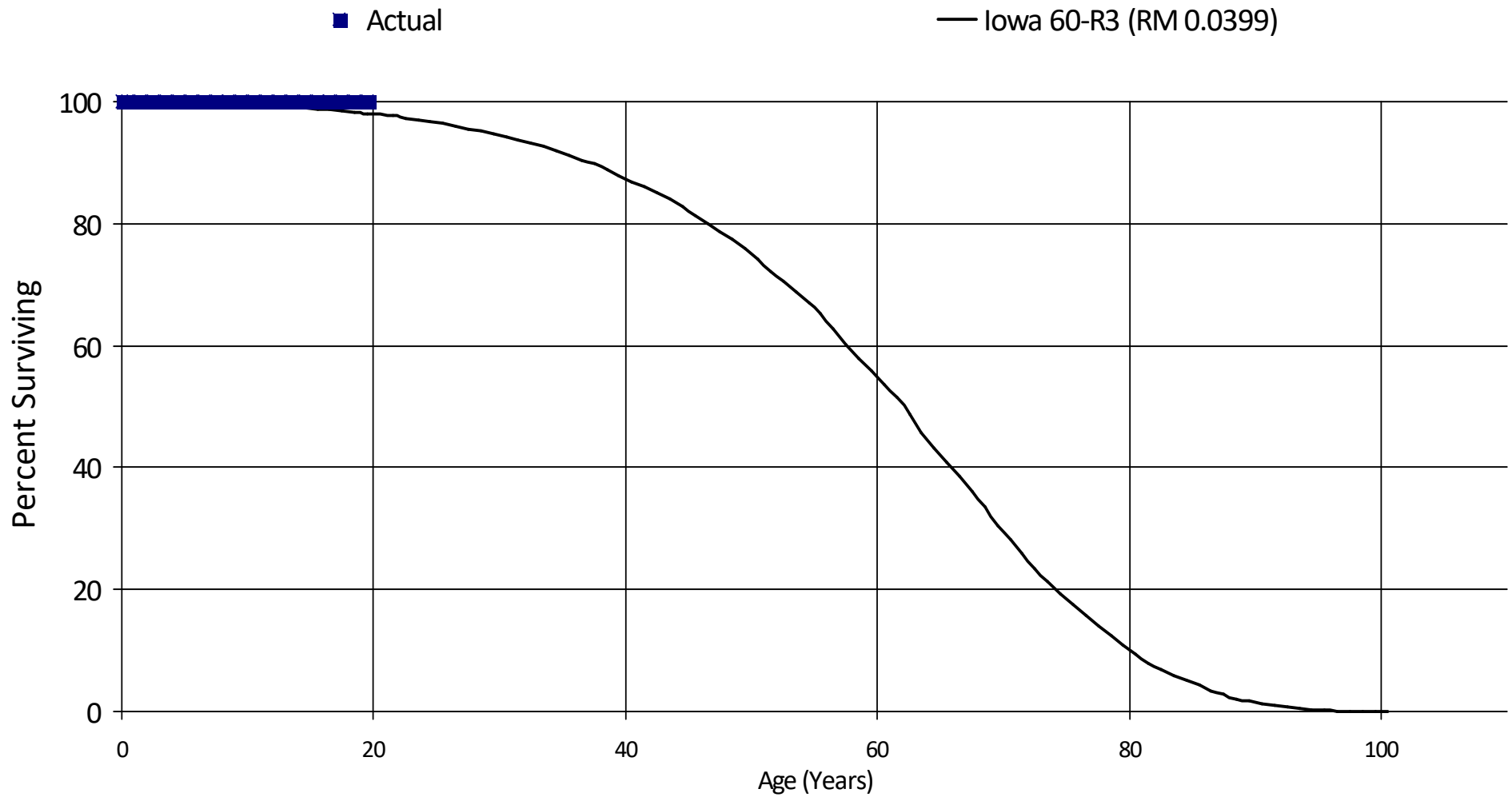


# Tennessee - American Water Company

Account 330.400 - Clearwell

Placement Band - 2003 - 2023    Experience Band - 2023 - 2023

## Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 330.400 - Clearwell

Placement Band - 2003 - 2023    Experience Band - 2023 - 2023

### RETIREMENT RATE ANALYSIS

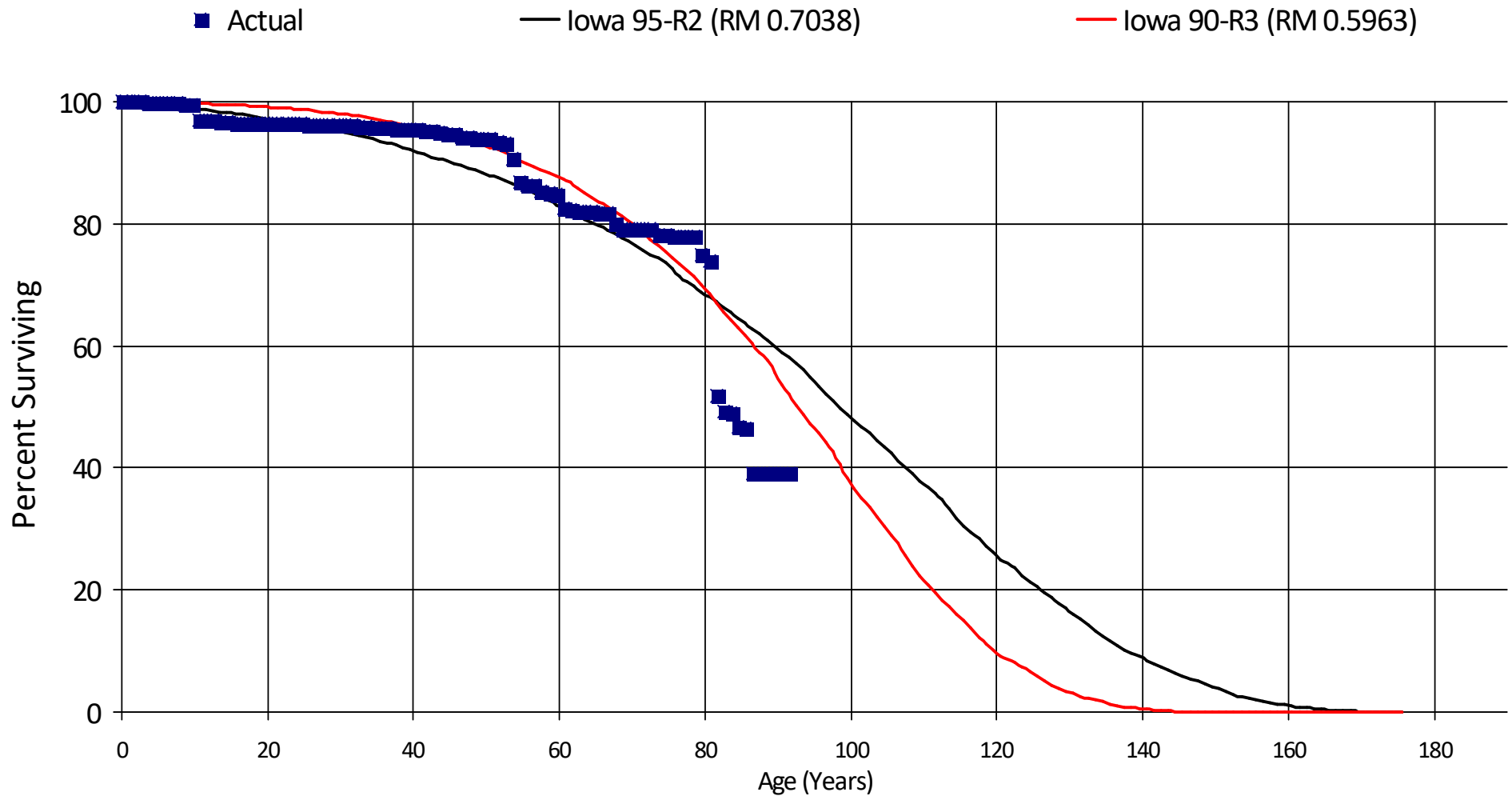
Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	680,784	0	0.00000	1.00000	100.00
0.5	680,784	0	0.00000	1.00000	100.00
1.5	680,784	0	0.00000	1.00000	100.00
2.5	680,784	0	0.00000	1.00000	100.00
3.5	680,784	0	0.00000	1.00000	100.00
4.5	680,784	0	0.00000	1.00000	100.00
5.5	680,784	0	0.00000	1.00000	100.00
6.5	680,784	0	0.00000	1.00000	100.00
7.5	680,784	0	0.00000	1.00000	100.00
8.5	680,784	0	0.00000	1.00000	100.00
9.5	680,784	0	0.00000	1.00000	100.00
10.5	680,784	0	0.00000	1.00000	100.00
11.5	680,784	0	0.00000	1.00000	100.00
12.5	680,784	0	0.00000	1.00000	100.00
13.5	680,784	0	0.00000	1.00000	100.00
14.5	680,784	0	0.00000	1.00000	100.00
15.5	680,784	0	0.00000	1.00000	100.00
16.5	680,784	0	0.00000	1.00000	100.00
17.5	680,784	0	0.00000	1.00000	100.00
18.5	680,784	0	0.00000	1.00000	100.00
19.5	680,784	0	0.00000	1.00000	100.00
Totals:		0			

# Tennessee - American Water Company

## Account 331.001 - Mains

Placement Band - 1902 - 2023    Experience Band - 2005 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 331.001 - Mains

Placement Band - 1902 - 2023 Experience Band - 2005 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	203,334,341	13,865	0.00007	0.99993	100.00
0.5	191,349,809	148,153	0.00077	0.99923	99.99
1.5	179,988,576	22,498	0.00012	0.99988	99.91
2.5	172,500,668	46,639	0.00027	0.99973	99.90
3.5	162,947,295	89,646	0.00055	0.99945	99.87
4.5	148,010,585	12,798	0.00009	0.99991	99.82
5.5	145,378,685	58,392	0.00040	0.99960	99.81
6.5	137,559,382	23,617	0.00017	0.99983	99.77
7.5	133,645,754	203,336	0.00152	0.99848	99.75
8.5	127,644,560	69,854	0.00055	0.99945	99.60
9.5	122,133,703	3,215,246	0.02633	0.97367	99.55
10.5	116,290,570	30,766	0.00026	0.99974	96.93
11.5	111,530,941	33,556	0.00030	0.99970	96.90
12.5	107,890,415	229,484	0.00213	0.99787	96.87
13.5	104,892,474	62,819	0.00060	0.99940	96.66
14.5	103,213,395	59,793	0.00058	0.99942	96.60
15.5	101,090,257	10,067	0.00010	0.99990	96.54
16.5	96,592,971	2,570	0.00003	0.99997	96.53
17.5	83,853,445	48,057	0.00057	0.99943	96.53
18.5	82,108,687	14,798	0.00018	0.99982	96.47
19.5	80,420,062	15,304	0.00019	0.99981	96.45
20.5	78,265,405	41,055	0.00052	0.99948	96.43
21.5	74,331,848	4,853	0.00007	0.99993	96.38
22.5	71,581,028	3,591	0.00005	0.99995	96.37
23.5	68,640,022	31,486	0.00046	0.99954	96.37
24.5	65,937,036	32,616	0.00049	0.99951	96.33
25.5	61,409,677	2,907	0.00005	0.99995	96.28
26.5	59,817,110	6,703	0.00011	0.99989	96.28

# Tennessee - American Water Company

## Account 331.001 - Mains

Placement Band - 1902 - 2023    Experience Band - 2005 - 2023

27.5	57,766,930	22,561	0.00039	0.99961	96.27
28.5	55,924,002	23,405	0.00042	0.99958	96.23
29.5	53,859,090	47,579	0.00088	0.99912	96.19
30.5	50,993,447	5,303	0.00010	0.99990	96.11
31.5	49,295,313	47,407	0.00096	0.99904	96.10
32.5	47,694,241	28,032	0.00059	0.99941	96.01
33.5	44,790,381	83,414	0.00186	0.99814	95.95
34.5	42,519,315	34,730	0.00082	0.99918	95.77
35.5	40,152,341	43,261	0.00108	0.99892	95.69
36.5	38,690,755	54,487	0.00141	0.99859	95.59
37.5	36,732,983	19,289	0.00053	0.99947	95.46
38.5	35,758,663	7,343	0.00021	0.99979	95.41
39.5	35,119,804	2,422	0.00007	0.99993	95.39
40.5	34,185,684	48,151	0.00141	0.99859	95.38
41.5	32,134,903	56,956	0.00177	0.99823	95.25
42.5	28,716,133	54,295	0.00189	0.99811	95.08
43.5	26,464,022	44,188	0.00167	0.99833	94.90
44.5	23,727,674	6,231	0.00026	0.99974	94.74
45.5	20,931,992	115,956	0.00554	0.99446	94.72
46.5	19,291,729	20,941	0.00109	0.99891	94.20
47.5	18,615,807	35,953	0.00193	0.99807	94.10
48.5	18,324,966	14,618	0.00080	0.99920	93.92
49.5	16,090,366	7,961	0.00049	0.99951	93.84
50.5	14,687,629	78,297	0.00533	0.99467	93.79
51.5	13,952,063	22,636	0.00162	0.99838	93.29
52.5	13,489,256	379,934	0.02817	0.97183	93.14
53.5	12,815,378	526,283	0.04107	0.95893	90.52
54.5	11,394,729	76,779	0.00674	0.99326	86.80
55.5	10,715,404	3,726	0.00035	0.99965	86.21
56.5	10,346,635	101,498	0.00981	0.99019	86.18
57.5	9,692,450	44,709	0.00461	0.99539	85.33

# Tennessee - American Water Company

## Account 331.001 - Mains

Placement Band - 1902 - 2023    Experience Band - 2005 - 2023

58.5	8,150,418	21,706	0.00266	0.99734	84.94
59.5	506,181	13,553	0.02678	0.97322	84.71
60.5	492,628	581	0.00118	0.99882	82.44
61.5	492,047	1,719	0.00349	0.99651	82.34
62.5	490,328	189	0.00039	0.99961	82.05
63.5	489,759	933	0.00191	0.99809	82.02
64.5	488,826	343	0.00070	0.99930	81.86
65.5	110,181	22	0.00020	0.99980	81.80
66.5	110,159	2,513	0.02281	0.97719	81.78
67.5	107,646	967	0.00898	0.99102	79.91
68.5	106,679	0	0.00000	1.00000	79.19
69.5	106,679	158	0.00148	0.99852	79.19
70.5	106,521	0	0.00000	1.00000	79.07
71.5	106,521	0	0.00000	1.00000	79.07
72.5	106,521	1,079	0.01013	0.98987	79.07
73.5	105,441	13	0.00012	0.99988	78.27
74.5	105,429	413	0.00392	0.99608	78.26
75.5	105,016	46	0.00044	0.99956	77.95
76.5	104,970	19	0.00018	0.99982	77.92
77.5	104,951	0	0.00000	1.00000	77.91
78.5	104,951	4,158	0.03962	0.96038	77.91
79.5	100,794	1,273	0.01263	0.98737	74.82
80.5	99,521	29,920	0.30064	0.69936	73.88
81.5	69,601	3,238	0.04652	0.95348	51.67
82.5	66,363	310	0.00467	0.99533	49.27
83.5	66,053	3,314	0.05017	0.94983	49.04
84.5	62,739	21	0.00033	0.99967	46.58
85.5	62,718	10,079	0.16070	0.83930	46.56
86.5	52,639	0	0.00000	1.00000	39.08
87.5	52,639	0	0.00000	1.00000	39.08
88.5	52,639	0	0.00000	1.00000	39.08

# Tennessee - American Water Company

## Account 331.001 - Mains

Placement Band - 1902 - 2023    Experience Band - 2005 - 2023

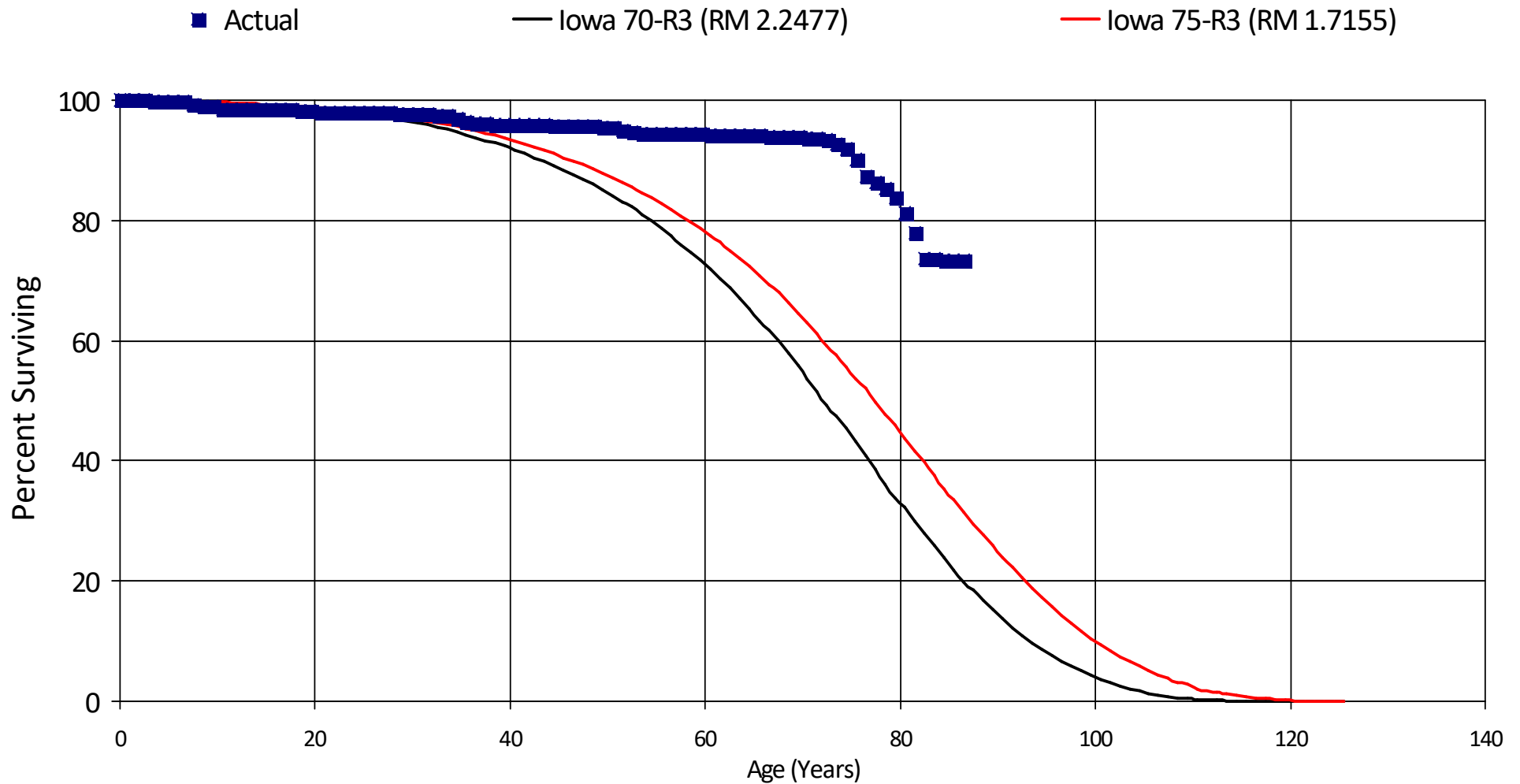
89.5	52,639	5	0.00009	0.99991	39.08
90.5	52,635	47	0.00089	0.99911	39.08
91.5	52,588	48,000	0.91276	0.08724	39.05
Totals:		6,737,433			

# Tennessee - American Water Company

Account 333.000 - Services

Placement Band - 1912 - 2023 Experience Band - 2005 - 2023

## Actual and Smooth Survivor Curves





# Tennessee - American Water Company

## Account 333.000 - Services

Placement Band - 1912 - 2023    Experience Band - 2005 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	35,069,504	4,400	0.00013	0.99987	100.00
0.5	33,861,023	11,555	0.00034	0.99966	99.99
1.5	33,157,183	11,943	0.00036	0.99964	99.96
2.5	32,794,784	47,736	0.00146	0.99854	99.92
3.5	32,029,011	13,149	0.00041	0.99959	99.77
4.5	30,983,552	1,728	0.00006	0.99994	99.73
5.5	30,362,780	13,513	0.00045	0.99955	99.72
6.5	28,873,719	124,203	0.00430	0.99570	99.68
7.5	27,608,684	55,573	0.00201	0.99799	99.25
8.5	25,111,505	12,326	0.00049	0.99951	99.05
9.5	24,296,708	129,917	0.00535	0.99465	99.00
10.5	23,923,079	1,407	0.00006	0.99994	98.47
11.5	22,911,312	730	0.00003	0.99997	98.46
12.5	22,067,973	0	0.00000	1.00000	98.46
13.5	21,072,891	128	0.00001	0.99999	98.46
14.5	20,047,851	662	0.00003	0.99997	98.46
15.5	18,608,770	1,331	0.00007	0.99993	98.46
16.5	18,203,733	8,484	0.00047	0.99953	98.45
17.5	17,742,005	51,680	0.00291	0.99709	98.40
18.5	17,582,582	451	0.00003	0.99997	98.11
19.5	17,486,343	11,939	0.00068	0.99932	98.11
20.5	17,405,630	1,755	0.00010	0.99990	98.04
21.5	17,350,472	963	0.00006	0.99994	98.03
22.5	12,512,427	2,070	0.00017	0.99983	98.02
23.5	11,864,948	262	0.00002	0.99998	98.00
24.5	11,382,067	14,605	0.00128	0.99872	98.00
25.5	10,916,107	194	0.00002	0.99998	97.87
26.5	10,452,228	724	0.00007	0.99993	97.87

# Tennessee - American Water Company

## Account 333.000 - Services

Placement Band - 1912 - 2023    Experience Band - 2005 - 2023

27.5	9,968,854	3,072	0.00031	0.99969	97.86
28.5	9,513,827	18,156	0.00191	0.99809	97.83
29.5	9,085,667	515	0.00006	0.99994	97.64
30.5	8,792,672	968	0.00011	0.99989	97.63
31.5	8,437,264	8,351	0.00099	0.99901	97.62
32.5	8,062,684	7,708	0.00096	0.99904	97.52
33.5	7,669,471	44,130	0.00575	0.99425	97.43
34.5	7,254,569	35,271	0.00486	0.99514	96.87
35.5	6,878,854	8,930	0.00130	0.99870	96.40
36.5	6,588,569	10,172	0.00154	0.99846	96.27
37.5	6,193,598	8,496	0.00137	0.99863	96.12
38.5	5,862,228	551	0.00009	0.99991	95.99
39.5	5,615,861	271	0.00005	0.99995	95.98
40.5	5,402,204	5,634	0.00104	0.99896	95.98
41.5	5,203,607	364	0.00007	0.99993	95.88
42.5	4,924,180	1,479	0.00030	0.99970	95.87
43.5	4,700,929	6,133	0.00130	0.99870	95.84
44.5	4,473,391	3,158	0.00071	0.99929	95.72
45.5	4,285,302	1,005	0.00023	0.99977	95.65
46.5	4,157,112	691	0.00017	0.99983	95.63
47.5	4,027,413	107	0.00003	0.99997	95.61
48.5	3,950,009	6,389	0.00162	0.99838	95.61
49.5	3,848,062	3,465	0.00090	0.99910	95.46
50.5	3,231,004	10,732	0.00332	0.99668	95.37
51.5	3,075,805	9,255	0.00301	0.99699	95.05
52.5	2,940,976	6,965	0.00237	0.99763	94.76
53.5	2,781,728	422	0.00015	0.99985	94.54
54.5	2,629,377	1,415	0.00054	0.99946	94.53
55.5	2,472,005	1,793	0.00073	0.99927	94.48
56.5	2,334,422	730	0.00031	0.99969	94.41
57.5	2,218,758	545	0.00025	0.99975	94.38

# Tennessee - American Water Company

## Account 333.000 - Services

Placement Band - 1912 - 2023    Experience Band - 2005 - 2023

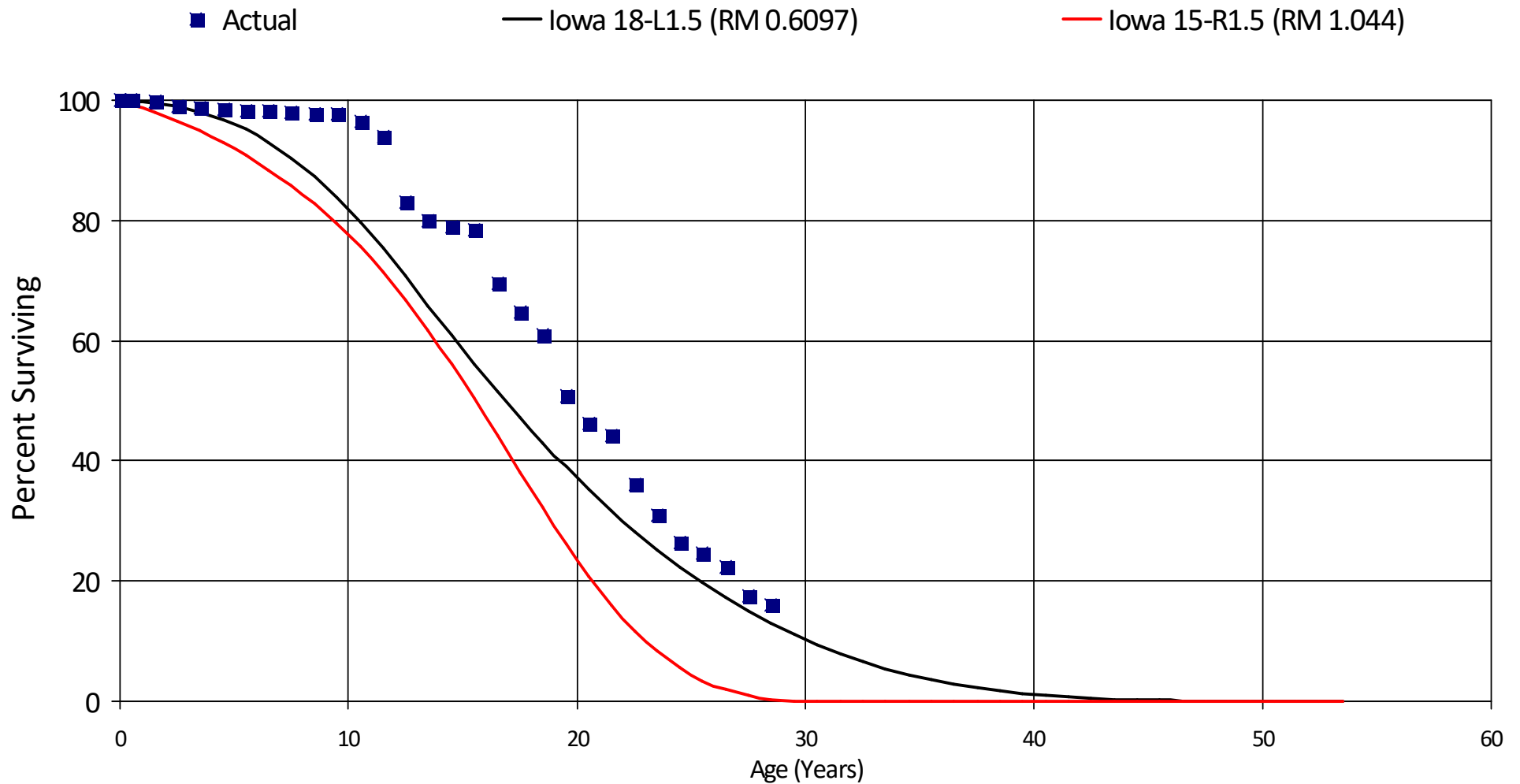
58.5	2,123,820	1,398	0.00066	0.99934	94.36
59.5	2,033,976	2,135	0.00105	0.99895	94.30
60.5	1,918,144	532	0.00028	0.99972	94.20
61.5	1,791,461	261	0.00015	0.99985	94.17
62.5	1,661,186	58	0.00003	0.99997	94.16
63.5	1,531,538	512	0.00033	0.99967	94.16
64.5	1,391,606	365	0.00026	0.99974	94.13
65.5	1,279,074	1,847	0.00144	0.99856	94.11
66.5	1,153,203	56	0.00005	0.99995	93.97
67.5	1,047,201	1,224	0.00117	0.99883	93.97
68.5	936,620	393	0.00042	0.99958	93.86
69.5	835,357	1,025	0.00123	0.99877	93.82
70.5	750,724	882	0.00117	0.99883	93.70
71.5	675,135	1,069	0.00158	0.99842	93.59
72.5	613,422	4,925	0.00803	0.99197	93.44
73.5	545,157	5,394	0.00989	0.99011	92.69
74.5	469,530	8,364	0.01781	0.98219	91.77
75.5	368,302	11,306	0.03070	0.96930	90.14
76.5	288,942	3,925	0.01358	0.98642	87.37
77.5	247,424	2,260	0.00913	0.99087	86.18
78.5	227,647	4,071	0.01788	0.98212	85.39
79.5	213,352	6,924	0.03245	0.96755	83.86
80.5	195,167	7,957	0.04077	0.95923	81.14
81.5	168,976	9,364	0.05542	0.94458	77.83
82.5	125,668	57	0.00045	0.99955	73.52
83.5	87,715	87	0.00099	0.99901	73.49
84.5	58,287	0	0.00000	1.00000	73.42
85.5	35,374	0	0.00000	1.00000	73.42
86.5	12,473	28	0.00224	0.99776	73.42
Totals:		806,720			

# Tennessee - American Water Company

## Account 334.100 - Meters

Placement Band - 1964 - 2023    Experience Band - 2005 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 334.100 - Meters

Placement Band - 1964 - 2023 Experience Band - 2005 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	34,910,650	42,416	0.00121	0.99879	100.00
0.5	28,348,855	61,745	0.00218	0.99782	99.88
1.5	24,163,444	152,931	0.00633	0.99367	99.66
2.5	21,793,650	61,953	0.00284	0.99716	99.03
3.5	19,006,942	54,524	0.00287	0.99713	98.75
4.5	13,298,943	19,975	0.00150	0.99850	98.47
5.5	12,819,740	5,580	0.00044	0.99956	98.32
6.5	12,265,888	45,759	0.00373	0.99627	98.28
7.5	12,043,473	10,807	0.00090	0.99910	97.91
8.5	11,487,984	22,183	0.00193	0.99807	97.82
9.5	11,269,181	138,691	0.01231	0.98769	97.63
10.5	10,374,873	277,663	0.02676	0.97324	96.43
11.5	9,169,846	1,048,959	0.11439	0.88561	93.85
12.5	7,333,703	273,893	0.03735	0.96265	83.11
13.5	6,644,464	92,131	0.01387	0.98613	80.01
14.5	6,148,859	45,782	0.00745	0.99255	78.90
15.5	5,203,986	575,594	0.11061	0.88939	78.31
16.5	3,618,351	252,417	0.06976	0.93024	69.65
17.5	3,146,009	194,437	0.06180	0.93820	64.79
18.5	1,416,090	235,277	0.16615	0.83385	60.79
19.5	1,162,580	104,144	0.08958	0.91042	50.69
20.5	988,811	42,011	0.04249	0.95751	46.15
21.5	945,819	174,472	0.18447	0.81553	44.19
22.5	770,640	109,827	0.14251	0.85749	36.04
23.5	660,583	98,382	0.14893	0.85107	30.90
24.5	554,597	34,915	0.06296	0.93704	26.30
25.5	519,683	50,342	0.09687	0.90313	24.64
26.5	463,415	97,474	0.21034	0.78966	22.25

# Tennessee - American Water Company

## Account 334.100 - Meters

Placement Band - 1964 - 2023    Experience Band - 2005 - 2023

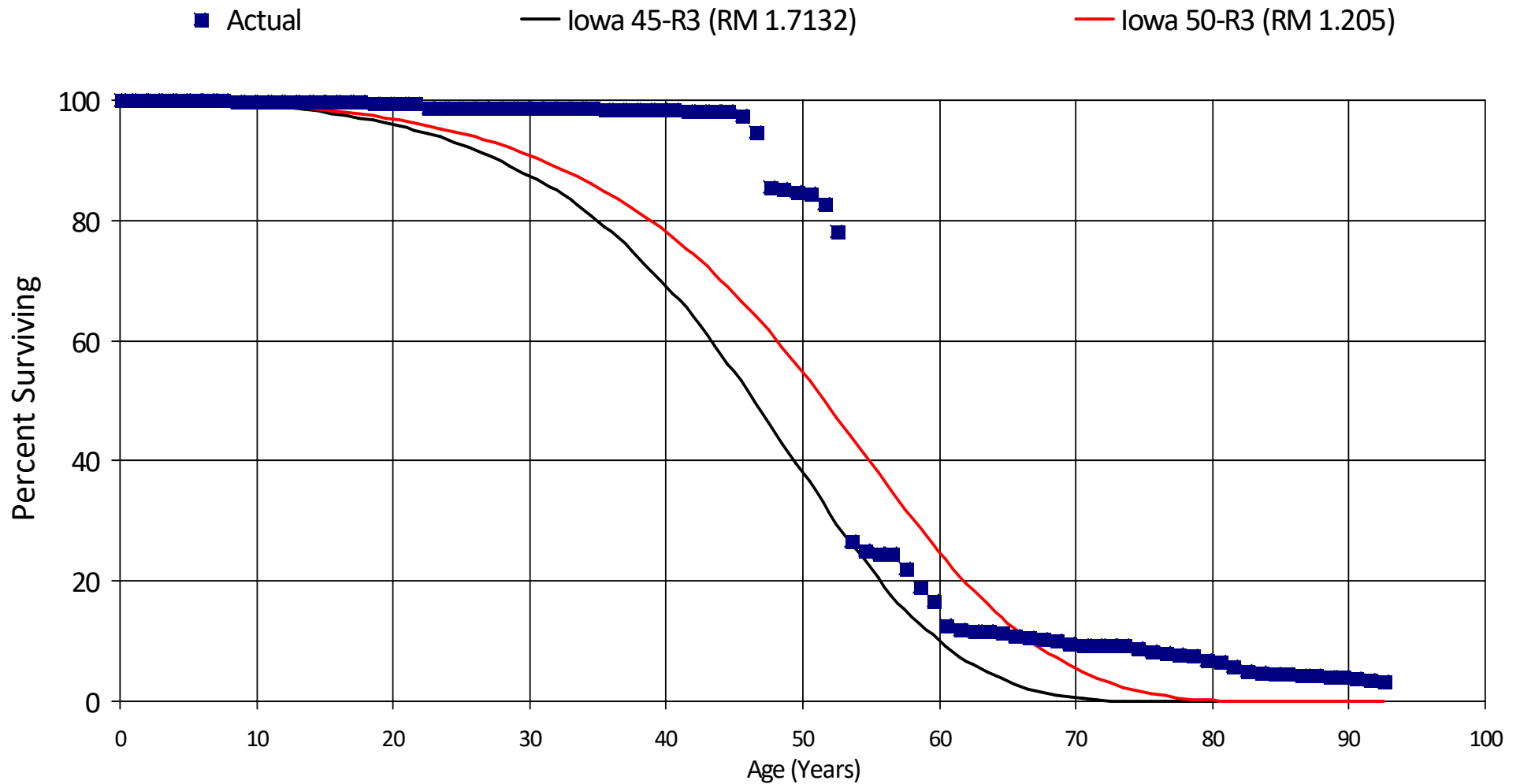
27.5	356,340	32,065	0.08998	0.91002	17.57
28.5	301,296	14,041	0.04660	0.95340	15.99
Totals:		4,370,390			

# Tennessee - American Water Company

## Account 334.200 - Meter Installations

Placement Band - 1900 - 2023    Experience Band - 2005 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 334.200 - Meter Installations

Placement Band - 1900 - 2023 Experience Band - 2005 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	26,903,663	1,102	0.00004	0.99996	100.00
0.5	24,733,583	2,601	0.00011	0.99989	100.00
1.5	22,581,895	1,046	0.00005	0.99995	99.99
2.5	21,597,919	78	0.00000	1.00000	99.99
3.5	20,213,960	7,740	0.00038	0.99962	99.99
4.5	19,378,903	12,970	0.00067	0.99933	99.95
5.5	16,661,848	253	0.00002	0.99998	99.88
6.5	14,924,927	704	0.00005	0.99995	99.88
7.5	13,899,359	2,121	0.00015	0.99985	99.88
8.5	11,883,240	747	0.00006	0.99994	99.87
9.5	11,790,716	2,545	0.00022	0.99978	99.86
10.5	11,685,816	3,761	0.00032	0.99968	99.84
11.5	11,458,918	312	0.00003	0.99997	99.81
12.5	11,236,685	569	0.00005	0.99995	99.81
13.5	10,942,387	44	0.00000	1.00000	99.81
14.5	10,491,418	2,174	0.00021	0.99979	99.81
15.5	9,773,731	4,764	0.00049	0.99951	99.79
16.5	9,180,128	7,056	0.00077	0.99923	99.74
17.5	8,724,225	11,210	0.00128	0.99872	99.66
18.5	8,704,705	0	0.00000	1.00000	99.53
19.5	8,663,351	144	0.00002	0.99998	99.53
20.5	8,645,018	298	0.00003	0.99997	99.53
21.5	8,609,207	61,366	0.00713	0.99287	99.53
22.5	5,039,000	375	0.00007	0.99993	98.82
23.5	4,678,847	148	0.00003	0.99997	98.81
24.5	4,378,986	1,250	0.00029	0.99971	98.81
25.5	4,106,191	124	0.00003	0.99997	98.78
26.5	3,892,931	744	0.00019	0.99981	98.78



# Tennessee - American Water Company

## Account 334.200 - Meter Installations

Placement Band - 1900 - 2023    Experience Band - 2005 - 2023

27.5	3,692,574	1,076	0.00029	0.99971	98.76
28.5	3,505,047	870	0.00025	0.99975	98.73
29.5	3,320,434	565	0.00017	0.99983	98.71
30.5	3,156,718	748	0.00024	0.99976	98.69
31.5	2,999,779	720	0.00024	0.99976	98.67
32.5	2,810,918	672	0.00024	0.99976	98.65
33.5	2,643,282	571	0.00022	0.99978	98.63
34.5	2,507,341	309	0.00012	0.99988	98.61
35.5	2,301,957	260	0.00011	0.99989	98.60
36.5	2,091,974	32	0.00002	0.99998	98.59
37.5	1,826,016	2,625	0.00144	0.99856	98.59
38.5	1,622,979	157	0.00010	0.99990	98.45
39.5	1,482,017	1,000	0.00067	0.99933	98.44
40.5	1,384,581	731	0.00053	0.99947	98.37
41.5	1,326,243	447	0.00034	0.99966	98.32
42.5	1,263,460	1,494	0.00118	0.99882	98.29
43.5	1,221,345	364	0.00030	0.99970	98.17
44.5	1,171,413	7,219	0.00616	0.99384	98.14
45.5	1,113,475	33,766	0.03032	0.96968	97.54
46.5	1,041,373	98,387	0.09448	0.90552	94.58
47.5	883,658	4,776	0.00540	0.99460	85.64
48.5	849,538	4,290	0.00505	0.99495	85.18
49.5	800,384	1,647	0.00206	0.99794	84.75
50.5	685,170	15,878	0.02317	0.97683	84.58
51.5	637,636	33,777	0.05297	0.94703	82.62
52.5	569,323	375,799	0.66008	0.33992	78.24
53.5	161,064	9,604	0.05963	0.94037	26.60
54.5	116,894	1,388	0.01187	0.98813	25.01
55.5	91,153	499	0.00547	0.99453	24.71
56.5	69,364	6,898	0.09945	0.90055	24.57
57.5	51,429	7,039	0.13687	0.86313	22.13

# Tennessee - American Water Company

## Account 334.200 - Meter Installations

Placement Band - 1900 - 2023    Experience Band - 2005 - 2023

58.5	36,620	4,372	0.11939	0.88061	19.10
59.5	14,087	3,462	0.24576	0.75424	16.82
60.5	10,625	564	0.05308	0.94692	12.69
61.5	10,061	248	0.02465	0.97535	12.02
62.5	9,813	93	0.00948	0.99052	11.72
63.5	9,565	186	0.01945	0.98055	11.61
64.5	9,379	372	0.03966	0.96034	11.38
65.5	9,007	247	0.02742	0.97258	10.93
66.5	8,760	217	0.02477	0.97523	10.63
67.5	8,544	279	0.03265	0.96735	10.37
68.5	8,265	279	0.03376	0.96624	10.03
69.5	7,987	216	0.02705	0.97295	9.69
70.5	7,770	93	0.01197	0.98803	9.43
71.5	7,677	0	0.00000	1.00000	9.32
72.5	7,677	0	0.00000	1.00000	9.32
73.5	7,677	279	0.03634	0.96366	9.32
74.5	7,399	465	0.06285	0.93715	8.98
75.5	6,934	186	0.02682	0.97318	8.42
76.5	6,748	279	0.04134	0.95866	8.19
77.5	6,470	279	0.04312	0.95688	7.85
78.5	6,191	464	0.07495	0.92505	7.51
79.5	5,727	372	0.06496	0.93504	6.95
80.5	5,355	588	0.10980	0.89020	6.50
81.5	4,767	650	0.13634	0.86366	5.79
82.5	4,117	216	0.05246	0.94754	5.00
83.5	3,901	186	0.04768	0.95232	4.74
84.5	3,715	0	0.00000	1.00000	4.51
85.5	3,715	93	0.02503	0.97497	4.51
86.5	3,622	93	0.02567	0.97433	4.40
87.5	3,529	186	0.05270	0.94730	4.29
88.5	3,344	93	0.02781	0.97219	4.06

# Tennessee - American Water Company

## Account 334.200 - Meter Installations

Placement Band - 1900 - 2023    Experience Band - 2005 - 2023

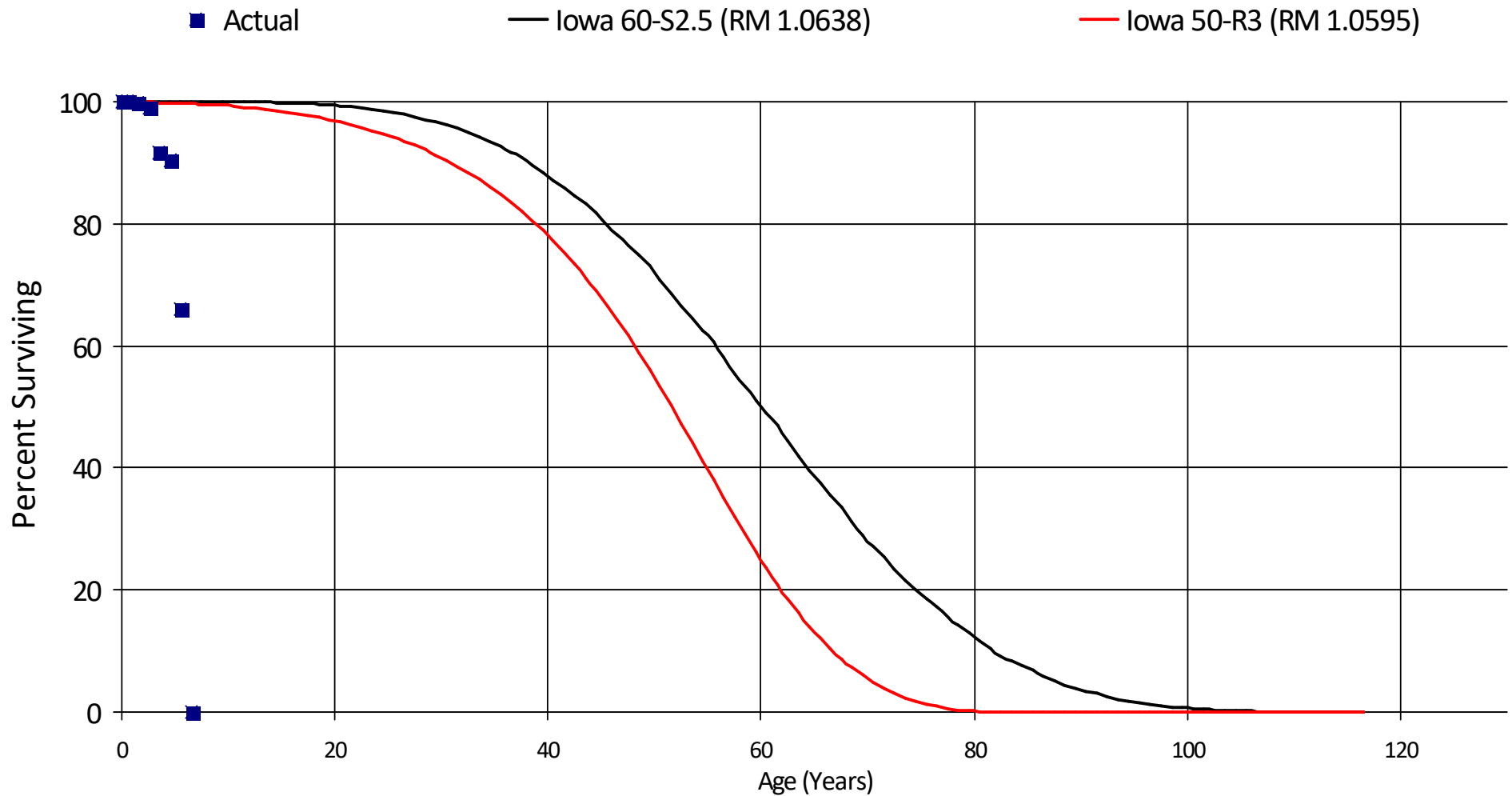
89.5	3,251	186	0.05722	0.94278	3.95
90.5	3,065	186	0.06068	0.93932	3.72
91.5	2,879	186	0.06460	0.93540	3.49
92.5	2,694	2,136	0.79301	0.20699	3.26
Totals:		757,605			

# Tennessee - American Water Company

## Account 334.300 - Meter Vaults

Placement Band - 2015 - 2023    Experience Band - 2020 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 334.300 - Meter Vaults

Placement Band - 2015 - 2023    Experience Band - 2020 - 2023

### RETIREMENT RATE ANALYSIS

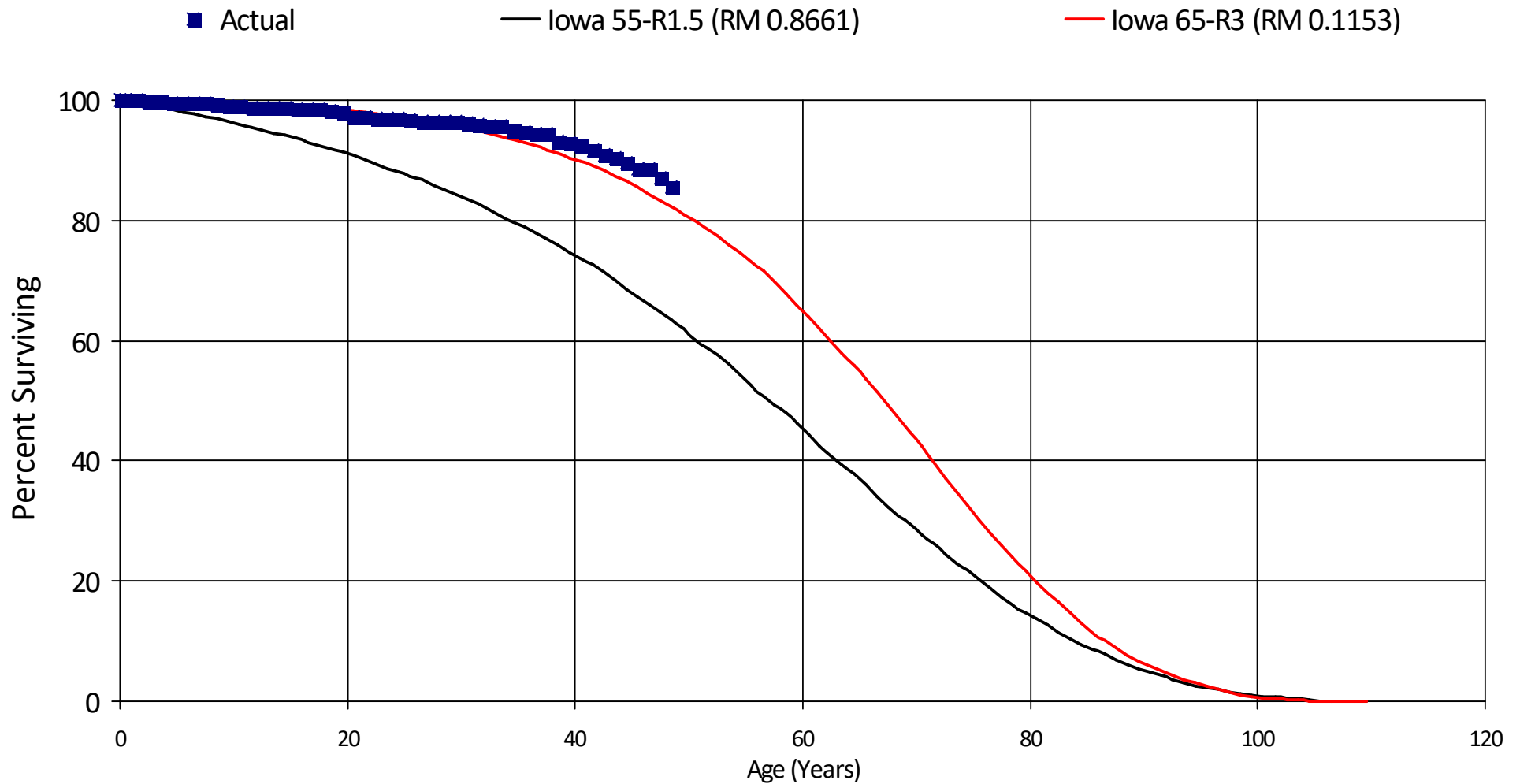
Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	125,690	0	0.00000	1.00000	100.00
0.5	125,690	330	0.00263	0.99737	100.00
1.5	95,354	701	0.00735	0.99265	99.74
2.5	59,804	4,485	0.07499	0.92501	99.01
3.5	48,455	600	0.01238	0.98762	91.59
4.5	26,866	7,261	0.27027	0.72973	90.46
5.5	18,184	18,184	1.00002	-0.00002	66.01
6.5	0	0	0.00000	0.00000	0.00
Totals:		31,561			

# Tennessee - American Water Company

## Account 335.000 - Hydrants

Placement Band - 1911 - 2023    Experience Band - 2005 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 335.000 - Hydrants

Placement Band - 1911 - 2023    Experience Band - 2005 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	14,846,792	7,047	0.00047	0.99953	100.00
0.5	13,940,189	4,818	0.00035	0.99965	99.95
1.5	12,519,284	19,651	0.00157	0.99843	99.92
2.5	11,886,689	6,628	0.00056	0.99944	99.76
3.5	11,412,355	10,005	0.00088	0.99912	99.70
4.5	10,511,485	1,314	0.00013	0.99987	99.61
5.5	10,228,588	3,571	0.00035	0.99965	99.60
6.5	9,755,550	2,940	0.00030	0.99970	99.57
7.5	9,523,257	24,279	0.00255	0.99745	99.54
8.5	9,010,132	16,776	0.00186	0.99814	99.29
9.5	8,688,739	22,054	0.00254	0.99746	99.11
10.5	8,614,486	9,029	0.00105	0.99895	98.86
11.5	8,412,309	5,769	0.00069	0.99931	98.76
12.5	8,305,581	2,683	0.00032	0.99968	98.69
13.5	8,223,191	2,327	0.00028	0.99972	98.66
14.5	8,063,315	9,530	0.00118	0.99882	98.63
15.5	7,821,122	4,615	0.00059	0.99941	98.51
16.5	7,417,879	2,701	0.00036	0.99964	98.45
17.5	6,353,791	8,376	0.00132	0.99868	98.41
18.5	6,260,404	12,267	0.00196	0.99804	98.28
19.5	6,093,440	52,386	0.00860	0.99140	98.09
20.5	5,795,813	8,104	0.00140	0.99860	97.25
21.5	5,554,062	4,078	0.00073	0.99927	97.11
22.5	5,291,318	3,467	0.00066	0.99934	97.04
23.5	5,092,979	4,790	0.00094	0.99906	96.98
24.5	4,931,813	14,678	0.00298	0.99702	96.89
25.5	4,817,330	1,383	0.00029	0.99971	96.60
26.5	4,682,399	4,104	0.00088	0.99912	96.57

# Tennessee - American Water Company

## Account 335.000 - Hydrants

Placement Band - 1911 - 2023    Experience Band - 2005 - 2023

27.5	4,366,499	5,773	0.00132	0.99868	96.49
28.5	4,237,051	0	0.00000	1.00000	96.36
29.5	4,078,476	4,128	0.00101	0.99899	96.36
30.5	3,937,197	16,019	0.00407	0.99593	96.26
31.5	3,863,539	6,509	0.00168	0.99832	95.87
32.5	3,721,961	2,759	0.00074	0.99926	95.71
33.5	3,590,207	27,331	0.00761	0.99239	95.64
34.5	3,451,168	7,261	0.00210	0.99790	94.91
35.5	3,330,756	7,364	0.00221	0.99779	94.71
36.5	3,231,183	252	0.00008	0.99992	94.50
37.5	3,047,243	42,689	0.01401	0.98599	94.49
38.5	2,855,448	5,451	0.00191	0.99809	93.17
39.5	2,734,775	19,181	0.00701	0.99299	92.99
40.5	2,579,318	22,307	0.00865	0.99135	92.34
41.5	2,329,193	17,986	0.00772	0.99228	91.54
42.5	2,085,442	12,405	0.00595	0.99405	90.83
43.5	1,870,052	13,329	0.00713	0.99287	90.29
44.5	1,633,961	19,079	0.01168	0.98832	89.65
45.5	1,404,160	205	0.00015	0.99985	88.60
46.5	1,300,258	21,385	0.01645	0.98355	88.59
47.5	1,236,440	22,746	0.01840	0.98160	87.13
48.5	1,125,323	10,317	0.00917	0.99083	85.53
Totals:		553,846			

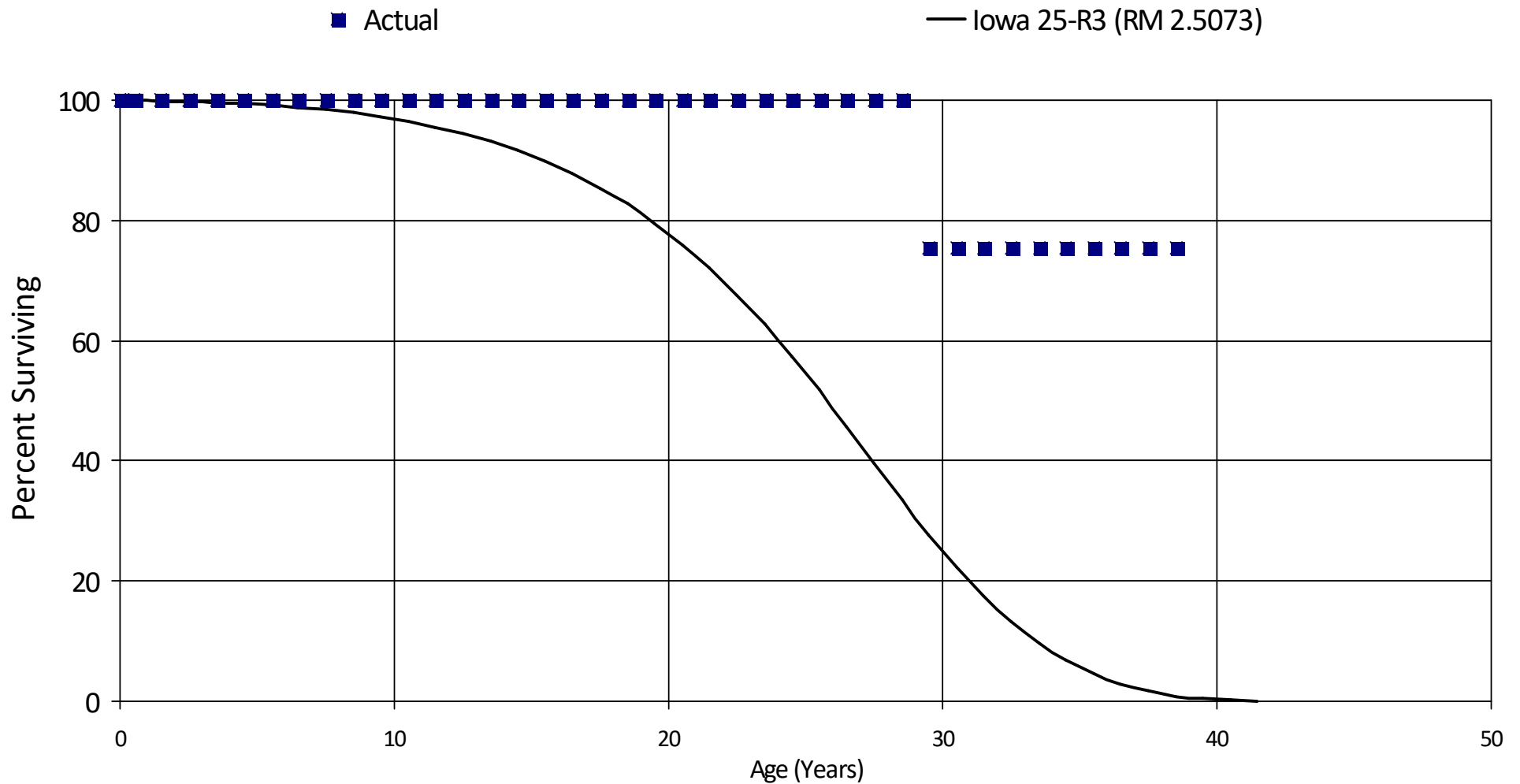


# Tennessee - American Water Company

## Account 339.200 - Other P/E-Supply

Placement Band - 1977 - 2023    Experience Band - 2014 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 339.200 - Other P/E-Supply

Placement Band - 1977 - 2023    Experience Band - 2014 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	226,669	0	0.00000	1.00000	100.00
0.5	226,669	0	0.00000	1.00000	100.00
1.5	226,669	0	0.00000	1.00000	100.00
2.5	226,669	0	0.00000	1.00000	100.00
3.5	226,669	0	0.00000	1.00000	100.00
4.5	226,669	0	0.00000	1.00000	100.00
5.5	226,669	0	0.00000	1.00000	100.00
6.5	226,669	0	0.00000	1.00000	100.00
7.5	4,248	0	0.00000	1.00000	100.00
8.5	4,248	0	0.00000	1.00000	100.00
9.5	4,248	0	0.00000	1.00000	100.00
10.5	4,248	0	0.00000	1.00000	100.00
11.5	4,248	0	0.00000	1.00000	100.00
12.5	4,248	0	0.00000	1.00000	100.00
13.5	4,248	0	0.00000	1.00000	100.00
14.5	4,248	0	0.00000	1.00000	100.00
15.5	4,248	0	0.00000	1.00000	100.00
16.5	4,248	0	0.00000	1.00000	100.00
17.5	4,248	0	0.00000	1.00000	100.00
18.5	4,248	0	0.00000	1.00000	100.00
19.5	4,248	0	0.00000	1.00000	100.00
20.5	4,248	0	0.00000	1.00000	100.00
21.5	4,248	0	0.00000	1.00000	100.00
22.5	4,248	0	0.00000	1.00000	100.00
23.5	4,248	0	0.00000	1.00000	100.00
24.5	4,248	0	0.00000	1.00000	100.00
25.5	4,248	0	0.00000	1.00000	100.00
26.5	4,248	0	0.00000	1.00000	100.00

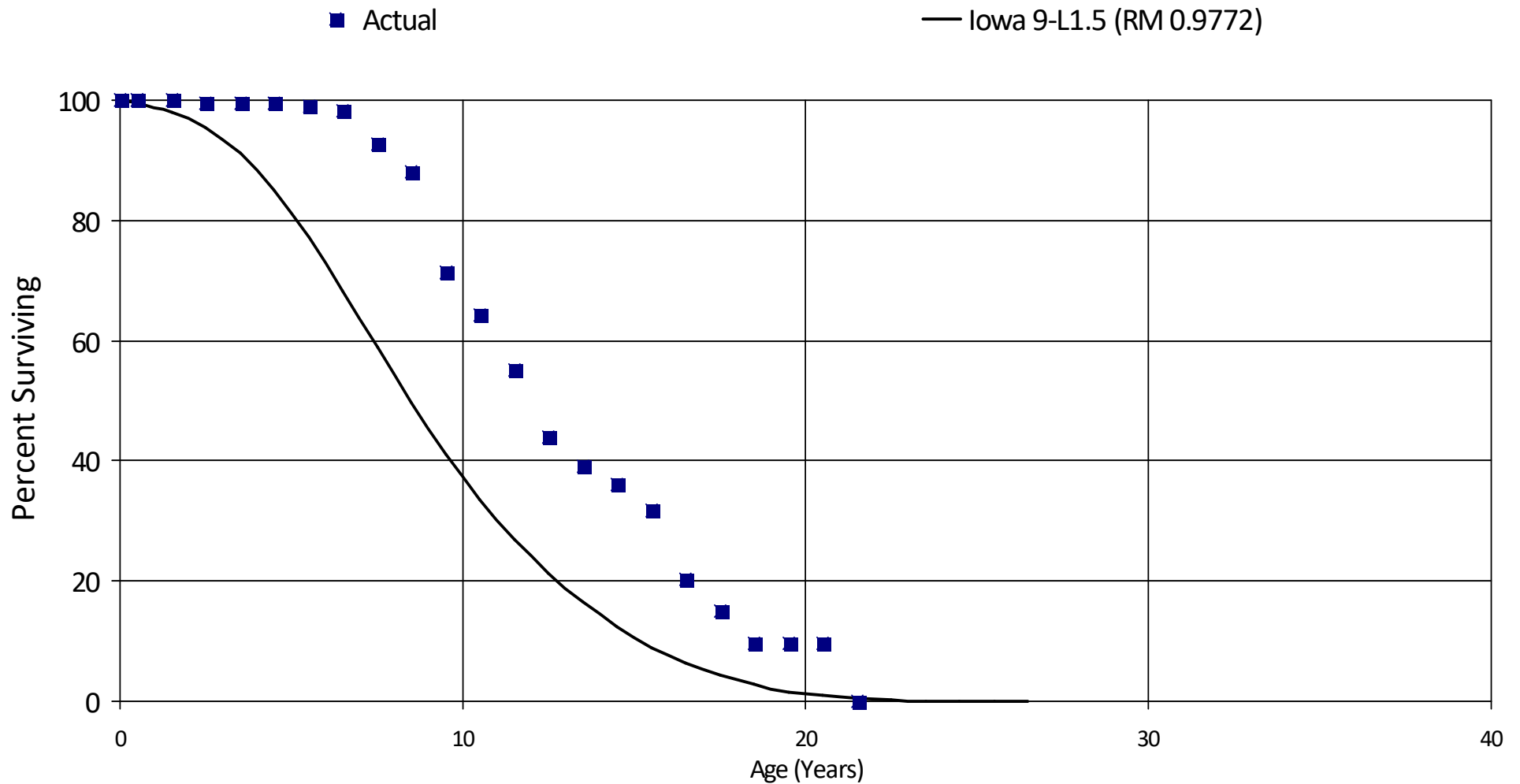
# Tennessee - American Water Company

## Account 339.200 - Other P/E-Supply

Placement Band - 1977 - 2023    Experience Band - 2014 - 2023

27.5	4,248	0	0.00000	1.00000	100.00
28.5	4,248	1,047	0.24647	0.75353	100.00
29.5	3,201	0	0.00000	1.00000	75.35
30.5	3,201	0	0.00000	1.00000	75.35
31.5	3,201	0	0.00000	1.00000	75.35
32.5	3,201	0	0.00000	1.00000	75.35
33.5	3,201	0	0.00000	1.00000	75.35
34.5	3,201	0	0.00000	1.00000	75.35
35.5	3,201	0	0.00000	1.00000	75.35
36.5	3,201	0	0.00000	1.00000	75.35
37.5	3,201	0	0.00000	1.00000	75.35
38.5	3,201	3,201	0.99995	0.00005	75.35
Totals:		4,248			

**Tennessee - American Water Company**  
**Account 341.100 - Transportation Equipment Light Duty Trucks**  
Placement Band - 1990 - 2023    Experience Band - 2005 - 2023  
**Actual and Smooth Survivor Curves**

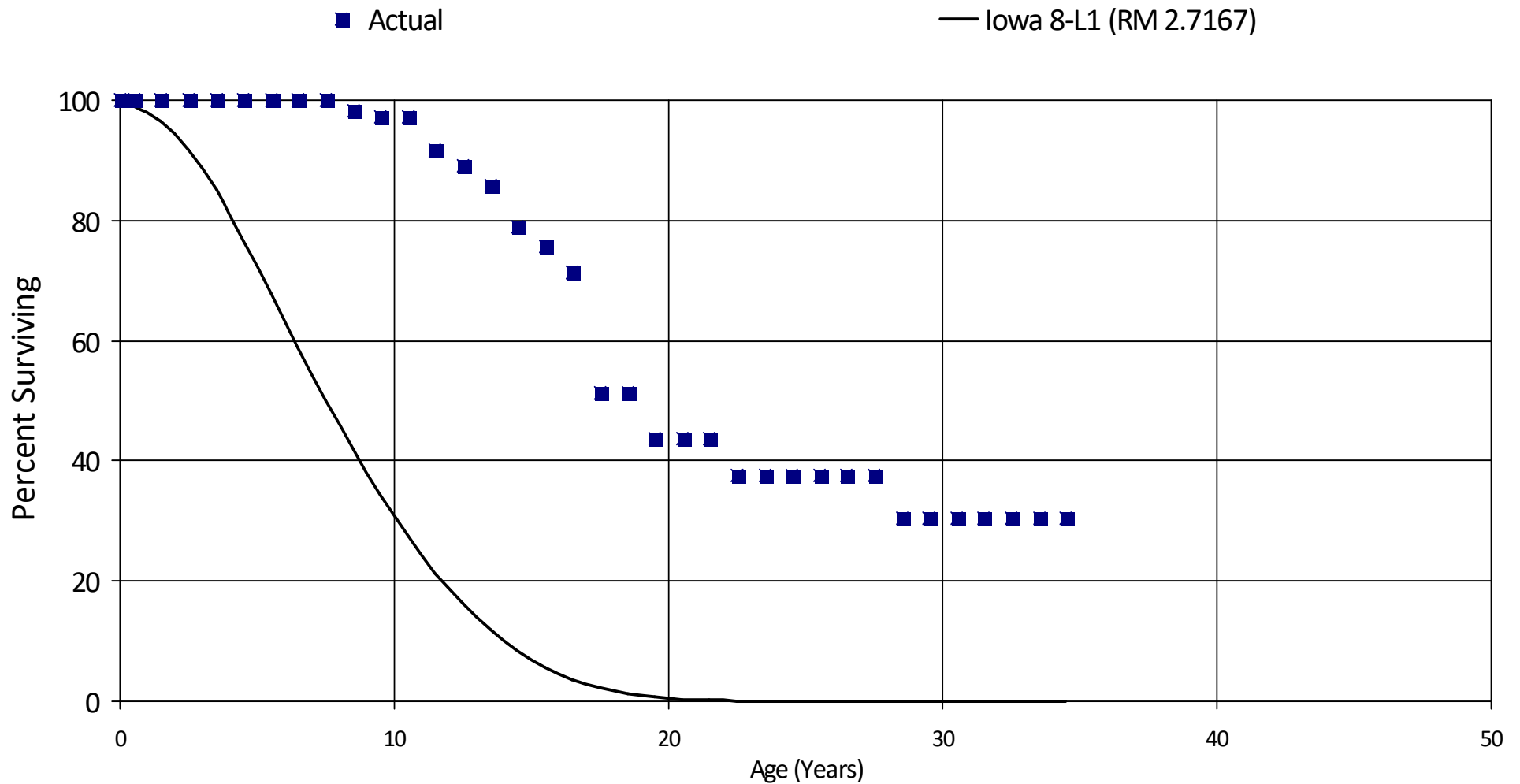


**Tennessee - American Water Company**  
**Account 341.100 - Transportation Equipment Light Duty Trucks**  
 Placement Band - 1990 - 2023    Experience Band - 2005 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	8,301,865	0	0.00000	1.00000	100.00
0.5	6,546,586	0	0.00000	1.00000	100.00
1.5	5,434,166	30,546	0.00562	0.99438	100.00
2.5	3,923,729	0	0.00000	1.00000	99.44
3.5	3,493,841	0	0.00000	1.00000	99.44
4.5	3,129,487	13,886	0.00444	0.99556	99.44
5.5	2,608,468	21,001	0.00805	0.99195	99.00
6.5	2,384,598	135,940	0.05701	0.94299	98.20
7.5	2,248,658	109,013	0.04848	0.95152	92.60
8.5	1,891,460	357,980	0.18926	0.81074	88.11
9.5	1,377,312	138,809	0.10078	0.89922	71.43
10.5	1,176,783	166,159	0.14120	0.85880	64.23
11.5	1,010,623	208,110	0.20592	0.79408	55.16
12.5	730,974	77,351	0.10582	0.89418	43.80
13.5	653,623	51,499	0.07879	0.92121	39.17
14.5	590,829	70,022	0.11851	0.88149	36.08
15.5	480,511	175,358	0.36494	0.63506	31.80
16.5	305,153	78,348	0.25675	0.74325	20.19
17.5	127,852	46,423	0.36310	0.63690	15.01
18.5	81,429	0	0.00000	1.00000	9.56
19.5	22,256	0	0.00000	1.00000	9.56
20.5	22,256	22,256	1.00001	-0.00001	9.56
21.5	0	0	0.00000	0.00000	0.00
Totals:		1,702,701			

**Tennessee - American Water Company**  
**Account 341.200 - Transportation Equipment Heavy Duty Trucks**  
Placement Band - 1988 - 2023    Experience Band - 2005 - 2023  
**Actual and Smooth Survivor Curves**



**Tennessee - American Water Company**  
**Account 341.200 - Transportation Equipment Heavy Duty Trucks**  
Placement Band - 1988 - 2023    Experience Band - 2005 - 2023

**RETIREMENT RATE ANALYSIS**

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	3,695,188	0	0.00000	1.00000	100.00
0.5	3,434,404	0	0.00000	1.00000	100.00
1.5	3,434,404	0	0.00000	1.00000	100.00
2.5	3,333,212	0	0.00000	1.00000	100.00
3.5	3,333,212	0	0.00000	1.00000	100.00
4.5	3,215,824	0	0.00000	1.00000	100.00
5.5	3,215,824	0	0.00000	1.00000	100.00
6.5	2,907,291	0	0.00000	1.00000	100.00
7.5	2,239,335	40,348	0.01802	0.98198	100.00
8.5	2,090,172	22,469	0.01075	0.98925	98.20
9.5	1,914,593	0	0.00000	1.00000	97.14
10.5	1,884,747	108,523	0.05758	0.94242	97.14
11.5	1,729,615	48,875	0.02826	0.97174	91.55
12.5	1,350,597	48,890	0.03620	0.96380	88.96
13.5	1,301,707	105,051	0.08070	0.91930	85.74
14.5	1,030,224	40,544	0.03935	0.96065	78.82
15.5	989,679	57,806	0.05841	0.94159	75.72
16.5	351,868	98,623	0.28028	0.71972	71.30
17.5	253,245	0	0.00000	1.00000	51.32
18.5	233,557	34,416	0.14736	0.85264	51.32
19.5	166,333	0	0.00000	1.00000	43.76
20.5	166,333	0	0.00000	1.00000	43.76
21.5	166,333	23,335	0.14029	0.85971	43.76
22.5	82,543	0	0.00000	1.00000	37.62
23.5	82,543	0	0.00000	1.00000	37.62
24.5	31,619	0	0.00000	1.00000	37.62
25.5	31,619	0	0.00000	1.00000	37.62
26.5	31,619	0	0.00000	1.00000	37.62

# Tennessee - American Water Company

## Account 341.200 - Transportation Equipment Heavy Duty Trucks

Placement Band - 1988 - 2023    Experience Band - 2005 - 2023

27.5	31,619	6,000	0.18976	0.81024	37.62
28.5	25,619	0	0.00000	1.00000	30.48
29.5	25,619	0	0.00000	1.00000	30.48
30.5	25,619	0	0.00000	1.00000	30.48
31.5	25,619	0	0.00000	1.00000	30.48
32.5	25,619	0	0.00000	1.00000	30.48
33.5	25,619	0	0.00000	1.00000	30.48
34.5	25,619	0	0.00000	1.00000	30.48
Totals:		634,880			

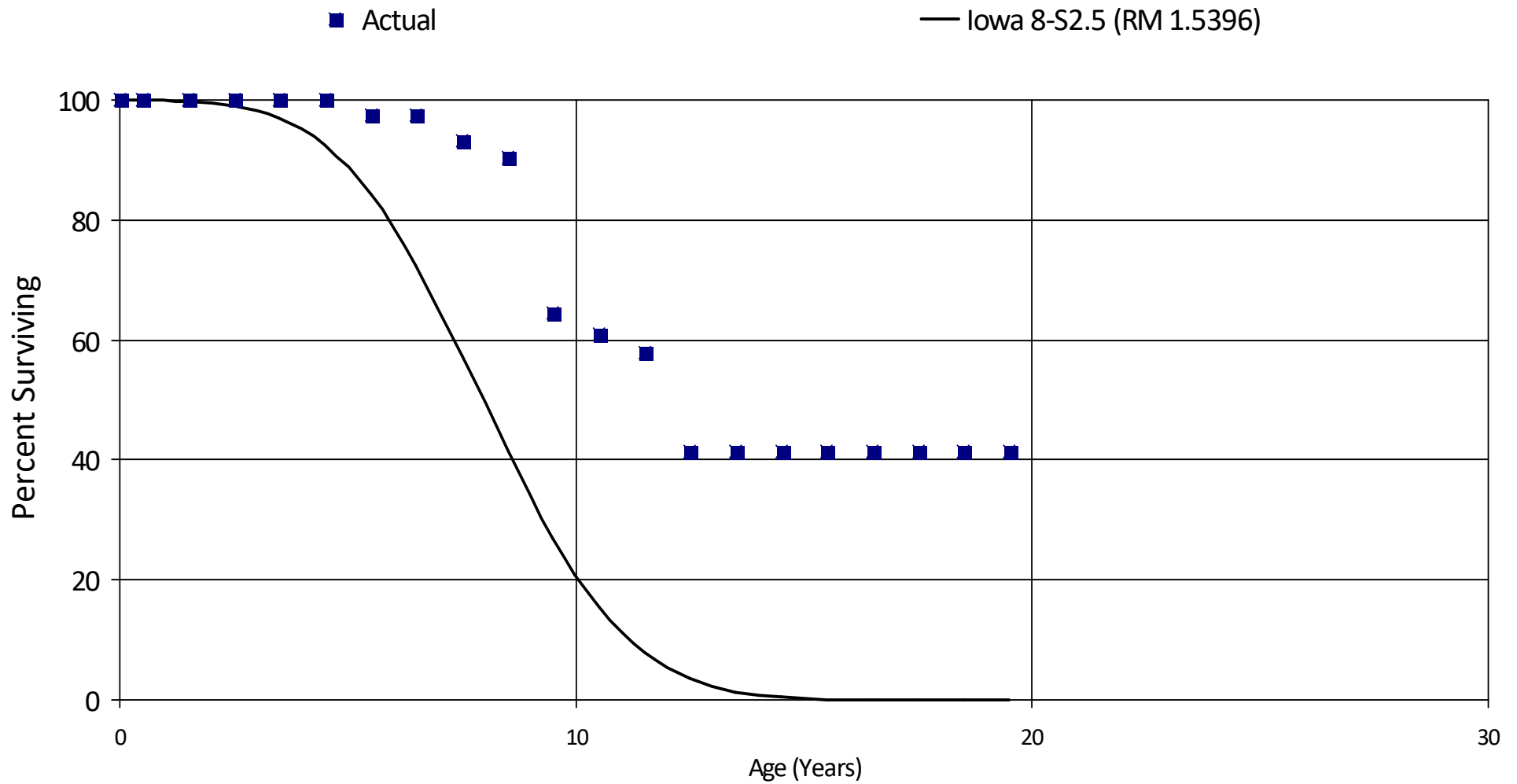


# Tennessee - American Water Company

## Account 341.300 - Transportation Equipment Autos

Placement Band - 1993 - 2023    Experience Band - 2005 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 341.300 - Transportation Equipment Autos

Placement Band - 1993 - 2023 Experience Band - 2005 - 2023

### RETIREMENT RATE ANALYSIS

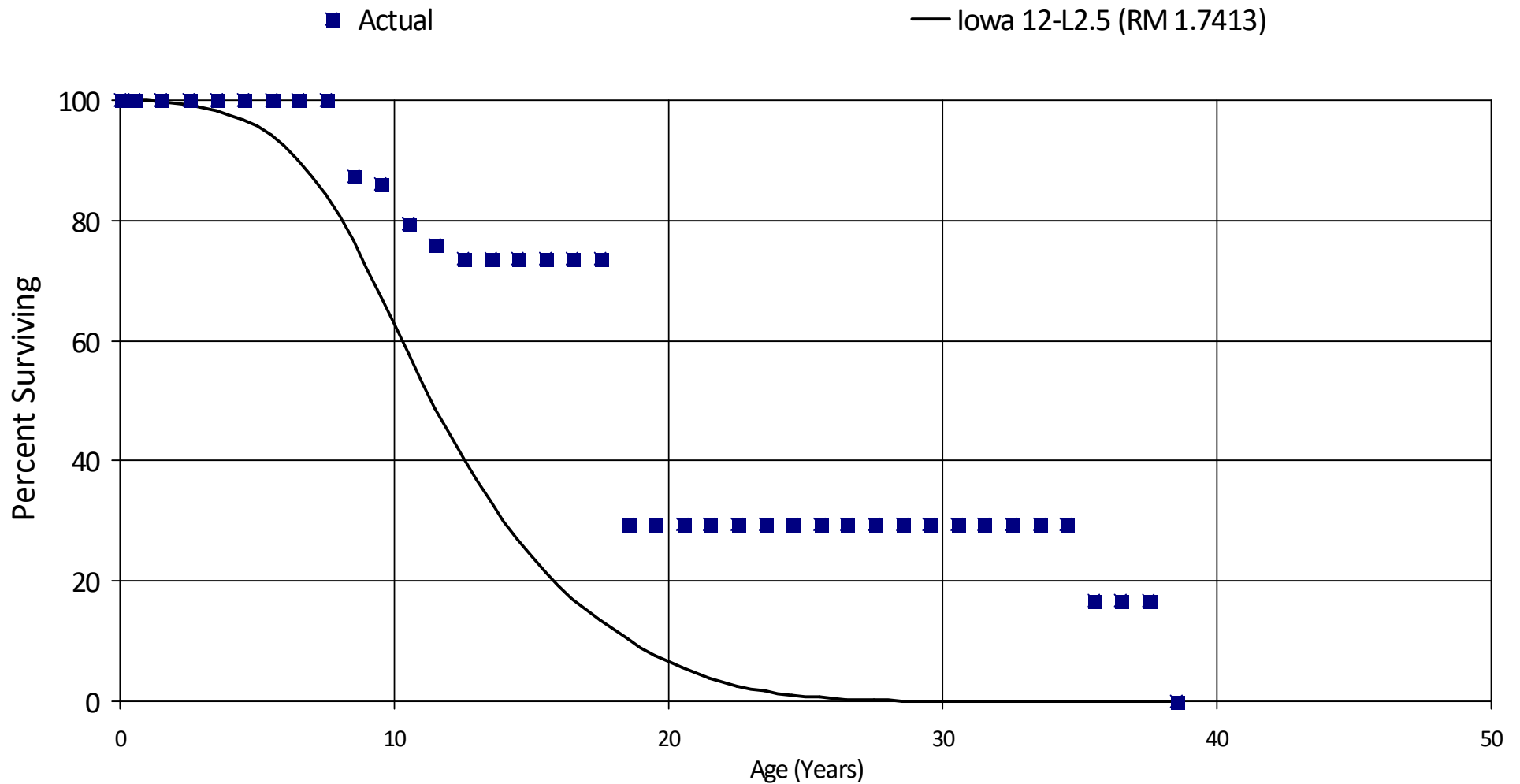
Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	1,402,084	0	0.00000	1.00000	100.00
0.5	1,360,381	0	0.00000	1.00000	100.00
1.5	1,360,381	0	0.00000	1.00000	100.00
2.5	1,360,381	0	0.00000	1.00000	100.00
3.5	1,360,381	0	0.00000	1.00000	100.00
4.5	1,360,381	35,117	0.02581	0.97419	100.00
5.5	1,265,094	0	0.00000	1.00000	97.42
6.5	1,265,094	55,243	0.04367	0.95633	97.42
7.5	1,209,851	37,789	0.03123	0.96877	93.17
8.5	1,172,062	334,853	0.28570	0.71430	90.26
9.5	340,327	18,759	0.05512	0.94488	64.47
10.5	321,568	16,618	0.05168	0.94832	60.92
11.5	304,950	86,820	0.28470	0.71530	57.77
12.5	186,069	0	0.00000	1.00000	41.32
13.5	186,069	0	0.00000	1.00000	41.32
14.5	186,069	0	0.00000	1.00000	41.32
15.5	168,522	0	0.00000	1.00000	41.32
16.5	168,522	0	0.00000	1.00000	41.32
17.5	86,698	0	0.00000	1.00000	41.32
18.5	86,698	0	0.00000	1.00000	41.32
19.5	0	0	0.00000	0.00000	41.32
Totals:		585,199			

# Tennessee - American Water Company

## Account 341.400 - Transportation Equipment Other

Placement Band - 1978 - 2023    Experience Band - 2009 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 341.400 - Transportation Equipment Other

Placement Band - 1978 - 2023    Experience Band - 2009 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	1,101,576	0	0.00000	1.00000	100.00
0.5	1,101,576	0	0.00000	1.00000	100.00
1.5	1,068,544	0	0.00000	1.00000	100.00
2.5	1,068,544	0	0.00000	1.00000	100.00
3.5	1,014,688	0	0.00000	1.00000	100.00
4.5	1,014,688	0	0.00000	1.00000	100.00
5.5	925,417	0	0.00000	1.00000	100.00
6.5	921,702	0	0.00000	1.00000	100.00
7.5	916,755	115,362	0.12584	0.87416	100.00
8.5	684,986	11,205	0.01636	0.98364	87.42
9.5	609,508	46,150	0.07572	0.92428	85.99
10.5	368,573	16,986	0.04609	0.95391	79.48
11.5	351,588	9,753	0.02774	0.97226	75.82
12.5	341,834	0	0.00000	1.00000	73.72
13.5	338,316	0	0.00000	1.00000	73.72
14.5	194,319	0	0.00000	1.00000	73.72
15.5	184,690	0	0.00000	1.00000	73.72
16.5	78,172	0	0.00000	1.00000	73.72
17.5	16,412	9,862	0.60091	0.39909	73.72
18.5	6,550	0	0.00000	1.00000	29.42
19.5	6,550	0	0.00000	1.00000	29.42
20.5	6,550	0	0.00000	1.00000	29.42
21.5	6,550	0	0.00000	1.00000	29.42
22.5	6,550	0	0.00000	1.00000	29.42
23.5	6,550	0	0.00000	1.00000	29.42
24.5	6,550	0	0.00000	1.00000	29.42
25.5	3,454	0	0.00000	1.00000	29.42
26.5	3,454	0	0.00000	1.00000	29.42

# Tennessee - American Water Company

## Account 341.400 - Transportation Equipment Other

Placement Band - 1978 - 2023    Experience Band - 2009 - 2023

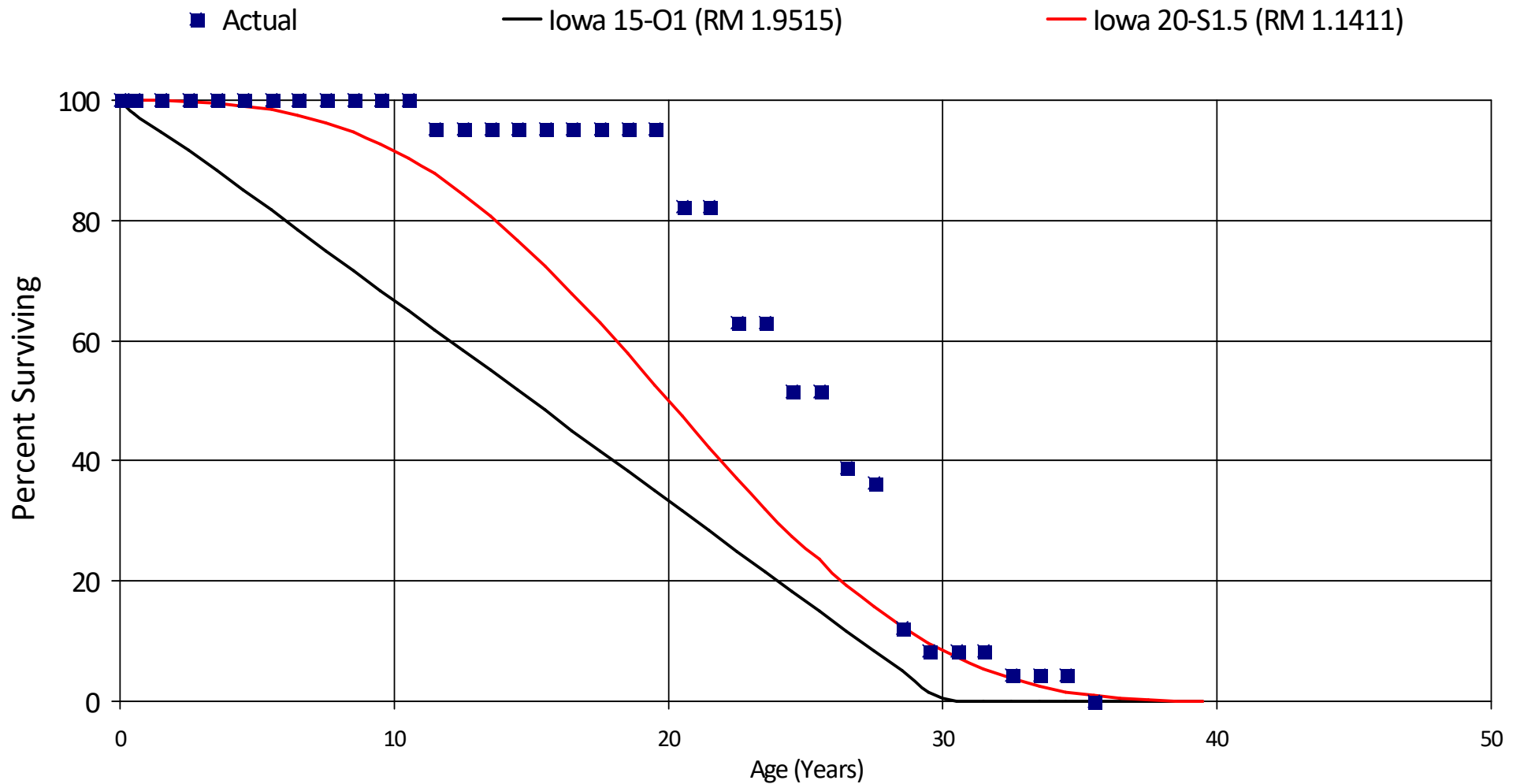
27.5	3,454	0	0.00000	1.00000	29.42
28.5	3,454	0	0.00000	1.00000	29.42
29.5	3,454	0	0.00000	1.00000	29.42
30.5	3,454	0	0.00000	1.00000	29.42
31.5	3,454	0	0.00000	1.00000	29.42
32.5	3,454	0	0.00000	1.00000	29.42
33.5	3,454	0	0.00000	1.00000	29.42
34.5	3,454	1,500	0.43426	0.56574	29.42
35.5	1,954	0	0.00000	1.00000	16.64
36.5	1,954	0	0.00000	1.00000	16.64
37.5	1,954	1,954	0.99992	0.00008	16.64
38.5	0	0	0.00000	0.00000	0.00
Totals:		212,772			

# Tennessee - American Water Company

## Account 345.000 - Power Operated Equipment

Placement Band - 1979 - 2023    Experience Band - 2008 - 2023

### Actual and Smooth Survivor Curves



# Tennessee - American Water Company

## Account 345.000 - Power Operated Equipment

Placement Band - 1979 - 2023 Experience Band - 2008 - 2023

### RETIREMENT RATE ANALYSIS

Age at Begin of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retmt Ratio	Survivor Ratio	% Surviving
0	578,502	0	0.00000	1.00000	100.00
0.5	578,502	0	0.00000	1.00000	100.00
1.5	578,502	0	0.00000	1.00000	100.00
2.5	578,502	0	0.00000	1.00000	100.00
3.5	566,642	0	0.00000	1.00000	100.00
4.5	464,445	0	0.00000	1.00000	100.00
5.5	464,445	0	0.00000	1.00000	100.00
6.5	464,445	0	0.00000	1.00000	100.00
7.5	464,445	0	0.00000	1.00000	100.00
8.5	422,959	0	0.00000	1.00000	100.00
9.5	422,959	0	0.00000	1.00000	100.00
10.5	349,063	17,159	0.04916	0.95084	100.00
11.5	331,904	0	0.00000	1.00000	95.08
12.5	331,904	0	0.00000	1.00000	95.08
13.5	331,904	0	0.00000	1.00000	95.08
14.5	331,904	0	0.00000	1.00000	95.08
15.5	331,904	0	0.00000	1.00000	95.08
16.5	331,904	0	0.00000	1.00000	95.08
17.5	250,059	0	0.00000	1.00000	95.08
18.5	228,479	0	0.00000	1.00000	95.08
19.5	227,689	30,989	0.13610	0.86390	95.08
20.5	188,454	0	0.00000	1.00000	82.14
21.5	185,766	43,394	0.23360	0.76640	82.14
22.5	139,445	104	0.00075	0.99925	62.95
23.5	139,341	25,428	0.18249	0.81751	62.90
24.5	113,913	0	0.00000	1.00000	51.42
25.5	113,913	27,619	0.24246	0.75754	51.42
26.5	86,294	5,797	0.06718	0.93282	38.95

# Tennessee - American Water Company

## Account 345.000 - Power Operated Equipment

Placement Band - 1979 - 2023    Experience Band - 2008 - 2023

27.5	48,525	32,376	0.66720	0.33280	36.33
28.5	16,149	4,847	0.30014	0.69986	12.09
29.5	11,302	0	0.00000	1.00000	8.46
30.5	11,302	0	0.00000	1.00000	8.46
31.5	11,302	5,674	0.50202	0.49798	8.46
32.5	5,628	0	0.00000	1.00000	4.21
33.5	5,628	0	0.00000	1.00000	4.21
34.5	5,628	5,628	0.99992	0.00008	4.21
35.5	0	0	0.00000	0.00000	0.00
Totals:		199,015			





SECTION 7

## **7 NET SALVAGE STUDY**

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**Tennessee American Water Company**  
**ACCOUNTS 304.1 Structures & Improvements - Supply**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2014	10,538	16,296	155		0	-16,296	-155					-16,296	-155	-20
2015		8,563	0		0	-8,563	0					-12,430	-236	-20
2016		2,127	0		0	-2,127	0	-8,995	-256			-8,995	-256	-20
2017		509	0		0	-509	0	-3,733	0			-6,874	-261	-20
2018		172	0		0	-172	0	-936	0	-5,533	-263	-5,533	-263	-20
2019		781	0		0	-781	0	-487	0	-2,430	0	-4,741	-270	-20
2020	490	1,822	372		0	-1,822	-372	-925	-566	-1,082	-1,103	-4,324	-274	-20
2021	204	238	117		0	-238	-117	-947	-409	-704	-507	-3,814	-272	-20
2022	1,558	13,374	859		0	-13,374	-859	-5,145	-685	-3,278	-728	-4,876	-343	-20
2023	3,554	9,382	264		0	-9,382	-264	-7,665	-433	-5,120	-441	-5,326	-326	-20
<b>TOTAL</b>	<b>16,344</b>	<b>53,265</b>	<b>325.90</b>	<b>0</b>	<b>0.00</b>	<b>-53,265</b>	<b>(325.90)</b>							

**Tennessee American Water Company**  
**ACCOUNT 304.2 - Structures and Improvements - Pumping**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2007	137		0		0	0	0						0	-20
2008	1,884		0		0	0	0						0	-20
2009	3,754		0		0	0	0	0	0				0	-20
2010	23,438		0		0	0	0	0	0				0	-20
2011	7,629		0		0	0	0	0	0	0	0		0	-20
2012	95,095		0		0	0	0	0	0	0	0		0	-20
2013	1,378	394	29		0	-394	-29	-131	0	-79	0	-394	0	-20
2014	106,350		0		0	0	0	-131	0	-79	0	-394	0	-20
2015	176,469	28,887	16	-125,006	-71	96,119	54	31,908	34	19,145	25	47,863	23	-20
2016	59,346	203	0		0	-203	0	31,972	28	19,104	22	31,841	20	-20
2017	10,202	264,608	2,594		0	-264,608	-2,594	-56,231	-69	-33,817	-48	-42,272	-35	-20
2018	146,056	96,617	66		0	-96,617	-66	-120,476	-168	-53,062	-53	-53,141	-42	-20
2019	7,873	12,966	165		0	-12,966	-165	-124,731	-228	-55,655	-70	-46,445	-44	-20
2020		2,456	0		0	-2,456	0	-37,346	-73	-75,370	-169	-40,161	-44	-20
2021	13,582	22,510	166		0	-22,510	-166	-12,644	-177	-79,831	-225	-37,954	-46	-20
2022	8,277	4,176	50		0	-4,176	-50	-9,714	-133	-27,745	-79	-34,201	-47	-20
2023	256,325		0		0	0	0	-8,895	-10	-8,421	-15	-34,201	-34	-20
TOTAL	917,796	432,817	47.16	-125,006	(13.62)	-307,811	(33.54)							

**Tennessee American Water Company**  
**ACCOUNT 304.3 - Structures and Improvements - Treatment**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2005	3,500		0		0	0	0						0	- 20.00
2006			0		0	0	0						0	- 20.00
2007	467		0		0	0	0	0	0				0	- 20.00
2008	2,586		0		0	0	0	0	0				0	- 20.00
2009	12,272		0		0	0	0	0	0	0	0		0	- 20.00
2010	6,206		0		0	0	0	0	0	0	0		0	- 20.00
2011	18,212	-2,159	-12		0	2,159	12	720	6	432	5	2,159	5	- 20.00
2012	8,989	95,459	1,062		0	-95,459	-1,062	-31,100	-279	-18,660	-193	-46,650	-179	- 20.00
2013	2,908	-117	-4		0	117	4	-31,061	-309	-18,637	-192	-31,061	-169	- 20.00
2014	234,014	3,478	1		0	-3,478	-1	-32,940	-40	-19,332	-36	-24,165	-33	- 20.00
2015	2,932	10,469	357		0	-10,469	-357	-4,610	-6	-21,426	-40	-21,426	-37	- 20.00
2016	140,581	5,843	4		0	-5,843	-4	-6,597	-5	-23,027	-30	-18,829	-26	- 20.00
2017	10,418	1,543,883	14,819		0	-1,543,883	-14,819	-520,065	-1,014	-312,711	-400	-236,694	-374	- 20.00
2018	129,515	58,129	45		0	-58,129	-45	-535,952	-573	-324,361	-313	-214,373	-300	- 20.00
2019	285	1,099,870	386,598		0	-1,099,870	-386,598	-900,627	-1,927	-543,639	-958	-312,762	-491	- 20.00
2020	11,647	1,522,398	13,071		0	-1,522,398	-13,071	-893,466	-1,895	-846,025	-1,446	-433,725	-742	- 20.00
2021	556	590,695	106,213		0	-590,695	-106,213	-1,070,988	-25,729	-962,995	-3,159	-447,995	-842	- 20.00
2022	69	9,580	13,900		0	-9,580	-13,900	-707,558	-17,297	-656,135	-2,309	-411,461	-844	- 20.00
2023			0		0	0	0	-200,092	-96,035	-644,509	-25,664	-411,461	-844	- 20.00
<b>TOTAL</b>	<b>585,156</b>	<b>4,937,530</b>	<b>843.80</b>	<b>0</b>	<b>0.00</b>	<b>-4,937,530</b>	<b>(843.80)</b>							

Tennessee American Water Company  
ACCOUNT 304.4 Structures & Improvements - T&D  
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2009	7,650					0	0						0	-15
2010						0	0						0	-15
2011		-457	0	0	0	457	0	152	6			457	6	-15
2012			0	0	0	0	0	152	0			457	6	-15
2013						0	0	152	0	91	6	457	6	-15
2014	11,283		0	0	0	0	0	0	0	91	4	457	2	-15
2015			0	0	0	0	0	0	0	91	4	457	2	-15
2016	25,050	1,616	6	0	0	-1,616	-6	-539	-4	-323	-4	-579	-3	-15
2017			0		0	0	0	-539	-6	-323	-4	-579	-3	-15
2018			0		0	0	0	-539	-6	-323	-4	-579	-3	-15
2019		8,499	0		0	-8,499	0	-3,219	0	-2,023	-40	-3,219	-22	-15
2020	26,647		0		0	0	0	-2,833	-32	-2,023	-20	-3,219	-14	-15
2021			0		0	0	0	-2,833	-32	-1,700	-32	-3,219	-14	-15
2022			0		0	0	0	0	0	-1,700	-32	-3,219	-14	-15
2023			0		0	0	0	0	0	-1,700	-32	-3,219	-14	-15
TOTAL	70,629	9,658	13.67	0	0.00	-9,658	(13.67)							

**Tennessee American Water Company**  
**ACCOUNT 304.5 Structures & Improvements - General**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2012	33,629		0		0	0	0						0	-5
2013			0		0	0	0						0	-5
2014	166,813		0		0	0	0	0	0				0	-5
2015			0		0	0	0	0	0				0	-5
2016	4,558		0		0	0	0	0	0	0	0		0	-5
2017			0		0	0	0	0	0	0	0		0	-5
2018			0		0	0	0	0	0	0	0		0	-5
2019		4,274	0		0	-4,274	0	-1,425	0	-855	-94	-4,274	-2	-5
2020	19,160	2,891	15		0	-2,891	-15	-2,388	-37	-1,433	-30	-3,583	-3	-5
2021		9,543	0		0	-9,543	0	-5,569	-87	-3,342	-87	-5,569	-7	-5
2022	1,659	2,735	165		0	-2,735	-165	-5,056	-73	-3,889	-93	-4,861	-9	-5
2023	999	15,995	1,601		0	-15,995	-1,601	-9,424	-1,064	-7,088	-162	-7,088	-16	-5
<b>TOTAL</b>	<b>226,819</b>	<b>35,438</b>	<b>15.62</b>	<b>0</b>	<b>0.00</b>	<b>-35,438</b>	<b>(15.62)</b>							

**Tennessee American Water Company**  
**ACCOUNT 304.6 Structures & Improvements - Offices**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommend ation
2005	18,254		0		0	0	0						0	-15
2006			0		0	0	0						0	-15
2007			0		0	0	0	0	0				0	-15
2008	1,571		0		0	0	0	0	0				0	-15
2009			0		0	0	0	0	0	0	0		0	-15
2010	2,410		0		0	0	0	0	0	0	0		0	-15
2011			0		0	0	0	0	0	0	0		0	-15
2012			0		0	0	0	0	0	0	0		0	-15
2013			0		0	0	0	0	0	0	0		0	-15
2014	120,159		0		0	0	0	0	0	0	0		0	-15
2015		6,461	0		0	-6,461	0	-2,154	-5	-1,292	-5	-6,461	-5	-15
2016	5,526	2,172	39		0	-2,172	-39	-2,878	-7	-1,727	-6	-4,317	-6	-15
2017			0		0	0	0	-2,878	-156	-1,727	-7	-4,317	-6	-15
2018			0		0	0	0	-724	-39	-1,727	-7	-4,317	-6	-15
2019		15,150	0		0	-15,150	0	-5,050	0	-4,757	-430	-7,928	-16	-15
2020		11,329	0		0	-11,329	0	-8,826	0	-5,730	-518	-8,778	-24	-15
2021		189	0		0	-189	0	-8,889	0	-5,334	0	-7,060	-24	-15
2022		139	0		0	-139	0	-3,886	0	-5,361	0	-5,907	-24	-15
2023			0		0	0	0	-109	0	-5,361	0	-5,907	-24	-15
<b>TOTAL</b>	<b>147,921</b>	<b>35,440</b>	<b>23.96</b>	<b>0</b>	<b>0.00</b>	<b>-35,440</b>	<b>(23.96)</b>							

**Tennessee American Water Company**  
**ACCOUNT 304.7 Structures & Improvements - Stores, Shop, Garage**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2011	20,571				0	0	0						0	-5
2012			0		0	0	0						0	-5
2013			0		0	0	0	0	0				0	-5
2014	32,460		0		0	0	0	0	0				0	-5
2015	36,560	4,851	13		0	-4,851	-13	-1,617	-7	-970	-5	-4,851	-5	-5
2016	87,967	4,190	5		0	-4,190	-5	-3,014	-6	-1,808	-6	-4,521	-5	-5
2017			0		0	0	0	-3,014	-7	-1,808	-6	-4,521	-5	-5
2018			0		0	0	0	-1,397	-5	-1,808	-6	-4,521	-5	-5
2019			0		0	0	0	0	0	-1,808	-7	-4,521	-5	-5
2020			0		0	0	0	0	0	-838	-5	-4,521	-5	-5
2021			0		0	0	0	0	0	0	0	-4,521	-5	-5
2022	2,457		0		0	0	0	0	0	0	0	-4,521	-5	-5
2023			0		0	0	0	0	0	0	0	-4,521	-5	-5
TOTAL	180,015	9,042	5.02	0	0.00	-9,042	(5.02)							



**Tennessee American Water Company**  
**ACCOUNT 304.8 Structures & Improvements - Miscellaneous**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2008	2,575		0		0	0	0						0	- 10
2009			0		0	0	0	0	0				0	- 10
2010			0		0	0	0	0	0				0	- 10
2011			0		0	0	0	0	0	0	0		0	- 10
2012	5,890		0		0	0	0	0	0	0	0		0	- 10
2013			0		0	0	0	0	0	0	0		0	- 10
2014	102,118		0		0	0	0	0	0	0	0		0	- 10
2015			0		0	0	0	0	0	0	0		0	- 10
2016	26,479	2,654	10		0	-2,654	-10	-885	-2	-531	-2	-2,654	-2	- 10
2017			0		0	0	0	-885	-10	-531	-2	-2,654	-2	- 10
2018			0		0	0	0	-885	-10	-531	-2	-2,654	-2	- 10
2019			0		0	0	0	0	0	-531	-10	-2,654	-2	- 10
2020			0		0	0	0	0	0	-531	-10	-2,654	-2	- 10
2021		5,380	0		0	-5,380	0	-1,793	0	-1,076	0	-4,017	-6	- 10
2022	719	3,088	430		0	-3,088	-430	-2,822	-1,178	-1,693	-1,178	-3,707	-8	- 10
2023		6,439	0		0	-6,439	0	-4,969	-2,074	-2,981	-2,074	-4,390	-13	- 10
TOTAL	137,780	17,561	12.75	0	0.00	-17,561	(12.75)							

**Tennessee American Water Company**  
**ACCOUNT 306 Lake, River & Other Intakes**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
1984		2,214	0		0	-2,214	0					-2,214		- 10.00
1985						0	0					-2,214		- 10.00
1986						0	0	-738	0			-2,214		- 10.00
1987						0	0	0	0			-2,214		- 10.00
1988						0	0	0	0	-443	0	-2,214		- 10.00
1989						0	0	0	0	0	0	-2,214		- 10.00
1990						0	0	0	0	0	0	-2,214		- 10.00
1991						0	0	0	0	0	0	-2,214		- 10.00
1992						0	0	0	0	0	0	-2,214		- 10.00
1993						0	0	0	0	0	0	-2,214		- 10.00
1994						0	0	0	0	0	0	-2,214		- 10.00
1995						0	0	0	0	0	0	-2,214		- 10.00
1996						0	0	0	0	0	0	-2,214		- 10.00
1997						0	0	0	0	0	0	-2,214		- 10.00
1998						0	0	0	0	0	0	-2,214		- 10.00
1999						0	0	0	0	0	0	-2,214		- 10.00
2000						0	0	0	0	0	0	-2,214		- 10.00
2001						0	0	0	0	0	0	-2,214		- 10.00
2002						0	0	0	0	0	0	-2,214		- 10.00
2003						0	0	0	0	0	0	-2,214		- 10.00
2004						0	0	0	0	0	0	-2,214		- 10.00
2005						0	0	0	0	0	0	-2,214		- 10.00
2006						0	0	0	0	0	0	-2,214		- 10.00
2007						0	0	0	0	0	0	-2,214		- 10.00
2008						0	0	0	0	0	0	-2,214		- 10.00
2009						0	0	0	0	0	0	-2,214		- 10.00
2010						0	0	0	0	0	0	-2,214		- 10.00
2011						0	0	0	0	0	0	-2,214		- 10.00
2012						0	0	0	0	0	0	-2,214		- 10.00
2013						0	0	0	0	0	0	-2,214		- 10.00
2014	14,988		0		0	0	0	0	0	0	0	-2,214	-15	- 10.00
2015			0		0	0	0	0	0	0	0	-2,214	-15	- 10.00
2016		313				-313	0	-104	-2	-63	-2	-1,263	-17	- 10.00
2017			0		0	0	0	-104	0	-63	-2	-1,263	-17	- 10.00
2018	49,616	8,054				-8,054	-16	-2,789	-17	-1,673	-13	-3,527	-16	- 10.00
2019						0	0	-2,685	-16	-1,673	-17	-3,527	-16	- 10.00
2020		5,351				-5,351	0	-4,468	-27	-2,743	-28	-3,983	-25	- 10.00
2021	16,520		0		0	0	0	-1,784	-32	-2,681	-20	-3,983	-22	- 10.00
2022			0		0	0	0	-1,784	-32	-2,681	-20	-3,983	-74	- 10.00
2023			0		0	0	0	0	0	-1,070	-32	-3,983	-76	- 10.00
<b>TOTAL</b>	<b>81,124</b>	<b>15,931</b>	<b>19.64</b>	<b>0</b>	<b>0.00</b>	<b>-15,931</b>	<b>(19.64)</b>							

**Tennessee American Water Company**  
**ACCOUNT 310 Power Generation Equipment**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2000		626	0		0	-626	0					-626		- 5
2001			0		0	0	0					-626		- 5
2002			0		0	0	0	-209	0			-626		- 5
2003			0		0	0	0	0	0			-626		- 5
2004			0		0	0	0	0	0	-125	0	-626		- 5
2005	8,000		0		0	0	0	0	0	0	0	-626	-8	- 5
2006			0		0	0	0	0	0	0	0	-626	-8	- 5
2007			0		0	0	0	0	0	0	0	-626	-8	- 5
2008			0		0	0	0	0	0	0	0	-626	-8	- 5
2009			0		0	0	0	0	0	0	0	-626	-8	- 5
2010			0		0	0	0	0	0	0	0	-626	-8	- 5
2011			0		0	0	0	0	0	0	0	-626	-8	- 5
2012	17,180		0		0	0	0	0	0	0	0	-626	-2	- 5
2013			0		0	0	0	0	0	0	0	-626	-2	- 5
2014	13,226	115	1		0	-115	-1	-38	0	-23	0	-370	-2	- 5
2015			0		0	0	0	-38	-1	-23	0	-370	-2	- 5
2016	5,960		0		0	0	0	-38	-1	-23	0	-370	-2	- 5
2017		852	0		0	-852	0	-284	-14	-193	-5	-531	-4	- 5
2018			0		0	0	0	-284	-14	-193	-5	-531	-4	- 5
2019			0		0	0	0	-284	0	-170	-14	-531	-4	- 5
2020	3,562	1,971	55		0	-1,971	-55	-657	-55	-565	-30	-891	-7	- 5
2021			0		0	0	0	-657	-55	-565	-79	-891	-7	- 5
2022			0		0	0	0	-657	-55	-394	-55	-891	-7	- 5
2023			0		0	0	0	0	0	-394	-55	-891	-7	- 5
<b>TOTAL</b>	<b>47,928</b>	<b>3,564</b>	<b>7.44</b>	<b>0</b>	<b>0.00</b>	<b>-3,564</b>	<b>(7.44)</b>							

**Tennessee American Water Company**  
**ACCOUNT 311.2 Pumping Equipment Electric**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2006	33,983		0		0	0	0						0	- 10
2007	59,406		0		0	0	0						0	- 10
2008	24,467		0		0	0	0	0	0				0	- 10
2009	1,967		0		0	0	0	0	0				0	- 10
2010	-4,293		0		0	0	0	0	0	0	0		0	- 10
2011	33,916		0		0	0	0	0	0	0	0		0	- 10
2012	1,134		0		0	0	0	0	0	0	0		0	- 10
2013	11,506	4,572	40		0	-4,572	-40	-1,524	-10	-914	-10	-4,572	-3	- 10
2014	1,488,734	704	0		0	-704	0	-1,759	0	-1,055	0	-2,638	0	- 10
2015	13,359	1,158	9	-3,454	-26	2,296	17	-993	0	-596	0	-993	0	- 10
2016	72,673	1,545	2		0	-1,545	-2	-1,508	0	-905	0	-1,131	0	- 10
2017	76,270	27,983	37		0	-27,983	-37	-10,836	-2	-6,502	-2	-6,502	-2	- 10
2018	29,065	8,504	29		0	-8,504	-29	-12,677	-21	-8,202	-2	-6,835	-2	- 10
2019	19,675	9,026	46		0	-9,026	-46	-15,171	-36	-10,007	-3	-7,148	-3	- 10
2020	13,309	28,640	215		0	-28,640	-215	-15,390	-74	-15,140	-36	-9,835	-4	- 10
2021	3,365	7,067	210		0	-7,067	-210	-14,911	-123	-16,244	-57	-9,527	-5	- 10
2022	23,637		0		0	0	0	-11,902	-89	-10,647	-60	-9,527	-5	- 10
2023	10,107		0		0	0	0	-2,356	-19	-8,947	-64	-9,527	-4	- 10
<b>TOTAL</b>	<b>1,912,281</b>	<b>89,199</b>	<b>4.66</b>	<b>-3,454</b>	<b>(0.18)</b>	<b>-85,744</b>	<b>(4.48)</b>							

**Tennessee American Water Company**  
**ACCOUNT 311.5 Pumping Equipment Other**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2010	3,052		0		0	0	0						0	- 10
2011	3,147		0		0	0	0						0	- 10
2012			0		0	0	0	0	0				0	- 10
2013			0		0	0	0	0	0				0	- 10
2014	11,538	97	1		0	-97	-1	-32	-1	-19	-1	-97	-1	- 10
2015			0		0	0	0	-32	-1	-19	-1	-97	-1	- 10
2016	17,417	2,171	12		0	-2,171	-12	-756	-8	-454	-8	-1,134	-6	- 10
2017		35	0		0	-35	0	-735	-13	-461	-7	-768	-7	- 10
2018			0		0	0	0	-735	-13	-461	-8	-768	-7	- 10
2019	1,724	4,961	288		0	-4,961	-288	-1,666	-290	-1,434	-37	-1,816	-20	- 10
2020	5,561	43,249	778		0	-43,249	-778	-16,070	-662	-10,083	-204	-10,103	-119	- 10
2021	56,243	165,577	294		0	-165,577	-294	-71,262	-337	-42,765	-337	-36,015	-219	- 10
2022	21,937	120,953	551		0	-120,953	-551	-109,926	-394	-66,948	-392	-48,149	-279	- 10
2023	1,768	19,078	1,079		0	-19,078	-1,079	-101,869	-382	-70,764	-406	-44,515	-291	- 10
<b>TOTAL</b>	<b>122,386</b>	<b>356,121</b>	<b>290.98</b>	<b>0</b>	<b>0.00</b>	<b>-356,121</b>	<b>(290.98)</b>							

**Tennessee American Water Company**  
**ACCOUNT 311.52 Pumping Equipment SOS & Pumping**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2010	7,478		0		0	0	0						0	- 10
2011	5,789		0		0	0	0						0	- 10
2012			0		0	0	0	0	0				0	- 10
2013		604	0		0	-604	0	-201	-10				0	- 10
2014	28,795	5,985	21		0	-5,985	-21	-2,196	-23				0	- 10
2015	68,695	19,316	28	-52,600	-77	33,285	48	8,899	27				0	- 10
2016	9,610	12,777	133		0	-12,777	-133	4,640	12			3,480	12	- 10
2017	7,184	27,605	384		0	-27,605	-384	-4,562	-12	-2,737	-11	-2,737	-11	- 10
2018	2,120	10,169	480		0	-10,169	-480	-16,850	-267	-4,771	-20	-3,976	-18	- 10
2019	8,112	10,338	127		0	-10,338	-127	-16,037	-276	-6,839	-27	-4,885	-25	- 10
2020			0		0	0	0	-6,836	-200	-12,178	-225	-4,885	-25	- 10
2021			0		0	0	0	-3,446	-127	-9,622	-276	-4,885	-25	- 10
2022	2,714	7,205	265		0	-7,205	-265	-2,402	-265	-5,543	-214	-5,175	-29	- 10
2023	195	6,722	3,454		0	-6,722	-3,454	-4,642	-479	-4,853	-220	-5,347	-34	- 10
<b>TOTAL</b>	<b>140,693</b>	<b>100,721</b>	<b>71.59</b>	<b>-52,600</b>	<b>(37.39)</b>	<b>-48,121</b>	<b>(34.20)</b>							

**Tennessee American Water Company**  
**ACCOUNT 320.1 WT Equipment - Non Media**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2005	2,686		0		0	0	0						0	- 15
2006	54,045		0		0	0	0						0	- 15
2007			0		0	0	0	0	0				0	- 15
2008	5,371		0		0	0	0	0	0				0	- 15
2009	41,991		0		0	0	0	0	0	0	0		0	- 15
2010	8,596		0		0	0	0	0	0	0	0		0	- 15
2011	102,682	-379	0		0	379	0	126	0	76	0	379	0	- 15
2012	2,852		0		0	0	0	126	0	76	0	379	0	- 15
2013	423	1	0		0	-1	0	126	0	76	0	189	0	- 15
2014	5,601,735	8,814	0		0	-8,814	0	-2,938	0	-1,687	0	-2,812	0	- 15
2015	119,044	241,074	203		0	-241,074	-203	-83,296	-4	-49,902	-4	-62,377	-4	- 15
2016	370,929	393,147	106		0	-393,147	-106	-214,345	-11	-128,607	-11	-128,531	-10	- 15
2017	200,128	871,361	435		0	-871,361	-435	-501,861	-218	-302,879	-24	-252,336	-23	- 15
2018	186,376	116,492	63		0	-116,492	-63	-460,333	-182	-326,177	-25	-232,930	-24	- 15
2019	46,767	361,022	772		0	-361,022	-772	-449,625	-311	-396,619	-215	-248,941	-30	- 15
2020	15,506	1,742,642	11,238		0	-1,742,642	-11,238	-740,052	-893	-696,933	-425	-414,908	-55	- 15
2021	704,123	1,399,545	199		0	-1,399,545	-199	-1,167,736	-457	-898,212	-390	-513,372	-69	- 15
2022	-534,066	12,953	-2		0	-12,953	2	-1,051,713	-1,700	-726,531	-868	-467,879	-74	- 15
2023	119,939	126,530	105		0	-126,530	-105	-513,009	-531	-728,538	-1,034	-439,433	-75	- 15
<b>TOTAL</b>	<b>7,049,127</b>	<b>5,273,201</b>	<b>74.81</b>	<b>0</b>	<b>0.00</b>	<b>-5,273,201</b>	<b>(74.81)</b>							

Tennessee American Water Company  
ACCOUNT 320.2 WT Equipment - Filter Media  
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2012	-8,518					0	0						0	- 15
2013	-161,844	-41,306	26		0	41,306	-26					41,306	-24	- 15
2014			0		0	0	0	13,769	-24			41,306	-24	- 15
2015	-284,994	-206,053	72		0	206,053	-72	82,453	-55			123,680	-54	- 15
2016	-107,447	-129,925	121		0	129,925	-121	111,993	-86	75,457	-67	125,761	-67	- 15
2017		-112	0		0	112	0	112,030	-86	75,479	-68	94,349	-67	- 15
2018	-69,210	-187,690	271		0	187,690	-271	105,909	-180	104,756	-113	113,017	-89	- 15
2019		-53,716	0		0	53,716	0	80,506	-349	115,499	-125	103,134	-98	- 15
2020	-982		0		0	0	0	80,469	-344	74,289	-209	103,134	-98	- 15
2021			0		0	0	0	17,905	-5,473	48,304	-344	103,134	-98	- 15
2022	-105,370	-71,776	68		0	71,776	-68	23,925	-67	62,636	-178	98,654	-94	- 15
2023			0		0	0	0	23,925	-68	25,098	-118	98,654	-94	- 15
TOTAL	(738,364)	(690,578)	93.53	0	0.00	690,578	(93.53)							



**Tennessee American Water Company**  
**ACCOUNT 330 - 330.4 Distribution Reservoirs & Standpipes**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
1975			0		0	0	0							
1976			0		0	0	0							
1977			0		0	0	0	0	0					
1978		2,500	0		0	-2,500	0	-833	0			-2,500		
1979			0		0	0	0	-833	0	-500	0	-2,500		
1980			0		0	0	0	-833	0	-500	0	-2,500		
1981			0		0	0	0	0	0	-500	0	-2,500		
1982			0		0	0	0	0	0	-500	0	-2,500		
1983			0		0	0	0	0	0	0	0	-2,500		
1984			0		0	0	0	0	0	0	0	-2,500		
1985			0		0	0	0	0	0	0	0	-2,500		
1986			0		0	0	0	0	0	0	0	-2,500		
1987			0		0	0	0	0	0	0	0	-2,500		
1988		2,792	0		0	-2,792	0	-931	0	-558	0	-2,646		
1989			0		0	0	0	-931	0	-558	0	-2,646		
1990		50,972	0		0	-50,972	0	-17,921	0	-10,753	0	-18,755		
1991		-23,344	0		0	23,344	0	-9,209	0	-6,084	0	-8,230		
1992			0		0	0	0	-9,209	0	-6,084	0	-8,230		
1993			0		0	0	0	7,781	0	-5,526	0	-8,230		
1994			0		0	0	0	0	0	-5,526	0	-8,230		
1995			0		0	0	0	0	0	4,669	0	-8,230		
1996		24,000	0		0	-24,000	0	-8,000	0	-4,800	0	-11,384		
1997			0		0	0	0	-8,000	0	-4,800	0	-11,384		
1998			0		0	0	0	-8,000	0	-4,800	0	-11,384		
1999			0	-413	0	413	0	138	0	-4,717	0	-9,418		
2000		16,995	0		0	-16,995	0	-5,527	0	-8,116	0	-10,500		
2001			0		0	0	0	-5,527	0	-3,316	0	-10,500		
2002			0		0	0	0	-5,665	0	-3,316	0	-10,500		
2003			0		0	0	0	0	0	-3,316	0	-10,500		
2004			0		0	0	0	0	0	-3,399	0	-10,500		
2005			0		0	0	0	-24,501	0	-14,700	0	-10,500		
2006			0		0	0	0	-23,667	0	-14,700	0	-10,500		
2007	11,641		0		0	0	0	0	0	-14,700	-631	-10,500	-631	- 25.00
2008	181		0		0	0	0	0	0	-14,200	-601	-10,500	-622	- 25.00
2009	17,955		0		0	0	0	0	0	0	0	-10,500	-247	- 25.00
2010	-108		0		0	0	0	0	0	0	0	-10,500	-248	- 25.00
2011			0		0	0	0	0	0	0	0	-10,500	-248	- 25.00
2012			0		0	0	0	0	0	0	0	-10,500	-248	- 25.00
2013			0		0	0	0	0	0	0	0	-10,500	-248	- 25.00
2014	84,525	977	1		0	-977	-1	-326	-1	-195	-1	-9,310	-65	- 25.00
2015	1,384,678	124,964	9	-1,016,798	-73	891,834	64	296,952	61	178,171	61	90,817	55	- 25.00
2016	32,638	30	0		0	-30	0	296,942	59	178,165	59	81,732	53	- 25.00
2017			0		0	0	0	297,268	63	178,165	59	81,732	53	- 25.00
2018			0		0	0	0	-10	0	178,165	59	81,732	53	- 25.00

Tennessee American Water Company  
ACCOUNT 330 - 330.4 Distribution Reservoirs & Standpipes  
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2019	3,369	1,071,032	31,789		0	-1,071,032	-31,789	-357,011	-31,789	-35,846	-13	-23,064	-17	- 25.00
2020	4,007	961,105	23,984		0	-961,105	-23,984	-677,379	-27,549	-406,434	-5,079	-101,234	-79	- 25.00
2021	0	582,450	728,062,025		0	-582,450	-728,062,025	-871,529	-35,444	-522,917	-35,444	-138,251	-117	- 25.00
2022	39,685	558,311	1,407		0	-558,311	-1,407	-700,622	-4,811	-634,580	-6,742	-168,255	-149	- 25.00
2023	193,287	1,535,514	794		0	-1,535,514	-794	-892,091	-1,149	-941,682	-1,959	-259,406	-220	- 25.00
TOTAL	1,771,860	4,908,298	277.01	-1,017,211	(57.41)	-3,891,087	(219.60)							

**Tennessee American Water Company**  
**ACCOUNT 331.001 - 331.4 Mains**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation	
1975		109	0		0	(109)	0					-109			
1976		6,316	0		0	(6,316)	0					-3,213			
1977		306	0		0	(306)	0	-2,244	0			-2,244			
1978		17,229	0		0	(17,229)	0	-7,950	0			-5,990			
1979		24,255	0		0	(24,255)	0	-13,930	0	-9,643	0	-9,643			
1980		25,826	0		0	(25,826)	0	-22,437	0	-14,786	0	-12,340			
1981		28,690	0		0	(28,690)	0	-26,257	0	-19,261	0	-14,676			
1982		23,120	0		0	(23,120)	0	-25,879	0	-23,824	0	-15,731			
1983		14,044	0		0	(14,044)	0	-21,951	0	-23,187	0	-15,544			
1984		14,841	0		0	(14,841)	0	-17,335	0	-21,304	0	-15,474			
1985		18,484	0		0	(18,484)	0	-15,790	0	-19,836	0	-15,747			
1986		31,685	0		0	(31,685)	0	-21,670	0	-20,435	0	-17,075			
1987		18,934	0		0	(18,934)	0	-23,034	0	-19,598	0	-17,218			
1988		26,222	0		0	(26,222)	0	-25,614	0	-22,033	0	-17,862			
1989		42,105	0		0	(42,105)	0	-29,087	0	-27,486	0	-19,478			
1990			0		0	0	0	-22,776	0	-23,789	0	-19,478			
1991		40,828	0		0	(40,828)	0	-27,644	0	-25,618	0	-20,812			
1992		49,316	0		0	(49,316)	0	-30,048	0	-31,694	0	-22,489			
1993		35,799	0		0	(35,799)	0	-41,981	0	-33,610	0	-23,228			
1994		64,665	0		0	(64,665)	0	-49,927	0	-38,122	0	-25,409			
1995		56,199	0		0	(56,199)	0	-52,221	0	-49,361	0	-26,949			
1996		22,841	0		0	(22,841)	0	-47,902	0	-45,764	0	-26,753			
1997		56,315	0		0	(56,315)	0	-45,118	0	-47,164	0	-28,097			
1998		55,146	0		0	(55,146)	0	-44,767	0	-51,033	0	-29,273			
1999		53,322	0		0	(53,322)	0	-54,928	0	-48,765	0	-30,275			
2000		78,250	0		0	(78,250)	0	-62,239	0	-53,175	0	-32,194			
2001		58,268	0		0	(58,268)	0	-63,280	0	-60,260	0	-33,197			
2002		75,382	0		0	(75,382)	0	-70,633	0	-64,074	0	-34,759			
2003		35,636	0		0	(35,636)	0	-56,429	0	-60,172	0	-34,790			
2004		135,799	0		0	(135,799)	0	-82,272	0	-76,667	0	-38,274			
2005	5,740	253,467	4,416		0	(253,467)	-4,416	-452,223	-23,635	-272,658	-23,750	-45,447	-23,752	-	20
2006	208,053	132,799	64		0	(132,799)	-64	-490,746	-689	-297,955	-697	-48,264	-700	-	20
2007	395,168		0		0	0	0	-128,755	-63	-297,893	-245	-48,264	-246	-	20
2008	116,040		0		0	0	0	-44,266	-18	-294,448	-203	-48,264	-206	-	20
2009	54,974		0		0	0	0	0	0	-77,253	-50	-48,264	-192	-	20
2010	26,843		0		0	0	0	0	0	-26,560	-17	-48,264	-185	-	20
2011	41,950		0		0	0	0	-498,733	-176	-299,240	-176	-48,264	-176	-	20
2012	80,786	107,534	133		0	(107,534)	-133	-534,577	-173	-320,746	-173	-50,117	-173	-	20
2013	22,321	301,173	1,349		0	(301,173)	-1,349	-136,236	-282	-380,981	-200	-57,724	-200	-	20
2014	7,772	318,940	4,104	(1,416)	(18)	(317,524)	-4,085	-242,077	-655	-444,486	-232	-65,366	-232	-	20
2015	3,601,090	633,524	18	(2,371,117)	(66)	1,737,593	48	372,965	31	202,272	27	-13,852	-11	-	20
2016	210,071	391,013	186	(99,760)	(47)	(291,254)	-139	376,272	30	144,022	18	-21,558	-16	-	20
2017	520,920	392,107	75	(99,519)	(19)	(292,589)	-56	384,584	27	107,011	12	-28,883	-20	-	20
2018	1,166,084	213,457	18	(1,139)	(0)	(212,318)	-18	-265,387	-42	124,782	11	-33,710	-20	-	20

Tennessee American Water Company  
ACCOUNT 331.001 - 331.4 Mains  
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2019	101,941	745,836	732	(723)	(1)	(745,112)	-731	-416,673	-70	39,264	4	-51,951	-31	- 20
2020	500,234	437,295	87	(869)	(0)	(436,426)	-87	-464,619	-79	-395,540	-79	-61,563	-35	- 20
2021	(621,491)	630,166	(101)	(815)	0	(629,352)	101	-603,630	9,375	-463,159	-139	-75,412	-48	- 20
2022	87,916	822,888	936	(3,341)	(4)	(819,546)	-932	-628,441	5,655	-568,551	-230	-93,129	-60	- 20
2023	215,611	1,000,014	464	(10,249)	(5)	(989,765)	-459	-812,888	767	-724,040	-1,274	-113,981	-73	- 20
TOTAL	6,742,022	7,490,145	111.10	-2,588,948	(38.40)	-4,901,197	(72.70)							

**Tennessee American Water Company**  
**ACCOUNT 333 Services**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation	
1975		1,156	0		0	-1,156	0					-1,156			
1976		1,915	0		0	-1,915	0					-1,536			
1977		2,311	0		0	-2,311	0	-1,794	0			-1,794			
1978		2,778	0		0	-2,778	0	-2,335	0			-2,040			
1979		5,197	0		0	-5,197	0	-3,429	0	-2,671	0	-2,671			
1980		21,210	0		0	-21,210	0	-9,728	0	-6,682	0	-5,761			
1981		14,475	0		0	-14,475	0	-13,627	0	-9,194	0	-7,006			
1982		7,097	0		0	-7,097	0	-14,261	0	-10,151	0	-7,017			
1983		9,380	0		0	-9,380	0	-10,317	0	-11,472	0	-7,280			
1984		4,708	0		0	-4,708	0	-7,062	0	-11,374	0	-7,023			
1985		8,197	0		0	-8,197	0	-7,428	0	-8,771	0	-7,129			
1986		8,578	0		0	-8,578	0	-7,161	0	-7,592	0	-7,250			
1987		8,917	0		0	-8,917	0	-8,564	0	-7,956	0	-7,378			
1988		6,964	0		0	-6,964	0	-8,153	0	-7,473	0	-7,349			
1989		6,318	0		0	-6,318	0	-7,400	0	-7,795	0	-7,280			
1990		6,959	0		0	-6,959	0	-6,747	0	-7,547	0	-7,260			
1991		6,862	0		0	-6,862	0	-6,713	0	-7,204	0	-7,237			
1992		7,549	0		0	-7,549	0	-7,123	0	-6,930	0	-7,254			
1993		1,962	0		0	-1,962	0	-5,458	0	-5,930	0	-6,975			
1994		2,960	0		0	-2,960	0	-4,157	0	-5,258	0	-6,775			
1995		1,883	0		0	-1,883	0	-2,268	0	-4,243	0	-6,542			
1996		3,481	0		0	-3,481	0	-2,775	0	-3,567	0	-6,403			
1997		2,900	0		0	-2,900	0	-2,755	0	-2,637	0	-6,250			
1998		530	0		0	-530	0	-2,304	0	-2,351	0	-6,012			
1999		23	0		0	-23	0	-1,151	0	-1,763	0	-5,772			
2000		1,231	0		0	-1,231	0	-595	0	-1,633	0	-5,598			
2001			0		0	0	0	-418	0	-937	0	-5,598			
2002			0		0	0	0	-410	0	-357	0	-5,598			
2003		23	0		0	-23	0	-8	0	-255	0	-5,391			
2004		419	0		0	-419	0	-147	0	-335	0	-5,214			
2005	3,361		0		0	0	0	-46,867	-4,184	-28,965	-4,309	-5,214	-4,344	-	40
2006	61,384		0		0	0	0	-45,941	-213	-28,582	-221	-5,214	-225	-	40
2007			0		0	0	0	0	0	-28,120	-217	-5,214	-225	-	40
2008	184,245		0		0	0	0	0	0	-27,565	-55	-5,214	-59	-	40
2009	908		0		0	0	0	0	0	0	0	-5,214	-58	-	40
2010	21,816		0		0	0	0	0	0	0	0	-5,214	-54	-	40
2011	25,782		0		0	0	0	0	0	0	0	-5,214	-49	-	40
2012	10,742	45,356	422		0	-45,356	-422	-15,119	-78	-9,071	-19	-6,598	-62	-	40
2013	1,951	-54	-3		0	54	3	-15,101	-118	-9,061	-74	-6,376	-62	-	40
2014		42,737	0		0	-42,737	0	-29,347	-694	-17,608	-146	-7,549	-75	-	40
2015	94,419	205,199	217	-37,912	-40	-167,287	-177	-69,990	-218	-51,065	-192	-12,541	-99	-	40
2016	26,973	126,891	470		0	-126,891	-470	-112,305	-278	-76,444	-285	-16,006	-122	-	40
2017	46,108	144,430	313		0	-144,430	-313	-146,203	-262	-96,258	-284	-19,783	-141	-	40
2018	40,122	36,614	91		0	-36,614	-91	-102,645	-272	-103,592	-249	-20,264	-137	-	40

Tennessee American Water Company  
ACCOUNT 333 Services  
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation	
2019	63,355	56,339	89	-1,058	-2	-55,281	-87	-78,775	-158	-106,101	-196	-21,237	-132	-	40
2020	30,717	33,387	109	-109	0	-33,278	-108	-41,724	-93	-79,299	-191	-21,562	-130	-	40
2021	-14,603	28,886	-198	-38	0	-28,848	198	-39,136	-148	-59,690	-180	-21,754	-138	-	40
2022	68,835	41,246	60		0	-41,246	-60	-34,457	-122	-39,053	-104	-22,254	-130	-	40
2023	140,774	63,215	45	-2,816	-2	-60,399	-43	-43,498	-67	-43,810	-76	-23,207	-115	-	40
TOTAL	806,888	970,229	120.24	-41,932	(5.20)	-928,297	(115.05)								

**Tennessee American Water Company**  
**ACCOUNT 334.1 - 334.131 Meters**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
1975		65	0	-13,429	0	13,364	0					13,364		
1976		58	0	-9,648	0	9,590	0					11,477		
1977		973	0	-7,096	0	6,123	0	9,692	0			9,692		
1978		20	0	-9,617	0	9,597	0	8,437	0			9,669		
1979			0	-5,322	0	5,322	0	7,014	0	8,799	0	8,799		
1980		614	0	-9,146	0	8,532	0	7,817	0	7,833	0	8,755		
1981		1,110	0	-8,527	0	7,417	0	7,090	0	7,398	0	8,564		
1982		3,505	0	-19,139	0	15,634	0	10,528	0	9,300	0	9,447		
1983		4,519	0	-29,223	0	24,704	0	15,918	0	12,322	0	11,143		
1984		1,102	0	-15,117	0	14,015	0	18,118	0	14,060	0	11,430		
1985		487	0	-24,634	0	24,147	0	20,955	0	17,183	0	12,586		
1986		606	0	-16,851	0	16,245	0	18,136	0	18,949	0	12,891		
1987		116	0	-28,282	0	28,166	0	22,853	0	21,455	0	14,066		
1988		360	0	-14,018	0	13,658	0	19,356	0	19,246	0	14,037		
1989		917	0	-23,031	0	22,114	0	21,313	0	20,866	0	14,575		
1990		2,179	0	-20,391	0	18,212	0	17,995	0	19,679	0	14,803		
1991		2,440	0	-6,453	0	4,013	0	14,780	0	17,233	0	14,168		
1992		771	0	-11,868	0	11,097	0	11,107	0	13,819	0	13,997		
1993		1,931	0	-6,616	0	4,685	0	6,598	0	12,024	0	13,507		
1994		598	0	-10,138	0	9,540	0	8,441	0	9,509	0	13,309		
1995		380	0	-3,923	0	3,543	0	5,923	0	6,576	0	12,844		
1996		245	0	-3,292	0	3,047	0	5,377	0	6,382	0	12,398		
1997		2,280	0	-3,957	0	1,677	0	2,756	0	4,498	0	11,932		
1998			0	-2,948	0	2,948	0	2,557	0	4,151	0	11,558		
1999		669	0	-1,340	0	671	0	1,765	0	2,377	0	11,122		
2000		-1,055	0	-1,414	0	2,469	0	2,029	0	2,162	0	10,790		
2001		1,473	0	-2,344	0	871	0	1,337	0	1,727	0	10,422		
2002		4,429	0	-2,432	0	(1,997)	0	448	0	992	0	9,979		
2003		23,539	0	-406	0	(23,133)	0	-8,086	0	-4,224	0	8,837		
2004		20,517	0		0	(20,517)	0	-15,216	0	-8,461	0	7,858		
2005	49,605		0		0	0	0	68,892	417	44,478	448	7,858	475	-15
2006	386,646	122,984	32	-29,888	-8	(93,096)	-24	34,661	24	23,941	27	4,602	33	-15
2007	485		0		0	0	0	-31,032	-21	22,716	26	4,602	33	-15
2008	236,583		0		0	0	0	-31,032	-15	20,797	15	4,602	21	-15
2009	164		0		0	0	0	0	0	-18,619	-14	4,602	21	-15
2010	9,843					0	0	0	0	-18,619	-15	4,602	21	-15
2011	215		0		0	0	0	0	0	0	0	4,602	21	-15
2012	3,752	2	0		0	(2)	0	-1	0	0	0	4,458	21	-15
2013	19	1	3	-21,117	-113,534	21,117	113,531	7,038	530	4,223	151	4,963	24	-15
2014	880,892		0		0	0	0	7,038	2	4,223	2	4,963	10	-15
2015	34,070	5,055	15	-44,459	-130	39,404	116	20,174	7	12,104	7	5,976	13	-15
2016	272,302	102,013	37	-9,009	-3	(93,004)	-34	-17,867	-5	-6,497	-3	3,148	6	-15
2017	1,310,003	92,080	7	-18,860	-1	(73,220)	-6	-42,273	-8	-21,141	-4	1,026	1	-15
2018	180,192	1,088	1	-5,347	-3	4,259	2	-53,988	-9	-24,512	-5	1,114	1	-15

Tennessee American Water Company  
ACCOUNT 334.1 - 334.131 Meters  
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2019	322,406	775,019	240	-46,948	-15	(728,071)	-226	-265,677	-44	-170,126	-40	-18,075	-19	-15
2020	10,014	284,884	2,845	-35,878	-358	(249,006)	-2,487	-324,273	-190	-227,809	-54	-23,997	-25	-15
2021	517,056	162,487	31	-12,775	-2	(149,712)	-29	-375,597	-133	-239,150	-51	-27,139	-26	-15
2022	342,761	233,357	68	-40,905	-12	(192,452)	-56	-197,057	-68	-262,997	-96	-31,171	-28	-15
2023	50,702	263,221	519	-40,412	-80	(222,808)	-439	-188,324	-62	-308,410	-124	-35,734	-33	-15
TOTAL	4,607,709	2,117,040	45.95	-616,202	(13.37)	-1,500,838	(32.57)							



**Tennessee American Water Company**  
**ACCOUNT 334.2 Meter Installations**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2005	15,834		0		0	0	0						0	- 15
2006	4,979		0		0	0	0						0	- 15
2007			0		0	0	0	0	0				0	- 15
2008	20,721		0		0	0	0	0	0				0	- 15
2009	3,959		0		0	0	0	0	0	0	0		0	- 15
2010	35,106		0		0	0	0	0	0	0	0		0	- 15
2011	158,493		0		0	0	0	0	0	0	0		0	- 15
2012	5,165	69,171	1,339		0	-69,171	-1,339	-23,057	-35	-13,834	-31	-69,171	-28	- 15
2013	2,340	196,244	8,387	-21,117	-902	-175,126	-7,484	-81,432	-147	-48,859	-119	-122,149	-99	- 15
2014	1,923	24,197	1,258		0	-24,197	-1,258	-89,498	-2,848	-53,699	-132	-89,498	-108	- 15
2015	8,340	398,171	4,774	-44,160	-529	-354,011	-4,245	-184,445	-4,390	-124,501	-353	-155,626	-242	- 15
2016	19,671	157,769	802	-9,009	-46	-148,760	-756	-175,656	-1,760	-154,253	-2,060	-154,253	-279	- 15
2017	420,867	142,431	34	-10,870	-3	-131,561	-31	-211,444	-141	-166,731	-184	-150,471	-129	- 15
2018	5,305	340,147	6,412	-5,347	-101	-334,800	-6,311	-412,542	-181	-247,525	-180	-176,804	-176	- 15
2019	12,355	27,918	226	-456	-4	-27,463	-222	-421,696	-188	-253,018	-182	-158,136	-177	- 15
2020	55,930	162,819	291	-2,948	-5	-159,871	-286	-174,045	-710	-284,992	-190	-158,329	-185	- 15
2021	-41,560	263,340	-634	-2,701	6	-260,639	627	-149,324	-1,676	-337,120	-245	-168,560	-231	- 15
2022	20,158	343,091	1,702	-430	-2	-342,661	-1,700	-254,391	-2,210	-225,087	-2,157	-184,387	-271	- 15
2023	8,569	770,769	8,995	-12,951	-151	-757,817	-8,844	-453,706	10,606	-309,690	-2,792	-232,173	-367	- 15
<b>TOTAL</b>	<b>758,155</b>	<b>2,896,068</b>	<b>381.99</b>	<b>-109,989</b>	<b>(14.51)</b>	<b>-2,786,078</b>	<b>(367.48)</b>							

Tennessee American Water Company  
ACCOUNT 334.3 Meter Vaults  
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation	
2018		168	0		0	-168	0					-168			
2019		3,672	0	-48	0	-3,623	0					-1,896			
2020	205	2,651	1,296		0	-2,651	-1,296	-2,148	-3,149			-2,148	-3,149	-	15
2021	30,677	7,407	24		0	-7,407	-24	-4,560	-44			-3,462	-45	-	15
2022	600	3,297	550		0	-3,297	-550	-4,452	-42	-3,429	-54	-3,429	-54	-	15
2023	80	26	32		0	-26	-32	-3,577	-34	-3,401	-54	-2,862	-54	-	15
TOTAL	31,561	17,221	54.56	-48	(0.15)	-17,172	(54.41)								

**Tennessee American Water Company**  
**ACCOUNT 335 Hydrants**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
1974		300	0		0	-300	0					-300		- 30
1975		34	0		0	-34	0					-167		- 30
1976			0		0	0	0	-111	0			-167		- 30
1977		53	0		0	-53	0	-29	0			-129		- 30
1978		2,236	0		0	-2,236	0	-763	0	-525	0	-656		- 30
1979		661	0		0	-661	0	-983	0	-597	0	-657		- 30
1980		2,237	0		0	-2,237	0	-1,711	0	-1,037	0	-920		- 30
1981		4,806	0		0	-4,806	0	-2,568	0	-1,999	0	-1,475		- 30
1982		3,134	0		0	-3,134	0	-3,392	0	-2,615	0	-1,683		- 30
1983		4,624	0		0	-4,624	0	-4,188	0	-3,092	0	-2,009		- 30
1984		6,644	0		0	-6,644	0	-4,801	0	-4,289	0	-2,473		- 30
1985		5,028	0		0	-5,028	0	-5,432	0	-4,847	0	-2,705		- 30
1986		7,950	0		0	-7,950	0	-6,541	0	-5,476	0	-3,142		- 30
1987		10,107	0		0	-10,107	0	-7,695	0	-6,871	0	-3,678		- 30
1988		10,332	0		0	-10,332	0	-9,463	0	-8,012	0	-4,153		- 30
1989		3,523	0		0	-3,523	0	-7,987	0	-7,388	0	-4,111		- 30
1990		59,859	0		0	-59,859	0	-24,571	0	-18,354	0	-7,596		- 30
1991		10,497	0		0	-10,497	0	-24,626	0	-18,864	0	-7,766		- 30
1992		8,916	0		0	-8,916	0	-26,424	0	-18,625	0	-7,830		- 30
1993		8,932	0		0	-8,932	0	-9,448	0	-18,345	0	-7,888		- 30
1994		14,943	0		0	-14,943	0	-10,930	0	-20,629	0	-8,241		- 30
1995		13,068	0		0	-13,068	0	-12,314	0	-11,271	0	-8,471		- 30
1996		16,864	0		0	-16,864	0	-14,958	0	-12,545	0	-8,852		- 30
1997		20,178	0		0	-20,178	0	-16,703	0	-14,797	0	-9,345		- 30
1998		10,479	0		0	-10,479	0	-15,840	0	-15,106	0	-9,392		- 30
1999		6,105	0		0	-6,105	0	-12,254	0	-13,339	0	-9,260		- 30
2000		14,754	0		0	-14,754	0	-10,446	0	-13,676	0	-9,472		- 30
2001		13,676	0		0	-13,676	0	-11,512	0	-13,038	0	-9,627		- 30
2002		4,681	0		0	-4,681	0	-11,037	0	-9,939	0	-9,451		- 30
2003		31,283	0		0	-31,283	0	-16,547	0	-14,100	0	-10,204		- 30
2004		66,000	0		0	-66,000	0	-33,988	0	-26,079	0	-12,063		- 30
2005	22,692		0		0	0	0	-120,523	-1,593	-72,321	-1,594	-12,063	-1,595	- 30
2006	35,452	17,002	48		0	-17,002	-48	-126,173	-651	-75,714	-651	-12,223	-652	- 30
2007	7,761		0		0	0	0	-5,667	-26	-75,714	-574	-12,223	-575	- 30
2008	56,415		0		0	0	0	-5,667	-17	-75,704	-309	-12,223	-310	- 30
2009	6,469		0		0	0	0	0	0	-3,400	-13	-12,223	-294	- 30
2010	2,346		0		0	0	0	0	0	-3,400	-16	-12,223	-289	- 30
2011	5,001		0		0	0	0	0	0	0	0	-12,223	-278	- 30
2012	19,887	-244	-1		0	244	1	81	1	49	0	-11,833	-243	- 30
2013	11,838	3,404	29		0	-3,404	-29	-1,054	-9	-632	-7	-11,578	-228	- 30
2014	17,551	17,403	99		0	-17,403	-99	-6,855	-42	-4,113	-36	-11,749	-215	- 30
2015	87,268	36,538	42	-11,153	-13	-25,386	-29	-15,398	-40	-9,190	-32	-12,139	-156	- 30
2016	37,816	3,523	9		0	-3,523	-9	-15,437	-32	-9,895	-28	-11,899	-138	- 30
2017	17,861	25,147	141	-70	0	-25,077	-140	-17,995	-38	-14,959	-43	-12,256	-138	- 30
2018	41,500	31,651	76	-4,666	-11	-26,986	-65	-18,529	-57	-19,675	-49	-12,643	-130	- 30

Tennessee American Water Company  
ACCOUNT 335 Hydrants  
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation	
2019	106,435	127,303	120	-27	0	-127,276	-120	-59,780	-108	-41,650	-72	-15,582	-128	-	30
2020	41,175	92,614	225		0	-92,614	-225	-82,292	-131	-55,095	-113	-17,508	-135	-	30
2021	-47,237	169,737	-359		0	-169,737	359	-129,876	-388	-88,338	-277	-21,221	-185	-	30
2022	54,729	415,184	759		0	-415,184	-759	-225,845	-1,392	-166,359	-423	-30,601	-245	-	30
2023	37,372	201,150	538		0	-201,150	-538	-262,024	-1,752	-201,192	-523	-34,567	-264	-	30
TOTAL	562,330	1,502,317	267.16	-15,915	(2.83)	-1,486,402	(264.33)								

**Tennessee American Water Company**  
**ACCOUNT 341.1 Transportation Equipment - Light Duty Trucks**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2005	313,520		0		0	0	0						0	20
2006	165,886		0		0	0	0						0	20
2007	127,727		0		0	0	0	0	0				0	20
2008	83,113		0		0	0	0	0	0				0	20
2009	79,029		0		0	0	0	0	0	0	0		0	20
2010			0		0	0	0	0	0	0	0		0	20
2011	13,886		0		0	0	0	0	0	0	0		0	20
2012	56,931		0		0	0	0	0	0	0	0		0	20
2013	113,105		0	-14,328	-13	14,328	13	4,776	8	2,866	5	14,328	2	20
2014	240,869		0	-10,402	-4	10,402	4	8,243	6	4,946	6	12,365	2	20
2015	242,420		0	-65,879	-27	65,879	27	30,203	15	18,122	14	30,203	6	20
2016	62,032	-371,739	-599	-44,726	-72	416,465	671	164,248	90	101,414	71	126,768	34	20
2017			0		0	0	0	160,781	158	101,414	77	126,768	34	20
2018	98,574		0	-17,694	-18	17,694	18	174,922	53	104,953	41	104,953	33	20
2019	4,501	5,043	112	-16,801	-373	11,758	261	178,842	59	107,305	48	89,421	33	20
2020	22,354	5,383	24		0	-5,383	-24	8,023	19	106,228	52	75,877	33	20
2021			0		0	0	0	2,125	24	106,228	57	75,877	33	20
2022		-4,738	0	-81,388	0	86,126	0	26,914	361	22,039	88	77,158	38	20
2023	78,754	318	0		0	-318	0	28,603	109	18,437	87	68,550	36	20
<b>TOTAL</b>	<b>1,702,703</b>	<b>(365,733)</b>	<b>(21.48)</b>	<b>-251,217</b>	<b>(14.75)</b>	<b>616,950</b>	<b>36.23</b>							

**Tennessee American Water Company**  
**ACCOUNT 341.2 Transportation Equipment - Heavy Duty Trucks**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2005	140,946		0		0	0	0						0	20
2006	40,348		0		0	0	0						0	20
2007			0		0	0	0	0	0				0	20
2008	22,469		0		0	0	0	0	0				0	20
2009	181,288		0		0	0	0	0	0	0	0		0	20
2010	16,467		0		0	0	0	0	0	0	0		0	20
2011			0		0	0	0	0	0	0	0		0	20
2012			0		0	0	0	0	0	0	0		0	20
2013	41,400		0	-4,922	-12	4,922	12	1,641	12	984	2	4,922	1	20
2014	23,335		0		0	0	0	1,641	8	984	6	4,922	1	20
2015	108,541	2,209	2	-6,872	-6	4,663	4	3,195	6	1,917	6	4,793	2	20
2016	0	-468,644	-4,686,438,900		0	468,644	4,686,438,900	157,769	359	95,646	276	159,410	83	20
2017	6,000		0		0	0	0	157,769	413	95,646	267	159,410	82	20
2018	54,086		0	-6,495	-12	6,495	12	161,575	107	96,945	98	121,181	76	20
2019			0	-18,284	0	18,284	0	167,669	117	100,602	111	100,602	79	20
2020			0	-2,760	0	2,760	0	9,180	51	101,154	112	84,295	80	20
2021			0		0	0	0	7,015	0	101,154	117	84,295	80	20
2022			0	-58,134	0	58,134	0	20,298	0	17,135	158	80,558	89	20
2023			0		0	0	0	19,378	0	15,836	0	80,558	89	20
TOTAL	634,880	(466,435)	(73.47)	-97,468	(15.35)	563,903	88.82							

**Tennessee American Water Company**  
**ACCOUNT 341.3 Transportation Equipment - Autos**  
**SUMMARY OF BOOK SALVAGE**

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2005	132,278		0		0	0	0						0	20.00
2006	24,424		0		0	0	0						0	20.00
2007			0		0	0	0	0	0				0	20.00
2008			0		0	0	0	0	0				0	20.00
2009	16,618		0		0	0	0	0	0	0	0		0	20.00
2010			0		0	0	0	0	0	0	0		0	20.00
2011			0		0	0	0	0	0	0	0		0	20.00
2012			0		0	0	0	0	0	0	0		0	20.00
2013			0		0	0	0	0	0	0	0		0	20.00
2014	69,636		0		0	0	0	0	0	0	0		0	20.00
2015			0		0	0	0	0	0	0	0		0	20.00
2016	0	-125,122	-1,251,217,600	-14,706	-147,063,800	139,828	1,398,281,400	46,609	201	27,966	201	139,828	58	20.00
2017			0		0	0	0	46,609	1,398,281,400	27,966	201	139,828	58	20.00
2018			0		0	0	0	46,609	162	27,966	126	139,828	58	20.00
2019			0		0	0	0	46,609	162	27,966	162	139,828	58	20.00
2020			0		0	0	0	0	0	27,966	162	139,828	58	20.00
2021			0		0	0	0	0	0	27,966	162	139,828	58	20.00
2022			0		0	0	0	0	0	0	0	139,828	58	20.00
2023	342,241		0		0	0	0	0	0	0	0	139,828	24	20.00
<b>TOTAL</b>	<b>585,198</b>	<b>(125,122)</b>	<b>(21.38)</b>	<b>-14,706</b>	<b>(2.51)</b>	<b>139,828</b>	<b>23.89</b>							

Tennessee American Water Company  
ACCOUNT 341.4 Transportation Equipment - Other  
SUMMARY OF BOOK SALVAGE

Year	Regular Retirements	Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2009	21,776		0		0	0	0						0	20.00
2010			0		0	0	0						0	20.00
2011			0		0	0	0	0	0				0	20.00
2012			0		0	0	0	0	0				0	20.00
2013			0		0	0	0	0	0	0	0		0	20.00
2014	107,745		0		0	0	0	0	0	0	0		0	20.00
2015	4,563		0	-720	-16	720	16	240	1	144	1	720	1	20.00
2016	2,154	-56,989	-2,646	-3,729	-173	60,718	2,819	20,479	54	12,288	54	30,719	45	20.00
2017	14,825	3	0	-665	-4	662	4	20,700	288	12,420	48	20,700	41	20.00
2018			0	-3	0	3	0	20,701	48	12,421	48	15,526	41	20.00
2019			0		0	0	0	20,701	48	12,421	48	15,526	41	20.00
2020			0		0	0	0	1	0	12,421	48	15,526	41	20.00
2021			0		0	0	0	0	0	12,421	48	15,526	41	20.00
2022			0	-23,254	0	23,254	0	7,751	0	4,651	0	17,071	57	20.00
2023	61,709		0		0	0	0	7,751	38	4,651	38	17,071	40	20.00
TOTAL	212,772	(56,986)	(26.78)	-28,371	(13.33)	85,356	40.12							



**Tennessee American Water Company**  
**ACCOUNT 345 Power Operated Equipment**  
**SUMMARY OF BOOK SALVAGE**

Year		Cost of Removal Amount	Cost of Removal Percent	Gross Salvage Amount	Gross Salvage Percent	Net Salvage Amount	Net Salvage Percent	3-Year Amount	3-Year Percent	5-Year Amount	5-Year Percent	Historical Amount	Historical Percent	Concentric Recommendation
2008	30,989		0		0	0	0						0	5
2009	15,514					0	0						0	5
2010			0		0	0	0	0	0				0	5
2011			0		0	0	0	0	0				0	5
2012			0		0	0	0	0	0	0	0		0	5
2013			0		0	0	0	0	0	0	0		0	5
2014	102,916	3,614	4		0	-3,614	-4	-1,205	-4	-723	-4	-3,614	-2	5
2015			0		0	0	0	-1,205	-4	-723	-4	-3,614	-2	5
2016	32,076	1,676	5		0	-1,676	-5	-1,764	-4	-1,058	-4	-2,645	-3	5
2017			0		0	0	0	-559	-5	-1,058	-4	-2,645	-3	5
2018	3,271		0		0	0	0	-559	-5	-1,058	-4	-2,645	-3	5
2019	104	489	472		0	-489	-472	-163	-14	-433	-6	-1,927	-3	5
2020	14,145	2,635	19		0	-2,635	-19	-1,041	-18	-960	-10	-2,104	-4	5
2021			0		0	0	0	-1,041	-22	-625	-18	-2,104	-4	5
2022			0		0	0	0	-878	-19	-625	-18	-2,104	-4	5
2023			0		0	0	0	0	0	-625	-22	-2,104	-4	5
<b>TOTAL</b>	<b>199,015</b>	<b>8,415</b>	<b>4.23</b>	<b>0</b>	<b>0.00</b>	<b>-8,415</b>	<b>(4.23)</b>							



SECTION 8

## **8 DETAILED DEPRECIATION CALCULATIONS**

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Tennessee - American Water Company

Account #: 304.100 - Structures & Improvement-Supply

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1.5

ASL: 55

Net Salvage: -20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2007	7,410.26	2,109	1,756	0.1975	7,136	41.95	170	16.5
2008	38,959.57	10,446	8,696	0.1860	38,056	42.71	891	15.5
2010	2,067.93	486	404	0.1629	2,077	44.24	47	13.5
2011	30,474.32	6,643	5,530	0.1512	31,039	45.01	690	12.5
2012	32,944.13	6,625	5,515	0.1395	34,018	45.78	743	11.5
2014	280,262.86	46,807	38,964	0.1159	297,351	47.35	6,280	9.5
2015	108,316.43	16,229	13,510	0.1039	116,470	48.13	2,420	8.5
2016	40,260.24	5,337	4,443	0.0920	43,870	48.92	897	7.5
2017	102,395.94	11,796	9,819	0.0799	113,056	49.72	2,274	6.5
2018	4,847.64	474	394	0.0678	5,423	50.52	107	5.5
2019	22,586.14	1,811	1,508	0.0556	25,596	51.32	499	4.5
2020	16,162.00	1,011	841	0.0434	18,553	52.13	356	3.5
2021	4,548.22	204	170	0.0311	5,288	52.95	100	2.5
2022	2,073,741.04	55,967	46,589	0.0187	2,441,900	53.76	45,420	1.5
2023	362,733.95	3,292	2,740	0.0063	432,540	54.58	7,924	0.5
TOTAL	3,127,710.67	169,236	140,879		3,612,374		68,818	

COMPOSITE ANNUAL ACCRUAL RATE	2.20%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.05
COMPOSITE AVERAGE AGE (YEARS)	3.05
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	52.52

# Tennessee - American Water Company

Account #: 304.200 - Structures & Improvements-Pumping

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1.5

ASL: 60

Net Salvage: -20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1919	53,292.92	58,984	63,952	1.0000	0	4.66	0	104.5
1922	6,640.97	7,249	7,969	1.0000	0	5.42	0	101.5
1923	5,000.00	5,433	6,000	1.0000	0	5.67	0	100.5
1927	10,563.62	11,262	12,676	1.0000	0	6.70	0	96.5
1931	11,824.86	12,351	14,190	1.0000	0	7.78	0	92.5
1950	1,024.21	948	1,229	1.0000	0	13.71	0	73.5
1951	30,459.28	27,980	36,551	1.0000	0	14.07	0	72.5
1952	1,318.41	1,201	1,582	1.0000	0	14.44	0	71.5
1953	223.87	202	269	1.0000	0	14.82	0	70.5
1954	4,175.76	3,741	5,011	1.0000	0	15.21	0	69.5
1956	4,061.96	3,574	4,874	1.0000	0	16.00	0	67.5
1957	272.70	238	327	1.0000	0	16.41	0	66.5
1959	3,264.52	2,791	3,917	1.0000	0	17.26	0	64.5
1960	175.20	148	210	1.0000	0	17.69	0	63.5
1965	6,622.09	5,298	7,947	1.0000	0	20.00	0	58.5
1966	5,683.81	4,492	6,821	1.0000	0	20.48	0	57.5
1967	18,294.22	14,277	21,798	0.9929	155	20.98	7	56.5
1968	170.57	131	201	0.9801	4	21.48	0	55.5
1969	1,539.89	1,170	1,787	0.9670	61	22.00	3	54.5
1972	1,470.44	1,071	1,635	0.9265	130	23.59	5	51.5
1973	7,305.50	5,240	8,000	0.9126	766	24.14	32	50.5
1974	64,139.40	45,293	69,151	0.8984	7,817	24.69	317	49.5
1977	2,500.00	1,680	2,564	0.8548	436	26.41	16	46.5
1980	44,619.89	28,382	43,331	0.8093	10,213	28.20	362	43.5
1981	38,721.47	24,157	36,881	0.7937	9,585	28.81	333	42.5
1982	925.50	566	864	0.7780	247	29.43	8	41.5
1983	1,200,884.21	719,273	1,098,138	0.7620	342,923	30.05	11,411	40.5
1984	10,330.00	6,056	9,246	0.7459	3,150	30.69	103	39.5

# Tennessee - American Water Company

Account #: 304.200 - Structures & Improvements-Pumping

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1.5

ASL: 60

Net Salvage: -20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1985	33,040.18	18,948	28,929	0.7296	10,720	31.33	342	38.5
1986	1,000.00	561	856	0.7132	344	31.97	11	37.5
1987	1,084.14	594	906	0.6965	395	32.63	12	36.5
1988	120,068.53	64,145	97,933	0.6797	46,149	33.29	1,386	35.5
1989	994.48	518	791	0.6627	403	33.96	12	34.5
1990	202,468.33	102,737	156,853	0.6456	86,109	34.63	2,487	33.5
1996	12,000.00	5,089	7,770	0.5396	6,630	38.80	171	27.5
1997	4,838.71	1,983	3,028	0.5214	2,779	39.51	70	26.5
1998	735,508.16	290,852	444,054	0.5031	438,556	40.23	10,902	25.5
1999	111,657.31	42,538	64,944	0.4847	69,044	40.95	1,686	24.5
2001	15,539.74	5,466	8,345	0.4475	10,303	42.41	243	22.5
2004	1,681,462.08	516,531	788,605	0.3908	1,229,150	44.64	27,534	19.5
2005	121,690.51	35,555	54,283	0.3717	91,745	45.39	2,021	18.5
2006	191,782.82	53,139	81,129	0.3525	149,010	46.15	3,229	17.5
2007	18,646.23	4,883	7,456	0.3332	14,920	46.91	318	16.5
2008	3,533.93	872	1,331	0.3138	2,910	47.67	61	15.5
2009	10,163.28	2,351	3,589	0.2943	8,607	48.43	178	14.5
2010	683,817.16	147,624	225,383	0.2747	595,198	49.21	12,096	13.5
2011	251,620.24	50,422	76,980	0.2549	224,964	49.98	4,501	12.5
2012	104,940.10	19,394	29,610	0.2351	96,318	50.76	1,898	11.5
2016	349,718.08	42,567	64,989	0.1549	354,673	53.91	6,578	7.5
2017	518,539.92	54,837	83,722	0.1345	538,526	54.71	9,843	6.5
2019	862,612.25	63,473	96,907	0.0936	938,228	56.32	16,659	4.5
2020	89,380.22	5,129	7,831	0.0730	99,425	57.13	1,740	3.5
2021	463,989.84	19,074	29,121	0.0523	527,667	57.94	9,106	2.5

Tennessee - American Water Company

Account #: 304.200 - Structures & Improvements-Pumping

ALG - Remaining Life

Survivor Curve: R1.5

ASL: 60

Net Salvage: -20%

Truncation Year:

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
TOTAL	8,125,601.51	2,542,474	3,832,463		5,918,259		125,681	
COMPOSITE ANNUAL ACCRUAL RATE				1.55%				
THEORETICAL ACCUMULATED DEPRECIATION FACTOR				0.47				
COMPOSITE AVERAGE AGE (YEARS)				20.78				
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)				44.36				

# Tennessee - American Water Company

Account #: 304.300 - Structures & Improvements-Treatment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1.5

ASL: 65

Net Salvage: -20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1951	30,660.18	26,837	35,014	0.9517	1,778	17.59	101	72.5
1952	93,285.90	80,939	105,603	0.9434	6,340	18.00	352	71.5
1953	12,070.28	10,379	13,541	0.9349	943	18.42	51	70.5
1954	4,645.77	3,958	5,164	0.9263	411	18.85	22	69.5
1955	59,974.62	50,609	66,030	0.9175	5,939	19.29	308	68.5
1956	2,520.87	2,106	2,748	0.9085	277	19.74	14	67.5
1957	116.58	96	126	0.8995	14	20.19	1	66.5
1958	9,564.07	7,830	10,216	0.8902	1,261	20.65	61	65.5
1960	2,613.98	2,094	2,733	0.8711	404	21.60	19	63.5
1964	67,693.38	51,748	67,516	0.8312	13,716	23.59	581	59.5
1969	174.59	125	163	0.7776	47	26.26	2	54.5
1972	112,574.76	76,989	100,449	0.7436	34,640	27.96	1,239	51.5
1977	7,041.94	4,430	5,780	0.6839	2,671	30.93	86	46.5
1978	142,386.57	87,952	114,752	0.6716	56,112	31.54	1,779	45.5
1980	1,134.70	675	880	0.6465	481	32.79	15	43.5
1985	6,497.04	3,474	4,533	0.5814	3,263	36.03	91	38.5
1986	37,135.50	19,401	25,313	0.5680	19,249	36.70	524	37.5
1987	1,132.00	577	753	0.5545	605	37.37	16	36.5
1989	420,901.17	204,087	266,276	0.5272	238,805	38.74	6,165	34.5
1990	26,631.10	12,574	16,405	0.5133	15,552	39.43	394	33.5
1992	79,906.21	35,670	46,539	0.4854	49,348	40.82	1,209	31.5
1995	693.00	282	368	0.4426	464	42.95	11	28.5
1996	8,120.00	3,198	4,172	0.4281	5,572	43.67	128	27.5
1997	58,888.93	22,402	29,229	0.4136	41,438	44.39	933	26.5
1999	3,700.00	1,308	1,706	0.3843	2,734	45.86	60	24.5
2000	232,529.65	79,019	103,097	0.3695	175,938	46.59	3,776	23.5
2005	48,729.08	13,189	17,209	0.2943	41,266	50.34	820	18.5
2007	23,330.90	5,658	7,382	0.2637	20,615	51.86	397	16.5

# Tennessee - American Water Company

Account #: 304.300 - Structures & Improvements-Treatment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1.5

ASL: 65

Net Salvage: -20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2008	16,867.34	3,852	5,025	0.2483	15,216	52.63	289	15.5
2009	109,373.01	23,417	30,553	0.2328	100,695	53.40	1,886	14.5
2010	2,559,501.94	511,369	667,194	0.2172	2,404,209	54.18	44,376	13.5
2011	33,659.85	6,241	8,143	0.2016	32,249	54.96	587	12.5
2012	773,948.60	132,320	172,641	0.1859	756,097	55.74	13,565	11.5
2013	117,788.43	18,429	24,045	0.1701	117,302	56.53	2,075	10.5
2015	4,295,910.03	546,587	713,143	0.1383	4,441,949	58.11	76,443	8.5
2016	6,170,012.26	694,241	905,790	0.1223	6,498,225	58.91	110,317	7.5
2017	702,648.54	68,681	89,609	0.1063	753,569	59.71	12,621	6.5
2018	72,993.36	6,051	7,895	0.0901	79,697	60.51	1,317	5.5
2019	4,415,081.86	300,184	391,656	0.0739	4,906,442	61.32	80,017	4.5
2020	7,332,052.50	388,684	507,124	0.0576	8,291,339	62.13	133,455	3.5
2021	2,524,564.89	95,866	125,078	0.0413	2,904,400	62.94	46,143	2.5
<b>TOTAL</b>	<b>30,619,055.38</b>	<b>3,603,529</b>	<b>4,701,594</b>		<b>32,041,272</b>		<b>542,246</b>	

COMPOSITE ANNUAL ACCRUAL RATE 1.77%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR 0.15

COMPOSITE AVERAGE AGE (YEARS) 8.06

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS) 58.63



**Tennessee - American Water Company**  
 Account #: 304.301 - Structures & Improvements-Treat-Dpr Paint  
 CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
 BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
 Survivor Curve: SQ  
 ASL: 10  
 Net Salvage: 0%  
 Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2014	1,250,688.87	1,188,154	1,250,689	1.0000	0	3.00	0	9.5
TOTAL	1,250,688.87	1,188,154	1,250,689		0		0	

COMPOSITE ANNUAL ACCRUAL RATE	0.00%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	1.00
COMPOSITE AVERAGE AGE (YEARS)	9.50
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	3.00

# Tennessee - American Water Company

Account #: 304.310 - Structures & Improvements-Treatment-Handl

## CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: SQ  
ASL: 10  
Net Salvage: 0%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2015	1,189.24	1,011	-42,885	-36.0605	44,074	3.00	14,691	8.5
TOTAL	1,189.24	1,011	-42,885		44,074		14,691	

COMPOSITE ANNUAL ACCRUAL RATE	1235.33%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	-36.06
COMPOSITE AVERAGE AGE (YEARS)	8.50
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	3.00

# Tennessee - American Water Company

Account #: 304.400 - Structures & Improvements-Transmission & Distribution

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R2.5

ASL: 35

Net Salvage: -15%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1987	424,253.00	380,437	359,772	0.7374	128,119	7.71	16,620	36.5
1992	1,620.00	1,324	1,252	0.6721	611	10.12	60	31.5
1996	7,432.63	5,500	5,202	0.6085	3,346	12.48	268	27.5
1999	8,858.27	5,981	5,656	0.5552	4,531	14.45	314	24.5
2000	2,200.00	1,435	1,357	0.5365	1,173	15.14	77	23.5
2004	3,254.66	1,810	1,712	0.4574	2,031	18.07	112	19.5
2007	13,975.07	6,698	6,334	0.3941	9,737	20.41	477	16.5
2008	740.92	335	317	0.3723	535	21.22	25	15.5
2010	1,028,615.02	409,952	387,685	0.3277	795,222	22.87	34,771	13.5
2015	25,678.91	6,594	6,236	0.2112	23,295	27.18	857	8.5
2016	43,790.55	9,962	9,421	0.1871	40,938	28.08	1,458	7.5
2017	30,556.04	6,048	5,719	0.1628	29,420	28.98	1,015	6.5
2018	134,593.51	22,623	21,394	0.1382	133,389	29.88	4,463	5.5
<b>TOTAL</b>	<b>1,725,568.58</b>	<b>858,700</b>	<b>812,057</b>		<b>1,172,347</b>		<b>60,517</b>	

COMPOSITE ANNUAL ACCRUAL RATE 3.51%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR 0.47

COMPOSITE AVERAGE AGE (YEARS) 18.36

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS) 19.85

# Tennessee - American Water Company

Account #: 304.500 - Structures & Improvements-General

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1.5

ASL: 30

Net Salvage: -5%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2008	22,771.67	9,428	1,675	0.0700	22,235	18.17	1,224	15.5
2009	5,456.22	2,126	378	0.0659	5,351	18.87	284	14.5
2010	25,195.50	9,192	1,633	0.0617	24,822	19.58	1,268	13.5
2011	266,957.53	90,675	16,108	0.0575	264,197	20.30	13,018	12.5
2012	96,364.85	30,274	5,378	0.0532	95,805	21.02	4,557	11.5
2014	5,193.65	1,362	242	0.0444	5,211	22.51	232	9.5
2015	1,090,123.61	257,036	45,662	0.0399	1,098,967	23.26	47,240	8.5
2017	48,537.67	8,839	1,570	0.0308	49,394	24.80	1,992	6.5
2018	77,808.81	12,048	2,140	0.0262	79,559	25.58	3,111	5.5
2019	97,155.62	12,370	2,197	0.0215	99,816	26.36	3,786	4.5
2020	125,409.28	12,479	2,217	0.0168	129,463	27.16	4,767	3.5
2021	240,113.71	17,151	3,047	0.0121	249,072	27.96	8,908	2.5
2022	74,102.63	3,193	567	0.0073	77,241	28.77	2,685	1.5
2023	181,594.04	2,627	467	0.0024	190,207	29.59	6,429	0.5
<b>TOTAL</b>	<b>2,356,784.79</b>	<b>468,798</b>	<b>83,282</b>		<b>2,391,342</b>		<b>99,501</b>	

COMPOSITE ANNUAL ACCRUAL RATE 4.22%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR 0.04

COMPOSITE AVERAGE AGE (YEARS) 7.19

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS) 24.32

Tennessee - American Water Company

Account #: 304.600 - Structures & Improvements-Offices

ALG - Remaining Life

Survivor Curve: R3

ASL: 25

Net Salvage: -15%

Truncation Year:

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1979	786.29	904	195	0.2161	709	3.00	236	45.5
1980	762.00	876	189	0.2161	687	3.00	229	44.5
1998	7,246.70	6,726	1,454	0.1744	6,880	4.82	1,427	25.5
1999	75.00	68	15	0.1703	72	5.29	14	24.5
2007	4,023.35	2,721	588	0.1271	4,039	10.30	392	16.5
2008	3,800.59	2,438	527	0.1206	3,844	11.05	348	15.5
2013	1,309,164.19	593,392	128,236	0.0852	1,377,303	15.15	90,932	10.5
2014	146,997.93	60,705	13,119	0.0776	155,929	16.02	9,732	9.5
2015	82,643.89	30,735	6,642	0.0699	88,399	16.92	5,226	8.5
2017	7,516.70	2,162	467	0.0541	8,177	18.75	436	6.5
2019	640,410.50	128,734	27,820	0.0378	708,652	20.63	34,350	4.5
2022	1,313.86	89	19	0.0127	1,492	23.53	63	1.5
TOTAL	2,204,741.00	829,550	179,271		2,356,181		143,385	

COMPOSITE ANNUAL ACCRUAL RATE	6.50%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.08
COMPOSITE AVERAGE AGE (YEARS)	8.69
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	16.82

Tennessee - American Water Company

Account #: 304.700 - Structures & Improvements-Store,Shop,Garage

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: S1.5

ASL: 50

Net Salvage: -5%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1957	81,668.31	70,690	74,792	0.8722	10,960	8.78	1,248	66.5
1982	27,299.82	18,298	19,359	0.6754	9,306	18.08	515	41.5
1990	20,347.78	11,822	12,508	0.5854	8,857	22.33	397	33.5
1996	3,362.36	1,687	1,785	0.5057	1,745	26.10	67	27.5
2012	23,402.54	5,472	5,789	0.2356	18,783	38.87	483	11.5
2015	39,008.14	6,831	7,227	0.1764	33,732	41.66	810	8.5
2019	43,356.39	4,071	4,308	0.0946	41,217	45.53	905	4.5
TOTAL	238,445.34	118,871	125,768		124,600		4,425	

COMPOSITE ANNUAL ACCRUAL RATE1.86%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR0.53

COMPOSITE AVERAGE AGE (YEARS)34.11

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)26.26

Tennessee - American Water Company

Account #: 304.800 - Structures & Improvements-Miscellaneous

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1.5

ASL: 60

Net Salvage: -10%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1963	404.05	303	444	1.0000	0	19.05	0	60.5
1972	699.73	467	770	1.0000	0	23.59	0	51.5
1988	4,540.00	2,223	4,994	1.0000	0	33.29	0	35.5
1990	258,068.53	120,038	283,875	1.0000	0	34.63	0	33.5
1993	7,877.96	3,367	8,666	1.0000	0	36.69	0	30.5
1997	439.69	165	449	0.9282	35	39.51	1	26.5
1999	525.00	183	498	0.8629	79	40.95	2	24.5
2004	247,237.77	69,620	189,221	0.6958	82,741	44.64	1,853	19.5
2021	52,146.17	1,965	5,341	0.0931	52,020	57.94	898	2.5
2022	7,431.78	169	458	0.0561	7,717	58.76	131	1.5
2023	9,215.83	70	191	0.0189	9,946	59.58	167	0.5
TOTAL	588,586.51	198,572	494,908		152,538		3,052	

COMPOSITE ANNUAL ACCRUAL RATE	0.52%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.84
COMPOSITE AVERAGE AGE (YEARS)	23.95
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	41.60

Tennessee - American Water Company

Account #: 306.000 - Lake, River & Other Intakes

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1

ASL: 70

Net Salvage: -10%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1920	7,320.62	6,685	7,693	0.9553	360	11.89	30	103.5
1942	109,392.35	85,210	98,062	0.8149	22,270	20.43	1,090	81.5
1963	2,486.03	1,541	1,774	0.6486	961	30.55	31	60.5
1995	24,407.53	7,683	8,842	0.3293	18,007	49.97	360	28.5
1998	56,722.04	16,058	18,480	0.2962	43,914	51.98	845	25.5
2000	207,670.63	54,369	62,569	0.2739	165,869	53.34	3,110	23.5
2016	24,246.53	2,089	2,405	0.0902	24,267	64.52	376	7.5
2018	144,873.65	9,194	10,581	0.0664	148,780	65.96	2,256	5.5
2019	12,092.55	629	724	0.0544	12,578	66.69	189	4.5
2020	414,697.21	16,819	19,356	0.0424	436,811	67.42	6,479	3.5
2023	1,747,215.94	10,148	11,679	0.0061	1,910,259	69.63	27,434	0.5
TOTAL	2,751,125.08	210,427	242,163		2,784,074		42,200	

COMPOSITE ANNUAL ACCRUAL RATE1.53%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR0.09

COMPOSITE AVERAGE AGE (YEARS)7.34

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)65.13



Tennessee - American Water Company

Account #: 309.000 - Supply Mains

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: R2.5  
ASL: 50  
Net Salvage: 0%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2005	6,972.72	2,325	-3,624	-0.5197	10,597	33.33	318	18.5
2006	93,038.82	29,443	-45,901	-0.4934	138,940	34.18	4,065	17.5
2014	9,861.73	1,736	-2,706	-0.2744	12,567	41.20	305	9.5
2019	1,349,045.01	113,830	-177,458	-0.1315	1,526,503	45.78	33,344	4.5
TOTAL	1,458,918.28	147,333	-229,689		1,688,607		38,032	

COMPOSITE ANNUAL ACCRUAL RATE	2.61%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	-0.16
COMPOSITE AVERAGE AGE (YEARS)	5.43
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	44.95

Tennessee - American Water Company

Account #: 310.000 - Power Generation Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 35

Net Salvage: -5%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1977	2,600.04	2,483	2,730	1.0000	0	3.17	0	46.5
1983	469.58	424	493	1.0000	0	4.88	0	40.5
1994	22,321.86	16,706	23,438	1.0000	0	10.05	0	29.5
1995	162,102.18	118,280	170,207	1.0000	0	10.68	0	28.5
2011	146,637.66	52,161	153,970	1.0000	0	23.14	0	12.5
2012	346,978.85	114,059	364,328	1.0000	0	24.04	0	11.5
2014	25,066.08	6,862	26,319	1.0000	0	25.87	0	9.5
2017	14,457.46	2,736	15,180	1.0000	0	28.69	0	6.5
2019	31,721.85	4,180	33,308	1.0000	0	30.61	0	4.5
2020	15,385.00	1,580	16,154	1.0000	0	31.58	0	3.5
2021	88,375.50	6,499	92,794	1.0000	0	32.55	0	2.5
TOTAL	856,116.06	325,971	898,922		0		0	

COMPOSITE ANNUAL ACCRUAL RATE0.00%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR1.05

COMPOSITE AVERAGE AGE (YEARS)14.01

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)22.31

# Tennessee - American Water Company

Account #: 311.200 - Pumping Equipment Electric

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1

ASL: 55

Net Salvage: -10%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1930	3,907.25	3,874	4,298	1.0000	0	5.43	0	93.5
1938	92.83	87	102	1.0000	0	7.93	0	85.5
1941	11,875.96	10,940	13,064	1.0000	0	8.94	0	82.5
1942	1,600.15	1,463	1,760	1.0000	0	9.28	0	81.5
1948	38,978.69	33,958	42,877	1.0000	0	11.44	0	75.5
1949	75,046.12	64,815	82,551	1.0000	0	11.82	0	74.5
1951	93,047.41	78,936	102,352	1.0000	0	12.58	0	72.5
1953	280,180.45	233,282	308,199	1.0000	0	13.37	0	70.5
1954	19,218.35	15,847	21,107	0.9984	33	13.77	2	69.5
1956	35,057.13	28,335	37,739	0.9786	824	14.59	57	67.5
1957	512.94	410	546	0.9685	18	15.00	1	66.5
1958	2,382.06	1,885	2,511	0.9583	109	15.43	7	65.5
1959	20,251.40	15,855	21,117	0.9480	1,159	15.85	73	64.5
1961	88,556.66	67,790	90,287	0.9269	7,125	16.73	426	62.5
1962	27,586.13	20,872	27,799	0.9161	2,546	17.17	148	61.5
1964	25,438.85	18,786	25,021	0.8942	2,962	18.08	164	59.5
1967	21,797.57	15,485	20,624	0.8602	3,353	19.48	172	56.5
1968	25,937.83	18,178	24,210	0.8485	4,321	19.96	217	55.5
1969	64.00	44	59	0.8368	11	20.45	1	54.5
1971	188.40	126	168	0.8128	39	21.44	2	52.5
1972	6,867.81	4,541	6,048	0.8006	1,507	21.94	69	51.5
1974	50,826.03	32,561	43,367	0.7757	12,542	22.97	546	49.5
1975	41,377.11	26,074	34,727	0.7630	10,788	23.49	459	48.5
1976	577,598.59	357,854	476,616	0.7502	158,743	24.02	6,608	47.5
1977	19,722.03	12,007	15,992	0.7372	5,702	24.56	232	46.5
1980	6,344.91	3,654	4,867	0.6973	2,113	26.21	81	43.5
1981	81,803.84	46,191	61,520	0.6837	28,464	26.77	1,063	42.5
1982	6,079.62	3,364	4,480	0.6699	2,207	27.34	81	41.5

# Tennessee - American Water Company

Account #: 311.200 - Pumping Equipment Electric

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1

ASL: 55

Net Salvage: -10%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1983	406,174.46	220,069	293,104	0.6560	153,688	27.91	5,507	40.5
1984	62,262.50	33,012	43,968	0.6420	24,521	28.49	861	39.5
1985	21,060.58	10,919	14,543	0.6278	8,623	29.08	297	38.5
1986	85,831.90	43,485	57,916	0.6134	36,499	29.67	1,230	37.5
1987	1,372.13	679	904	0.5989	605	30.27	20	36.5
1988	20,409.32	9,849	13,118	0.5843	9,333	30.87	302	35.5
1989	18,203.23	8,562	11,404	0.5695	8,620	31.48	274	34.5
1990	277,823.95	127,261	169,496	0.5546	136,110	32.10	4,241	33.5
1991	9,419.79	4,198	5,591	0.5396	4,771	32.72	146	32.5
1992	108,923.43	47,177	62,833	0.5244	56,982	33.34	1,709	31.5
1993	1,860.10	782	1,042	0.5091	1,004	33.98	30	30.5
1994	318,849.68	130,015	173,163	0.4937	177,572	34.61	5,130	29.5
1995	103,270.90	40,786	54,322	0.4782	59,276	35.25	1,681	28.5
1996	629,348.70	240,429	320,221	0.4626	372,063	35.90	10,364	27.5
1997	881.74	325	433	0.4468	537	36.55	15	26.5
1998	200,598.85	71,400	95,095	0.4310	125,564	37.20	3,375	25.5
1999	11,387.26	3,903	5,198	0.4150	7,328	37.86	194	24.5
2000	236,039.03	77,780	103,593	0.3990	156,050	38.52	4,051	23.5
2001	433,018.78	136,923	182,364	0.3829	293,957	39.19	7,501	22.5
2002	62,482.69	18,921	25,200	0.3667	43,531	39.86	1,092	21.5
2003	13,511.72	3,910	5,207	0.3504	9,655	40.53	238	20.5
2004	34,793.10	9,598	12,783	0.3340	25,489	41.21	619	19.5
2006	11,637.40	2,894	3,854	0.3011	8,947	42.57	210	17.5
2008	5,795.16	1,282	1,708	0.2679	4,667	43.94	106	15.5
2011	30,945.12	5,561	7,407	0.2176	26,633	46.01	579	12.5
2012	5,929.56	983	1,309	0.2007	5,214	46.71	112	11.5
2013	12,418.29	1,884	2,509	0.1837	11,151	47.41	235	10.5
2015	17,257.17	2,130	2,837	0.1495	16,146	48.83	331	8.5

Tennessee - American Water Company

Account #: 311.200 - Pumping Equipment Electric

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1

ASL: 55

Net Salvage: -10%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2016	2,322.46	254	338	0.1322	2,217	49.54	45	7.5
2017	23,837.79	2,262	3,013	0.1149	23,209	50.26	462	6.5
2018	22,229.02	1,790	2,384	0.0975	22,068	50.97	433	5.5
2019	206,506.17	13,640	18,166	0.0800	208,990	51.70	4,043	4.5
2020	977,342.79	50,341	67,048	0.0624	1,008,029	52.42	19,228	3.5
2021	91,239.62	3,366	4,482	0.0447	95,881	53.16	1,804	2.5
2022	85,302.27	1,892	2,520	0.0269	91,312	53.89	1,694	1.5
TOTAL	6,112,626.78	2,445,475	3,243,080		3,480,810		88,568	

COMPOSITE ANNUAL ACCRUAL RATE	1.45%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.53
COMPOSITE AVERAGE AGE (YEARS)	30.51
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	35.00

# Tennessee - American Water Company

Account #: 311.300 - Pumping Equipment Diesel

## CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R2.5

ASL: 50

Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1975	23,858.28	17,819	22,232	0.9318	1,627	12.66	129	48.5
1982	572.96	384	480	0.8369	93	16.46	6	41.5
1984	919.63	594	741	0.8063	178	17.69	10	39.5
1990	67,586.30	38,277	47,756	0.7066	19,830	21.68	915	33.5
TOTAL	92,937.17	57,075	71,209		21,728		1,060	

COMPOSITE ANNUAL ACCRUAL RATE1.14%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR0.77

COMPOSITE AVERAGE AGE (YEARS)37.46

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)19.29

Tennessee - American Water Company

Account #: 311.500 - Pumping Equipment Other

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R2.5

ASL: 40

Net Salvage: -10%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2006	170,999.64	73,235	-5,030	-0.0267	193,129	24.43	7,907	17.5
2013	96,086.48	25,438	-1,747	-0.0165	107,442	30.37	3,537	10.5
2019	45,690.92	5,287	-363	-0.0072	50,623	35.79	1,414	4.5
2020	1,218,914.19	110,013	-7,557	-0.0056	1,348,362	36.72	36,722	3.5
2021	3,632,837.94	234,832	-16,130	-0.0040	4,012,252	37.65	106,569	2.5
2022	846,527.82	32,918	-2,261	-0.0024	933,442	38.59	24,191	1.5
2023	2,942,361.82	38,240	-2,627	-0.0008	3,239,225	39.53	81,949	0.5
TOTAL	8,953,418.81	519,963	-35,715		9,884,475		262,289	

COMPOSITE ANNUAL ACCRUAL RATE2.93%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR0.00

COMPOSITE AVERAGE AGE (YEARS)2.27

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)37.89

Tennessee - American Water Company

Account #: 311.520 - Pumping Equipment-SOS & Pumping

ALG - Remaining Life

Survivor Curve: S0

ASL: 40

Net Salvage: -10%

Truncation Year:

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2007	111,081.55	37,115	17,894	0.1464	104,296	27.85	3,745	16.5
2008	10,050.17	3,192	1,539	0.1392	9,516	28.45	334	15.5
2010	120,029.60	34,035	16,409	0.1243	115,624	29.69	3,895	13.5
2011	25,704.68	6,838	3,297	0.1166	24,979	30.33	824	12.5
2012	9,519.09	2,362	1,139	0.1087	9,332	30.98	301	11.5
2013	165,141.82	37,940	18,292	0.1007	163,364	31.65	5,162	10.5
2014	274,408.83	57,890	27,910	0.0925	273,940	32.33	8,474	9.5
2015	360,640.67	69,135	33,331	0.0840	363,374	33.03	11,002	8.5
2016	402,160.51	69,140	33,333	0.0754	409,043	33.75	12,120	7.5
2017	873,894.05	132,462	63,862	0.0664	897,422	34.49	26,021	6.5
2018	216,758.76	28,311	13,649	0.0572	224,785	35.25	6,377	5.5
2019	50,613.17	5,515	2,659	0.0478	53,016	36.04	1,471	4.5
2022	48,818.35	1,901	916	0.0171	52,784	38.58	1,368	1.5
2023	57,414.82	768	370	0.0059	62,786	39.51	1,589	0.5
TOTAL	2,726,236.07	486,604	234,599		2,764,261		82,683	

COMPOSITE ANNUAL ACCRUAL RATE	3.03%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.09
COMPOSITE AVERAGE AGE (YEARS)	7.95
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	33.51



# Tennessee - American Water Company

Account #: 320.100 - Water Treatment Equipment Non-Media

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: S0.5

ASL: 50

Net Salvage: -15%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1892	135,815.08	156,187	127,803	0.8183	28,384	3.00	9,461	132.5
1912	17,504.31	20,130	16,472	0.8183	3,658	3.00	1,219	112.5
1925	19,071.59	21,651	17,716	0.8078	4,216	3.00	1,405	98.5
1926	8,652.66	9,760	7,986	0.8026	1,964	3.00	655	97.5
1949	374.72	356	291	0.6758	140	8.71	16	74.5
1951	20,995.65	19,605	16,042	0.6644	8,103	9.40	862	72.5
1952	1,014.70	939	769	0.6587	398	9.75	41	71.5
1955	59,655.50	53,769	43,998	0.6413	24,606	10.81	2,276	68.5
1956	110,280.71	98,490	80,591	0.6355	46,232	11.17	4,139	67.5
1957	24,897.02	22,028	18,025	0.6296	10,606	11.53	920	66.5
1964	15,430.61	12,727	10,414	0.5869	7,331	14.14	518	59.5
1965	1,559.18	1,272	1,041	0.5805	752	14.53	52	58.5
1966	1,037,258.04	837,001	684,891	0.5742	507,956	14.92	34,055	57.5
1970	2,606.72	2,008	1,643	0.5480	1,355	16.51	82	53.5
1972	2,415.51	1,815	1,485	0.5345	1,293	17.34	75	51.5
1973	14,711.11	10,910	8,927	0.5277	7,991	17.76	450	50.5
1977	17,233.15	12,096	9,898	0.4994	9,920	19.48	509	46.5
1991	354.00	193	158	0.3880	249	26.29	9	32.5
1997	3,443.38	1,609	1,317	0.3325	2,643	29.68	89	26.5
1998	3,992,125.69	1,810,857	1,481,766	0.3228	3,109,179	30.28	102,688	25.5
1999	33,230.19	14,608	11,953	0.3128	26,261	30.89	850	24.5
2000	52,306.45	22,249	18,206	0.3027	41,947	31.51	1,331	23.5
2003	9,183.21	3,500	2,864	0.2712	7,697	33.43	230	20.5
2004	27,639.44	10,110	8,273	0.2603	23,513	34.10	690	19.5
2005	15,303.69	5,359	4,385	0.2492	13,214	34.77	380	18.5
2007	74,100.18	23,574	19,290	0.2264	65,925	36.17	1,823	16.5
2008	165,168.30	49,823	40,768	0.2146	149,175	36.88	4,044	15.5
2010	2,384,153.14	638,289	522,291	0.1905	2,219,485	38.36	57,859	13.5

Tennessee - American Water Company

Account #: 320.100 - Water Treatment Equipment Non-Media

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: S0.5

ASL: 50

Net Salvage: -15%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2011	45,987.03	11,509	9,417	0.1781	43,468	39.12	1,111	12.5
2012	5,732.06	1,332	1,090	0.1654	5,502	39.89	138	11.5
2013	221,482.11	47,466	38,840	0.1525	215,864	40.68	5,306	10.5
2014	874,855.65	171,301	140,170	0.1393	865,914	41.49	20,872	9.5
2015	11,822,243.72	2,091,707	1,711,577	0.1259	11,884,004	42.31	280,897	8.5
2016	2,168,562.48	341,936	279,796	0.1122	2,214,051	43.14	51,317	7.5
2017	988,085.80	136,398	111,610	0.0982	1,024,689	44.00	23,289	6.5
2018	472,137.21	55,717	45,592	0.0840	497,366	44.87	11,085	5.5
2019	2,498,108.16	243,746	199,449	0.0694	2,673,375	45.76	58,425	4.5
2020	196,449.16	15,070	12,332	0.0546	213,585	46.66	4,577	3.5
2021	284,174.74	15,748	12,886	0.0394	313,915	47.59	6,596	2.5
2022	158,874.62	5,347	4,375	0.0239	178,331	48.54	3,674	1.5
2023	1,329,959.66	15,133	12,383	0.0081	1,517,071	49.51	30,645	0.5
TOTAL	29,313,136.33	7,013,327	5,738,779		27,971,328		724,660	

COMPOSITE ANNUAL ACCRUAL RATE	2.47%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.20
COMPOSITE AVERAGE AGE (YEARS)	13.35
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	39.62

**Tennessee - American Water Company**  
 Account #: 320.200 - Water Treatment Equipment Filter Media  
 CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
 BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
 Survivor Curve: S0  
 ASL: 10  
 Net Salvage: -15%  
 Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2011	492,718.60	401,414	328,464	0.5797	238,162	3.00	79,387	12.5
2012	175,430.08	134,464	110,027	0.5454	91,717	3.33	27,502	11.5
2014	89,057.25	59,276	48,504	0.4736	53,912	4.21	12,799	9.5
2015	645,278.02	395,227	323,402	0.4358	418,668	4.67	89,574	8.5
2017	233,338.47	116,540	95,361	0.3554	172,979	5.66	30,578	6.5
2018	216,448.53	94,939	77,685	0.3121	171,230	6.19	27,681	5.5
2019	254,079.25	95,053	77,779	0.2662	214,412	6.75	31,779	4.5
2022	647,976.43	95,480	78,128	0.1048	667,045	8.72	76,507	1.5
TOTAL	2,754,326.63	1,392,393	1,139,350		2,028,126		375,807	

COMPOSITE ANNUAL ACCRUAL RATE	13.64%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.41
COMPOSITE AVERAGE AGE (YEARS)	7.02
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	5.62

# Tennessee - American Water Company

Account #: 330.000 - Distribution Reservoirs & Standpipes

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: S0

ASL: 60

Net Salvage: -25%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1950	100.20	88	65	0.5166	61	18.02	3	73.5
1951	891.83	772	566	0.5079	549	18.44	30	72.5
1952	78,038.25	66,880	49,044	0.5028	48,504	18.86	2,571	71.5
1953	2,084.15	1,768	1,296	0.4976	1,309	19.29	68	70.5
1955	20,306.63	16,863	12,366	0.4872	13,017	20.14	646	68.5
1956	45,589.15	37,451	27,463	0.4819	29,523	20.57	1,435	67.5
1957	1,110.91	903	662	0.4767	727	21.00	35	66.5
1960	56,973.17	44,740	32,808	0.4607	38,408	22.31	1,722	63.5
1961	112,089.85	86,994	63,794	0.4553	76,319	22.75	3,355	62.5
1962	1,857.50	1,425	1,045	0.4499	1,277	23.19	55	61.5
1964	640.20	479	351	0.4390	449	24.08	19	59.5
1965	506,359.84	374,170	274,384	0.4335	358,566	24.53	14,617	58.5
1969	9,138.26	6,405	4,697	0.4112	6,726	26.36	255	54.5
1970	2,851.84	1,971	1,446	0.4055	2,119	26.82	79	53.5
1973	2,450.00	1,622	1,189	0.3883	1,873	28.23	66	50.5
1979	555,508.88	334,172	245,053	0.3529	449,333	31.13	14,436	44.5
1981	54,525.02	31,670	23,224	0.3407	44,933	32.12	1,399	42.5
1982	323,944.68	184,758	135,486	0.3346	269,445	32.62	8,259	41.5
1992	62,631.30	28,833	21,143	0.2701	57,146	37.90	1,508	31.5
1994	2,936.74	1,284	941	0.2564	2,730	39.02	70	29.5
1996	1,276,265.29	527,480	386,808	0.2425	1,208,523	40.16	30,092	27.5
2000	1,405,737.13	511,799	375,310	0.2136	1,381,862	42.52	32,496	23.5
2006	238,979.70	68,195	50,008	0.1674	248,716	46.30	5,372	17.5
2013	1,938.24	356	261	0.1079	2,161	51.17	42	10.5
2014	23,045.20	3,879	2,845	0.0988	25,962	51.92	500	9.5
2017	23,679.28	2,833	2,078	0.0702	27,522	54.26	507	6.5
2018	316,581.44	32,501	23,833	0.0602	371,894	55.07	6,753	5.5
2020	271,038.31	18,258	13,389	0.0395	325,409	56.77	5,732	3.5

Tennessee - American Water Company

Account #: 330.000 - Distribution Reservoirs & Standpipes

ALG - Remaining Life

Survivor Curve: S0

ASL: 60

Net Salvage: -25%

Truncation Year:

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2021	1,389,314.12	68,011	49,873	0.0287	1,686,769	57.65	29,259	2.5
2022	1,723,854.02	51,588	37,830	0.0176	2,116,987	58.56	36,149	1.5
2023	729,663.23	7,442	5,457	0.0060	906,622	59.51	15,235	0.5
TOTAL	9,240,124.36	2,515,589	1,844,716		9,705,439		212,765	

COMPOSITE ANNUAL ACCRUAL RATE	2.30%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.20
COMPOSITE AVERAGE AGE (YEARS)	19.03
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	46.93

Tennessee - American Water Company

Account #: 330.003 - Tank Repainting

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: SQ

ASL: 10

Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2015	291,800.09	248,030	181,884	0.6233	109,916	3.00	36,639	8.5
2017	613,225.06	398,596	292,296	0.4767	320,929	3.50	91,694	6.5
2018	119,953.82	65,975	48,380	0.4033	71,574	4.50	15,905	5.5
2019	9,219.12	4,149	3,042	0.3300	6,177	5.50	1,123	4.5
2022	224,159.85	33,624	24,657	0.1100	199,503	8.50	23,471	1.5
2023	1,426,597.32	71,330	52,307	0.0367	1,374,290	9.50	144,662	0.5
TOTAL	2,684,955.26	821,703	602,567		2,082,388		313,494	

COMPOSITE ANNUAL ACCRUAL RATE11.68%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR0.22

COMPOSITE AVERAGE AGE (YEARS)3.06

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)7.10

Tennessee - American Water Company

Account #: 330.100 - Elevated Tanks & Standpipes

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 35

Net Salvage: -25%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2001	137,570.43	98,926	72,544	0.4219	99,419	14.87	6,688	22.5
2002	8,582.87	5,938	4,355	0.4059	6,374	15.63	408	21.5
2003	3,274.00	2,174	1,594	0.3896	2,498	16.40	152	20.5
2004	5,300.00	3,370	2,471	0.3730	4,154	17.20	242	19.5
2006	1,719,223.88	992,977	728,164	0.3388	1,420,866	18.83	75,466	17.5
2008	6,861.07	3,549	2,603	0.3035	5,974	20.52	291	15.5
2013	238,915.78	85,726	62,864	0.2105	235,780	24.95	9,449	10.5
2015	90,599.22	26,517	19,445	0.1717	93,804	26.80	3,500	8.5
2019	715,793.38	112,274	82,332	0.0920	812,410	30.61	26,542	4.5
TOTAL	2,926,120.63	1,331,452	976,372		2,681,279		122,738	

COMPOSITE ANNUAL ACCRUAL RATE	4.19%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.33
COMPOSITE AVERAGE AGE (YEARS)	13.72
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	22.26

Tennessee - American Water Company

Account #: 330.200 - Ground Level Tanks

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: R3  
ASL: 35  
Net Salvage: -25%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1983	30,580.48	32,893	24,121	0.6310	14,105	4.88	2,889	40.5
1996	44,000.00	37,203	27,281	0.4960	27,719	11.33	2,447	27.5
2000	47,826.00	35,664	26,153	0.4375	33,630	14.12	2,382	23.5
2004	142,916.16	90,866	66,634	0.3730	112,012	17.20	6,513	19.5
2011	21,845.07	9,251	6,784	0.2484	20,523	23.14	887	12.5
2017	284,961.87	64,201	47,080	0.1322	309,123	28.69	10,774	6.5
2018	234,540.36	44,843	32,884	0.1122	260,292	29.65	8,780	5.5
2019	844,942.43	132,531	97,187	0.0920	958,991	30.61	31,331	4.5
2020	826,542.25	101,083	74,126	0.0717	959,052	31.58	30,373	3.5
TOTAL	2,478,154.62	548,534	402,248		2,695,445		96,376	

COMPOSITE ANNUAL ACCRUAL RATE	3.89%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.16
COMPOSITE AVERAGE AGE (YEARS)	6.65
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	28.80



# Tennessee - American Water Company

Account #: 330.300 - Below Ground Tanks

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: R3  
ASL: 35  
Net Salvage: -25%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2010	18,647.76	8,488	6,225	0.2670	17,085	22.25	768	13.5
2019	21,221.19	3,329	2,441	0.0920	24,086	30.61	787	4.5
TOTAL	39,868.95	11,817	8,665		41,171		1,555	

COMPOSITE ANNUAL ACCRUAL RATE	3.90%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.22
COMPOSITE AVERAGE AGE (YEARS)	8.71
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	26.70

# Tennessee - American Water Company

Account #: 330.400 - Clearwell

ALG - Remaining Life

Survivor Curve: R3

ASL: 60

Net Salvage: -25%

Truncation Year:

## CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2023

				Accumulated		ALG			
Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Actual Depreciation Factor	Net Book Value	Remaining Life		Annual Accrual	Average Age
2003	680,783.96	276,480	202,747	0.2383	648,233	40.51		16,003	20.5
TOTAL		680,783.96	276,480	202,747	648,233			16,003	

COMPOSITE ANNUAL ACCRUAL RATE	2.35%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.30
COMPOSITE AVERAGE AGE (YEARS)	20.50
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	40.51

# Tennessee - American Water Company

Account #: 331.001 - Transmission & Distribution Mains

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 90

Net Salvage: -20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1958	378,301.84	289,212	228,300	0.5029	225,662	32.66	6,909	65.5
1960	380.06	283	224	0.4905	232	34.08	7	63.5
1964	7,622,531.33	5,387,298	4,252,668	0.4649	4,894,370	36.99	132,305	59.5
1965	1,497,322.59	1,043,363	823,618	0.4584	973,169	37.74	25,787	58.5
1966	552,687.71	379,575	299,632	0.4518	363,593	38.49	9,446	57.5
1967	365,042.45	247,009	194,986	0.4451	243,065	39.25	6,193	56.5
1968	602,546.50	401,568	316,993	0.4384	406,063	40.02	10,147	55.5
1969	894,365.27	586,850	463,252	0.4316	609,986	40.79	14,955	54.5
1970	293,943.38	189,827	149,847	0.4248	202,885	41.57	4,881	53.5
1971	440,170.95	279,660	220,760	0.4179	307,445	42.35	7,260	52.5
1972	657,269.36	410,673	324,180	0.4110	464,543	43.14	10,769	51.5
1973	1,394,774.72	856,685	676,257	0.4040	997,473	43.93	22,704	50.5
1974	2,219,982.31	1,339,819	1,057,637	0.3970	1,606,342	44.74	35,908	49.5
1975	254,887.56	151,087	119,266	0.3899	186,599	45.54	4,097	48.5
1976	654,981.23	381,142	300,869	0.3828	485,108	46.36	10,465	47.5
1977	1,524,307.53	870,372	687,061	0.3756	1,142,108	47.18	24,210	46.5
1978	2,789,451.27	1,562,104	1,233,106	0.3684	2,114,236	48.00	44,047	45.5
1979	2,692,160.47	1,477,835	1,166,585	0.3611	2,064,007	48.83	42,270	44.5
1980	2,197,815.62	1,181,997	933,054	0.3538	1,704,325	49.66	34,317	43.5
1981	3,361,814.75	1,770,330	1,397,477	0.3464	2,636,701	50.51	52,207	42.5
1982	2,002,630.15	1,032,003	814,651	0.3390	1,588,506	51.35	30,934	41.5
1983	931,697.35	469,556	370,662	0.3315	747,375	52.20	14,317	40.5
1984	631,516.44	311,059	245,546	0.3240	512,274	53.06	9,655	39.5
1985	955,029.79	459,436	362,674	0.3165	783,362	53.92	14,528	38.5
1986	1,903,285.89	893,625	705,416	0.3089	1,578,527	54.79	28,812	37.5
1987	1,418,324.05	649,448	512,666	0.3012	1,189,322	55.66	21,369	36.5
1988	2,332,243.48	1,040,684	821,503	0.2935	1,977,189	56.53	34,974	35.5
1989	2,187,652.70	950,471	750,290	0.2858	1,874,893	57.41	32,655	34.5

# Tennessee - American Water Company

Account #: 331.001 - Transmission & Distribution Mains

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 90

Net Salvage: -20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1990	2,875,827.92	1,215,508	959,507	0.2780	2,491,486	58.30	42,735	33.5
1991	1,553,665.16	638,239	503,818	0.2702	1,360,580	59.19	22,987	32.5
1992	1,692,831.56	675,217	533,008	0.2624	1,498,389	60.08	24,938	31.5
1993	2,818,063.70	1,090,242	860,624	0.2545	2,521,053	60.98	41,339	30.5
1994	2,041,506.43	765,211	604,049	0.2466	1,845,759	61.89	29,824	29.5
1995	1,820,367.18	660,287	521,223	0.2386	1,663,218	62.80	26,486	28.5
1996	2,043,476.95	716,366	565,491	0.2306	1,886,681	63.71	29,615	27.5
1997	1,589,659.90	537,861	424,581	0.2226	1,483,011	64.62	22,948	26.5
1998	4,494,742.11	1,465,670	1,156,982	0.2145	4,236,708	65.54	64,640	25.5
1999	2,671,500.53	838,238	661,695	0.2064	2,544,105	66.47	38,276	24.5
2000	2,937,415.04	885,356	698,889	0.1983	2,826,009	67.39	41,932	23.5
2001	2,745,967.03	793,570	626,434	0.1901	2,668,726	68.33	39,059	22.5
2002	3,892,502.25	1,076,398	849,695	0.1819	3,821,307	69.26	55,173	21.5
2003	2,139,352.76	564,838	445,876	0.1737	2,121,347	70.20	30,219	20.5
2004	1,673,826.19	420,919	332,269	0.1654	1,676,323	71.14	23,564	19.5
2005	1,696,701.32	405,305	319,943	0.1571	1,716,099	72.08	23,807	18.5
2006	12,736,956.05	2,881,661	2,274,748	0.1488	13,009,599	73.03	178,136	17.5
2007	4,487,219.18	958,340	756,502	0.1405	4,628,161	73.98	62,558	16.5
2008	2,063,344.84	414,444	327,157	0.1321	2,148,857	74.94	28,676	15.5
2009	1,616,260.01	304,040	240,005	0.1237	1,699,507	75.89	22,394	14.5
2010	2,768,456.28	485,397	383,166	0.1153	2,938,981	76.85	38,243	13.5
2011	3,606,969.44	586,177	462,721	0.1069	3,865,643	77.81	49,680	12.5
2012	4,728,863.65	707,728	558,672	0.0985	5,115,965	78.78	64,944	11.5
2013	2,627,887.36	359,442	283,739	0.0900	2,869,725	79.74	35,988	10.5
2014	5,441,002.53	673,974	532,027	0.0815	5,997,176	80.71	74,305	9.5
2015	5,797,858.38	643,163	507,705	0.0730	6,449,725	81.68	78,963	8.5
2016	3,890,010.88	381,090	300,827	0.0644	4,367,186	82.65	52,838	7.5
2017	7,760,910.39	659,491	520,594	0.0559	8,792,499	83.63	105,140	6.5

# Tennessee - American Water Company

Account #: 331.001 - Transmission & Distribution Mains

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 90

Net Salvage: -20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2018	2,619,102.08	188,475	148,780	0.0473	2,994,143	84.60	35,391	5.5
2019	14,847,063.65	874,854	690,599	0.0388	17,125,877	85.58	200,114	4.5
2020	9,506,734.27	436,013	344,183	0.0302	11,063,898	86.56	127,817	3.5
2021	7,465,410.53	244,734	193,190	0.0216	8,765,303	87.54	100,128	2.5
2022	11,213,079.64	220,695	174,214	0.0129	13,281,481	88.52	150,033	1.5
2023	11,970,666.83	78,570	62,022	0.0043	14,302,778	89.51	159,794	0.5
TOTAL	196,592,318.77	48,460,484	38,254,119		197,656,664		2,808,812	

COMPOSITE ANNUAL ACCRUAL RATE	1.43%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.19
COMPOSITE AVERAGE AGE (YEARS)	19.68
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	71.51

# Tennessee - American Water Company

Account #: 333.000 - Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 75

Net Salvage: -40%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1935	89.40	109	88	0.7030	37	9.89	4	88.5
1936	12,189.24	14,742	11,890	0.6968	5,175	10.21	507	87.5
1937	22,901.50	27,557	22,225	0.6932	9,837	10.54	933	86.5
1938	22,912.84	27,425	22,119	0.6895	9,959	10.88	915	85.5
1939	29,340.99	34,927	28,170	0.6858	12,908	11.23	1,149	84.5
1940	37,896.61	44,856	36,178	0.6819	16,877	11.59	1,456	83.5
1941	33,943.64	39,941	32,214	0.6779	15,307	11.96	1,280	82.5
1942	18,233.97	21,325	17,200	0.6738	8,328	12.35	675	81.5
1943	11,260.97	13,087	10,555	0.6695	5,210	12.74	409	80.5
1944	10,224.08	11,804	9,521	0.6651	4,793	13.15	365	79.5
1945	17,516.39	20,087	16,200	0.6606	8,322	13.57	613	78.5
1946	37,593.65	42,807	34,525	0.6560	18,106	14.00	1,293	77.5
1947	68,054.07	76,927	62,044	0.6512	33,231	14.44	2,301	76.5
1948	92,863.74	104,179	84,023	0.6463	45,986	14.90	3,086	75.5
1949	70,232.91	78,175	63,050	0.6412	35,276	15.37	2,295	74.5
1950	63,340.77	69,934	56,404	0.6361	32,273	15.85	2,036	73.5
1951	60,643.63	66,394	53,549	0.6307	31,352	16.35	1,918	72.5
1952	74,706.78	81,083	65,396	0.6253	39,193	16.86	2,325	71.5
1953	83,608.39	89,934	72,534	0.6197	44,517	17.38	2,562	70.5
1954	100,870.11	107,496	86,699	0.6139	54,519	17.91	3,044	69.5
1955	109,356.67	115,427	93,096	0.6081	60,004	18.45	3,251	68.5
1956	105,946.41	110,726	89,304	0.6021	59,021	19.01	3,104	67.5
1957	124,023.76	128,298	103,477	0.5959	70,157	19.58	3,583	66.5
1958	112,167.89	114,816	92,603	0.5897	64,432	20.16	3,195	65.5
1959	139,419.83	141,170	113,858	0.5833	81,329	20.76	3,918	64.5
1960	129,589.70	129,751	104,649	0.5768	76,777	21.36	3,594	63.5
1961	130,013.32	128,681	103,785	0.5702	78,233	21.98	3,560	62.5
1962	126,151.72	123,385	99,514	0.5635	77,098	22.60	3,411	61.5

# Tennessee - American Water Company

Account #: 333.000 - Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 75

Net Salvage: -40%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1963	113,697.07	109,849	88,596	0.5566	70,579	23.24	3,037	60.5
1964	88,445.95	84,382	68,057	0.5496	55,767	23.89	2,334	59.5
1965	94,393.11	88,898	71,699	0.5426	60,451	24.55	2,463	58.5
1966	114,934.18	106,808	86,144	0.5354	74,764	25.22	2,965	57.5
1967	135,790.43	124,472	100,391	0.5281	89,716	25.89	3,465	56.5
1968	155,956.29	140,959	113,688	0.5207	104,651	26.58	3,937	55.5
1969	151,929.80	135,342	109,158	0.5132	103,544	27.28	3,796	54.5
1970	152,283.24	133,652	107,794	0.5056	105,402	27.98	3,767	53.5
1971	125,574.02	108,538	87,540	0.4979	88,264	28.70	3,076	52.5
1972	144,467.01	122,917	99,137	0.4902	103,117	29.42	3,505	51.5
1973	613,593.25	513,691	414,309	0.4823	444,722	30.15	14,750	50.5
1974	95,557.16	78,682	63,459	0.4744	70,321	30.89	2,277	49.5
1975	77,297.54	62,568	50,463	0.4663	57,754	31.64	1,825	48.5
1976	129,007.69	102,605	82,755	0.4582	97,856	32.39	3,021	47.5
1977	127,184.20	99,346	80,126	0.4500	97,932	33.15	2,954	46.5
1978	184,931.23	141,792	114,360	0.4417	144,544	33.93	4,261	45.5
1979	221,405.02	166,543	134,323	0.4333	175,644	34.70	5,061	44.5
1980	221,771.71	163,572	131,926	0.4249	178,554	35.49	5,031	43.5
1981	279,063.06	201,698	162,676	0.4164	228,012	36.28	6,285	42.5
1982	192,962.84	136,589	110,163	0.4078	159,984	37.08	4,315	41.5
1983	213,384.85	147,836	119,235	0.3991	179,504	37.88	4,738	40.5
1984	245,815.95	166,571	134,345	0.3904	209,797	38.70	5,421	39.5
1985	322,873.97	213,847	172,474	0.3816	279,549	39.52	7,074	38.5
1986	384,799.51	248,929	200,769	0.3727	337,950	40.34	8,377	37.5
1987	281,355.03	177,632	143,266	0.3637	250,631	41.18	6,087	36.5
1988	340,443.90	209,602	169,051	0.3547	307,570	42.02	7,320	35.5
1989	370,771.96	222,424	179,392	0.3456	339,689	42.86	7,925	34.5
1990	385,504.93	225,126	181,571	0.3364	358,135	43.72	8,192	33.5

# Tennessee - American Water Company

Account #: 333.000 - Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 75

Net Salvage: -40%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1991	366,228.38	208,001	167,760	0.3272	344,960	44.57	7,739	32.5
1992	354,440.25	195,590	157,750	0.3179	338,466	45.44	7,449	31.5
1993	292,480.15	156,645	126,339	0.3085	283,133	46.31	6,114	30.5
1994	410,003.73	212,881	171,696	0.2991	402,309	47.18	8,526	29.5
1995	451,954.77	227,227	183,266	0.2896	449,471	48.07	9,351	28.5
1996	482,649.42	234,659	189,260	0.2801	486,449	48.95	9,937	27.5
1997	463,685.09	217,710	175,590	0.2705	473,569	49.85	9,500	26.5
1998	451,355.41	204,356	164,820	0.2608	467,078	50.74	9,204	25.5
1999	482,619.06	210,367	169,668	0.2511	505,999	51.65	9,797	24.5
2000	645,408.91	270,379	218,069	0.2413	685,503	52.56	13,043	23.5
2001	4,837,081.07	1,943,929	1,567,842	0.2315	5,204,071	53.47	97,326	22.5
2002	53,403.80	20,546	16,571	0.2216	58,194	54.39	1,070	21.5
2003	68,773.30	25,274	20,385	0.2117	75,898	55.31	1,372	20.5
2004	95,788.50	33,545	27,055	0.2017	107,049	56.24	1,903	19.5
2005	107,742.43	35,856	28,919	0.1917	121,920	57.17	2,133	18.5
2006	453,243.41	142,920	115,270	0.1817	519,271	58.11	8,936	17.5
2007	403,706.04	120,218	96,960	0.1716	468,229	59.05	7,930	16.5
2008	1,438,419.90	402,991	325,026	0.1614	1,688,762	59.99	28,150	15.5
2009	1,024,911.18	269,014	216,968	0.1512	1,217,907	60.94	19,986	14.5
2010	995,082.04	243,523	196,409	0.1410	1,196,706	61.89	19,336	13.5
2011	842,609.38	191,192	154,202	0.1307	1,025,451	62.84	16,317	12.5
2012	1,010,360.06	211,193	170,334	0.1204	1,244,170	63.80	19,500	11.5
2013	243,712.19	46,572	37,562	0.1101	303,635	64.76	4,688	10.5
2014	802,470.20	138,910	112,035	0.0997	1,011,423	65.73	15,388	9.5
2015	2,441,606.44	378,599	305,353	0.0893	3,112,896	66.69	46,675	8.5
2016	1,140,831.16	156,265	126,033	0.0789	1,471,131	67.66	21,742	7.5
2017	1,475,549.31	175,347	141,423	0.0685	1,924,346	68.63	28,038	6.5
2018	619,044.17	62,310	50,255	0.0580	816,407	69.61	11,729	5.5



Tennessee - American Water Company

Account #: 333.000 - Services

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: R3  
ASL: 75  
Net Salvage: -40%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2019	1,032,309.84	85,100	68,636	0.0475	1,376,598	70.58	19,503	4.5
2020	718,036.30	46,079	37,164	0.0370	968,086	71.56	13,528	3.5
2021	350,456.52	16,078	12,968	0.0264	477,671	72.54	6,585	2.5
2022	692,285.23	19,074	15,383	0.0159	953,816	73.52	12,973	1.5
2023	1,204,080.98	11,064	8,924	0.0053	1,676,790	74.51	22,505	0.5
TOTAL	34,262,616.50	13,313,326	10,737,635		37,230,028		712,014	

COMPOSITE ANNUAL ACCRUAL RATE	2.08%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.31
COMPOSITE AVERAGE AGE (YEARS)	22.72
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	54.18

# Tennessee - American Water Company

Account #: 334.100 - Meters

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1.5

ASL: 15

Net Salvage: -15%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1973	2,975.24	3,422	2,482	0.7254	940	3.00	313	50.5
1974	1,303.16	1,499	1,087	0.7253	412	3.00	137	49.5
1987	26.81	31	22	0.7252	8	3.00	3	36.5
1990	4,460.79	5,130	3,721	0.7253	1,409	3.00	470	33.5
1991	10,347.07	11,899	8,630	0.7253	3,269	3.00	1,090	32.5
1992	8,037.81	9,243	6,704	0.7253	2,539	3.00	846	31.5
1993	11,808.23	13,579	9,849	0.7253	3,730	3.00	1,243	30.5
1994	10,977.73	12,624	9,156	0.7253	3,468	3.00	1,156	29.5
1995	22,978.76	25,545	18,527	0.7011	7,898	3.00	2,633	28.5
1996	9,600.85	10,448	7,578	0.6864	3,463	3.00	1,154	27.5
1997	5,926.14	6,303	4,572	0.6708	2,244	3.00	748	26.5
1999	7,604.06	7,802	5,659	0.6471	3,086	3.00	1,029	24.5
2000	229.59	231	168	0.6347	96	3.00	32	23.5
2001	706.74	696	505	0.6215	308	3.00	103	22.5
2002	981.21	945	686	0.6076	443	3.00	148	21.5
2003	69,625.26	65,463	47,480	0.5930	32,589	3.00	10,863	20.5
2004	17,298.84	15,841	11,490	0.5775	8,404	3.06	2,750	19.5
2005	1,526,308.27	1,357,729	984,756	0.5610	770,499	3.40	226,806	18.5
2006	219,925.11	189,415	137,382	0.5432	115,532	3.77	30,677	17.5
2008	17,076.07	13,616	9,876	0.5029	9,762	4.60	2,122	15.5
2010	12,761.15	9,225	6,691	0.4559	7,985	5.57	1,433	13.5
2011	19,689.33	13,421	9,734	0.4299	12,909	6.11	2,113	12.5
2012	19,161.47	12,222	8,865	0.4023	13,171	6.68	1,972	11.5
2013	482,199.30	285,280	206,912	0.3731	347,617	7.28	47,729	10.5
2014	44,665.38	24,258	17,595	0.3425	33,771	7.92	4,266	9.5
2015	431,738.49	212,633	154,222	0.3106	342,277	8.58	39,911	8.5
2016	12,271.08	5,399	3,916	0.2775	10,196	9.26	1,101	7.5
2017	125,253.28	48,308	35,038	0.2432	109,003	9.97	10,934	6.5

Tennessee - American Water Company

Account #: 334.100 - Meters

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: R1.5  
ASL: 15  
Net Salvage: -15%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2018	9,951.24	3,282	2,381	0.2080	9,063	10.70	847	5.5
2019	4,624,973.09	1,260,947	914,561	0.1720	4,404,158	11.44	384,850	4.5
2020	2,673,243.23	572,496	415,230	0.1351	2,659,000	12.21	217,832	3.5
2021	2,216,863.63	342,424	248,359	0.0974	2,301,034	12.99	177,204	2.5
2022	4,111,387.30	384,701	279,022	0.0590	4,449,073	13.78	322,876	1.5
2023	6,198,783.04	195,129	141,526	0.0199	6,987,074	14.59	478,914	0.5
TOTAL	22,931,138.75	5,121,189	3,714,380		22,656,429		1,976,305	

COMPOSITE ANNUAL ACCRUAL RATE	8.62%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.16
COMPOSITE AVERAGE AGE (YEARS)	4.05
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	12.10

Tennessee - American Water Company

Account #: 334.110 - Meters Bronze Case

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: R1.5  
ASL: 15  
Net Salvage: -15%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2005	9,173.39	8,160	10,285	0.9750	264	3.40	78	18.5
2007	993,068.92	824,857	1,039,674	0.9104	102,355	4.17	24,570	16.5
2008	882,013.98	703,302	886,462	0.8740	127,855	4.60	27,798	15.5
2009	403,473.94	307,236	387,250	0.8346	76,745	5.07	15,144	14.5
2010	394,050.36	284,854	359,038	0.7923	94,120	5.57	16,895	13.5
2011	767,494.53	523,151	659,395	0.7471	223,224	6.11	36,540	12.5
2012	908,203.17	579,287	730,149	0.6991	314,284	6.68	47,046	11.5
2013	273,416.69	161,759	203,886	0.6484	110,543	7.28	15,178	10.5
2014	151,955.11	82,529	104,022	0.5953	70,727	7.92	8,935	9.5
2015	112,943.52	55,625	70,112	0.5398	59,773	8.58	6,970	8.5
2016	104,665.18	46,050	58,042	0.4822	62,323	9.26	6,729	7.5
2017	423,018.85	163,152	205,641	0.4227	280,831	9.97	28,169	6.5
2018	441,472.68	145,620	183,543	0.3615	324,150	10.70	30,301	5.5
2019	875,803.60	238,778	300,963	0.2988	706,211	11.44	61,711	4.5
2020	51,512.10	11,032	13,905	0.2347	45,334	12.21	3,714	3.5
2023	320,595.60	10,092	12,720	0.0345	355,965	14.59	24,399	0.5
TOTAL	7,112,861.62	4,145,483	5,225,086		2,954,704		354,177	

COMPOSITE ANNUAL ACCRUAL RATE	4.98%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.73
COMPOSITE AVERAGE AGE (YEARS)	10.82
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	7.40

Tennessee - American Water Company

Account #: 334.130 - Meters Other

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: R1.5  
ASL: 15  
Net Salvage: -15%  
Truncation Year:

Year		Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2010		8,534.40	6,169	6,404	0.6525	3,411	5.57	612	13.5
2018		3,800.18	1,253	1,301	0.2977	3,069	10.70	287	5.5
2019		150,474.45	41,025	42,582	0.2461	130,464	11.44	11,400	4.5
TOTAL		162,809.03	48,448	50,286		136,944		12,299	

COMPOSITE ANNUAL ACCRUAL RATE	7.55%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.31
COMPOSITE AVERAGE AGE (YEARS)	5.00
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	11.12

# Tennessee - American Water Company

Account #: 334.131 - Meter Reading Units

## CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R1.5

ASL: 15

Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2004	934.37	744	887	0.9498	47	3.06	15	19.5
2007	16,972.52	12,259	14,622	0.8615	2,350	4.17	564	16.5
2016	59,719.67	22,848	27,253	0.4563	32,467	9.26	3,506	7.5
2018	4,003.30	1,148	1,370	0.3421	2,634	10.70	246	5.5
2019	2,223.99	527	629	0.2828	1,595	11.44	139	4.5
2022	12,278.04	999	1,192	0.0971	11,086	13.78	805	1.5
TOTAL	96,131.89	38,525	45,953		50,179		5,275	

COMPOSITE ANNUAL ACCRUAL RATE5.49%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR0.48

COMPOSITE AVERAGE AGE (YEARS)8.29

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)8.99

# Tennessee - American Water Company

Account #: 334.200 - Meter Installations

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 50

Net Salvage: -15%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1960	155.44	160	86	0.4826	92	5.28	18	63.5
1964	18,161.38	18,196	9,783	0.4684	11,102	6.44	1,724	59.5
1965	7,769.91	7,728	4,155	0.4650	4,780	6.75	708	58.5
1966	11,036.54	10,894	5,857	0.4615	6,835	7.08	965	57.5
1967	21,290.11	20,845	11,208	0.4578	13,276	7.43	1,787	56.5
1968	24,352.33	23,642	12,711	0.4539	15,294	7.79	1,963	55.5
1969	34,566.81	33,258	17,881	0.4498	21,870	8.17	2,677	54.5
1970	32,460.70	30,937	16,633	0.4456	20,696	8.56	2,417	53.5
1971	34,535.42	32,586	17,520	0.4411	22,196	8.98	2,473	52.5
1972	31,655.84	29,554	15,890	0.4365	20,514	9.41	2,181	51.5
1973	113,568.33	104,853	56,375	0.4317	74,228	9.86	7,530	50.5
1974	44,863.09	40,936	22,010	0.4266	29,583	10.33	2,864	49.5
1975	29,343.86	26,445	14,219	0.4214	19,527	10.82	1,805	48.5
1976	59,328.87	52,776	28,376	0.4159	39,853	11.32	3,519	47.5
1977	38,335.47	33,637	18,085	0.4102	26,001	11.85	2,194	46.5
1978	50,718.46	43,866	23,585	0.4044	34,741	12.40	2,803	45.5
1979	49,568.20	42,229	22,705	0.3983	34,299	12.96	2,647	44.5
1980	40,620.29	34,063	18,314	0.3921	28,399	13.54	2,097	43.5
1981	62,336.85	51,415	27,644	0.3856	44,044	14.14	3,115	42.5
1982	57,606.76	46,697	25,107	0.3790	41,140	14.76	2,788	41.5
1983	96,436.00	76,771	41,277	0.3722	69,625	15.39	4,525	40.5
1984	140,803.95	109,993	59,139	0.3652	102,785	16.04	6,410	39.5
1985	200,412.47	153,502	82,532	0.3581	147,942	16.70	8,859	38.5
1986	265,924.89	199,534	107,282	0.3508	198,532	17.38	11,425	37.5
1987	209,723.34	154,027	82,814	0.3434	158,368	18.07	8,765	36.5
1988	205,075.87	147,287	79,190	0.3358	156,647	18.77	8,344	35.5
1989	135,369.06	94,986	51,070	0.3281	104,604	19.49	5,366	34.5
1990	166,964.46	114,349	61,481	0.3202	130,528	20.22	6,454	33.5

# Tennessee - American Water Company

Account #: 334.200 - Meter Installations

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 50

Net Salvage: -15%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1991	188,140.90	125,636	67,549	0.3122	148,813	20.97	7,098	32.5
1992	156,190.79	101,588	54,620	0.3041	125,000	21.72	5,755	31.5
1993	163,151.23	103,239	55,507	0.2958	132,116	22.49	5,875	30.5
1994	183,743.42	112,983	60,746	0.2875	150,559	23.27	6,471	29.5
1995	186,451.48	111,266	59,823	0.2790	154,596	24.05	6,427	28.5
1996	199,612.99	115,451	62,073	0.2704	167,482	24.85	6,739	27.5
1997	213,136.13	119,303	64,145	0.2617	180,962	25.66	7,051	26.5
1998	271,544.08	146,877	78,970	0.2529	233,306	26.48	8,810	25.5
1999	299,713.54	156,394	84,087	0.2440	260,584	27.31	9,541	24.5
2000	359,778.06	180,790	97,204	0.2349	316,541	28.15	11,244	23.5
2001	3,508,841.85	1,694,685	911,167	0.2258	3,124,002	29.00	107,720	22.5
2002	35,512.16	16,450	8,845	0.2166	31,994	29.86	1,071	21.5
2003	18,189.87	8,063	4,335	0.2072	16,583	30.73	540	20.5
2004	41,353.36	17,498	9,408	0.1978	38,148	31.60	1,207	19.5
2005	8,310.74	3,347	1,800	0.1883	7,758	32.49	239	18.5
2006	448,847.36	171,570	92,247	0.1787	423,928	33.38	12,700	17.5
2007	588,839.58	212,880	114,457	0.1690	562,708	34.28	16,414	16.5
2008	715,512.15	243,723	131,040	0.1593	691,799	35.19	19,659	15.5
2009	450,925.82	144,098	77,476	0.1494	441,089	36.11	12,216	14.5
2010	293,728.67	87,629	47,115	0.1395	290,673	37.03	7,850	13.5
2011	221,921.75	61,462	33,046	0.1295	222,165	37.96	5,853	12.5
2012	223,137.09	56,995	30,644	0.1194	225,964	38.89	5,810	11.5
2013	102,355.40	23,927	12,864	0.1093	104,844	39.84	2,632	10.5
2014	91,776.12	19,454	10,459	0.0991	95,083	40.78	2,331	9.5
2015	2,013,998.49	382,765	205,798	0.0889	2,110,300	41.74	50,562	8.5
2016	1,024,863.52	172,203	92,587	0.0786	1,086,006	42.69	25,437	7.5
2017	1,736,667.73	253,367	136,225	0.0682	1,860,942	43.66	42,627	6.5
2018	2,704,085.79	334,396	179,792	0.0578	2,929,907	44.62	65,659	5.5



# Tennessee - American Water Company

Account #: 334.200 - Meter Installations

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: R3  
ASL: 50  
Net Salvage: -15%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2019	827,317.48	83,844	45,080	0.0474	906,335	45.59	19,879	4.5
2020	1,383,880.58	109,249	58,739	0.0369	1,532,724	46.57	32,914	3.5
2021	982,929.82	55,505	29,843	0.0264	1,100,526	47.54	23,147	2.5
2022	2,149,087.59	72,910	39,201	0.0159	2,432,250	48.52	50,124	1.5
2023	2,168,978.45	24,558	13,204	0.0053	2,481,121	49.51	50,116	0.5
TOTAL	26,145,508.69	7,259,268	3,903,027		26,164,308		740,141	

COMPOSITE ANNUAL ACCRUAL RATE	2.83%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.15
COMPOSITE AVERAGE AGE (YEARS)	13.15
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	37.93

# Tennessee - American Water Company

Account #: 334.300 - Meter Vaults

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: R3  
ASL: 50  
Net Salvage: -15%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2018	1,421.44	176	-1,126	-0.6887	2,760	44.62	62	5.5
2019	20,989.20	2,127	-13,624	-0.5644	37,762	45.59	828	4.5
2020	6,863.67	542	-3,470	-0.4397	11,364	46.57	244	3.5
2021	34,848.19	1,968	-12,604	-0.3145	52,679	47.54	1,108	2.5
2022	30,006.46	1,018	-6,520	-0.1889	41,028	48.52	845	1.5
TOTAL	94,128.96	5,831	-37,344		145,592		3,087	

COMPOSITE ANNUAL ACCRUAL RATE	3.28%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	-0.40
COMPOSITE AVERAGE AGE (YEARS)	2.75
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	47.31

# Tennessee - American Water Company

Account #: 335.000 - Hydrants

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 65

Net Salvage: -30%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1973	41,164.42	35,889	26,744	0.4998	26,770	21.41	1,250	50.5
1974	1,065,355.73	914,523	681,498	0.4921	703,465	22.08	31,861	49.5
1975	88,370.86	74,653	55,631	0.4842	59,251	22.76	2,603	48.5
1976	42,433.36	35,259	26,275	0.4763	28,889	23.45	1,232	47.5
1977	103,696.78	84,704	63,121	0.4682	71,685	24.16	2,967	46.5
1978	210,722.44	169,124	126,030	0.4601	147,909	24.87	5,947	45.5
1979	222,762.61	175,562	130,827	0.4518	158,764	25.59	6,203	44.5
1980	202,984.28	157,001	116,996	0.4434	146,883	26.33	5,579	43.5
1981	225,765.10	171,267	127,627	0.4349	165,867	27.07	6,127	42.5
1982	227,817.76	169,402	126,237	0.4262	169,926	27.82	6,108	41.5
1983	136,276.62	99,260	73,968	0.4175	103,192	28.58	3,610	40.5
1984	115,221.67	82,152	61,219	0.4087	88,569	29.35	3,018	39.5
1985	149,105.47	103,992	77,494	0.3998	116,343	30.13	3,862	38.5
1986	183,687.80	125,223	93,315	0.3908	145,479	30.91	4,706	37.5
1987	92,208.70	61,395	45,752	0.3817	74,120	31.71	2,338	36.5
1988	113,151.47	73,523	54,789	0.3725	92,308	32.51	2,839	35.5
1989	111,708.29	70,776	52,742	0.3632	92,479	33.32	2,775	34.5
1990	128,995.23	79,616	59,330	0.3538	108,364	34.14	3,174	33.5
1991	135,068.60	81,135	60,461	0.3443	115,128	34.97	3,293	32.5
1992	57,638.59	33,662	25,085	0.3348	49,846	35.80	1,392	31.5
1993	137,151.20	77,792	57,970	0.3251	120,326	36.64	3,284	30.5
1994	158,574.67	87,252	65,020	0.3154	141,127	37.49	3,765	29.5
1995	123,674.92	65,934	49,134	0.3056	111,644	38.34	2,912	28.5
1996	311,795.35	160,846	119,861	0.2957	285,473	39.21	7,281	27.5
1997	133,548.69	66,572	49,609	0.2857	124,004	40.08	3,094	26.5
1998	99,805.32	48,002	35,771	0.2757	93,976	40.95	2,295	25.5
1999	156,375.92	72,449	53,989	0.2656	149,300	41.83	3,569	24.5
2000	194,871.92	86,820	64,698	0.2554	188,636	42.72	4,415	23.5

# Tennessee - American Water Company

Account #: 335.000 - Hydrants

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: R3

ASL: 65

Net Salvage: -30%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2001	258,665.98	110,608	82,424	0.2451	253,841	43.62	5,819	22.5
2002	233,646.64	95,698	71,314	0.2348	232,427	44.52	5,221	21.5
2003	245,242.23	95,995	71,535	0.2244	247,280	45.43	5,443	20.5
2004	154,696.78	57,729	43,019	0.2139	158,087	46.34	3,411	19.5
2005	85,009.95	30,161	22,476	0.2034	88,037	47.26	1,863	18.5
2006	1,061,387.31	356,964	266,007	0.1928	1,113,796	48.18	23,115	17.5
2007	398,628.20	126,657	94,384	0.1821	423,833	49.11	8,630	16.5
2008	232,663.52	69,579	51,850	0.1714	250,613	50.05	5,008	15.5
2009	157,548.05	44,157	32,906	0.1607	171,907	50.99	3,372	14.5
2010	79,707.48	20,837	15,527	0.1498	88,092	51.93	1,696	13.5
2011	100,959.16	24,479	18,241	0.1390	113,006	52.88	2,137	12.5
2012	193,148.00	43,155	32,159	0.1281	218,934	53.83	4,067	11.5
2013	52,199.15	10,665	7,948	0.1171	59,911	54.78	1,094	10.5
2014	304,617.47	56,395	42,026	0.1061	353,977	55.74	6,350	9.5
2015	488,846.14	81,092	60,430	0.0951	575,070	56.71	10,141	8.5
2016	229,353.57	33,615	25,050	0.0840	273,110	57.67	4,736	7.5
2017	469,466.98	59,712	44,497	0.0729	565,810	58.64	9,649	6.5
2018	281,582.81	30,341	22,610	0.0618	343,448	59.61	5,761	5.5
2019	890,865.00	78,632	58,596	0.0506	1,099,528	60.59	18,148	4.5
2020	467,706.86	32,143	23,953	0.0394	584,066	61.56	9,487	3.5
2021	612,943.93	30,120	22,445	0.0282	774,382	62.54	12,382	2.5
2022	1,416,086.58	41,791	31,143	0.0169	1,809,770	63.52	28,489	1.5
2023	899,557.00	8,856	6,600	0.0056	1,162,824	64.51	18,026	0.5

# Tennessee - American Water Company

Account #: 335.000 - Hydrants

ALG - Remaining Life

Survivor Curve: R3

ASL: 65

Net Salvage: -30%

Truncation Year:

## CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION BASED ON ORIGINAL COST AS OF December 31, 2023

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
TOTAL	14,284,462.56	5,003,165	3,728,331		14,841,470		325,544	
COMPOSITE ANNUAL ACCRUAL RATE				2.28%				
THEORETICAL ACCUMULATED DEPRECIATION FACTOR				0.26				
COMPOSITE AVERAGE AGE (YEARS)				19.11				
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)				47.49				

Tennessee - American Water Company

Account #: 339.200 - Other Plant & Equipment-Supply

ALG - Remaining Life

Survivor Curve: R3

ASL: 25

Net Salvage: 0%

Truncation Year:

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2016	222,421.06	63,845	72,684	0.3268	149,737	17.82	8,401	7.5
TOTAL	222,421.06	63,845	72,684		149,737		8,401	

COMPOSITE ANNUAL ACCRUAL RATE	3.78%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.33
COMPOSITE AVERAGE AGE (YEARS)	7.50
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	17.82

# Tennessee - American Water Company

Account #: 339.600 - Other Plant & Equipment-CPS

## CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: SQ

ASL: 10

Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2016	106,901.94	80,176	65,447	0.6122	41,455	3.00	13,818	7.5
2018	34,895.18	19,192	15,666	0.4490	19,229	4.50	4,273	5.5
2020	95,388.75	33,386	27,253	0.2857	68,136	6.50	10,482	3.5
2021	1,049,122.36	262,281	214,096	0.2041	835,026	7.50	111,337	2.5
2023	73,498.00	3,675	3,000	0.0408	70,498	9.50	7,421	0.5
TOTAL	1,359,806.23	398,710	325,462		1,034,344		147,331	

COMPOSITE ANNUAL ACCRUAL RATE10.83%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR0.24

COMPOSITE AVERAGE AGE (YEARS)2.93

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)7.11

Tennessee - American Water Company

Account #: 340.100 - Office Furniture & Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: SQ

ASL: 20

Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2007	19,530.37	16,113	-4,120	-0.2110	23,651	3.50	6,757	16.5
2009	6,619.25	4,799	-1,227	-0.1854	7,846	5.50	1,427	14.5
2010	13,837.57	9,340	-2,389	-0.1726	16,226	6.50	2,496	13.5
2013	110,220.81	57,866	-14,798	-0.1343	125,019	9.50	13,160	10.5
2014	41,919.12	19,912	-5,092	-0.1215	47,011	10.50	4,477	9.5
2015	11,466.29	4,873	-1,246	-0.1087	12,712	11.50	1,105	8.5
2016	3,988.57	1,496	-382	-0.0959	4,371	12.50	350	7.5
2017	10,735.70	3,489	-892	-0.0831	11,628	13.50	861	6.5
2019	21,107.61	4,749	-1,214	-0.0575	22,322	15.50	1,440	4.5
2020	24,537.92	4,294	-1,098	-0.0448	25,636	16.50	1,554	3.5
2021	8,519.69	1,065	-272	-0.0320	8,792	17.50	502	2.5
2022	19,905.22	1,493	-382	-0.0192	20,287	18.50	1,097	1.5
2023	36,998.11	925	-237	-0.0064	37,235	19.50	1,909	0.5
TOTAL	329,386.23	130,414	-33,350		362,736		37,135	

COMPOSITE ANNUAL ACCRUAL RATE	11.27%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	-0.10
COMPOSITE AVERAGE AGE (YEARS)	7.92
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	12.08



Tennessee - American Water Company

Account #: 340.200 - Computer & Peripheral Equipment

ALG - Remaining Life

Survivor Curve: SQ

ASL: 7

Net Salvage: 0%

Truncation Year:

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2017	45,784.61	42,514	-17,400	-0.3800	63,184	3.00	21,061	6.5
2018	101,600.63	79,829	-32,672	-0.3216	134,273	3.00	44,758	5.5
2019	78,319.78	50,348	-20,607	-0.2631	98,926	3.00	32,975	4.5
2020	260,827.33	130,414	-53,376	-0.2046	314,203	3.50	89,772	3.5
2021	149,881.56	53,529	-21,908	-0.1462	171,790	4.50	38,176	2.5
2022	466,974.93	100,066	-40,955	-0.0877	507,930	5.50	92,351	1.5
2023	716,396.11	51,171	-20,943	-0.0292	737,339	6.50	113,437	0.5
TOTAL	1,819,784.95	507,872	-207,861		2,027,645		432,530	

COMPOSITE ANNUAL ACCRUAL RATE	23.77%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	-0.11
COMPOSITE AVERAGE AGE (YEARS)	1.95
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	5.21

**Tennessee - American Water Company**  
 Account #: 340.220 - Computer & Peripheral Personal

ALG - Remaining Life  
 Survivor Curve: SQ  
 ASL: 5  
 Net Salvage: 0%  
 Truncation Year:

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
 BASED ON ORIGINAL COST AS OF December 31, 2023

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2020	30,412.80	21,289	-669,247	-22.0054	699,659	3.00	233,220	3.5
2023	2,579.60	258	-8,109	-3.1436	10,689	4.50	2,375	0.5
TOTAL	32,992.40	21,547	-677,356		710,348		235,595	

COMPOSITE ANNUAL ACCRUAL RATE	714.09%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	-20.53
COMPOSITE AVERAGE AGE (YEARS)	3.27
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	3.12

Tennessee - American Water Company

Account #: 340.230 - Computer & Peripheral Other

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: SQ

ASL: 5

Net Salvage: 0%

Truncation Year:

Year		Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2019		220.35	198	-11,240	-51.0094	11,460	3.00	3,820	4.5
2020		8,928.80	6,250	-354,241	-39.6740	363,170	3.00	121,057	3.5
2021		25,132.96	12,566	-712,232	-28.3386	737,365	3.00	245,788	2.5
TOTAL		34,282.11	19,015	-1,077,713		1,111,995		370,665	

COMPOSITE ANNUAL ACCRUAL RATE1081.22%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR-31.44

COMPOSITE AVERAGE AGE (YEARS)2.77

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)3.00

Tennessee - American Water Company

Account #: 340.300 - Computer Software

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: SQ  
ASL: 10  
Net Salvage: 0%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2014	525,536.60	499,260	58,445	0.1112	467,092	3.00	155,697	9.5
2015	683,046.02	580,589	67,965	0.0995	615,081	3.00	205,027	8.5
2016	633,732.65	475,299	55,640	0.0878	578,093	3.00	192,698	7.5
2017	237,367.50	154,289	18,061	0.0761	219,306	3.50	62,659	6.5
2018	1,558,096.31	856,953	100,317	0.0644	1,457,780	4.50	323,951	5.5
2019	1,500,581.25	675,262	79,048	0.0527	1,421,534	5.50	258,461	4.5
2020	2,328,135.55	814,847	95,388	0.0410	2,232,748	6.50	343,500	3.5
2021	2,068,056.00	517,014	60,523	0.0293	2,007,533	7.50	267,671	2.5
2022	1,549,951.40	232,493	27,216	0.0176	1,522,735	8.50	179,145	1.5
2023	2,917,147.79	145,857	17,074	0.0059	2,900,073	9.50	305,271	0.5
TOTAL	14,001,651.07	4,951,863	579,676		13,421,975		2,294,080	

COMPOSITE ANNUAL ACCRUAL RATE	16.38%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.04
COMPOSITE AVERAGE AGE (YEARS)	3.54
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	6.65

Tennessee - American Water Company

Account #: 340.315 - Computer Software Spec Depr Rate

ALG - Remaining Life

Survivor Curve: SQ

ASL: 10

Net Salvage: 0%

Truncation Year:

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2014	122,087.80	115,983	80,992	0.6634	41,096	3.00	13,699	9.5
TOTAL	122,087.80	115,983	80,992		41,096		13,699	

COMPOSITE ANNUAL ACCRUAL RATE	11.22%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.66
COMPOSITE AVERAGE AGE (YEARS)	9.50
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	3.00

Tennessee - American Water Company

Account #: 340.330 - Computer Software Other

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: SQ  
ASL: 10  
Net Salvage: 0%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2015	101,648.60	86,401	16,855	0.1658	84,794	3.00	28,265	8.5
2017	62,445.28	40,589	7,918	0.1268	54,527	3.50	15,579	6.5
2019	617,768.64	277,996	54,231	0.0878	563,538	5.50	102,461	4.5
2020	50,232.03	17,581	3,430	0.0683	46,802	6.50	7,200	3.5
TOTAL	832,094.55	422,568	82,434		749,661		153,505	

COMPOSITE ANNUAL ACCRUAL RATE	18.45%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.10
COMPOSITE AVERAGE AGE (YEARS)	5.08
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	5.10

Tennessee - American Water Company

Account #: 341.100 - Transportation Equipment Light Duty Trucks

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: L1.5

ASL: 9

Net Salvage: 20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2004	59,173.20	39,232	47,339	1.0000	0	3.00	0	19.5
2006	98,952.82	62,543	79,162	1.0000	0	3.00	0	17.5
2008	40,295.11	24,048	32,236	1.0000	0	3.00	0	15.5
2009	11,294.93	6,523	9,036	1.0000	0	3.00	0	14.5
2011	71,538.98	38,307	57,231	1.0000	0	3.00	0	12.5
2013	61,720.57	30,253	49,376	1.0000	0	3.49	0	10.5
2014	156,168.66	72,917	124,935	1.0000	0	3.75	0	9.5
2015	248,184.92	109,977	198,548	1.0000	0	4.01	0	8.5
2017	202,867.97	79,020	162,294	1.0000	0	4.62	0	6.5
2018	507,133.13	180,301	405,707	1.0000	0	5.00	0	5.5
2019	364,353.85	114,145	291,483	1.0000	0	5.48	0	4.5
2020	429,888.32	111,776	343,911	1.0000	0	6.07	0	3.5
2021	1,479,890.56	290,426	1,044,233	0.8820	139,680	6.79	20,565	2.5
2022	1,112,420.29	137,470	494,277	0.5554	395,659	7.61	51,994	1.5
2023	1,755,278.93	74,903	269,315	0.1918	1,134,908	8.52	133,206	0.5
TOTAL	6,599,162.24	1,371,841	3,609,083		1,670,247		205,765	

COMPOSITE ANNUAL ACCRUAL RATE	3.12%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.55
COMPOSITE AVERAGE AGE (YEARS)	3.38
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	6.70

Tennessee - American Water Company

Account #: 341.200 - Transportation Equipment Heavy Duty Trucks

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: L1.5

ASL: 8

Net Salvage: 20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1988	25,619.00	20,495	25,619	1.2500	-5,124	3.00	-1,708	35.5
1999	50,923.54	40,739	50,924	1.2500	-10,185	3.00	-3,395	24.5
2001	60,456.14	43,806	60,456	1.2500	-12,091	3.00	-4,030	22.5
2004	32,807.53	22,751	32,808	1.2500	-6,562	3.00	-2,187	19.5
2005	19,688.52	13,383	19,689	1.2500	-3,938	3.00	-1,313	18.5
2007	580,004.88	375,879	580,005	1.2500	-116,001	3.00	-38,667	16.5
2009	166,432.81	101,674	166,433	1.2500	-33,287	3.00	-11,096	14.5
2011	330,143.41	187,548	330,143	1.2500	-66,029	3.00	-22,010	12.5
2012	46,608.63	25,378	46,609	1.2500	-9,322	3.00	-3,107	11.5
2013	29,846.32	15,511	29,846	1.2500	-5,969	3.00	-1,990	10.5
2014	153,109.68	75,646	153,110	1.2500	-30,622	3.06	-10,009	9.5
2015	108,815.14	50,923	108,815	1.2500	-21,763	3.32	-6,555	8.5
2016	667,955.61	294,735	667,956	1.2500	-133,591	3.59	-37,238	7.5
2017	308,533.12	127,294	308,533	1.2500	-61,707	3.87	-15,928	6.5
2019	117,387.88	39,682	117,388	1.2500	-23,478	4.62	-5,082	4.5
2021	101,192.53	21,965	101,193	1.2500	-20,239	5.83	-3,472	2.5
2023	260,783.93	12,497	260,784	1.2500	-52,157	7.52	-6,935	0.5
TOTAL	3,060,308.67	1,469,909	3,060,309		-612,062		-174,722	

COMPOSITE ANNUAL ACCRUAL RATE	-5.71%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	1.00
COMPOSITE AVERAGE AGE (YEARS)	10.39
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	3.77



**Tennessee - American Water Company**  
 Account #: 341.300 - Transportation Equipment Autos  
 CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
 BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
 Survivor Curve: S2.5  
 ASL: 8  
 Net Salvage: 20%  
 Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2004	86,697.70	69,358	86,698	1.2500	-17,340	3.00	-5,780	19.5
2006	81,824.29	65,459	81,824	1.2500	-16,365	3.00	-5,455	17.5
2008	17,547.25	13,160	17,547	1.2500	-3,509	3.00	-1,170	15.5
2011	32,061.06	23,237	32,061	1.2500	-6,412	3.00	-2,137	12.5
2014	496,881.85	329,802	496,882	1.2500	-99,376	3.00	-33,125	9.5
2018	60,170.86	29,632	60,171	1.2500	-12,034	3.08	-3,913	5.5
2023	41,702.90	2,085	41,703	1.2500	-8,341	7.50	-1,112	0.5
TOTAL	816,885.91	532,735	816,886		-163,377		-52,692	

COMPOSITE ANNUAL ACCRUAL RATE	-6.45%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	1.00
COMPOSITE AVERAGE AGE (YEARS)	10.86
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	3.24

Tennessee - American Water Company

Account #: 341.400 - Transportation Equipment Other

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: L2.5

ASL: 12

Net Salvage: 20%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1998	3,095.57	2,148	2,476	1.0000	0	3.00	0	25.5
2006	61,760.50	37,232	49,408	1.0000	0	3.00	0	17.5
2007	106,518.16	62,549	85,215	1.0000	0	3.19	0	16.5
2008	9,628.49	5,501	7,703	1.0000	0	3.43	0	15.5
2009	143,996.65	80,065	115,197	1.0000	0	3.66	0	14.5
2010	3,518.94	1,907	2,815	1.0000	0	3.87	0	13.5
2013	194,784.99	97,901	155,828	1.0000	0	4.46	0	10.5
2014	64,272.95	31,125	49,842	0.9693	1,576	4.74	333	9.5
2015	116,407.17	53,464	85,615	0.9194	7,510	5.11	1,470	8.5
2016	4,946.27	2,109	3,377	0.8534	580	5.60	103	7.5
2017	3,715.42	1,432	2,293	0.7713	680	6.22	109	6.5
2018	89,270.61	30,096	48,195	0.6749	23,221	6.94	3,345	5.5
2020	53,856.39	12,101	19,379	0.4498	23,706	8.63	2,747	3.5
2022	33,032.05	3,277	5,247	0.1986	21,178	10.51	2,015	1.5
TOTAL	888,804.16	420,906	632,592		78,452		10,122	

COMPOSITE ANNUAL ACCRUAL RATE	1.14%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.71
COMPOSITE AVERAGE AGE (YEARS)	10.84
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	4.90

Tennessee - American Water Company

Account #: 343.000 - Tools,Shop,Garage Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: SQ

ASL: 20

Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2010	37,295.07	25,174	35,522	0.9524	1,774	6.50	273	13.5
2011	17,786.45	11,117	15,686	0.8819	2,101	7.50	280	12.5
2012	154,437.68	88,802	125,302	0.8113	29,136	8.50	3,428	11.5
2014	44,483.13	21,129	29,814	0.6702	14,669	10.50	1,397	9.5
2015	134,962.14	57,359	80,935	0.5997	54,027	11.50	4,698	8.5
2016	27,555.13	10,333	14,580	0.5291	12,975	12.50	1,038	7.5
2017	14,433.24	4,691	6,619	0.4586	7,814	13.50	579	6.5
2018	16,030.59	4,408	6,220	0.3880	9,810	14.50	677	5.5
2019	143,775.68	32,350	45,646	0.3175	98,130	15.50	6,331	4.5
2020	29,416.76	5,148	7,264	0.2469	22,153	16.50	1,343	3.5
2021	125,949.89	15,744	22,215	0.1764	103,735	17.50	5,928	2.5
2022	253,013.03	18,976	26,776	0.1058	226,237	18.50	12,229	1.5
2023	305,478.29	7,637	10,776	0.0353	294,702	19.50	15,113	0.5
TOTAL	1,304,617.08	302,867	427,355		877,262		53,314	

COMPOSITE ANNUAL ACCRUAL RATE	4.09%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.33
COMPOSITE AVERAGE AGE (YEARS)	4.64
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	15.36

Tennessee - American Water Company

Account #: 344.000 - Laboratory Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: SQ  
ASL: 15  
Net Salvage: 0%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2009	9,489.00	9,173	4,739	0.4994	4,750	3.00	1,583	14.5
2011	2,129.23	1,774	917	0.4305	1,213	3.00	404	12.5
2012	17,717.99	13,584	7,018	0.3961	10,700	3.50	3,057	11.5
2014	675.54	428	221	0.3272	454	5.50	83	9.5
2016	1,451.92	726	375	0.2583	1,077	7.50	144	7.5
2017	3,447.16	1,494	772	0.2239	2,675	8.50	315	6.5
2018	1,971.59	723	374	0.1894	1,598	9.50	168	5.5
2020	12,187.92	2,844	1,469	0.1206	10,719	11.50	932	3.5
2022	7,803.93	780	403	0.0517	7,401	13.50	548	1.5
2023	6,399.68	213	110	0.0172	6,289	14.50	434	0.5
TOTAL	63,273.96	31,739	16,398		46,876		7,668	

COMPOSITE ANNUAL ACCRUAL RATE	12.12%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.26
COMPOSITE AVERAGE AGE (YEARS)	7.52
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	7.87

# Tennessee - American Water Company

Account #: 345.000 - Power Operated Equipment

## CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: S1.5

ASL: 20

Net Salvage: 5%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
1996	31,972.52	25,407	30,374	1.0000	0	3.27	0	27.5
2001	2,927.17	2,110	2,781	1.0000	0	4.83	0	22.5
2002	2,687.89	1,892	2,554	1.0000	0	5.18	0	21.5
2003	8,246.61	5,657	7,834	1.0000	0	5.56	0	20.5
2004	789.10	526	750	1.0000	0	5.95	0	19.5
2005	21,580.41	13,968	20,501	1.0000	0	6.37	0	18.5
2006	81,844.69	51,250	77,752	1.0000	0	6.82	0	17.5
2013	73,896.52	32,348	70,202	1.0000	0	10.78	0	10.5
2015	41,485.47	15,275	39,411	1.0000	0	12.25	0	8.5
2019	102,197.11	21,173	95,680	0.9855	1,407	15.64	90	4.5
2020	11,860.37	1,932	8,732	0.7750	2,536	16.57	153	3.5
TOTAL	379,487.86	171,538	356,571		3,943		243	

COMPOSITE ANNUAL ACCRUAL RATE	0.06%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.94
COMPOSITE AVERAGE AGE (YEARS)	12.25
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	10.48

Tennessee - American Water Company

Account #: 346.100 - Communication Equipment Non-Telephone

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: SQ

ASL: 15

Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2013	4,781.80	3,347	1,298	0.2714	3,484	4.50	774	10.5
2014	31,946.04	20,232	7,845	0.2456	24,101	5.50	4,382	9.5
2018	24,340.54	8,925	3,460	0.1422	20,880	9.50	2,198	5.5
2019	17,464.32	5,239	2,031	0.1163	15,433	10.50	1,470	4.5
2020	113,520.60	26,488	10,270	0.0905	103,250	11.50	8,978	3.5
2021	163,940.74	27,323	10,594	0.0646	153,347	12.50	12,268	2.5
2022	361,874.41	36,187	14,031	0.0388	347,843	13.50	25,766	1.5
2023	182,769.37	6,092	2,362	0.0129	180,407	14.50	12,442	0.5
TOTAL	900,637.82	133,835	51,892		848,746		68,278	

COMPOSITE ANNUAL ACCRUAL RATE	7.58%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.06
COMPOSITE AVERAGE AGE (YEARS)	2.23
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	12.77

Tennessee - American Water Company

Account #: 346.190 - Remote Control & Instrument

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION

BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life

Survivor Curve: SQ

ASL: 15

Net Salvage: 0%

Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2009	12,236.44	11,829	4,598	0.3758	7,638	3.00	2,546	14.5
2010	9,507.89	8,557	3,326	0.3499	6,181	3.00	2,060	13.5
2013	26,484.37	18,539	7,207	0.2721	19,278	4.50	4,284	10.5
2014	659,223.38	417,508	162,301	0.2462	496,923	5.50	90,350	9.5
2015	258,922.16	146,723	57,036	0.2203	201,886	6.50	31,059	8.5
2016	328,094.70	164,047	63,771	0.1944	264,324	7.50	35,243	7.5
2017	183,719.70	79,612	30,948	0.1685	152,772	8.50	17,973	6.5
2018	132,926.65	48,740	18,947	0.1425	113,980	9.50	11,998	5.5
2019	114,409.00	34,323	13,342	0.1166	101,067	10.50	9,625	4.5
2020	8,998.55	2,100	816	0.0907	8,182	11.50	712	3.5
2023	21,746.32	725	282	0.0130	21,465	14.50	1,480	0.5
TOTAL	1,756,269.16	932,702	362,575		1,393,694		207,330	

COMPOSITE ANNUAL ACCRUAL RATE11.81%

THEORETICAL ACCUMULATED DEPRECIATION FACTOR0.21

COMPOSITE AVERAGE AGE (YEARS)7.97

DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)7.06

**Tennessee - American Water Company**  
 Account #: 346.200 - Communication Equipment Telephone  
 CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
 BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
 Survivor Curve: SQ  
 ASL: 10  
 Net Salvage: 0%  
 Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2020	12,653.63	4,429	-8,156	-0.6446	20,810	6.50	3,201	3.5
2021	1,970.13	493	-907	-0.4604	2,877	7.50	384	2.5
TOTAL	14,623.76	4,921	-9,063		23,687		3,585	

COMPOSITE ANNUAL ACCRUAL RATE	24.51%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	-0.62
COMPOSITE AVERAGE AGE (YEARS)	3.37
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	6.63



Tennessee - American Water Company

Account #: 347.000 - Miscellaneous Equipment

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: SQ  
ASL: 20  
Net Salvage: 0%  
Truncation Year:

Year	Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2008	4,950.28	3,836	976	0.1972	3,974	4.50	883	15.5
2009	8,928.04	6,473	1,647	0.1845	7,281	5.50	1,324	14.5
2012	52,578.82	30,233	7,693	0.1463	44,886	8.50	5,281	11.5
2013	162,605.63	85,368	21,722	0.1336	140,884	9.50	14,830	10.5
2014	9,309.51	4,422	1,125	0.1209	8,184	10.50	779	9.5
2015	35,102.87	14,919	3,796	0.1081	31,307	11.50	2,722	8.5
2018	21,938.79	6,033	1,535	0.0700	20,404	14.50	1,407	5.5
2019	125,126.41	28,153	7,164	0.0573	117,963	15.50	7,611	4.5
2020	43,641.72	7,637	1,943	0.0445	41,698	16.50	2,527	3.5
2021	3,893.98	487	124	0.0318	3,770	17.50	215	2.5
2022	425,824.00	31,937	8,126	0.0191	417,698	18.50	22,578	1.5
2023	82,565.75	2,064	525	0.0064	82,041	19.50	4,207	0.5
TOTAL	976,465.80	221,562	56,376		920,090		64,364	

COMPOSITE ANNUAL ACCRUAL RATE	6.59%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.06
COMPOSITE AVERAGE AGE (YEARS)	4.54
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	15.46

Tennessee - American Water Company

Account #: 348.000 - Other Tangible Property

CALCULATED ANNUAL ACCRUAL AND ACCRUED DEPRECIATION  
BASED ON ORIGINAL COST AS OF December 31, 2023

ALG - Remaining Life  
Survivor Curve: SQ  
ASL: 20  
Net Salvage: 0%  
Truncation Year:

Year		Original Cost	Calculated Accumulated Depreciation	Allocated Actual Booked Amount	Accumulated Depreciation Factor	Net Book Value	ALG Remaining Life	Annual Accrual	Average Age
2005		4,918.13	4,549	2,814	0.5722	2,104	3.00	701	18.5
2019		15,821.22	3,560	2,202	0.1392	13,619	15.50	879	4.5
TOTAL		20,739.35	8,109	5,016		15,723		1,580	

COMPOSITE ANNUAL ACCRUAL RATE	7.62%
THEORETICAL ACCUMULATED DEPRECIATION FACTOR	0.24
COMPOSITE AVERAGE AGE (YEARS)	7.82
DIRECTED WEIGHTED ALG COMPOSITE REMAINING LIFE (YEARS)	12.54



## SECTION 9

# 9 ESTIMATION OF SURVIVOR CURVES

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## 9.1 Average Service Life

All assets have a service life, which is defined as “the period of time from its installation until it is retired from service”<sup>3</sup>. All account groups of property are made up of various assets with differing service lives and investment values. To calculate a depreciation rate, one must first calculate an average life for all assets in a single account. This can be done by ascertaining the age at retirement for every asset in an account and plotting it as a percentage of the units surviving at each age interval (a “Survivor Curve”). From the average life for each account, remaining lives can then be found which are then used to calculate the annual depreciation accruals and ultimately depreciation rate. A discussion of the general concept of survivor curves is presented and the Iowa type survivor curves are reviewed.

## 9.2 Survivor Curves

A survivor curve is defined as “a graph of the percent of units remaining in service expressed as a function of age”<sup>4</sup>. To calculate the average life of the group, the remaining life expectancy, the probable life and the frequency curve, one must first create a survivor curve. Figure 1 shows a typical 40-R4 smoothed survivor curve as well as the accompanying derived curves. The type 40-R4 refers to the Iowa type curve, whose designation will be explained in further detail in the next section

To calculate the average service life, one must calculate the area under the survivor curve and divide by the percent surviving at age zero. The remaining life is equal to the area under the survivor curve and to the right of the current age, divided by the percent surviving at the current age. In Figure 1, for example, the hatched area to the right of age 45 divided by 28.9 percent surviving balance represents the remaining life for an asset that has reached that age. The probable life is “the total life expectancy of the property surviving at any age and is equal to the remaining life plus the current age.”<sup>5</sup> If the probable life of the property is calculated for each year of age, the probable life curve shown in the chart can be developed. The frequency curve is calculated by taking the difference between the percent surviving on successive years on the survivor curve<sup>6</sup>. Alternatively, frequency can be empirically determined by finding the amount of retirements at any given age. Plotting retirement frequency from the youngest to oldest ages and then taking the cumulative frequencies will generate percent surviving versus age.

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<sup>3</sup> Wolf, Frank K. and W. Chester Fitch, *Depreciation Systems* (Iowa State University Press, 1994), 21.

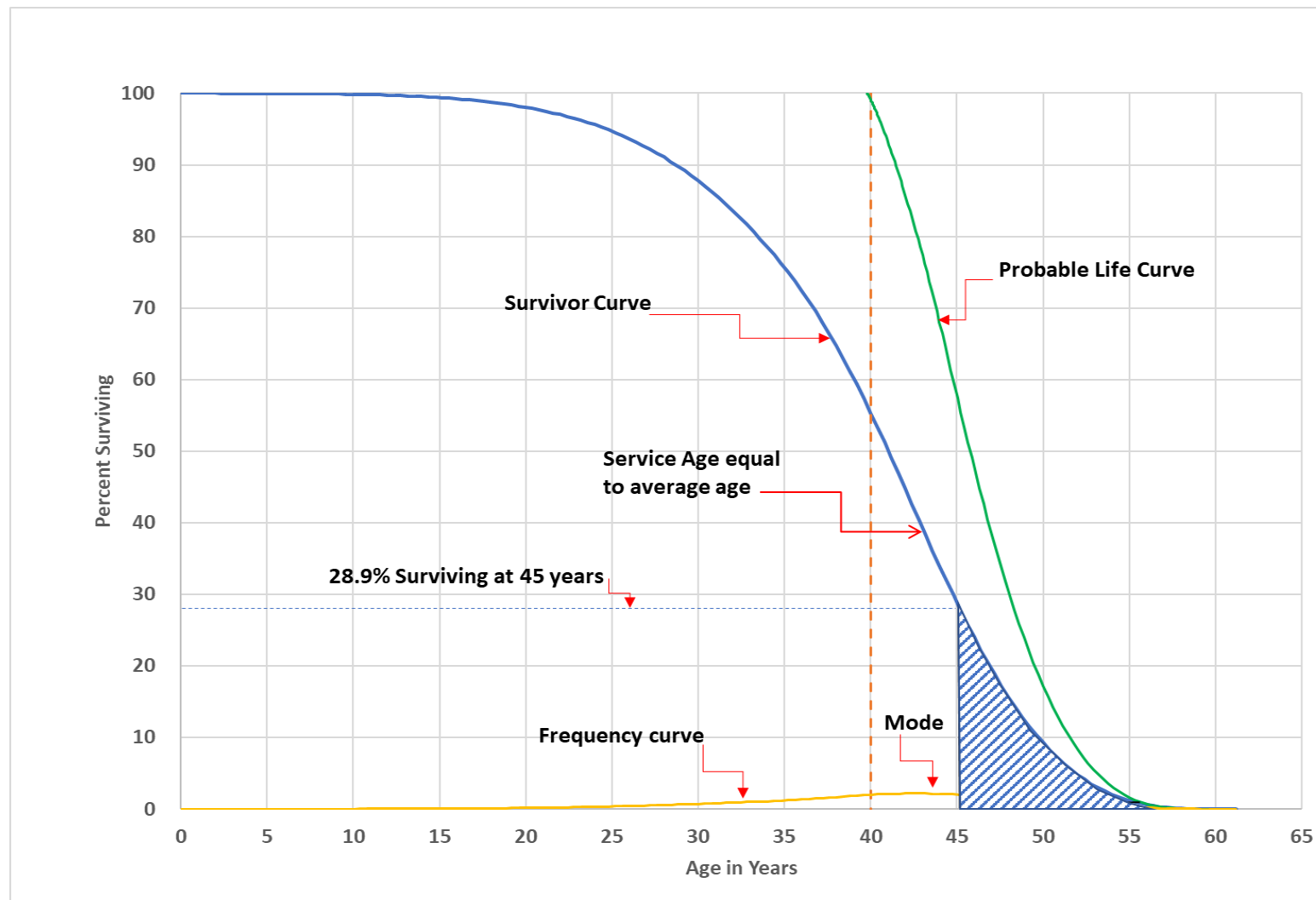
<sup>4</sup> *Ibid*, 23.

<sup>5</sup> *Ibid*, 29.

<sup>6</sup> *Ibid*, 23-24.



Figure 1: Typical Survivor Curve (40-R4) and Derived Curves





### 9.3 Iowa Type Curves

In 1931, Robley Winfrey and Edwin Kurtz of the Engineering Research Institute at Iowa State University published Bulletin 103, which laid the groundwork for what would eventually be known as the Iowa Curves. “The 13 type curves can be used as valuable aids in forecasting the probable future service lives of individual items and of groups of items of different kinds of physical equipment”<sup>7</sup>. The 13 curves described in Bulletin 103 eventually became a series of 22 generalized survivor curves which are used throughout the regulated utility industry. These 22 curves were described in Bulletin 125, published in 1967 by Harold A. Cowles, which became known as the Iowa curves.

The Iowa curves are organized with three variables: the average life of the plant; the location of the mode; and the variation of the life. All Iowa curves have both a letter and a number to represent the shape and height of the mode. The L curves, or left-moded curves, are used when the mode of the curve should be to the left of the average life. There are six L curves are presented in Figure 2. The R curves, or right-moded, are used when the mode of the curve should be to the right of the average life. There are five R curves, which are presented in Figure 3. The S curves, or symmetrically-moded, are used when the mode is equal to the average life. There are seven S curves, which are presented in Figure 4. The O curves, or origin curves, are used when the mode occurs at age 0. There are four O curves, which are presented in Figure 5. There are some occasions where it is appropriate to use a half curve. In these cases, the curve is assumed to be exactly half way between the two curves.

In addition to Bulletin 125, Iowa curves have also been presented in subsequent Experiment Station bulletins and in the text *Engineering Valuation and Depreciation*<sup>8</sup>. In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student, submitted a thesis<sup>9</sup> presenting his development of the fourth family consisting of the four O-type survivor curves.

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<sup>7</sup> *Ibid*, 21

<sup>8</sup> Marston, Anson, Robley Winfrey and Jean C. Hempstead, *Engineering Valuation and Depreciation* (The Iowa State University Press, 1953)

<sup>9</sup> Couch, Frank V. B., Jr., *Classification of Type O Retirement Characteristics of Industrial Property* Unpublished M.S. Thesis (Engineering Valuation, Library, Iowa State College, Ames, Iowa, 1957)



Figure 2: Left Modal or “L” Iowa Type Survivor Curves

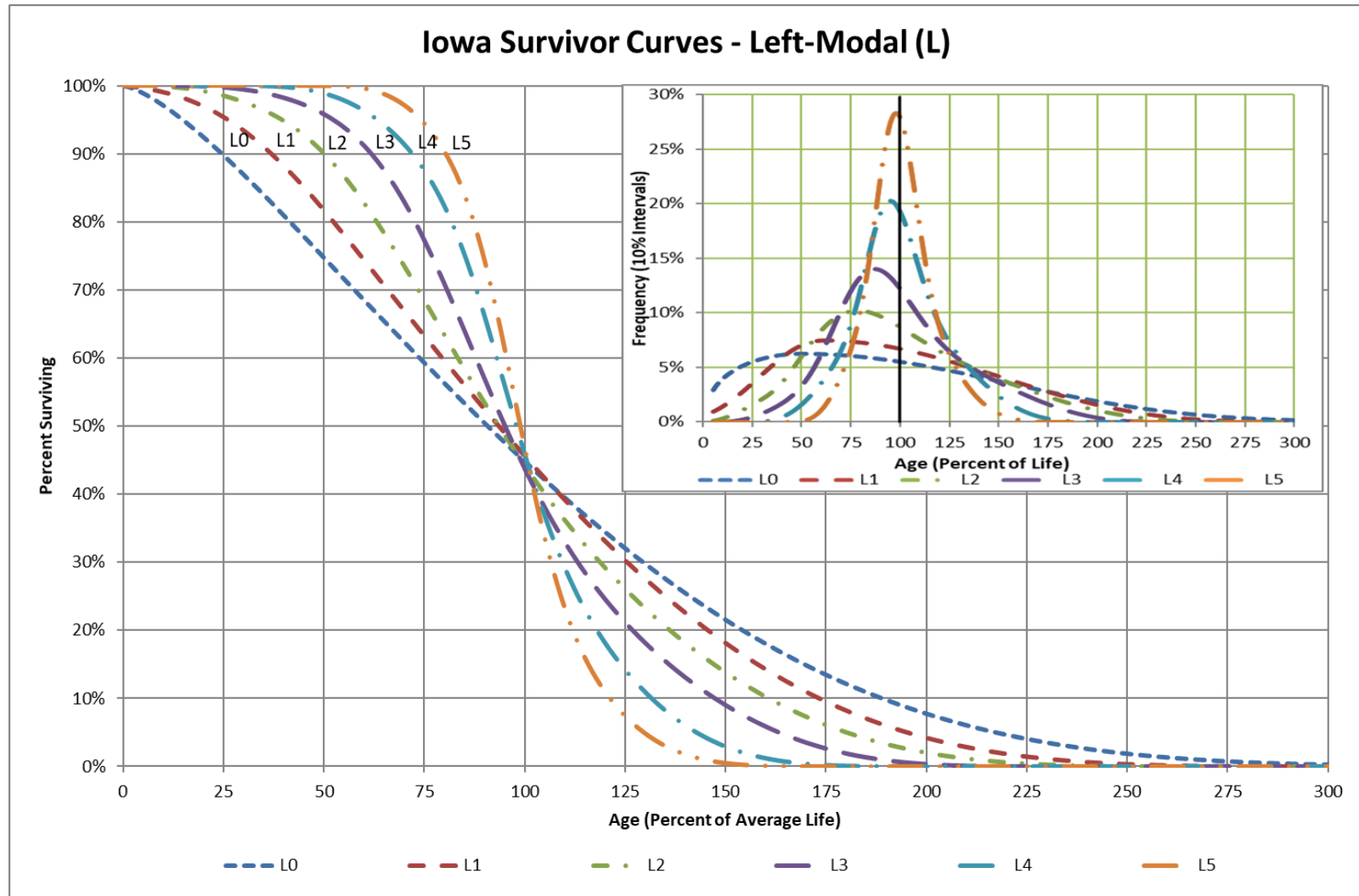




Figure 3: Right Modal or “R” Iowa Type Survivor Curves

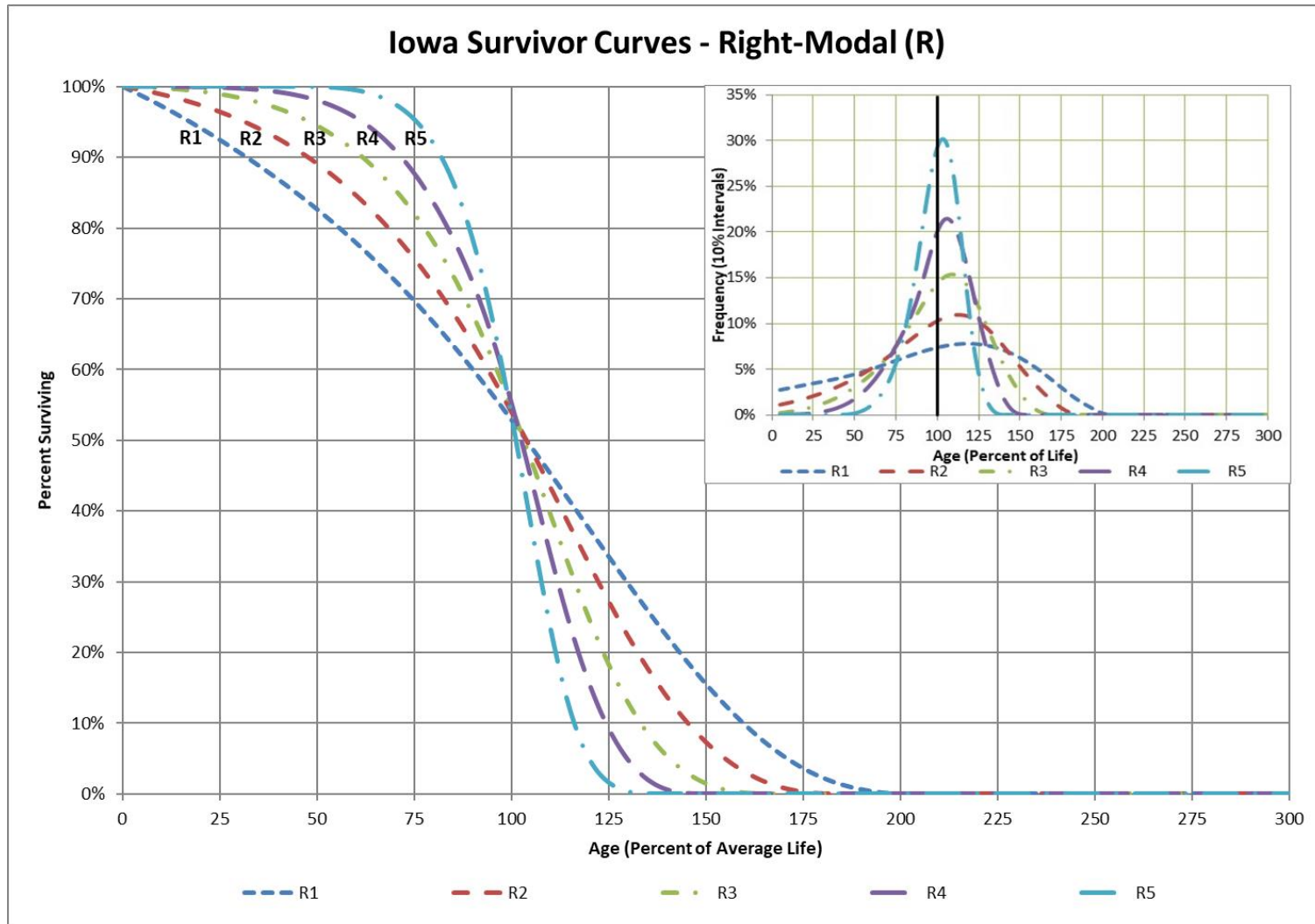




Figure 4: Symmetrical or "S" Iowa Type Survivor Curves

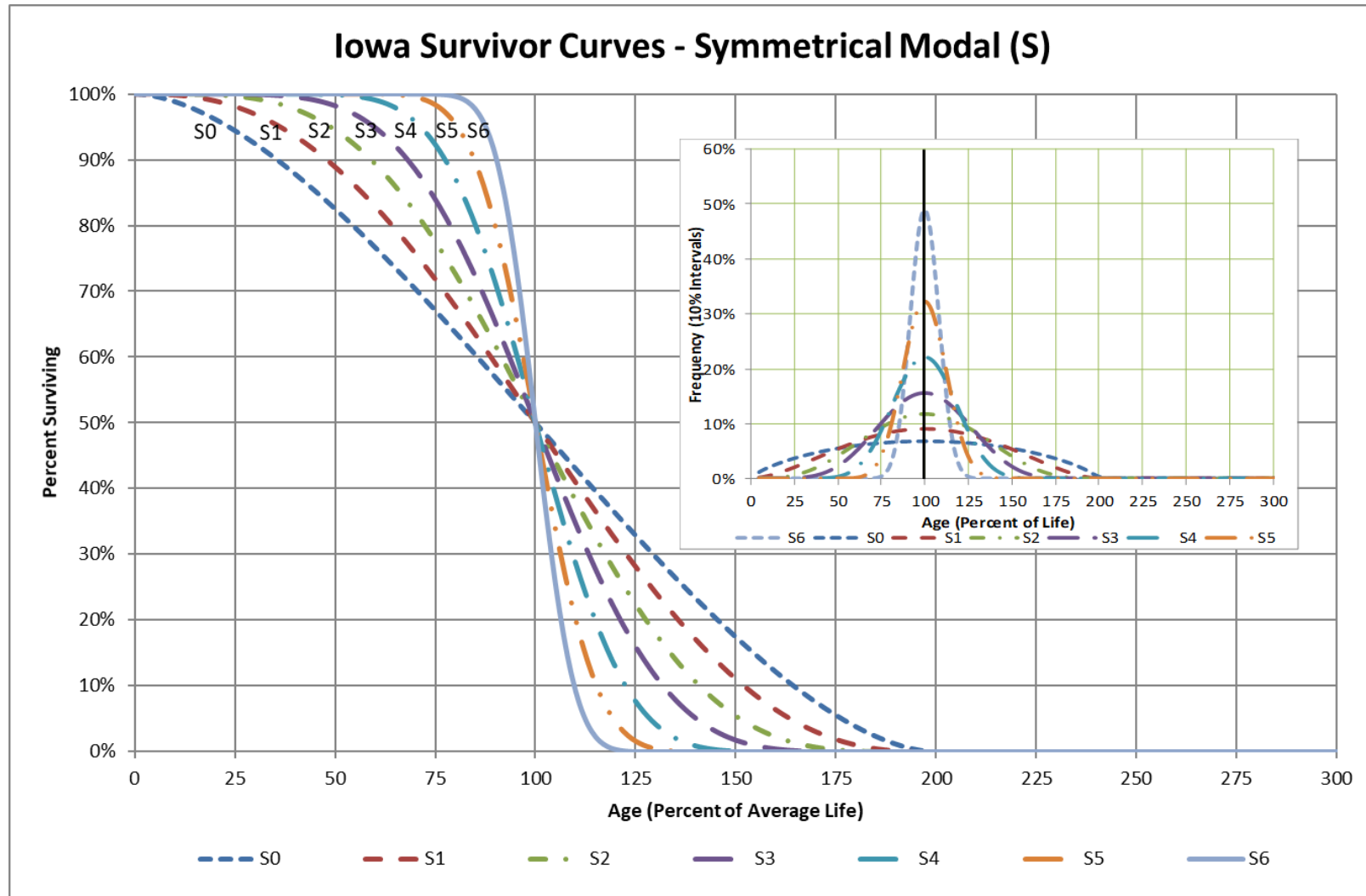
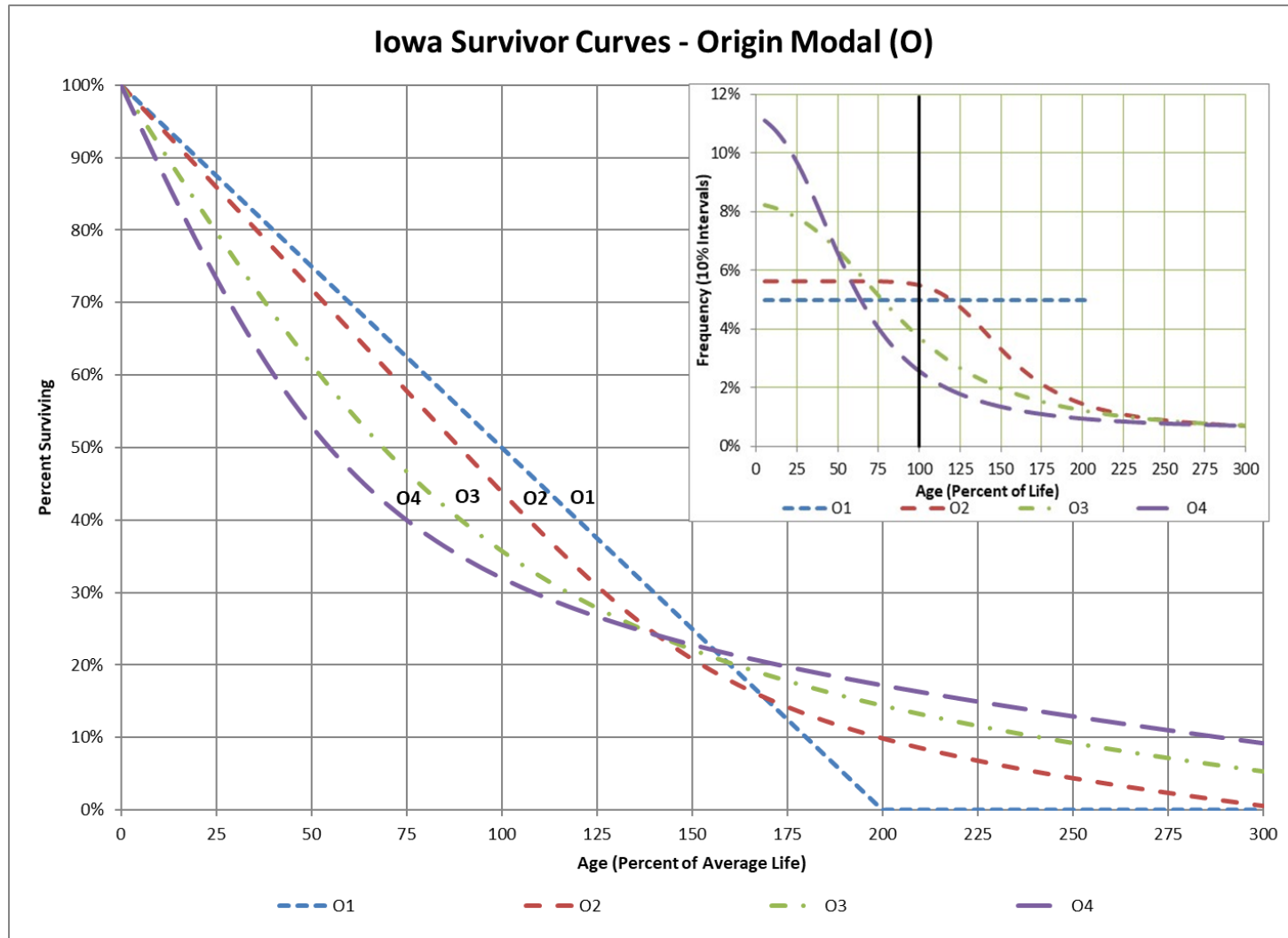






Figure 5: Origin Modal or “O” Iowa Type Survivor Curves





## 9.4 Retirement Rate Method of Analysis

The retirement rate method is a widely accepted actuarial method used to create survivor curves. This method is also referred to as an original life table. These survivor curves can then be used to determine the average service life of a plant account. The retirement rate method is thoroughly explained in several publications, including Statistical Analyses of Industrial Property Retirements,<sup>10</sup> Engineering Valuation and Depreciation<sup>11</sup> and Depreciation Systems.<sup>12</sup>

The retirement rate method is a subgroup of the placement and the experience band methods, as described in “Depreciation Systems”. The placement band method creates a survivor curve which describes the life characteristics of assets placed into service during a selected timeframe. The experience band method creates a survivor curve which describes the life characteristics of assets removed from service during a selected time frame. The retirement rate method creates both placement and experience bands to give the most complete or representative data. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

## 9.5 Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2008-2017 during which there were placements during the years 2003-2017. In order to illustrate the summation of the aged data by age interval, the data was compiled in the manner presented in Schedules 1 and 2. In Schedule 1 (page 9-10), the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, \$10,000 of the asset invested in 2003 were retired in 2008. The \$10,000 retirement occurred during the age interval between 4 ½ and 5 ½ years (2008 - 2003) on the basis that approximately one-half of the amount of property was installed prior to and after July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of \$143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2008 retirements of 2003 installations and ending with the 2016 retirements of the 2011 installations. Thus, the total amount of \$143,000 for age interval 4½-5½ equals the sum of:

$$\$10 + \$12 + \$13 + \$11 + \$13 + \$13 + \$15 + \$17 + \$19 + \$20 = \$143 \text{ k}$$

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<sup>10</sup> Anson, Winfrey & Hempstead, supra note 6

<sup>11</sup> Anson, Winfrey & Hempstead, supra note 6

<sup>12</sup> Wolf & Fitch, supra note 1



Other transactions which affect the group are recorded in a similar manner in Schedule 2 (page 9-11). The entries illustrated include transfers and sales. The entries which are credits to the plant account are shown in parentheses. The items recorded on this schedule are not totaled with the retirements but are used in developing the exposures at the beginning of each age interval.



Schedule 1. Retirements for each year 2008-2017 – summarized by age interval

Experience Band 2008-2017

Placement Band 2003-2017

**Retirements (Thousands of Dollars)**  
**Annual Survivors at the Beginning of the Year**

Year Placed (1)	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)	2015 (9)	2016 (10)	2017 (11)	Total Durring Age Interval (12)	Age Interval (13)
2003	10	11	12	13	14	16	23	24	25	26	26	13½-14½
2004	11	12	13	15	16	18	20	21	22	19	44	12½-13½
2005	11	12	13	14	16	17	19	21	22	18	64	11½-12½
2006	8	9	10	11	11	13	14	15	16	17	83	10½-11½
2007	9	10	11	12	13	14	16	17	19	20	93	9½-10½
2008	4	9	10	11	12	13	14	15	16	20	105	8½-9½
2009		5	11	12	13	14	15	16	18	20	113	7½-8½
2010			6	12	13	15	16	17	19	19	124	6½-7½
2011				6	13	15	16	17	19	19	131	5½-6½
2012					7	14	16	17	19	20	143	4½-5½
2013						8	18	20	22	23	146	3½-4½
2014							9	20	22	25	150	2½-3½
2015								11	23	25	151	1½-2½
2016									11	24	153	½-1½
2017										13	80	0-½
<b>Total</b>	<b>53</b>	<b>68</b>	<b>86</b>	<b>106</b>	<b>128</b>	<b>157</b>	<b>196</b>	<b>231</b>	<b>273</b>	<b>308</b>	<b>1,606</b>	



Schedule 2. Other Transactions for Each year 2008-2017 – summarized by age interval

Experience Band 2008-2017

Placement Band 2003-2017

**Acquisitions, Transfers and Sales (Thousands of Dollars)**  
**Annual Survivors at the Beginning of the Year**

Year Placed (1)	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)	2015 (9)	2016 (10)	2017 (11)	Total Durring Age Interval (12)	Age Interval (13)
2003	-	-	-	-	-	-	60 <sup>a</sup>	-	-	-	-	13½-14½
2004	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2005	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2006	-	-	-	-	-	-	-	(5) <sup>b</sup>	-	-	60	10½-11½
2007	-	-	-	-	-	-	-	6 <sup>a</sup>	-	-	-	9½-10½
2008	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2009	-	-	-	-	-	-	-	-	-	-	-	7½-8½
2010	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2011	-	-	-	-	-	-	-	(12) <sup>b</sup>	-	-	-	5½-6½
2012	-	-	-	-	-	-	-	-	22 <sup>a</sup>	-	-	4½-5½
2013	-	-	-	-	-	-	-	(19) <sup>b</sup>	-	-	10	3½-4½
2014	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2015	-	-	-	-	-	-	-	-	-	(102) <sup>c</sup>	(121)	1½-2½
2016	-	-	-	-	-	-	-	-	-	-	-	½-1½
2017	-	-	-	-	-	-	-	-	-	-	-	0-½
<b>Total</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>60</b>	<b>(30)</b>	<b>22</b>	<b>(102)</b>	<b>(50)</b>	

<sup>a</sup> Transfer Affecting Exposures at Beginning of Year

<sup>b</sup> Transfer Affecting Exposures at End of Year

<sup>c</sup> Sale with Continued Use

Parentheses denote Credit amount.



## 9.6 Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 (page 9-13). The surviving plant at the beginning of each year from 2007 through 2016 is recorded by year in the portion of the table titled "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition, are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being exposed to retirement in this group at the beginning of the year in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the beginning of the following year. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2013 are calculated in the following manner:

Exposures at age 0	=	amount of addition	=	\$750,000
Exposures at age ½	=	\$750,000 - \$ 8,000	=	\$742,000
Exposures at age 1½	=	\$742,000 - \$18,000	=	\$724,000
Exposures at age 2½	=	\$724,000 - \$20,000 - \$19,000	=	\$685,000
Exposures at age 3½	=	\$685,000 - \$22,000	=	\$663,000

For the entire experience band 2008-2018, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

$$\$255 + \$268 + \$ 284 + \$311 + \$334 + \$374 + \$405 + \$448 + \$501 \$ \$609 = \$3,789k$$



Schedule 3 – Plant exposed to retirement at the beginning of each year, 2008 -2017 – summarized by age interval

Experience Band 2008 - 2017

Placement Band 2003-2017

**Exposures (Thousands of Dollars)**  
**Annual Survivors at the Beginning of the Year**

Year Placed (1)	2008 (2)	2009 (3)	2010 (4)	2011 (5)	2012 (6)	2013 (7)	2014 (8)	2015 (9)	2016 (10)	2017 (11)	Total at Beginning of Age Interval (12)	Age Interval (13)
2003	255	245	234	222	209	195	239	216	192	167	167	13½-14½
2004	279	268	256	243	228	212	194	174	153	131	323	12½-13½
2005	307	296	284	271	257	241	224	205	184	162	531	11½-12½
2006	338	330	321	311	300	289	276	262	242	226	823	10½-11½
2007	376	367	257	346	334	321	307	267	280	261	1,097	9½-10½
2008	420 <sup>a</sup>	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2009		460 <sup>a</sup>	455	444	432	419	405	390	374	356	1,952	7½-8½
2010			510 <sup>a</sup>	504	492	479	464	448	431	412	2,463	6½-7½
2011				580 <sup>a</sup>	574	561	546	530	501	482	3,057	5½-6½
2012					660 <sup>a</sup>	653	639	623	628	609	3,789	4½-5½
2013						750 <sup>a</sup>	742	724	685	663	4,332	3½-4½
2014							850 <sup>a</sup>	841	821	799	4,955	2½-3½
2015								960 <sup>a</sup>	949	923	5,719	1½-2½
2016									1,080 <sup>a</sup>	1,069	6,579	½-1½
2017										1,220 <sup>a</sup>	7,490	0-½
<b>Total</b>	<b>1,975</b>	<b>2,382</b>	<b>2,724</b>	<b>3,318</b>	<b>3,872</b>	<b>4,494</b>	<b>5,247</b>	<b>5,987</b>	<b>6,852</b>	<b>7,796</b>	<b>44,780</b>	

<sup>a</sup> Additions during the year.

1555	1922	2214	2738	3212	3744	4397	5027	5772	6576	44780
420	460	510	580	660	750	850	960	1080	1220	0
1975	2382	2724	3318	3872	4494	5247	5987	6852	7796	44780



## 9.7 Original Life Tables

The original life table, illustrated in Schedule 4 (page 9-15) is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100 percent at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e., one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15	
Exposures at age 4½	=	\$3,789,000	
Retirements from age 4½ to 5½	=	\$143,000	
Retirement Ratio	=	$\$143,000 \div \$3,789,000$	= 0.0377
Survivor Ratio	=	$1.000 - 0.0377$	= 0.9623
Percent surviving at age 5½	=	$(88.15) \times (0.9623)$	= 84.83

The totals of the exposures and retirements (columns 2 and 3) are shown for the purpose of checking with the respective totals in Schedules 1 and 3. The ratio of the total retirements to the total exposures, other than for each age interval, is meaningless. The original survivor curve is plotted from the original life table (column 6, Schedule 4). When the curve terminates at a percent surviving greater than zero, it is called a stub survivor curve. Survivor curves developed from retirement rate studies generally are stub curves.





Schedule 4: Original Life Table - Calculated by the Retirement Rate Method

Experience Band 2008-2017				Placement Band 2003-2017	
Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	% Surviving at Beginning of Age Interval
0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.6
12.5	323	44	0.1362	0.8638	48.9
13.5	167	26	0.1557	0.8443	42.24
					35.66
<b>Total</b>	<b>44,780</b>	<b>1,606</b>			

- Exposure and Retirement Amounts are in Thousands of Dollars
- Column 2 from Schedule 3, Column 12, Plant Exposed to Retirement.
- Column 3 from Schedule 1, Column 12, Retirements for Each Year.
- Column 4 = Column 3 divided by Column 2.
- Column 5 = 1.0000 minus Column 4.
- Column 6 = Column 5 multiplied by Column 6 as of the Preceding Age Interval.



## 9.8 Smoothing the Original Survivor Curve

The smoothing of the original survivor curve eliminates any irregularities and serves as the basis for the preliminary extrapolation to zero percent surviving of the original stub curve. Even if the original survivor curve is complete from 100 percent to zero percent, it is desirable to eliminate any irregularities, as there is still an extrapolation for the vintages which have not yet lived to the age at which the curve reaches zero percent. In this study, the smoothing of the original curve with established type curves was used to eliminate irregularities in the original curve.

The Iowa type curves are used in this study to smooth those original stub curves which are expressed as percentages surviving at ages in years. Each original survivor curve was compared to the Iowa curves using visual and mathematical matching in order to determine the better fitting smooth curves. In Figures 6, 7, and 8, the original curve developed in Schedule 4 is compared with the L, S, and R Iowa type curves which most nearly fit the original survivor curve. In Figure 6, the L1 curve with an average life between 12 and 13 years appears to be the best fit. In Figure 7, the S0 type curve with a 12-year average life appears to be the best fit and appears to be better than the L1 fitting. In Figure 8, the R1 type curve with a 12-year average life appears to be the best fit and appears to be better than either the L1 or the S0.

In Figure 9, the three fittings, 12-L1, 12-S0 and 12-R1 are drawn for comparison purposes. It is probable that the 12-R1 Iowa curve would be selected as the most representative of the plotted survivor characteristics of the group.



Figure 6: Illustration of the Matching of an Original Survivor Curve with a L1 Iowa Type Curve Original and Smooth Survivor Curves

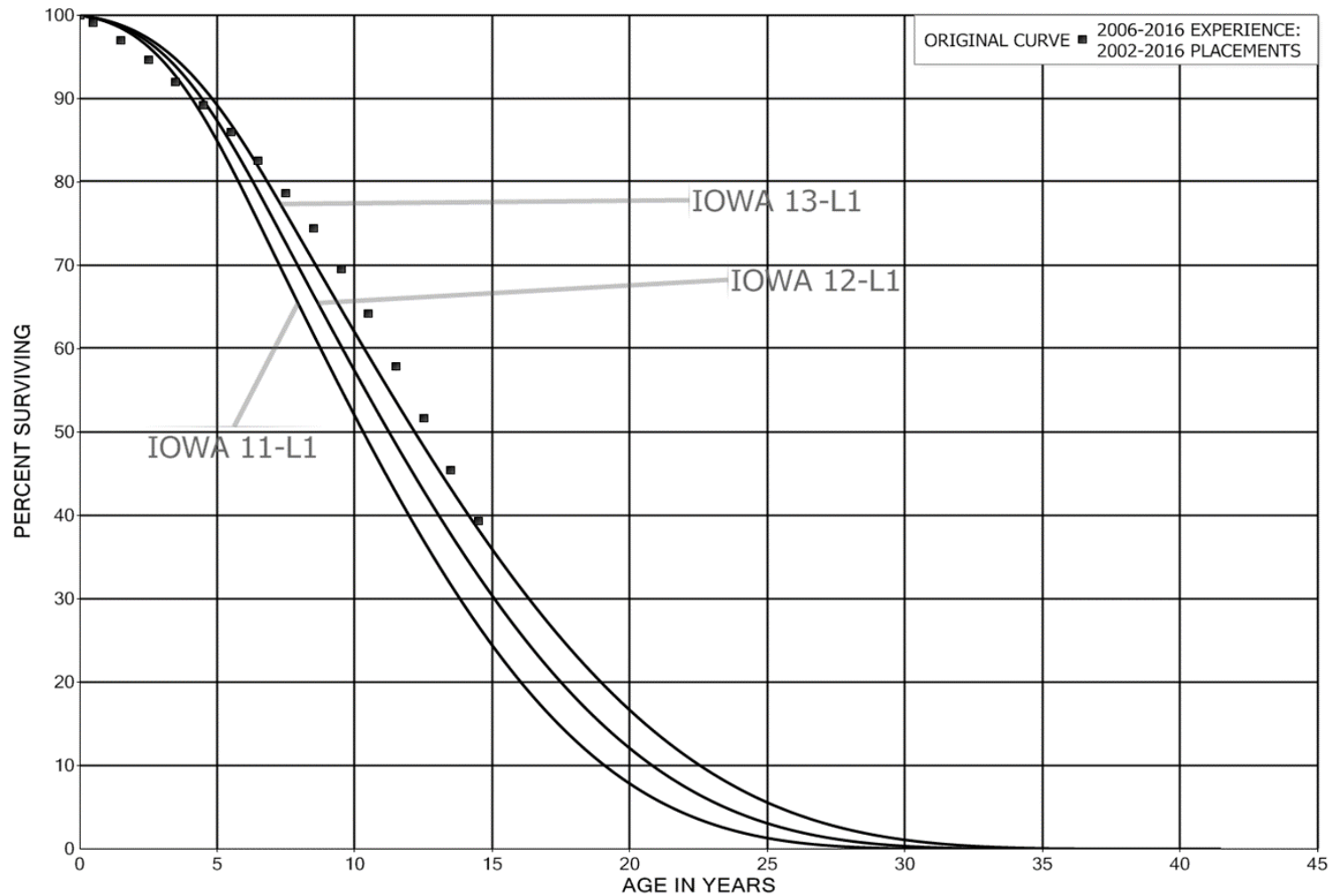




Figure 7: Illustration of the Matching of an Original Survivor Curve with a SO Iowa Type Curve Original and Smooth Survivor Curves

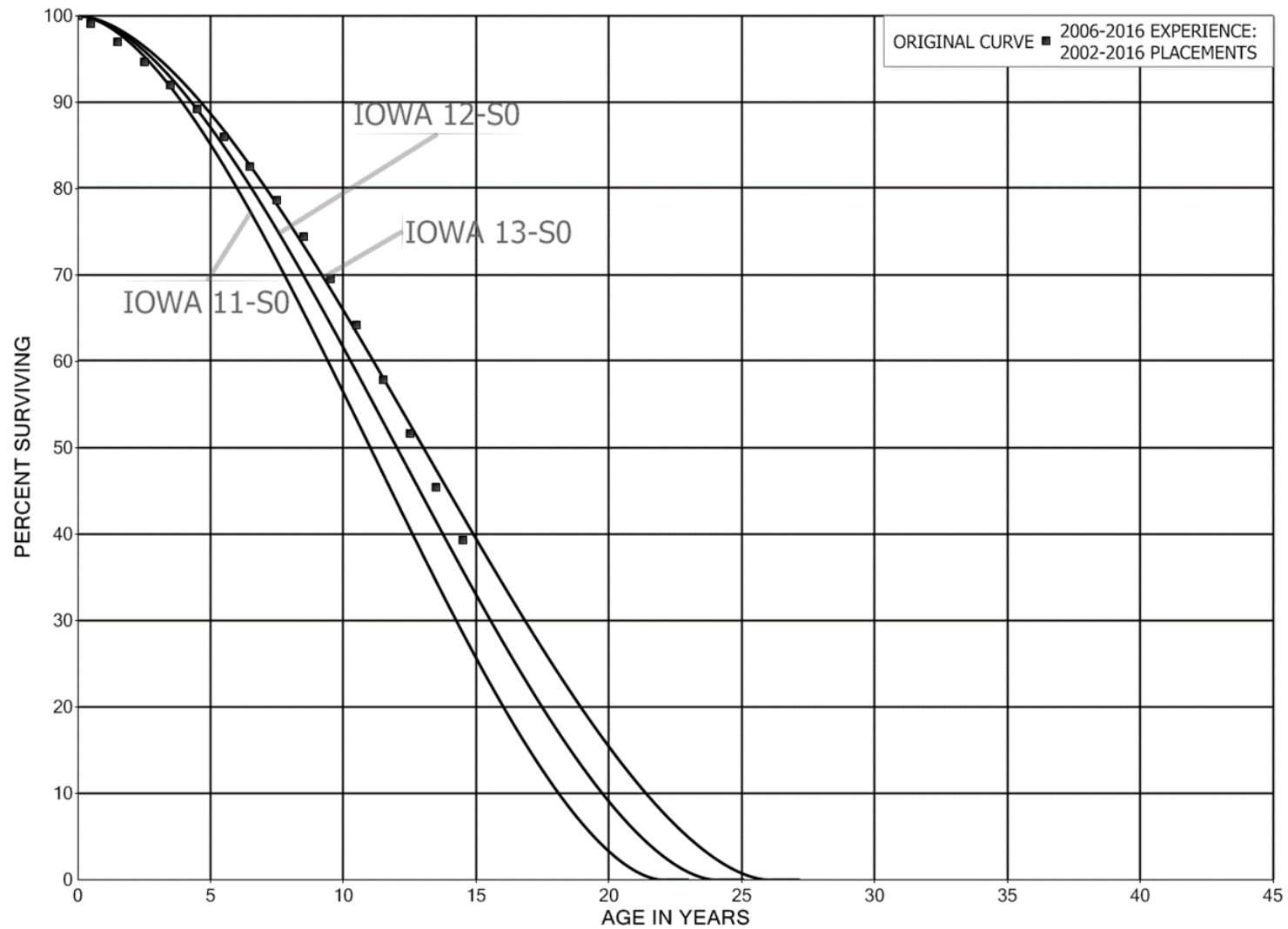




Figure 8: Illustration of the Matching of an Original Survivor Curve with a R1 Iowa Type Curve Original and Smooth Survivor Curves

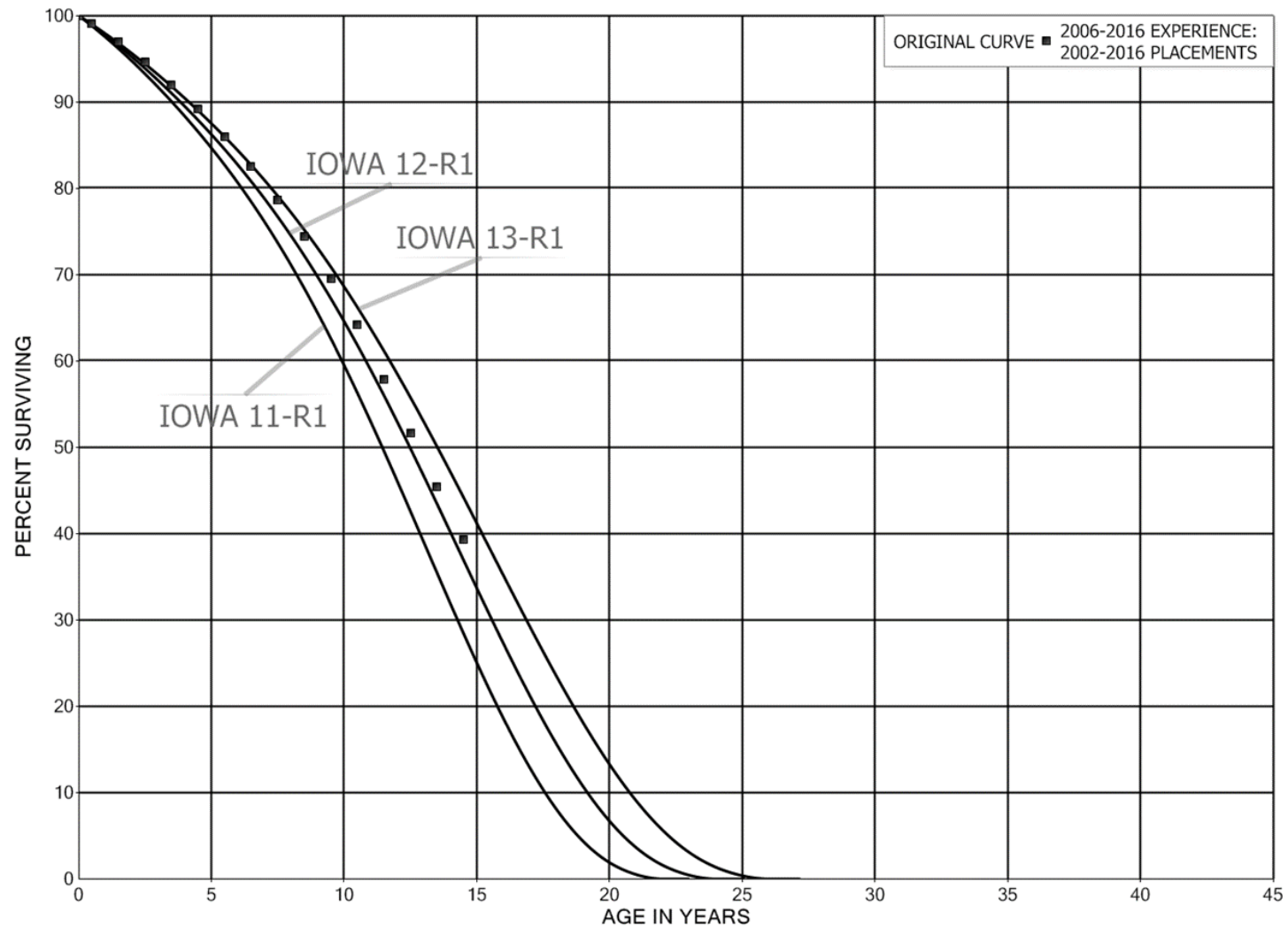
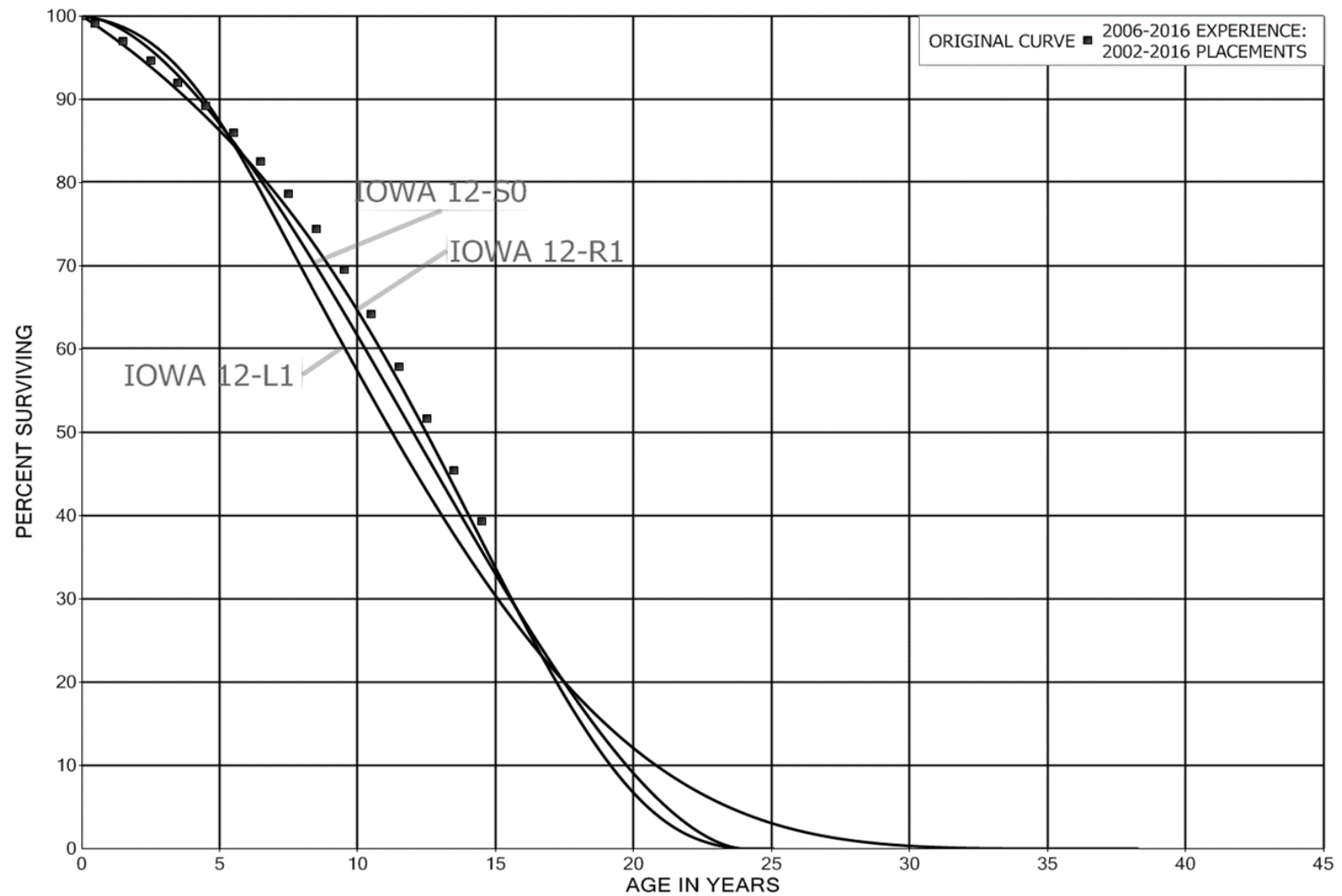




Figure 9: Illustration of the Matching of an Original Survivor Curve with a L1 Iowa Type Curve Original and Smooth Survivor Curves





## SECTION 10

### 10 ESTIMATION OF NET SALVAGE

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The estimates of net salvage were based primarily on the professional judgment of Concentric, based in part on historical data, and in part through a comparison to peer companies. The analysis of historic net salvage activity considered gross salvage and cost of removal as recorded to the depreciation reserve account. Net salvages as a percentage of the cost of plant retired are calculated for each plant component on both annual and three-year moving average bases.

The net salvage percentages estimated is usually determined using the “Traditional Approach” for net salvage estimation. When a utility retires plant, the plant may be: (1) sold to a third party; (2) reused by the utility for additional service; (3) abandoned in place; or (4) physically removed. In the circumstances where the plant is sold or re-used, a salvage proceeds (or positive salvage amount) is normally recognized. In circumstances where the plant is abandoned in place or physically removed, a cost of removal expenditure (or negative salvage) is incurred. The net of these estimated gross salvage proceeds and the estimated costs of removal are expressed as a percentage of the account’s original cost to determine a net salvage percentage. In the circumstances where the salvage proceeds exceed the costs of retirement, a net positive salvage percentage exists. In the circumstances where the costs of removal exceed the salvage proceeds, a net negative salvage as a percentage of the original cost is the result.

The estimation of the net salvage as a percentage of original cost as developed using the traditional approach, includes the following five steps.

1. The annual retirement, gross salvage and cost of removal transactions for the period of analysis is extracted from the plant accounting systems.
2. A net salvage amount (gross salvage proceeds less cost of retirement) is calculated for each historic year. Additionally, a net salvage amount is also calculated for each historic three-year rolling band and the most recent five-year rolling band.
3. The net salvage amount determined above is compared to the original booked costs retired for each period in the manner described, which results in a net salvage percentage of original costs retired for each year, in addition to three-year rolling bands and the most recent five-year rolling band. The annual, the three-year rolling average, and the most recent five-year rolling average net salvage percentages are analyzed to determine a reasonable estimated net salvage percentage. At this point the net salvage percentage is based purely upon statistical analysis.
4. Each account is then compared to the net salvage percentage currently approved, compared to peer companies, and discussed with company engineering staff. Based on the statistical analysis, the review of current and peer company net salvage percentages, and with the professional judgment of Concentric, a net salvage percentage is determined for each account.
5. The net salvage percentage is then used in the depreciation rate calculations in the technical update or report.



BEFORE THE TENNESSEE PUBLIC UTILITY COMMISSION  
NASHVILLE, TENNESSEE

PETITION OF TENNESSEE-  
AMERICAN WATER COMPANY TO  
CHANGE AND INCREASE CERTAIN  
RATES AND CHARGES

)  
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)  
)

DOCKET NO. 24-\_\_\_\_\_

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VERIFICATION

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PROVINCENCE OF ALBERTA )  
CITY OF CALGARY )

I, LARRY E. KENNEDY, being duly sworn, state that I am authorized to testify on behalf of Tennessee-American Water Company in the above-referenced docket, that if present before the Commission and duly sworn, my testimony would be as set forth in my pre-filed testimony in this matter, and that my testimony herein is true and correct to the best of my knowledge, information, and belief.

  
\_\_\_\_\_  
LARRY E. KENNEDY

Sworn to and subscribed before me  
this 25 day of April, 2024.

  
\_\_\_\_\_  
Notary Public

**KAHINI JHAVERI**  
Barrister & Solicitor

My Commission Expires: \_\_\_\_\_

A NOTARY PUBLIC IN AND FOR  
THE PROVINCE OF ALBERTA  
BY VIRTUE OF BEING A  
LAWYER IN ALBERTA

102, 10820-24 Street SE  
Calgary, AB T2Z 4C9

Witness as  
to Signature only