

PENNSYLVANIA-AMERICAN WATER COMPANY

**2020 GENERAL BASE RATE CASE
R-2020-3019369 (WATER)
R-2020-3019371 (WASTEWATER)**

**EXHIBITS NO. 11-E, 11-F, 11-G, 11-H
DEPRECIATION STUDY**

**WATER STEELTON OPERATIONS
AS OF DECEMBER 31, 2019, 2020, 2021, 2022**

EXHIBIT NO. 11-E - DEPRECIATION STUDY

WATER STEELTON OPERATIONS

AS OF DECEMBER 31, 2019

Exhibit No. 11-E
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY
MECHANICSBURG, PENNSYLVANIA

WATER STEELTON OPERATIONS

2019 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WATER PLANT
AT DECEMBER 31, 2019

Prepared by:



*Excellence Delivered **As Promised***

Exhibit No. 11-E
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WATER STEELTON OPERATIONS

2019 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WATER PLANT
AS OF DECEMBER 31, 2019

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



*Excellence Delivered **As Promised***

April 22, 2020

Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055

Attention: Ashley E. Everette
Director, Rates & Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to water plant as of December 31, 2019. Summaries of the original cost, annual accruals and the book depreciation reserve are presented in Tables 1 through 3, beginning on page I-3 of the attached report.

A description of the methods and procedures upon which the study was based, as well as support for the service life estimates, is set forth in a companion report "2020 Depreciation Study - Calculated Annual Depreciation Accruals Related to Water Plant as of December 31, 2020".

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

A handwritten signature in black ink that reads "John J. Spanos".

JOHN J. SPANOS
President

JJS:mle

066548.100

Gannett Fleming Valuation and Rate Consultants, LLC

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PART I. RESULTS OF STUDY

PENNSYLVANIA-AMERICAN WATER COMPANY

WATER STEELTON OPERATIONS

DEPRECIATION STUDY

PART I. RESULTS OF STUDY

DESCRIPTION OF SUMMARY TABULATIONS

Table 1 presents the development of net original cost used in the study. The net original cost is the original cost of water plant less advances, contributions. The results of the depreciation study are summarized in Table 2, which sets forth the book reserve and the calculated annual depreciation related to net original cost as of December 31, 2019, and the annual amortization of net negative salvage. Table 3 presents the calculation of the amortization of experienced net salvage, by account, based on the five-year period, 2015-2019.

DESCRIPTION OF DEPRECIATION CALCULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-5. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2019

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF DECEMBER 31, 2019 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF DECEMBER 31, 2019 (6)
NONDEPRECIABLE PLANT					
303.00 MISCELLANEOUS INTANGIBLE PLANT	3.00				3.00
303.30 PURIFICATION LAND	26,988.00				26,988.00
303.50 DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	1.00				1.00
303.61 OFFICE LAND	1.00				1.00
TOTAL NONDEPRECIABLE PLANT	26,993.00	0.00	0.00	0.00	26,993.00
DEPRECIABLE PLANT					
304.15 OTHER WATER SOURCE STRUCTURES	6,843.25				6,843.25
304.30 PURIFICATION BUILDINGS	13,449,043.09				13,449,043.09
306.00 LAKE, RIVER AND OTHER INTAKES	112,013.39				112,013.39
310.00 POWER GENERATION EQUIPMENT	416,788.74				416,788.74
311.53 PUMPING EQUIPMENT - WATER TREATMENT	5,704,191.26				5,704,191.26
320.10 PURIFICATION SYSTEM - LARGE STRUCTURES	365,857.52				365,857.52
320.20 PURIFICATION SYSTEM - CHEMICAL TREATMENT	566,660.69				566,660.69
330.00 DISTRIBUTION RESERVOIRS AND STANDPIPES	2,560,029.90				2,560,029.90
331.00 MAINS AND ACCESSORIES	20,071,854.77				20,071,854.77
334.00 METERS AND METER INSTALLATIONS	33,125.86				33,125.86
335.00 FIRE HYDRANTS	981,008.26				981,008.26
343.00 TOOLS AND WORK EQUIPMENT	4,967.78				4,967.78
344.00 LABORATORY EQUIPMENT	22,623.65				22,623.65
347.00 MISCELLANEOUS EQUIPMENT	53,532.24				53,532.24
348.00 OTHER TANGIBLE EQUIPMENT	823.15				823.15
TOTAL DEPRECIABLE PLANT	44,349,363.55	0.00	0.00	0.00	44,349,363.55
TOTAL UTILITY PLANT IN SERVICE	44,376,356.55	0.00	0.00	0.00	44,376,356.55



PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2019

	(1) DEPRECIABLE GROUP	(2) SURVIVOR CURVE	(3) NET ORIGINAL COST AS OF DECEMBER 31, 2019	(4) BOOK RESERVE	(5) FUTURE ACCRUALS	(6) ANNUAL ACCRUAL AMOUNT	(7) ANNUAL ACCRUAL RATE, PERCENT	(8) COMPOSITE REMAINING LIFE
NONDEPRECIABLE PLANT								
303	MISCELLANEOUS INTANGIBLE PLANT	NONDEPR.	3.00					
303.3	PURIFICATION LAND	NONDEPR.	26,988.00					
303.5	DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	NONDEPR.	1.00					
303.61	OFFICE LAND	NONDEPR.	1.00					
	TOTAL NONDEPRECIABLE PLANT		26,993.00					
DEPRECIABLE PLANT								
304.15	OTHER WATER SOURCE STRUCTURES	60-R1.5	6,843.25	0	6,843	210	3.07	32.6
304.3	PURIFICATION BUILDINGS	70-S0.5	13,449,043.09	7,215,512	6,233,532	297,166	2.21	21.0
306	LAKE, RIVER AND OTHER INTAKES	55-S1	112,013.39	101,794	10,219	542	0.48	18.9
310	POWER GENERATION EQUIPMENT	43-S1	416,788.74	43,096	373,693	12,465	2.99	30.0
311.53	PUMPING EQUIPMENT - WATER TREATMENT	42-S0	5,704,191.26	4,598,035	1,106,156	82,171	1.44	13.5
320.1	PURIFICATION SYSTEM - LARGE STRUCTURES	60-S0.5	365,857.52	236,066	129,792	6,676	1.82	19.4
320.2	PURIFICATION SYSTEM - CHEMICAL TREATMENT	36-R0.5	566,660.69	347,816	218,844	12,660	2.23	17.3
330	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	2,560,029.90	1,975,746	584,284	21,616	0.84	27.0
331	MAINS AND ACCESSORIES	110-P2	20,071,854.77	8,871,566	11,200,289	163,620	0.82	68.5
334	METERS AND METER INSTALLATIONS	21-L1	33,125.86	29,564	3,562	334	1.01	10.7
335	FIRE HYDRANTS	75-R2.5	981,008.26	442,740	538,268	12,126	1.24	44.4
343	TOOLS AND WORK EQUIPMENT	20-SQ	4,967.78	22	4,946	254	5.11	19.5
344	LABORATORY EQUIPMENT	20-L0.5	22,623.65	1,876	20,747	1,861	8.23	11.1
347	MISCELLANEOUS EQUIPMENT	25-SQ	53,532.24	6,509	47,023	2,193	4.10	21.4
348	OTHER TANGIBLE EQUIPMENT	25-SQ	823.15	829	(6)	0	-	-
	TOTAL DEPRECIABLE PLANT		44,349,363.55	23,871,161	20,478,202	613,894	1.38	
	TOTAL UTILITY PLANT IN SERVICE		44,376,356.55	23,871,161	20,478,202	613,894		

* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

TABLE 3. AMORTIZATION OF EXPERIENCED NET SALVAGE

ACCOUNT (1)	2015		2016		2017		2018		2019		NET SALVAGE (12)*	SALVAGE ACCURAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
304.30												
320.10												
320.20												
331.00												
334.00												
335.00												
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0

* Column (12) equals the summation of Columns (2) through (11).

PART II. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1907	1,329,654	1,303,418	26,236		26,236	0.1
1916	1,035,451	972,665	62,786		89,022	0.4
1926	1,548,729	1,366,916	181,813		270,835	1.3
1946	111,721	84,476	27,245		298,080	1.5
1956	71,384	48,274	23,110		321,190	1.6
1966	54,478	32,451	22,027		343,217	1.7
1971					343,217	1.7
1972					343,217	1.7
1973	16,343,082	12,915,114	3,427,968		3,771,185	18.4
1976	5,358,738	2,737,517	2,621,221		6,392,406	31.2
1985					6,392,406	31.2
1986	1,721,229	713,219	1,008,010		7,400,416	36.1
1996	1,708,939	528,619	1,180,320		8,580,736	41.9
2001					8,580,736	41.9
2004	19,733	8,942	10,791		8,591,527	42.0
2006	5,395,176	1,000,308	4,394,868		12,986,395	63.4
2009	194,120	67,151	126,969		13,113,364	64.0
2010	4,886,185	1,700,778	3,185,407		16,298,771	79.6
2012	8,018	1,921	6,097		16,304,868	79.6
2014	14,886	3,118	11,768		16,316,636	79.7
2015	476,123	53,281	422,842		16,739,478	81.7
2016	1,306,849	69,972	1,236,877		17,976,355	87.8
2017	2,637,230	259,874	2,377,356		20,353,711	99.4
2018	3,440	212	3,228		20,356,939	99.4
2019	124,198	2,934	121,264		20,478,203	100.0
SUBTOTAL	44,349,363	23,871,161	20,478,202			
NONDEPRECIABLE	26,993		26,993			
TOTAL	44,376,356	23,871,161	20,505,195			

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R1.5						
2019	6,843.25	103		6,843	32.61	210
	6,843.25	103		6,843		210
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					32.6	3.07

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 70-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
1973	6,539,326.66	4,652,077	5,277,997	1,261,330	18.86	66,879
2010	4,886,185.28	1,499,082	1,700,778	3,185,407	21.46	148,435
2014	8,099.14	1,639	1,860	6,239	21.67	288
2017	2,013,406.89	206,978	234,825	1,778,582	21.83	81,474
2019	2,025.12	45	52	1,974	21.87	90
	13,449,043.09	6,359,821	7,215,512	6,233,532		297,166
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						21.0 2.21

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S1						
1973	112,013.39	79,686	101,794	10,219	18.86	542
	112,013.39	79,686	101,794	10,219		542
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					18.9	0.48

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 43-S1						
2015	416,788.74	54,391	43,096	373,693	29.98	12,465
	416,788.74	54,391	43,096	373,693		12,465
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						30.0 2.99

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 42-S0						
1973	5,686,620.99	4,416,230	4,594,698	1,091,923	13.38	81,609
2012	8,018.37	1,846	1,921	6,097	25.07	243
2014	6,786.40	1,209	1,258	5,528	25.36	218
2018	2,765.50	152	158	2,607	25.75	101
	5,704,191.26	4,419,437	4,598,035	1,106,156		82,171
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.5 1.44

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 60-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
1973	287,240.82	209,686	234,066	53,175	17.20	3,092
2019	78,616.70	1,792	2,000	76,617	21.38	3,584
	365,857.52	211,478	236,066	129,792		6,676
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.4 1.82

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 36-R0.5						
1973	305,695.68	251,588	266,477	39,219	10.00	3,922
2004	19,732.84	8,442	8,942	10,791	20.73	521
2009	194,120.04	63,400	67,151	126,969	21.65	5,865
2015	11,955.09	2,104	2,229	9,726	21.07	462
2016	13,094.51	1,907	2,020	11,075	20.54	539
2017	2,569.78	289	306	2,264	19.72	115
2018	674.44	51	54	620	18.38	34
2019	18,818.31	602	637	18,181	15.12	1,202
	566,660.69	328,383	347,816	218,844		12,660

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.3 2.23

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
1973	2,560,029.90	1,618,963	1,975,746	584,284	27.03	21,616
	2,560,029.90	1,618,963	1,975,746	584,284		21,616
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					27.0	0.84

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 110-R2						
1907	1,329,654.06	1,077,020	1,303,418	26,236	26.39	994
1916	1,035,451.45	803,717	972,665	62,786	29.84	2,104
1926	1,548,729.11	1,129,488	1,366,916	181,813	34.71	5,238
1946	111,720.84	69,803	84,476	27,245	44.14	617
1956	71,383.95	39,889	48,274	23,110	50.14	461
1966	54,478.06	26,814	32,451	22,027	55.20	399
1973	823,031.11	359,747	435,369	387,662	59.88	6,474
1976	5,026,620.38	2,077,000	2,513,602	2,513,018	61.77	40,683
1986	1,612,463.85	540,175	653,724	958,740	66.50	14,417
1996	1,530,073.42	377,622	457,001	1,073,072	71.73	14,960
2006	5,033,916.29	754,081	912,596	4,121,320	76.59	53,810
2016	1,293,754.03	56,149	67,952	1,225,802	77.15	15,889
2017	600,578.22	19,098	23,112	577,466	76.24	7,574
	20,071,854.77	7,330,603	8,871,556	11,200,299		163,620
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						68.5 0.82

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 21-L1						
1973	28,300.26	26,319	28,139	161	3.50	46
2015	4,825.60	1,333	1,425	3,400	11.79	288
	33,125.86	27,652	29,564	3,562		334

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.7 1.01

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R2.5						
1976	332,117.94	189,241	223,915	108,203	32.84	3,295
1986	108,765.06	50,282	59,495	49,270	38.96	1,265
1996	178,865.67	60,528	71,618	107,248	45.94	2,335
2006	361,259.59	74,130	87,712	273,547	52.29	5,231
	981,008.26	374,181	442,740	538,268		12,126
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.4 1.24

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 343 TOOLS AND WORK EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
2019	4,967.78	124	22	4,946	19.50	254
	4,967.78	124	22	4,946		254
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					19.5	5.11

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L0.5						
2015	1,948.63	567	245	1,704	10.96	155
2017	20,675.02	3,784	1,631	19,044	11.16	1,706
	22,623.65	4,351	1,876	20,747		1,861
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					11.1	8.23

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 347 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
2015	40,604.99	7,309	6,286	34,319	20.50	1,674
2019	12,927.25	259	223	12,704	24.50	519
	53,532.24	7,568	6,509	47,023		2,193

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 21.4 4.10

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 348 OTHER TANGIBLE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2019

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
1973	823.15	823	829		6-	
	823.15	823	829		6-	
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						0.0 0.00

EXHIBIT NO. 11-F - DEPRECIATION STUDY

WATER STEELTON OPERATIONS

AS OF DECEMBER 31, 2020

Exhibit No. 11-F
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY
MECHANICSBURG, PENNSYLVANIA

WATER STEELTON OPERATIONS

2020 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WATER PLANT
AS OF DECEMBER 31, 2020

Prepared by:



*Excellence Delivered **As Promised***

PENNSYLVANIA-AMERICAN WATER COMPANY
Mechanicsburg, Pennsylvania

WATER STEELTON OPERATIONS

2020 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WATER PLANT
AS OF DECEMBER 31, 2020

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC
Camp Hill, Pennsylvania



*Excellence Delivered **As Promised***

April 22, 2020

Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055

Attention Ashley E. Everette
Director, Rates & Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to water plant. The results of our study as of December 31, 2020, are presented in the attached report. The results of our study as of December 31, 2019, are presented in our report, "2019 Depreciation Study - Calculated Annual Depreciation Accruals Related to Water Plant as of December 31, 2019." The same methods, procedures and estimates are used in both studies.

The attached report sets forth a description of the methods and procedures upon which the studies were based, the estimates of survivor curves, and the calculated annual depreciation as of December 31, 2020.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

A handwritten signature in black ink that reads "John J. Spanos".

JOHN J. SPANOS
President

JJS:mle

066548.100

Gannett Fleming Valuation and Rate Consultants, LLC

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www.gfvrc.com

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PART I. INTRODUCTION

PENNSYLVANIA-AMERICAN WATER COMPANY

WATER STEELTON OPERATIONS

DEPRECIATION STUDY

PART I. INTRODUCTION

SCOPE

This report presents the results of the depreciation study prepared for Pennsylvania-American Water Company (the Company) as applied to water plant in service as of December 31, 2020 for the Steelton Operations. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and basic judgments which underlie recommended annual depreciation accrual rates related to water plant in service as of December 31, 2020.

PLAN OF REPORT

Part I, Introduction, contains statements with respect to the plan of the report, and the basis of the study. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and the methods used in the service life study. Part III, Service Life Considerations, presents the factors and judgment utilized in the average service life analysis. Part IV, Calculation of Annual and Accrued Depreciation, describes the procedures used in the calculation of group depreciation. Part V, Results of Study, presents a summary by depreciable group of annual depreciation accrual rates and amounts, as well as composite remaining lives. Part VI, Service Life Statistics presents the statistical analysis of service life estimates; Part VII, Detailed Depreciation Calculations presents the detailed tabulations of annual depreciation; and Part VIII,

Experienced and Estimated Net Salvage presents the cost of removal and gross salvage recorded for the period 2016-2020.

BASIS OF THE STUDY

Depreciation

Depreciation, in public utility regulation, is the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility 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 causes to be given consideration are wear and tear, deterioration, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand, and the requirements of public authorities.

Depreciation, as used in accounting, is a method of distributing fixed capital costs, less net salvage, over a period of time by allocating annual amounts to expense. Each annual amount of such depreciation expense is part of that year's total cost of providing utility service. Normally, the period of time over which the fixed capital cost is allocated to the cost of service is equal to the period of 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.

For most accounts, the annual depreciation was calculated by the straight line remaining life method using the equal life group procedure. For certain General Plant accounts, the annual depreciation is based on amortization accounting. Both types of calculations were based on original cost, attained ages of plant in service and the estimated service life characteristics of each depreciable group.

Service Life Estimates

The service life estimates used in the depreciation and amortization calculations were based on informed 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 estimates from our 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 analyses and the probable future. The combination of the historical experience and estimates of future experience yielded estimated survivor curves from which the average service lives were derived.

The Company's service life estimates used in the depreciation calculation incorporated historical data compiled through December 2016 from the property records of all water plant of Pennsylvania-American Water Company through that time. Such data included plant additions, retirements, transfers and other activity. Generally, retirement data for the years through 2016 were used in the actuarial life table computations which were the primary statistical support of the service life estimates.

A general understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirement was obtained through discussions with operating and management personnel conducted

during the course of the service life study. Information regarding plans for the future was incorporated in the interpretation and extrapolation of the statistical analyses.

DEVELOPMENT OF NET ORIGINAL COST

The original cost data used in this study were obtained from the Company's continuing property records and work order system which show in detail the original cost of the property including descriptions, locations and years of installation of property units. The net original cost was developed from the original cost data by deducting customer advances and contributions in aid of construction. The development of net original cost by plant account is set forth in Table 1 on page V-4.

PART II. ESTIMATION OF SURVIVOR CURVES

PART II. ESTIMATION OF SURVIVOR CURVES

The calculation of annual depreciation based on the straight line method requires the estimation of survivor curves and the selection of group depreciation procedures. The estimation of survivor curves is discussed below and the development of net salvage is discussed in later sections of this report.

SURVIVOR CURVES

The use of an average service life for 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 by plotting the number of units which survive at successive ages.

The survivor curve graphically depicts the amount of property existing at each age throughout the life of an original group. From the survivor curve, the average life of the group, the remaining life expectancy, the probable life, and the frequency curve can be calculated. In Figure 1, a typical smooth survivor curve and the derived curves are illustrated. The average life is obtained by calculating the area under the survivor curve, from age zero to the maximum age, and dividing this area by the ordinate at age zero. The remaining life expectancy at any age can be calculated by obtaining the area under the curve, from the observation age to the maximum age, and dividing this area by the percent surviving at the observation age. For example, in Figure 1, the remaining life at age 30 is equal to the crosshatched area under the survivor curve divided by 29.5 percent surviving at age 30. The probable life at any age is developed by adding the age and remaining life. 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 presents the number of units retired in each age interval. It is derived by obtaining the differences between the amount of property surviving at the beginning and at the end of each interval.

This study has incorporated the use of Iowa curves developed from a retirement rate analysis of historical retirement history. A discussion of the concepts of survivor curves and of the development of survivor curves using the retirement rate method is presented below.

Iowa Type Curves

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. There are four families in the Iowa system, labeled in accordance with the location of the modes of the retirements (or the portion of the frequency curve with the highest level of retirements) in relationship to the average life and the relative height of the modes. The left moded curves, presented in Figure 2, are those in which the greatest frequency of retirement occurs to the left of, or prior to, average service life. The symmetrical moded curves, presented in Figure 3, are those in which the greatest frequency of retirement occurs at average service life. The right moded curves, presented in Figure 4, are those in which the greatest frequency occurs to the right of, or after, average service life. The origin moded curves, presented in Figure 5, are those in which the greatest frequency of retirement occurs at the origin, or immediately after age zero. The letter designation of each family of curves (L, S, R or O) represents the location of the mode of the associated frequency curve with respect to the average service life. The numbers represent the relative heights of the modes of the frequency curves within each family. A higher number designates a higher mode curve.

The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property had been retired. A report of the study which resulted in the classification of property survivor characteristics into 18 type curves, which constitute three of the four families, was published in 1935 in the form of the Experiment Station's Bulletin 125.

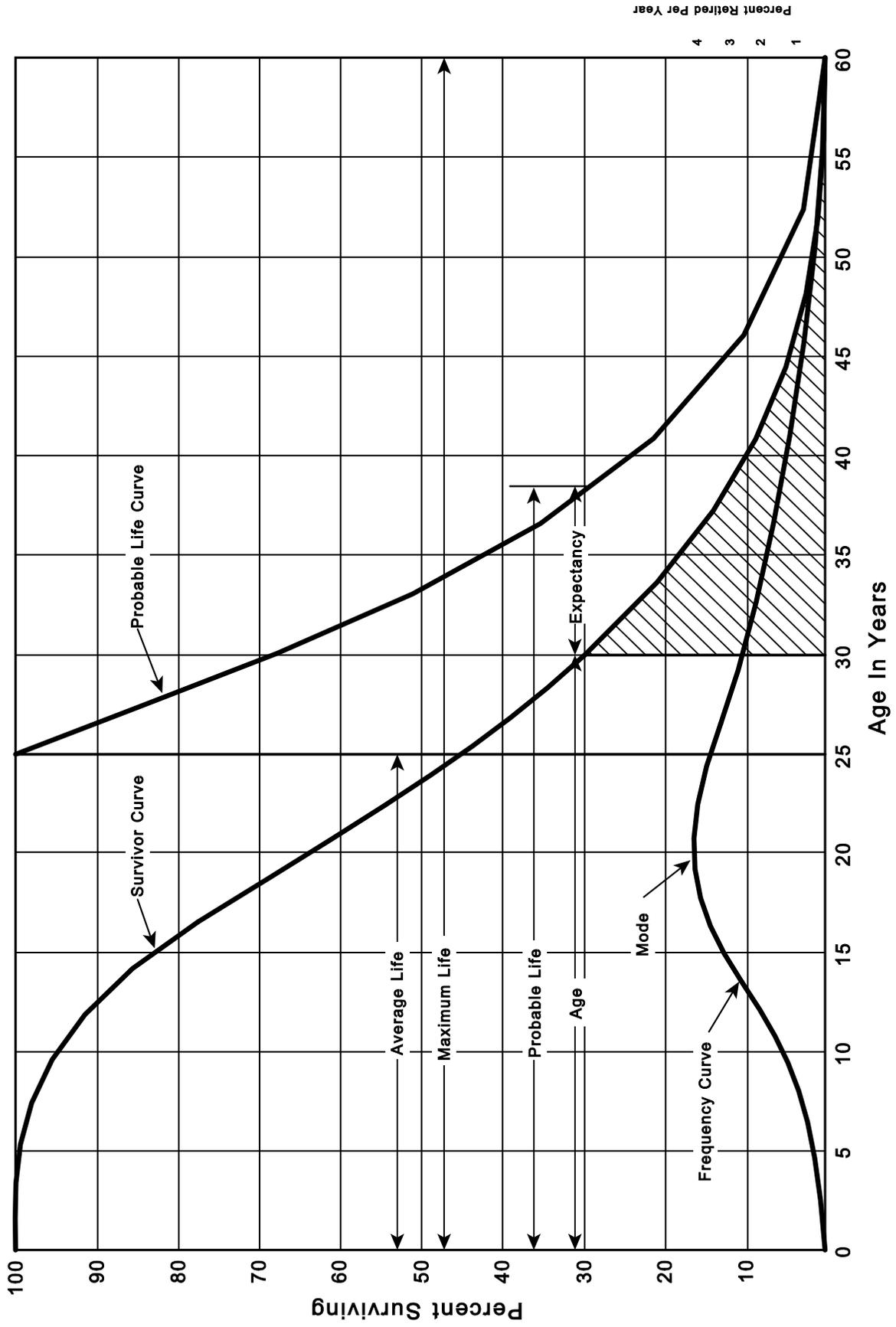


Figure 1. A Typical Survivor Curve and Derived Curves

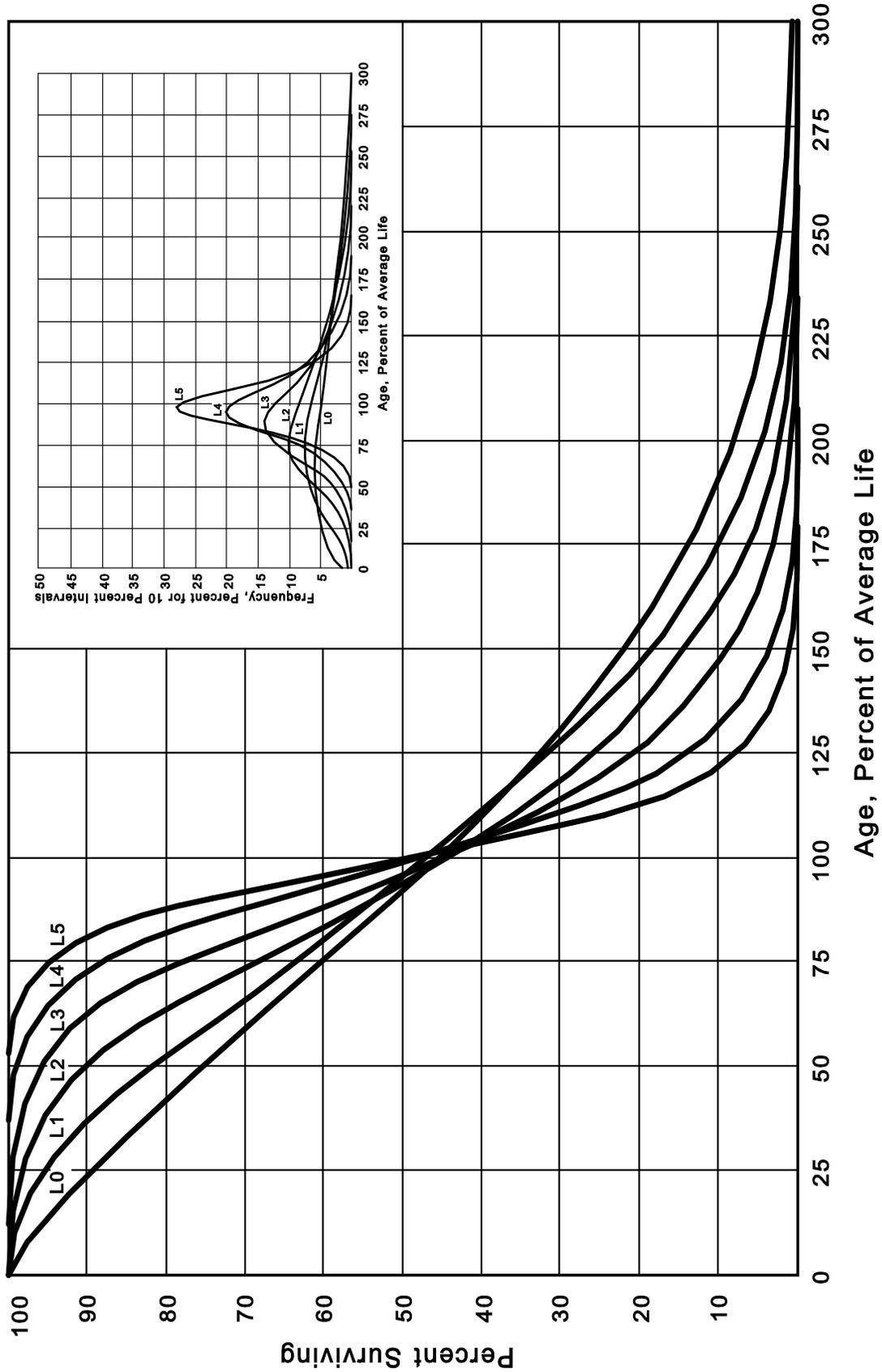


Figure 2. Left Modal or "L" Type Survivor Curves

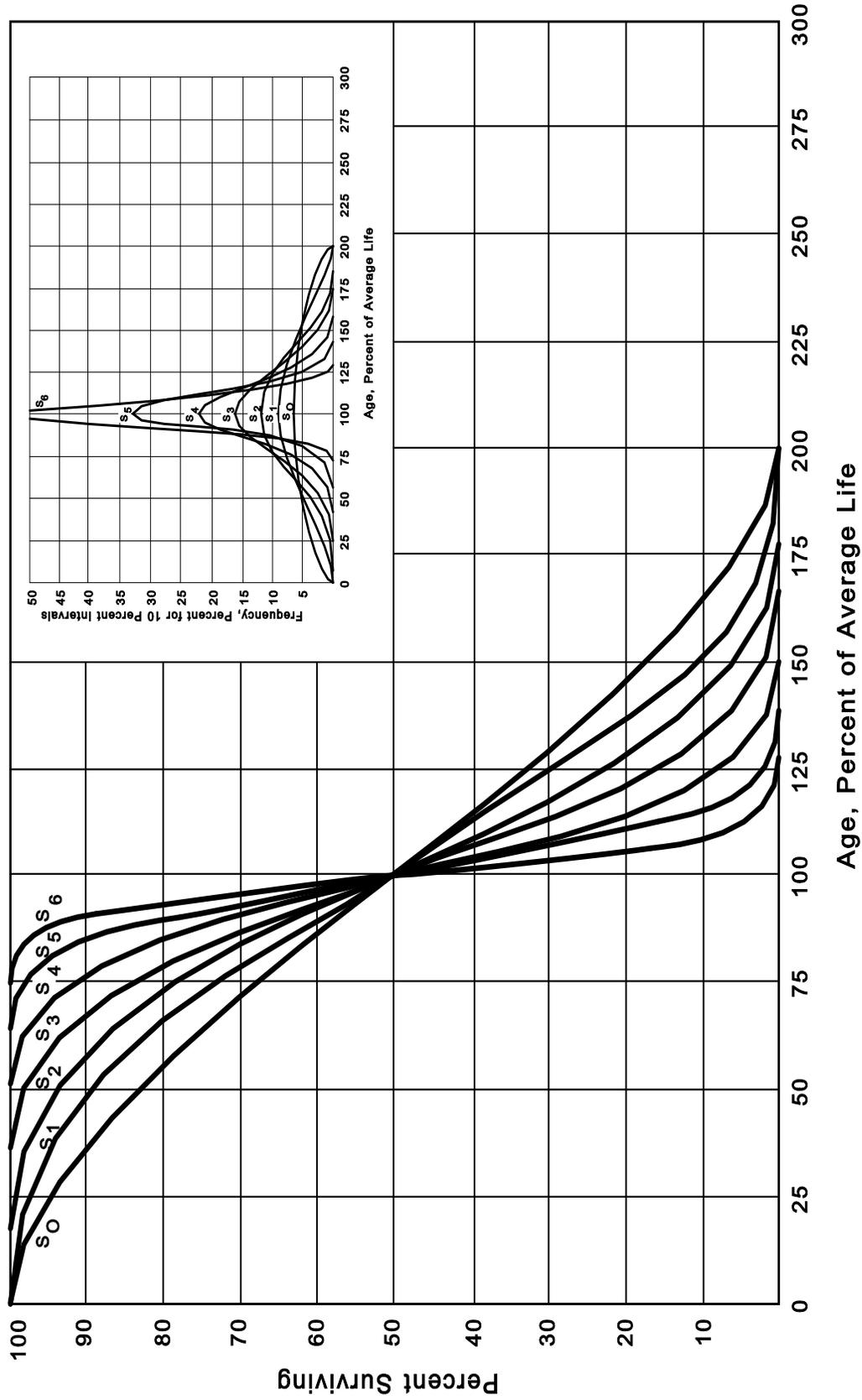


Figure 3. Symmetrical or "S" Iowa Type Survivor Curves

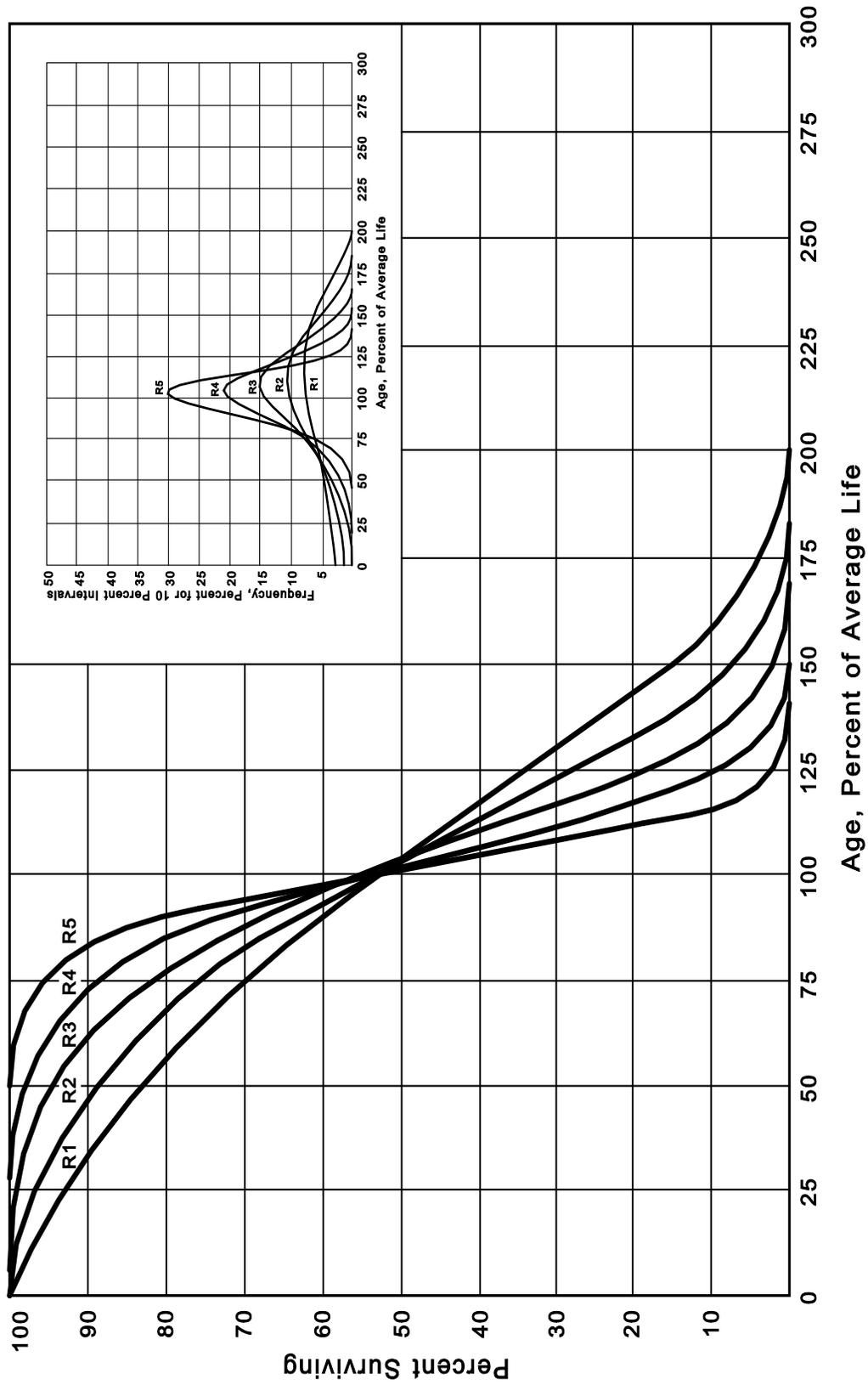


Figure 4. Right Modal or "R" Iowa Type Survivor Curves

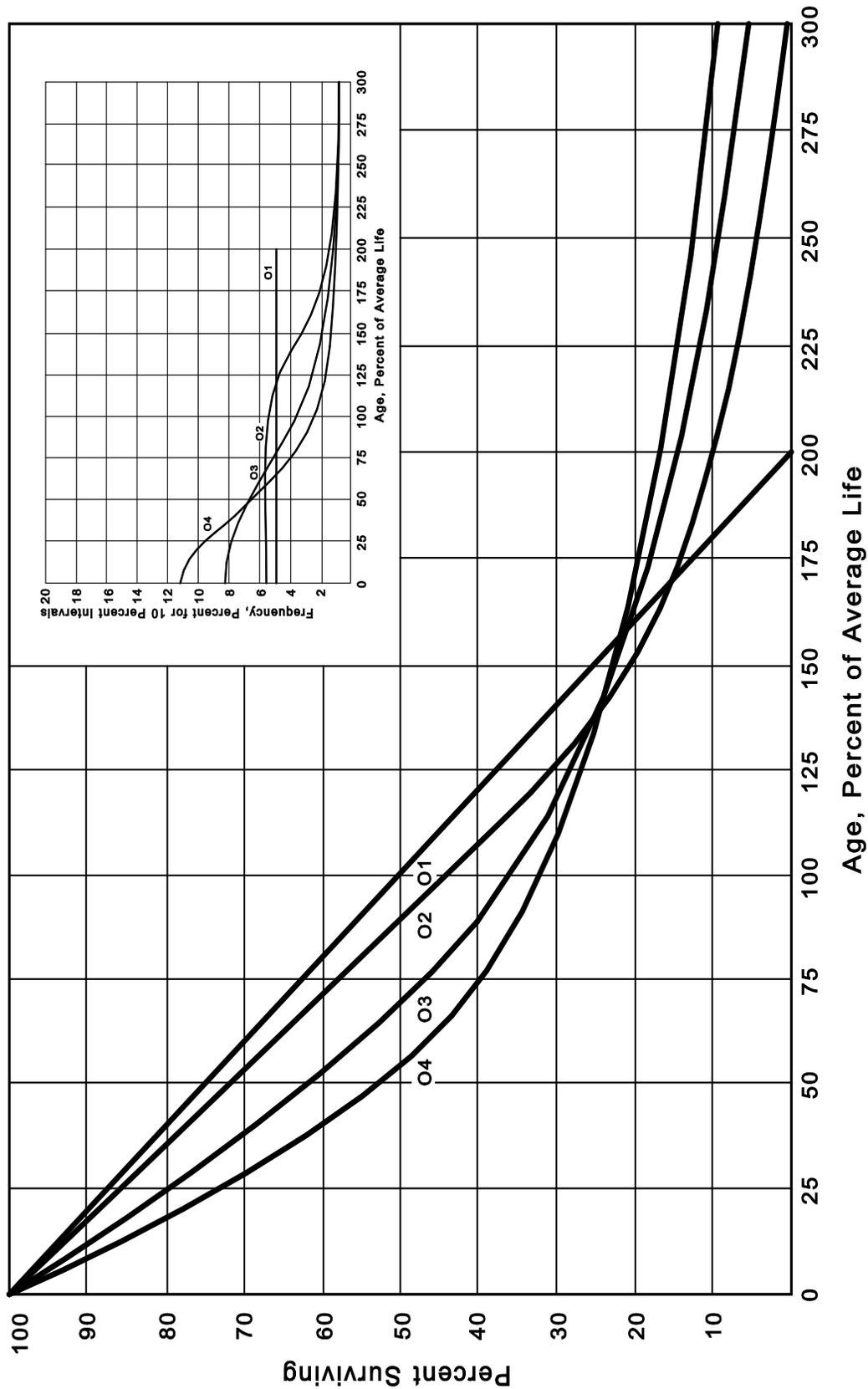


Figure 5. Origin Modal or "O" Iowa Type Survivor Curves

These curve types have also been presented in subsequent Experiment Station bulletins and in the text, "Engineering Valuation and Depreciation."¹ In 1957, Frank V. B. Couch, Jr., an Iowa State College graduate student submitted a thesis presenting his development of the fourth family consisting of the four O type survivor curves.

Retirement Rate Method of Analysis

The retirement rate method is an actuarial method of deriving survivor curves using the average rates at which property of each age group is retired. The method relates to property groups for which aged accounting experience is available and is the method used to develop the original stub survivor curves in this study. The method (also known as the annual rate method) is illustrated through the use of an example in the following text, and is also explained in several publications, including "Statistical Analyses of Industrial Property Retirements,"² "Engineering Valuation and Depreciation,"³ and "Depreciation Systems."⁴

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. 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.

¹Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.

²Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.

³Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.

⁴Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

Schedules of Annual Transactions in Plant Records

A hypothetical property group is used to illustrate the retirement rate method. This property group is observed for the experience band 2010-2019 during which there were placements (or installations) during the years 2005-2019. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, 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 dollars invested in 2005 were retired in 2010. The \$10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to 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 2010 retirements of 2005 installations and ending with the 2019 retirements of the 2014 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

$$10 + 12 + 13 + 11 + 13 + 13 + 15 + 17 + 19 + 20.$$

SCHEDULE 1. RETIREMENTS FOR EACH YEAR 2010-2019
SUMMARIZED BY AGE INTERVAL

Year Placed (1)	Retirements, Thousands of Dollars										Total During Age Interval (12)	Age Interval (13)
	2010 (2)	2011 (3)	2012 (4)	2013 (5)	2014 (6)	2015 (7)	2016 (8)	2017 (9)	2018 (10)	2019 (11)		
2005	10	11	12	13	14	16	23	24	25	26	26	13½-14½
2006	11	12	13	15	16	18	20	21	22	19	44	12½-13½
2007	11	12	13	14	16	17	19	21	22	18	64	11½-12½
2008	8	9	10	11	11	13	14	15	16	17	83	10½-11½
2009	9	10	11	12	13	14	16	17	19	20	93	9½-10½
2010	4	9	10	11	12	13	14	15	16	20	105	8½-9½
2011		5	11	12	13	14	15	16	18	20	113	7½-8½
2012			6	12	13	15	16	17	19	19	124	6½-7½
2013				6	13	15	16	17	19	19	131	5½-6½
2014					13	14	16	17	19	20	143	4½-5½
2015					7	8	18	20	22	23	146	3½-4½
2016						9	9	20	22	25	150	2½-3½
2017								11	23	25	151	1½-2½
2018									11	24	153	½-1½
2019										13	80	0-½
Total	53	68	86	106	128	157	196	231	273	308	1,606	

Experience Band 2010-2019

Placement Band 2005-2019

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2010-2019
SUMMARIZED BY AGE INTERVAL

Year Placed (1)	Acquisitions, Transfers and Sales, Thousands of Dollars										Total During Age Interval (12)	Age Interval (13)	
	2010 (2)	2011 (3)	2012 (4)	2013 (5)	2014 (6)	2015 (7)	2016 (8)	2017 (9)	2018 (10)	2019 (11)			
2005	-	-	-	-	-	-	60 ^a	-	-	-	-	-	13½-14½
2006	-	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2007	-	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2008	-	-	-	-	-	-	-	(5) ^b	-	-	60	-	10½-11½
2009	-	-	-	-	-	-	-	6 ^a	-	-	-	-	9½-10½
2010	-	-	-	-	-	-	-	-	-	-	(5)	-	8½-9½
2011	-	-	-	-	-	-	-	-	-	-	6	-	7½-8½
2012	-	-	-	-	-	-	-	-	-	-	-	-	6½-7½
2013	-	-	-	-	-	-	-	(12) ^b	-	-	-	-	5½-6½
2014	-	-	-	-	-	-	-	-	22 ^a	-	-	-	4½-5½
2015	-	-	-	-	-	-	-	(19) ^b	-	-	10	-	3½-4½
2016	-	-	-	-	-	-	-	-	-	-	-	-	2½-3½
2017	-	-	-	-	-	-	-	-	-	(102) ^c	(121)	-	1½-2½
2018	-	-	-	-	-	-	-	-	-	-	-	-	½-1½
2019	-	-	-	-	-	-	-	-	-	-	-	-	0-½
Total	-	-	-	-	-	-	60	(30)	22	(102)	(50)	-	

^a Transfer Affecting Exposures at Beginning of Year

^b Transfer Affecting Exposures at End of Year

^c Sale with Continued Use

Parentheses Denote Credit Amount.

In Schedule 2, other transactions which affect the group are recorded in a similar manner. 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 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 on page II-14. The surviving plant at the beginning of each year from 2010 through 2019 is recorded by year in the portion of the table headed "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 2015 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

SCHEDULE 3. PLANT EXPOSED TO RETIREMENT
 JANUARY 1 OF EACH YEAR 2010-2019
 SUMMARIZED BY AGE INTERVAL

Year Placed	Exposures, Thousands of Dollars										Total at Beginning of Age Interval	Age Interval	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)			(11)
2005	255	279	245	234	222	209	195	239	216	192	167	167	13½-14½
2006	307	338	268	256	243	228	212	194	174	153	131	323	12½-13½
2007	376	420 ^a	296	284	271	257	241	224	205	184	162	531	11½-12½
2008	376	420 ^a	330	321	311	300	289	276	262	242	226	823	10½-11½
2009	376	420 ^a	367	357	346	334	321	307	297	280	261	1,097	9½-10½
2010	420 ^a	460 ^a	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2011	420 ^a	460 ^a	460 ^a	455	444	432	419	405	390	374	356	1,952	7½-8½
2012	420 ^a	460 ^a	510 ^a	510 ^a	504	492	479	464	448	431	412	2,463	6½-7½
2013	420 ^a	460 ^a	580 ^a	574	580 ^a	574	561	546	530	501	482	3,057	5½-6½
2014	420 ^a	460 ^a	660 ^a	660 ^a	660 ^a	660 ^a	653	639	623	628	609	3,789	4½-5½
2015	420 ^a	460 ^a	750 ^a	742	750 ^a	742	724	685	663	663	663	4,332	3½-4½
2016	420 ^a	460 ^a	850 ^a	850 ^a	850 ^a	850 ^a	841	821	799	799	799	4,955	2½-3½
2017	420 ^a	460 ^a	960 ^a	960 ^a	960 ^a	960 ^a	960 ^a	949	926	926	926	5,719	1½-2½
2018	420 ^a	460 ^a	1,080 ^a	1,080 ^a	1,080 ^a	1,080 ^a	1,069	1,069	1,069	1,069	1,069	6,579	½-1½
2019	420 ^a	460 ^a	1,220 ^a	7,490	0-½								
Total	1,975	2,382	2,824	3,872	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780	

^aAdditions during the year

For the entire experience band 2010-2019, 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:

$$255 + 268 + 284 + 311 + 334 + 374 + 405 + 448 + 501 + 609.$$

Original Life Table

The original life table, illustrated in Schedule 4 on page II-16, 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% 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.

SCHEDULE 4. ORIGINAL LIFE TABLE
CALCULATED BY THE RETIREMENT RATE METHOD

Experience Band 2010-2019

Placement Band 2005-2019

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	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	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	167	26	0.1557	0.8443	42.24
14.5					35.66
Total	<u>44,780</u>	<u>1,606</u>			

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.

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.

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% 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 percents 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 AN L1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

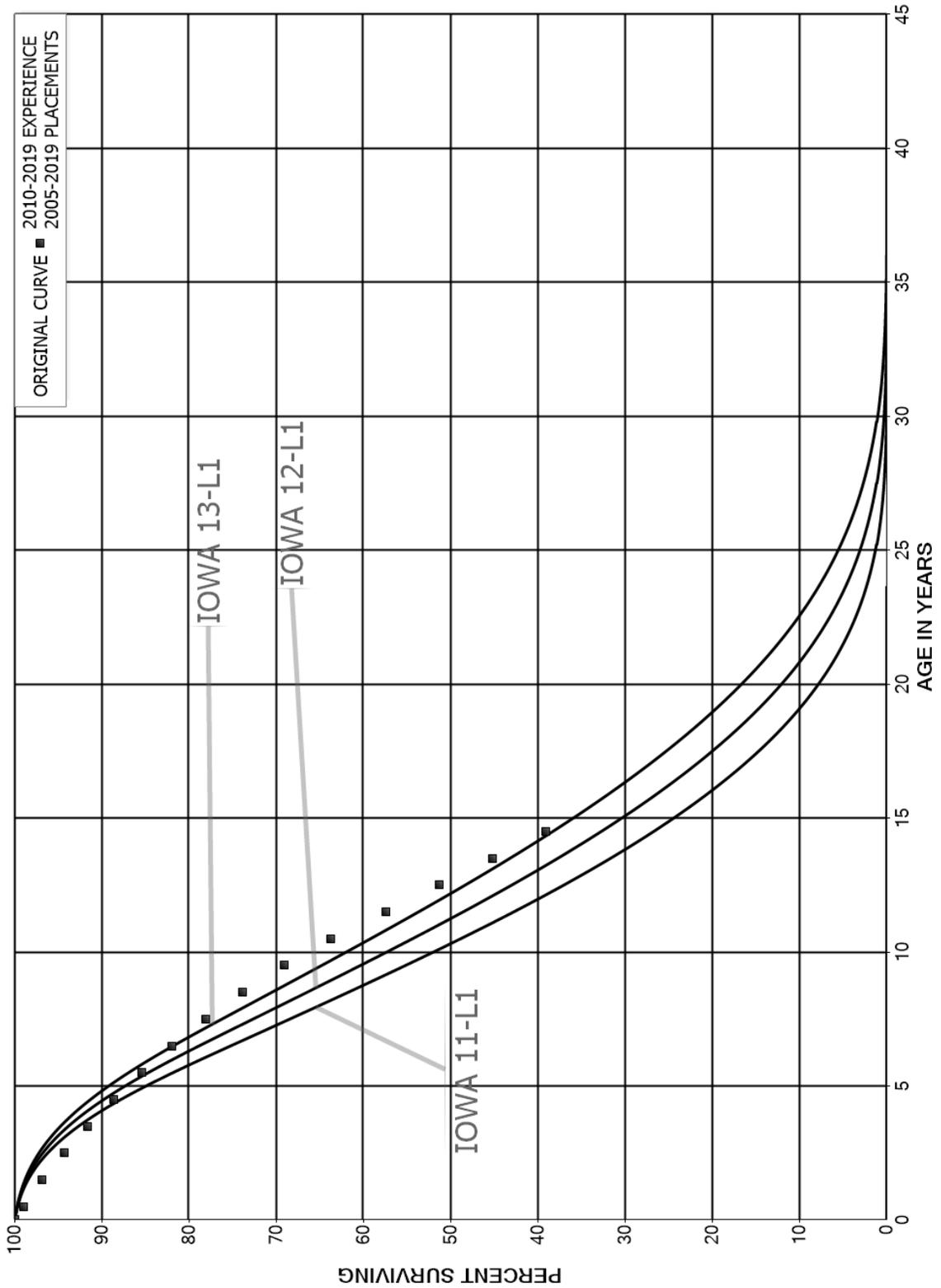


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

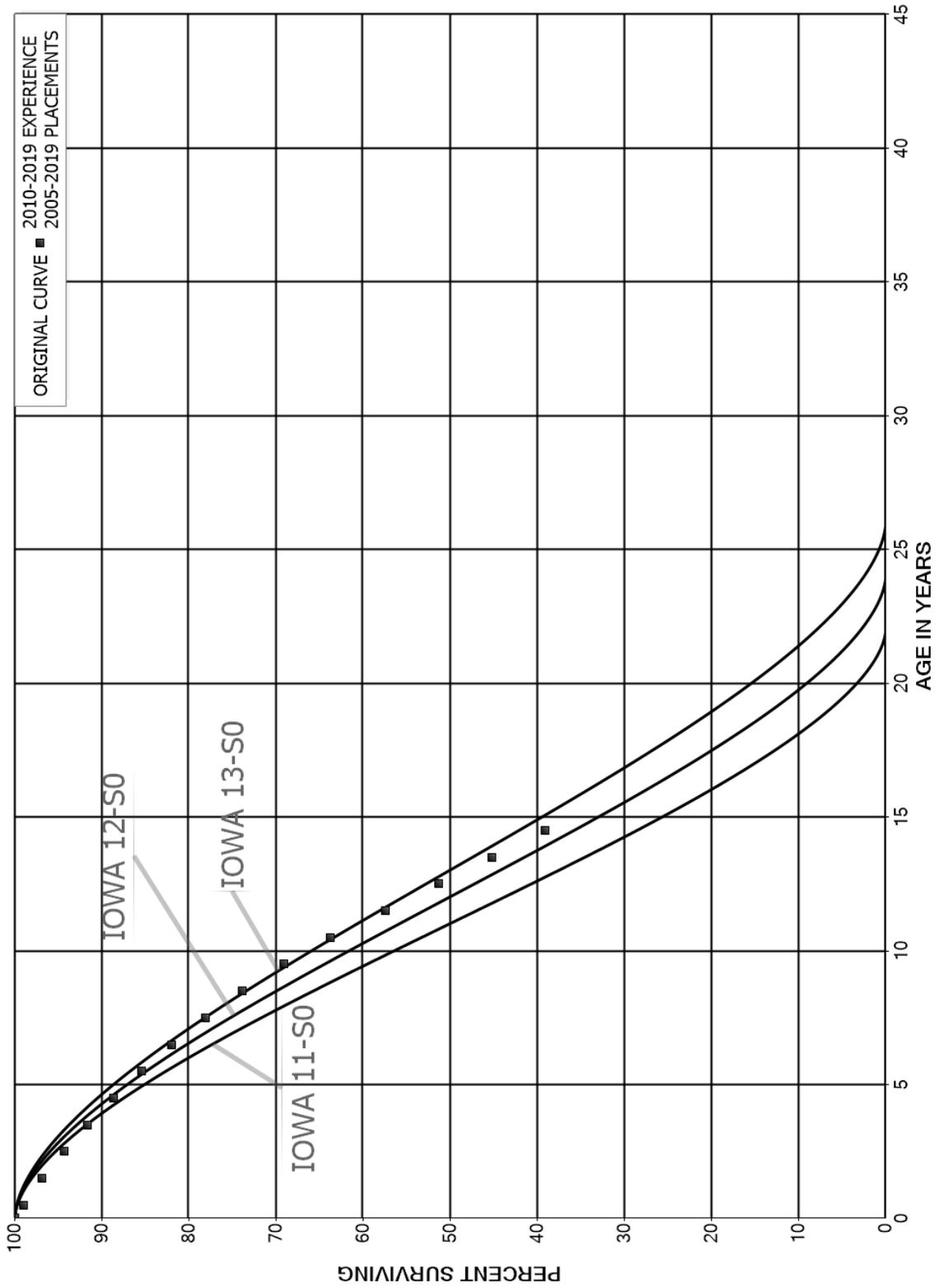


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES

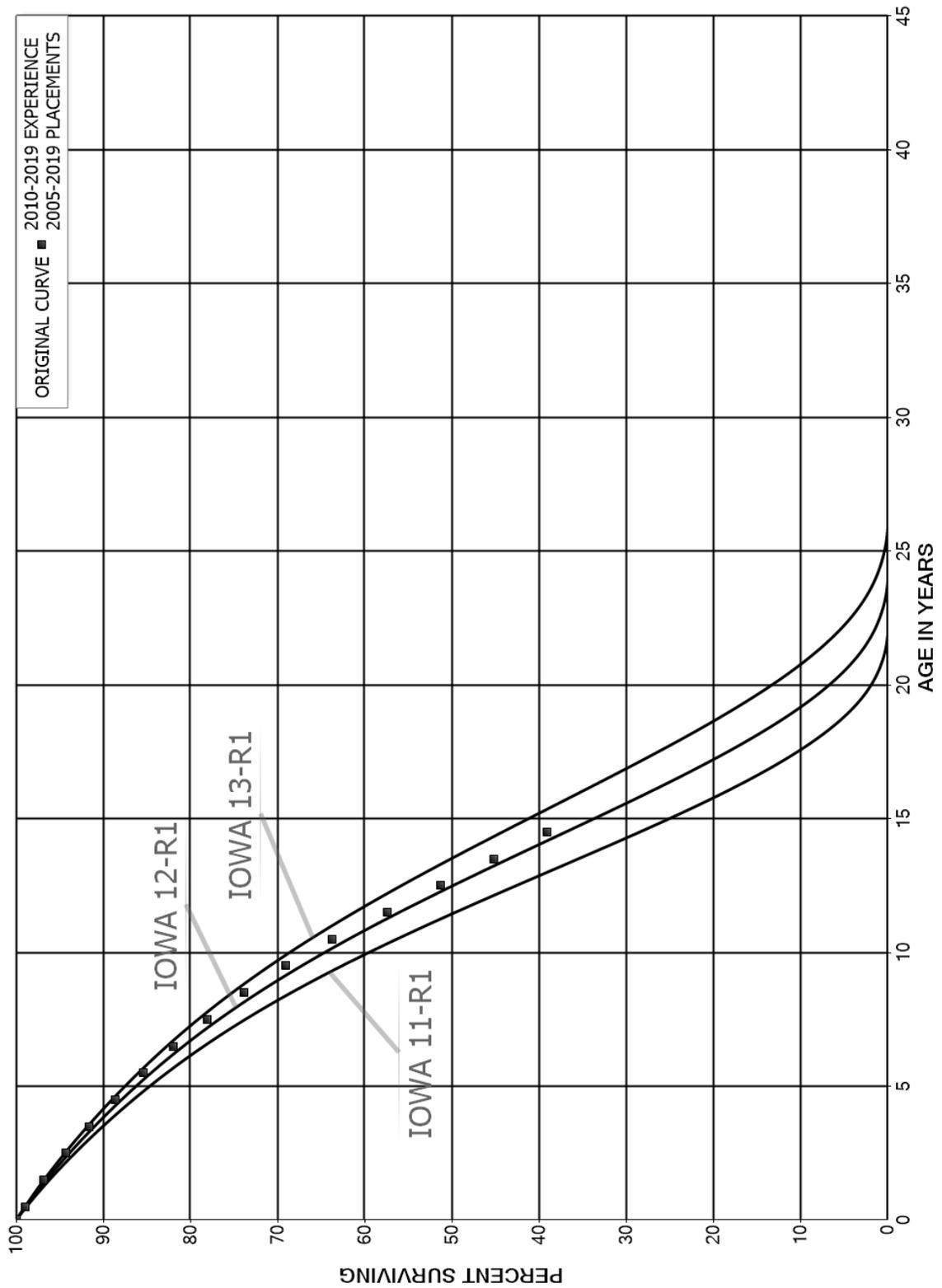
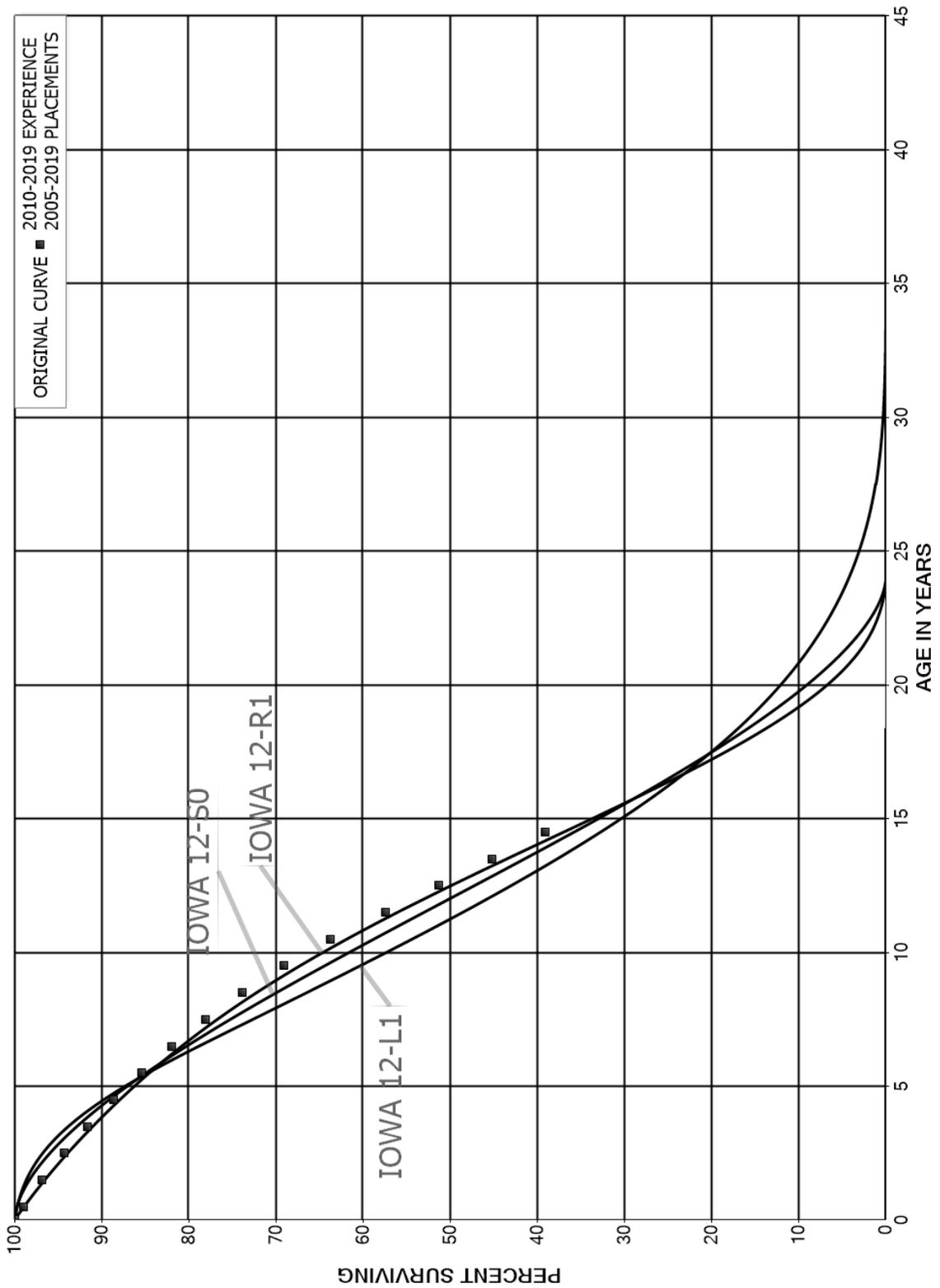


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE ORIGINAL AND SMOOTH SURVIVOR CURVES



PART III. SERVICE LIFE CONSIDERATIONS

PART III. SERVICE LIFE CONSIDERATIONS

SERVICE LIFE CONSIDERATIONS

The service life estimates were based on judgment which considered a number of factors. The primary factors were the statistical analyses of data, current Company policies and outlook as determined during field reviews of the property and other conversations with management, and the survivor curve estimates from other water companies. The service life estimates approved for all water assets excluding Steelton Operations of the Company were utilized for assets in the Steelton Operations.

For depreciable groups which consist of numerous similar items of property, the distribution of the lives of the units in the group was judged on the basis of an average survival pattern for the entire group.

The amortization periods selected for general plant Accounts 343, 346 and 347 are discussed in the section, "Calculation of Annual and Accrued Amortization."

**PART IV. CALCULATION OF ANNUAL AND
ACCRUED DEPRECIATION**

PART IV. CALCULATION OF ANNUAL AND ACCRUED DEPRECIATION

BOOK RESERVE

The book reserve as of December 31, 2019, is the result of a bringforward of the book reserves established by the Commission for the Steelton water operation at the time of acquisition.

The projected book reserve as of December 31, 2020, is a bringforward of the December 31, 2019 book reserve based on projected accruals, retirements, cost of removal, salvage and other credits.

CALCULATION OF DEPRECIATION

The annual depreciation accruals as of December 31, 2020, are based on the straight line remaining life method and the equal life group procedure. For the purpose of calculating the remaining life accruals as of December 31, 2020, the book reserve is allocated among vintages in proportion to the calculated accrued depreciation as of December 31, 2020.

Group Depreciation Procedures. A group procedure for depreciation is appropriate when considering more than a single item of property. Normally, the items within a group do not have identical service lives, but have lives that are dispersed over a range of time.

In the average service life procedure, the rate of annual depreciation is based on the average life or average remaining life of the group, and 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 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, 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. This procedure eliminates the need to base depreciation on average lives, inasmuch as each group is equivalent to a unit having a single life. The full costs of short-lived units are accrued during their lives, leaving no deferral of accruals required to be added to the annual costs associated with long-lived units. The calculated depreciation for the property group is the summation of the calculated depreciation based on the service life of each equal life group.

Remaining Life Annual Accruals. For the purpose of calculating remaining life accrual rates as of December 31, 2020, the estimated book depreciation reserve for each plant account is allocated among vintages in proportion to the calculated accrued depreciation for the account. Explanations of remaining life accruals and calculated accrued depreciation based on the equal life group procedure follow. The detailed calculations are set forth in the Results of Study section of the report.

Equal Life Group Procedure. In the equal life group procedure, the remaining life annual accrual for each vintage is determined by dividing future book accruals (original cost less book reserve) by the composite remaining life for the surviving original cost of

that vintage. The composite remaining life is derived by compositing the individual equal life group remaining lives in accordance with the following equation:

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

The book costs and lives of the several equal life groups which are summed in the foregoing equation are defined by the estimated survivor curve.

Inasmuch as book cost divided by life equals the whole life annual accrual, the foregoing equation reduces to the following form:

$$\text{Composite Remaining Life} = \frac{\sum \text{Whole Life Future Accruals}}{\sum \text{Whole Life Annual Accruals}}$$

or

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

The annual accrual rate for each account is equal to the sum of the remaining life annual accruals for all vintages divided by the account's total original cost. The account's "composite remaining life" is calculated by dividing the sum of the future book accruals for all vintages by the sum of the remaining life annual accruals for all vintages.

The calculated accrued depreciation in the equal life group procedure also represents that portion of depreciable cost which will not be allocated to expense through future accruals. However, the calculation is based at the equal life group level rather than the vintage group level, and does not require the use of averages. The equal life group accrued depreciation ratio is calculated as follows:

$$Ratio = 1 - \left(\frac{Remaining\ Life}{Service\ Life} \right)$$

Inasmuch as service life minus remaining life equals age, when averages are not employed, the foregoing equation reduces to:

$$Ratio = \left(\frac{Age}{Service\ Life} \right)$$

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 appropriate for certain General Plant 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	Amortization Period, Years
343, Tools and Work Equipment	20
346, Communication Equipment	15
347, Miscellaneous Equipment	25

The annual amortization amount is determined by dividing the original cost for vintages whose age is less than the amortization period by the period of amortization. The calculated accrued amortization is equal to the original cost multiplied by the ratio of the vintage's age to its amortization period.

NET SALVAGE

Experienced net salvage is incorporated in the results of the study as it was reported on the Company's books and records for the period January 1, 2016 through December 31, 2019, and estimated for the period January 1, 2020 through December 31, 2020. The calculation of the amortization is shown in Table 5 on page V-8. The amounts of salvage and removal cost by account for each year are set forth in the section beginning on page VIII-2.

Net salvage is presented in this manner to determine the amount of net salvage to be amortized to the cost of service for ratemaking purposes. In order to be consistent with this manner of recognizing net salvage, no adjustments for net salvage were made to the annual depreciation calculated for the individual accounts.

PART V. RESULTS OF STUDY

PART V. RESULTS OF STUDY

DESCRIPTION OF SUMMARY TABULATIONS

Table 1 presents the development of the net original cost used in the study. The results of the depreciation study are summarized in Table 2 which sets forth, by depreciable group, the estimated survivor curve, calculated annual accruals and book reserve related to net original cost and the annual amortization of net salvage. Table 3 presents the bringforward to December 31, 2020 of the book reserve as of December 31, 2019. Table 4 sets forth the calculation of estimated depreciation accruals for the twelve months ended December 31, 2020. Table 5 presents the amortization of experienced and estimated net salvage, by account, based on the five-year period, 2016-2020. The total amortization amount is incorporated in the total annual accrual in Table 2.

DESCRIPTION OF DETAILED TABULATIONS

Supporting statistical data for the estimates of average service lives and survivor curves, the annual depreciation calculations, and salvage and cost of removal for the years 2016-2020 are presented in three sections.

The section beginning on page VI-2 sets forth, for each depreciable group analyzed by the retirement rate method, a chart depicting the original and estimated survivor curves followed by a tabular presentation of the original life table plotted on the chart. A cumulative summary, by year installed, for utility plant and the supporting data for the original cost depreciation calculations are presented in the section beginning on page VII-3. The tabulations of experienced and estimated net salvage, by year and account for the five-year period 2016-2020, are presented in the section beginning on page VIII-2.

In the first section, the survivor curves estimated for the depreciable groups are shown as dark smooth curves on the charts. Each smooth survivor curve is denoted by a numeral followed by the type curve designation. The numeral used is the average life derived from the entire curve from 100 percent to zero percent surviving. In cases where only a segment of the estimated curve is used in the depreciation calculation, the numeral used for identification purposes is not a designation of the average life of the group. The titles of the charts indicate the group, the symbol used to plot the points of the original life table, and the experience and placement bands of the life tables which were plotted. The experience band indicates the range of years for which the retirements were used to develop the stub survivor curve. The placements indicate, for the related experience band, the range of years of installations which appear in the experience.

The tables of the calculated annual depreciation related to net original cost are presented in account sequence in the second section and indicate the estimated average survivor curves used in the calculations. The tables set forth, for each installation year, the original cost, calculated accrued depreciation, allocated book reserve, remaining life expectancy, and the calculated annual accrual.

Detailed tabulations setting forth the cost of removal, gross salvage and net salvage amounts, by account and year, are presented in the third section. The net salvage amounts, by account and year, are carried forward to Table 5, which presents the five-year amortization of net salvage.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2020

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF DECEMBER 31, 2020 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF DECEMBER 31, 2020 (6)
NONDEPRECIABLE PLANT					
303.00 MISCELLANEOUS INTANGIBLE PLANT	3.00				3.00
303.30 PURIFICATION LAND	26,988.00				26,988.00
303.50 DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	1.00				1.00
303.61 OFFICE LAND	1.00				1.00
TOTAL NONDEPRECIABLE PLANT	26,993.00	0.00	0.00	0.00	26,993.00
DEPRECIABLE PLANT					
304.15 OTHER WATER SOURCE STRUCTURES	6,843.25				6,843.25
304.30 PURIFICATION BUILDINGS	13,458,222.22				13,458,222.22
306.00 LAKE, RIVER AND OTHER INTAKES	112,013.39				112,013.39
310.00 POWER GENERATION EQUIPMENT	416,788.74				416,788.74
311.53 PUMPING EQUIPMENT - WATER TREATMENT	5,704,191.26				5,704,191.26
320.10 PURIFICATION SYSTEM - LARGE STRUCTURES	555,177.01				555,177.01
320.20 PURIFICATION SYSTEM - CHEMICAL TREATMENT	1,134,619.17				1,134,619.17
330.00 DISTRIBUTION RESERVOIRS AND STANDPIPES	2,560,029.90				2,560,029.90
331.00 MAINS AND ACCESSORIES	20,600,065.01				20,600,065.01
333.00 SERVICES	170,000.00				170,000.00
334.00 METERS AND METER INSTALLATIONS	583,873.48				583,873.48
335.00 FIRE HYDRANTS	1,037,724.77				1,037,724.77
341.20 TRANSPORTATION EQUIPMENT - EQUIPMENT	300,000.00				300,000.00
343.00 TOOLS AND WORK EQUIPMENT	204,967.78				204,967.78
344.00 LABORATORY EQUIPMENT	22,623.65				22,623.65
346.00 COMMUNICATION EQUIPMENT	75,000.00				75,000.00
347.00 MISCELLANEOUS EQUIPMENT	403,532.24				403,532.24
TOTAL DEPRECIABLE PLANT	47,345,671.87	0.00	0.00	0.00	47,345,671.87
TOTAL UTILITY PLANT IN SERVICE	47,372,664.87	0.00	0.00	0.00	47,372,664.87

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

**TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND
 CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2020**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	DEPRECIABLE GROUP	SURVIVOR CURVE	NET ORIGINAL COST AS OF DECEMBER 31, 2020	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE, PERCENT	COMPOSITE REMAINING LIFE
		(2)	(3)	(4)	(5)	(6)	(7)	(8)
NONDEPRECIABLE PLANT								
303	MISCELLANEOUS INTANGIBLE PLANT	NONDEPR.	3.00					
303.3	PURIFICATION LAND	NONDEPR.	26,988.00					
303.5	DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	NONDEPR.	1.00					
303.61	OFFICE LAND	NONDEPR.	1.00					
	TOTAL NONDEPRECIABLE PLANT		26,993.00					
DEPRECIABLE PLANT								
304.15	OTHER WATER SOURCE STRUCTURES	60-R1.5	6,843.25	210	6,633	182	2.66	36.4
304.3	PURIFICATION BUILDINGS	70-S0.5	13,458,222.22	7,511,917	5,946,305	294,348	2.19	20.2
306	LAKE, RIVER AND OTHER INTAKES	55-S1	112,013.39	102,332	9,681	529	0.47	18.3
310	POWER GENERATION EQUIPMENT	43-S1	416,788.74	55,558	361,231	12,362	2.97	29.2
311.53	PUMPING EQUIPMENT - WATER TREATMENT	42-S0	5,704,191.26	4,680,175	1,024,016	77,667	1.36	13.2
320.1	PURIFICATION SYSTEM - LARGE STRUCTURES	60-S0.5	555,177.01	225,315	329,862	16,674	3.00	19.8
320.2	PURIFICATION SYSTEM - CHEMICAL TREATMENT	36-R0.5	1,134,619.17	309,390	825,229	53,235	4.69	15.5
330	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	2,560,029.90	1,997,250	562,780	21,173	0.83	26.6
331	MAINS AND ACCESSORIES	110-R2	20,600,065.01	8,948,474	11,651,591	171,445	0.83	68.0
333	SERVICES	70-R2.5	170,000.00	1,420	168,580	3,320	1.95	50.8
334	METERS AND METER INSTALLATIONS	21-L1	583,873.48	(22,482)	606,355	46,731	8.00	13.0
335	FIRE HYDRANTS	75-R2.5	1,037,724.77	450,791	586,934	13,141	1.27	44.7
341.2	TRANSPORTATION EQUIPMENT - EQUIPMENT	7-L3	300,000.00	18,060	281,940	49,725	16.58	5.7
343	TOOLS AND WORK EQUIPMENT	20-SQ	204,967.78	5,386	199,582	10,247	5.00	19.5
344	LABORATORY EQUIPMENT	20-L0.5	22,623.65	3,738	18,886	1,708	7.55	11.1
346	COMMUNICATION EQUIPMENT	15-SQ	75,000.00	2,348	72,652	5,010	6.68	14.5
347	MISCELLANEOUS EQUIPMENT	25-SQ	403,532.24	15,879	387,653	16,180	4.01	24.0
	TOTAL DEPRECIABLE PLANT		47,345,671.87	24,305,761	23,039,910	793,677	1.68	
	AMORTIZATION OF NET SALVAGE					11,808		
	TOTAL UTILITY PLANT IN SERVICE		47,372,664.87	24,305,761	23,039,910	805,485		

* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

PENNSYLVANIA-AMERICAN WATER COMPANY
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TABLE 3. BRINGFORWARD TO DECEMBER 31, 2020, OF BOOK RESERVE AS OF DECEMBER 31, 2019

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 12/31/2019 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS/ ADJUSTMENTS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2020 (8)
304.15	0		210										210
304.30	7,215,512		297,325		821		107		8				7,511,917
306.00	101,794		538										102,332
310.00	43,096		12,462										55,558
311.53	4,598,035		82,140										4,680,175
320.10	236,066		8,381		16,931		2,201						225,315
320.20	347,816		18,969		50,792		6,603						309,390
330.00	1,975,746		21,504										1,997,250
331.00	8,871,556		166,755		46,790		43,047						8,948,474
333.00	0		1,420										1,420
334.00	29,564		3,116		49,252		6,403		493				(22,482)
335.00	442,740		12,516		3,283		1,182						450,791
341.20	0		18,060										18,060
343.00	22		5,364										5,386
344.00	1,876		1,862										3,738
346.00	0		2,348										2,348
347.00	6,509		9,370										15,879
348.00	829				823						(6)		0
TOTAL	23,871,161		662,340		168,692		59,543		501		(6)		24,305,761

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2020

ACCOUNT (1)	NET ORIGINAL COST AS OF 12/31/2019 (2)	NET ORIGINAL COST AS OF 12/31/2020 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)=[(2)+(3)]/2*(4)	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
304.15	6,843.25	6,843.25	3.07	210		210
304.30	13,449,043.09	13,458,222.22	2.21	297,325		297,325
306.00	112,013.39	112,013.39	0.48	538		538
310.00	416,788.74	416,788.74	2.99	12,462		12,462
311.53	5,704,191.26	5,704,191.26	1.44	82,140		82,140
320.10	365,857.52	555,177.01	1.82	8,381		8,381
320.20	566,660.69	1,134,619.17	2.23	18,969		18,969
330.00	2,560,029.90	2,560,029.90	0.84	21,504		21,504
331.00	20,071,854.77	20,600,065.01	0.82	166,755		166,755
333.00	0.00	170,000.00	1.67	1,420		1,420
334.00	33,125.86	583,873.48	1.01	3,116		3,116
335.00	981,008.26	1,037,724.77	1.24	12,516		12,516
341.20	0.00	300,000.00	12.04	18,060		18,060
343.00	4,967.78	204,967.78	5.11	5,364		5,364
344.00	22,623.65	22,623.65	8.23	1,862		1,862
346.00	0.00	75,000.00	6.26	2,348		2,348
347.00	53,532.24	403,532.24	4.10	9,370		9,370
348.00	823.15	0.00	0.00			0
TOTAL	44,349,363.55	47,345,671.87		662,340	0	662,340

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

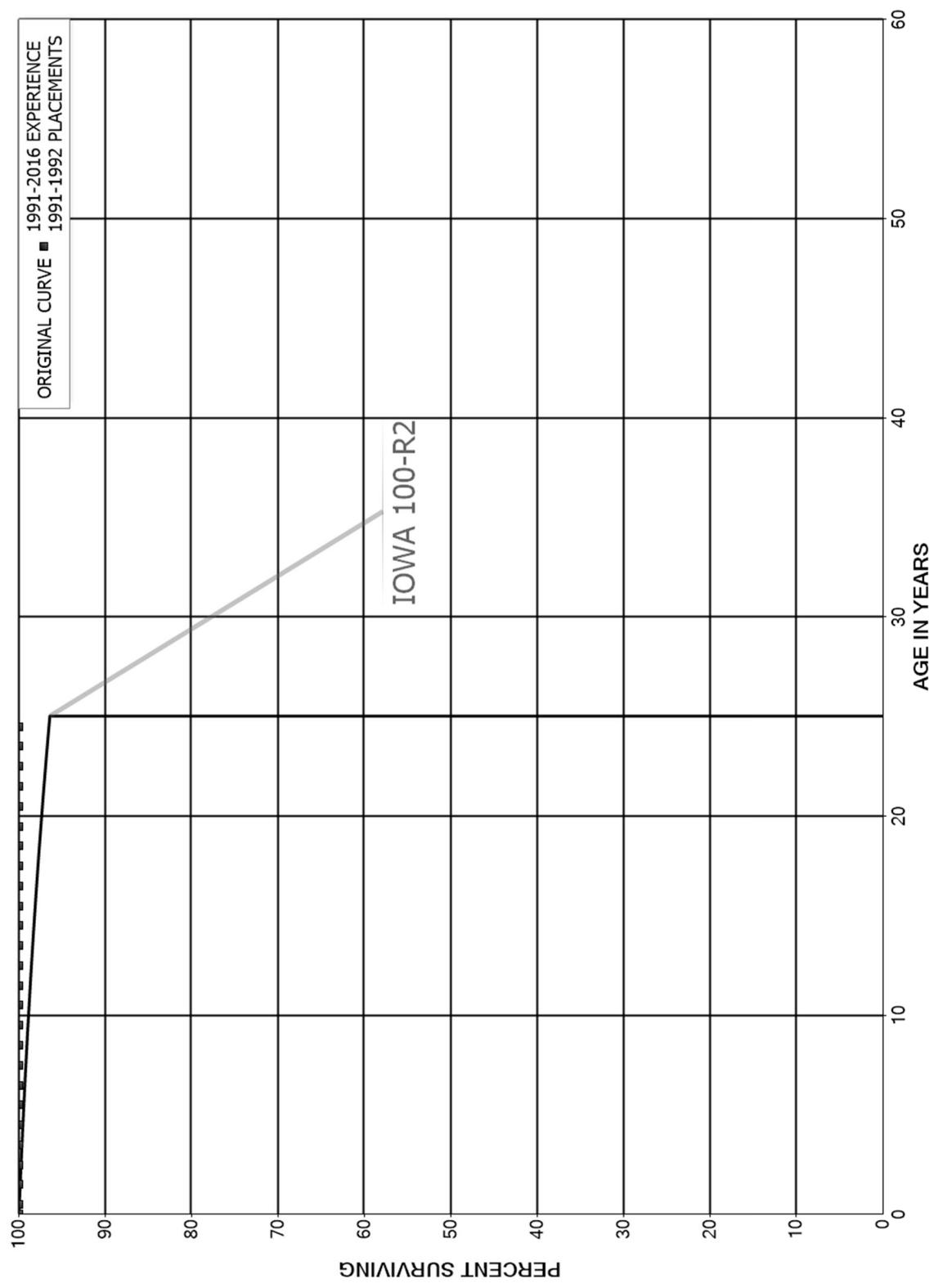
TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2016		2017		2018		2019		PROJECTED 2020		NET SALVAGE (12)*	SALVAGE ACCURAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
304.30									8.21	106.71	(98.50)	(20)
320.10										2,200.97	(2,200.97)	(440)
320.20										6,602.90	(6,602.90)	(1,321)
331.00									492.52	43,046.58	(43,046.58)	(8,609)
334.00										6,402.81	(5,910.29)	(1,182)
335.00										1,182.06	(1,182.06)	(236)
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	500.73	59,542.03	(59,041.30)	(11,808)

* Column (12) equals the summation of Columns (2) through (11).

PART VI. SERVICE LIFE STATISTICS

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 303.35 WASTE HANDLING AND TREATMENT LAND
 ORIGINAL AND SMOOTH SURVIVOR CURVES



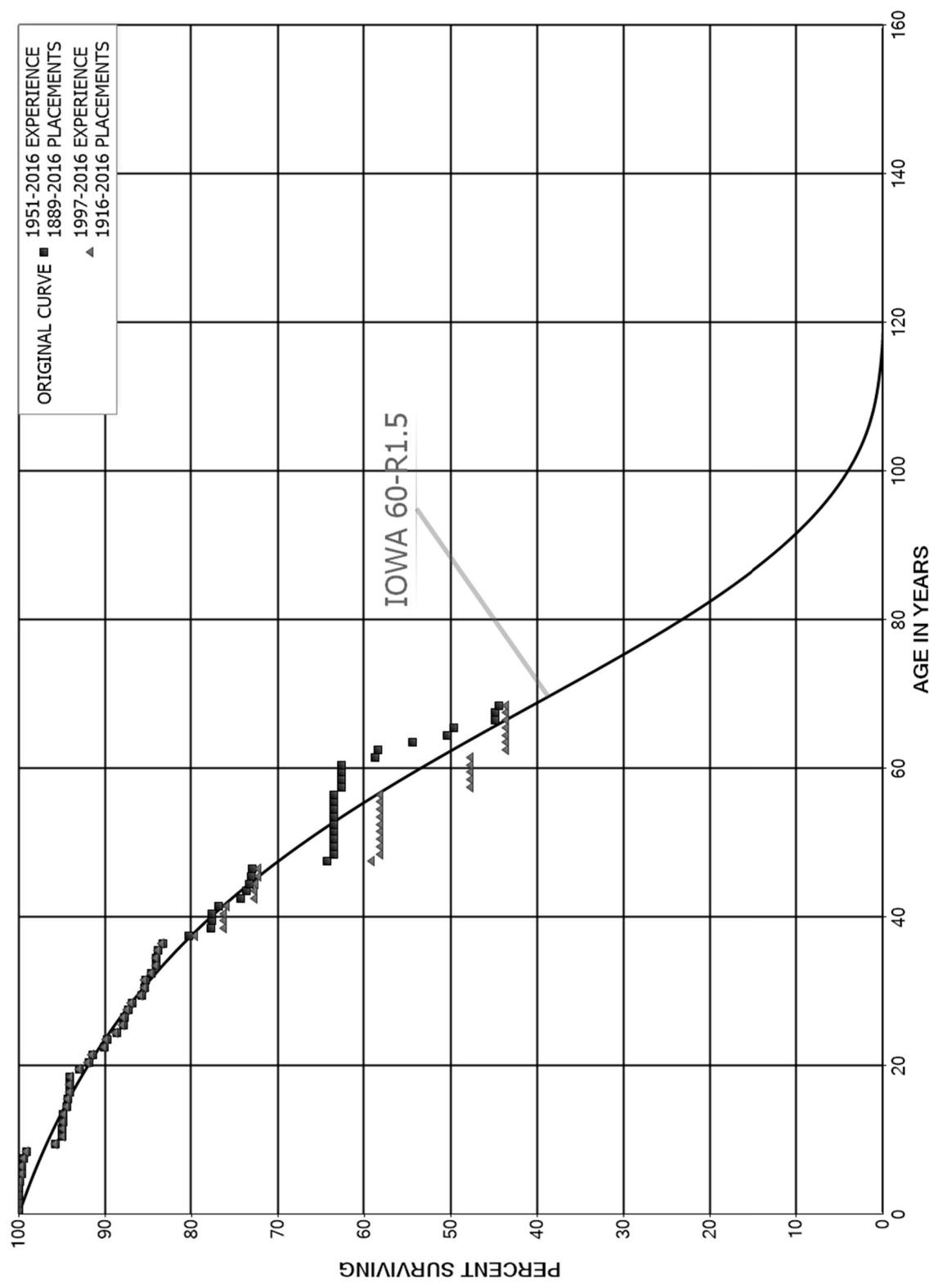
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 303.35 WASTE HANDLING AND TREATMENT LAND

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-1992			EXPERIENCE BAND 1991-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	155,025		0.0000	1.0000	100.00
0.5	155,025		0.0000	1.0000	100.00
1.5	155,025		0.0000	1.0000	100.00
2.5	155,025		0.0000	1.0000	100.00
3.5	155,025		0.0000	1.0000	100.00
4.5	155,025		0.0000	1.0000	100.00
5.5	155,025		0.0000	1.0000	100.00
6.5	155,025		0.0000	1.0000	100.00
7.5	155,025		0.0000	1.0000	100.00
8.5	155,025		0.0000	1.0000	100.00
9.5	155,025		0.0000	1.0000	100.00
10.5	155,025		0.0000	1.0000	100.00
11.5	155,025		0.0000	1.0000	100.00
12.5	155,025		0.0000	1.0000	100.00
13.5	155,025		0.0000	1.0000	100.00
14.5	155,025		0.0000	1.0000	100.00
15.5	155,025		0.0000	1.0000	100.00
16.5	155,025		0.0000	1.0000	100.00
17.5	155,025		0.0000	1.0000	100.00
18.5	155,025		0.0000	1.0000	100.00
19.5	155,025		0.0000	1.0000	100.00
20.5	155,025		0.0000	1.0000	100.00
21.5	155,025		0.0000	1.0000	100.00
22.5	155,025		0.0000	1.0000	100.00
23.5	155,025		0.0000	1.0000	100.00
24.5	70,430		0.0000	1.0000	100.00
25.5					100.00

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1889-2016

EXPERIENCE BAND 1951-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	30,762,657	200	0.0000	1.0000	100.00
0.5	29,037,544	12,470	0.0004	0.9996	100.00
1.5	27,981,063	14,218	0.0005	0.9995	99.96
2.5	26,306,686	593	0.0000	1.0000	99.91
3.5	23,362,289	9,550	0.0004	0.9996	99.90
4.5	23,001,525	56,380	0.0025	0.9975	99.86
5.5	23,043,908	6,820	0.0003	0.9997	99.62
6.5	11,856,105	27,070	0.0023	0.9977	99.59
7.5	12,894,363	40,774	0.0032	0.9968	99.36
8.5	11,408,370	382,673	0.0335	0.9665	99.05
9.5	9,203,605	76,762	0.0083	0.9917	95.72
10.5	8,910,180	2,620	0.0003	0.9997	94.93
11.5	7,714,441	3,320	0.0004	0.9996	94.90
12.5	7,651,135	4,983	0.0007	0.9993	94.86
13.5	5,351,219	19,588	0.0037	0.9963	94.80
14.5	4,518,258	6,659	0.0015	0.9985	94.45
15.5	4,545,019	9,630	0.0021	0.9979	94.31
16.5	4,450,647	1,592	0.0004	0.9996	94.11
17.5	4,324,892	2,524	0.0006	0.9994	94.08
18.5	4,035,729	47,481	0.0118	0.9882	94.02
19.5	3,958,286	44,351	0.0112	0.9888	92.91
20.5	3,543,349	16,488	0.0047	0.9953	91.87
21.5	3,500,164	53,656	0.0153	0.9847	91.45
22.5	2,231,424	7,018	0.0031	0.9969	90.04
23.5	2,103,791	27,269	0.0130	0.9870	89.76
24.5	1,843,988	15,825	0.0086	0.9914	88.60
25.5	1,300,436	2,471	0.0019	0.9981	87.84
26.5	1,079,001	4,574	0.0042	0.9958	87.67
27.5	836,800	4,407	0.0053	0.9947	87.30
28.5	828,959	10,346	0.0125	0.9875	86.84
29.5	829,420	3,954	0.0048	0.9952	85.76
30.5	725,021	235	0.0003	0.9997	85.35
31.5	658,210	5,509	0.0084	0.9916	85.32
32.5	652,864	4,585	0.0070	0.9930	84.60
33.5	645,040		0.0000	1.0000	84.01
34.5	662,122	1,648	0.0025	0.9975	84.01
35.5	431,207	2,477	0.0057	0.9943	83.80
36.5	212,642	7,825	0.0368	0.9632	83.32
37.5	136,467	4,247	0.0311	0.9689	80.25
38.5	129,292	242	0.0019	0.9981	77.76

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2016			EXPERIENCE BAND 1951-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	156,568		0.0000	1.0000	77.61
40.5	167,109	1,713	0.0103	0.9897	77.61
41.5	172,398	5,791	0.0336	0.9664	76.82
42.5	141,414	1,131	0.0080	0.9920	74.23
43.5	140,181	686	0.0049	0.9951	73.64
44.5	121,142	339	0.0028	0.9972	73.28
45.5	107,703	121	0.0011	0.9989	73.08
46.5	108,701	12,933	0.1190	0.8810	72.99
47.5	116,013	1,489	0.0128	0.9872	64.31
48.5	100,001		0.0000	1.0000	63.48
49.5	99,626		0.0000	1.0000	63.48
50.5	74,600		0.0000	1.0000	63.48
51.5	43,587		0.0000	1.0000	63.48
52.5	43,587		0.0000	1.0000	63.48
53.5	43,587		0.0000	1.0000	63.48
54.5	39,331		0.0000	1.0000	63.48
55.5	41,268		0.0000	1.0000	63.48
56.5	41,325	596	0.0144	0.9856	63.48
57.5	40,729		0.0000	1.0000	62.57
58.5	40,729		0.0000	1.0000	62.57
59.5	40,729		0.0000	1.0000	62.57
60.5	40,729	2,498	0.0613	0.9387	62.57
61.5	41,671	232	0.0056	0.9944	58.73
62.5	41,439	2,808	0.0678	0.9322	58.40
63.5	38,631	2,900	0.0751	0.9249	54.45
64.5	35,731	495	0.0139	0.9861	50.36
65.5	35,236	3,440	0.0976	0.9024	49.66
66.5	31,111		0.0000	1.0000	44.81
67.5	29,966	259	0.0086	0.9914	44.81
68.5	29,420		0.0000	1.0000	44.43
69.5	29,420	398	0.0135	0.9865	44.43
70.5	26,893		0.0000	1.0000	43.82
71.5	22,855		0.0000	1.0000	43.82
72.5	22,855		0.0000	1.0000	43.82
73.5	23,540		0.0000	1.0000	43.82
74.5	23,540		0.0000	1.0000	43.82
75.5	23,540		0.0000	1.0000	43.82
76.5	24,660	4,305	0.1746	0.8254	43.82
77.5	20,355		0.0000	1.0000	36.17
78.5	20,355		0.0000	1.0000	36.17

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2016			EXPERIENCE BAND 1951-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	20,753		0.0000	1.0000	36.17
80.5	20,753		0.0000	1.0000	36.17
81.5	20,394		0.0000	1.0000	36.17
82.5	20,394		0.0000	1.0000	36.17
83.5	20,394		0.0000	1.0000	36.17
84.5	20,394		0.0000	1.0000	36.17
85.5	20,394		0.0000	1.0000	36.17
86.5	20,394		0.0000	1.0000	36.17
87.5	20,394	270	0.0132	0.9868	36.17
88.5	20,124	392	0.0195	0.9805	35.69
89.5	19,732		0.0000	1.0000	35.00
90.5	19,732		0.0000	1.0000	35.00
91.5	18,574		0.0000	1.0000	35.00
92.5	18,574		0.0000	1.0000	35.00
93.5	18,574		0.0000	1.0000	35.00
94.5	18,574		0.0000	1.0000	35.00
95.5	398		0.0000	1.0000	35.00
96.5	398		0.0000	1.0000	35.00
97.5	398		0.0000	1.0000	35.00
98.5	398		0.0000	1.0000	35.00
99.5	398		0.0000	1.0000	35.00
100.5					35.00

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1916-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	29,753,432		0.0000	1.0000	100.00
0.5	28,102,738	12,000	0.0004	0.9996	100.00
1.5	27,216,069	14,218	0.0005	0.9995	99.96
2.5	25,562,614	593	0.0000	1.0000	99.91
3.5	22,642,009	6,800	0.0003	0.9997	99.90
4.5	22,556,839	56,380	0.0025	0.9975	99.87
5.5	22,621,727	6,820	0.0003	0.9997	99.62
6.5	11,620,586	26,479	0.0023	0.9977	99.59
7.5	12,745,128	40,407	0.0032	0.9968	99.37
8.5	11,258,947	382,510	0.0340	0.9660	99.05
9.5	9,055,241	76,755	0.0085	0.9915	95.69
10.5	8,813,760	1,287	0.0001	0.9999	94.87
11.5	7,679,310	3,320	0.0004	0.9996	94.86
12.5	7,616,591	4,983	0.0007	0.9993	94.82
13.5	5,316,555	19,588	0.0037	0.9963	94.76
14.5	4,491,992	6,659	0.0015	0.9985	94.41
15.5	4,518,753	9,508	0.0021	0.9979	94.27
16.5	4,424,503	1,266	0.0003	0.9997	94.07
17.5	4,298,990	2,324	0.0005	0.9995	94.04
18.5	4,009,825	45,569	0.0114	0.9886	93.99
19.5	3,934,215	43,222	0.0110	0.9890	92.92
20.5	3,520,407	16,112	0.0046	0.9954	91.90
21.5	3,477,598	52,432	0.0151	0.9849	91.48
22.5	2,210,432	5,547	0.0025	0.9975	90.10
23.5	2,085,485	27,212	0.0130	0.9870	89.88
24.5	1,827,706	15,825	0.0087	0.9913	88.70
25.5	1,287,115	2,048	0.0016	0.9984	87.94
26.5	1,066,104	4,574	0.0043	0.9957	87.80
27.5	823,903	4,407	0.0053	0.9947	87.42
28.5	816,062	10,196	0.0125	0.9875	86.95
29.5	792,765	3,954	0.0050	0.9950	85.87
30.5	687,278	81	0.0001	0.9999	85.44
31.5	619,913	5,509	0.0089	0.9911	85.43
32.5	614,566	4,432	0.0072	0.9928	84.67
33.5	606,817		0.0000	1.0000	84.06
34.5	619,007	1,394	0.0023	0.9977	84.06
35.5	388,770	2,402	0.0062	0.9938	83.87
36.5	169,758	7,825	0.0461	0.9539	83.35
37.5	95,898	3,960	0.0413	0.9587	79.51
38.5	88,577		0.0000	1.0000	76.23

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1916-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	116,993		0.0000	1.0000	76.23
40.5	128,795	694	0.0054	0.9946	76.23
41.5	136,163	5,791	0.0425	0.9575	75.81
42.5	106,146		0.0000	1.0000	72.59
43.5	106,044	116	0.0011	0.9989	72.59
44.5	85,562	339	0.0040	0.9960	72.51
45.5	73,205		0.0000	1.0000	72.22
46.5	71,225	12,933	0.1816	0.8184	72.22
47.5	78,427	1,414	0.0180	0.9820	59.11
48.5	62,777		0.0000	1.0000	58.04
49.5	62,402		0.0000	1.0000	58.04
50.5	37,376		0.0000	1.0000	58.04
51.5	6,363		0.0000	1.0000	58.04
52.5	6,363		0.0000	1.0000	58.04
53.5	6,363		0.0000	1.0000	58.04
54.5	1,306		0.0000	1.0000	58.04
55.5	3,244		0.0000	1.0000	58.04
56.5	3,301	596	0.1806	0.8194	58.04
57.5	2,705		0.0000	1.0000	47.56
58.5	2,705		0.0000	1.0000	47.56
59.5	2,705		0.0000	1.0000	47.56
60.5	2,705		0.0000	1.0000	47.56
61.5	2,705	232	0.0858	0.9142	47.56
62.5	2,473		0.0000	1.0000	43.48
63.5	2,473		0.0000	1.0000	43.48
64.5	2,473		0.0000	1.0000	43.48
65.5	2,473		0.0000	1.0000	43.48
66.5	2,473		0.0000	1.0000	43.48
67.5	2,473		0.0000	1.0000	43.48
68.5	2,186		0.0000	1.0000	43.48
69.5	2,186		0.0000	1.0000	43.48
70.5	57		0.0000	1.0000	43.48
71.5					43.48
72.5					
73.5					
74.5					
75.5	22,282		0.0000		
76.5	23,402	4,105	0.1754		
77.5	19,296		0.0000		
78.5	19,296		0.0000		

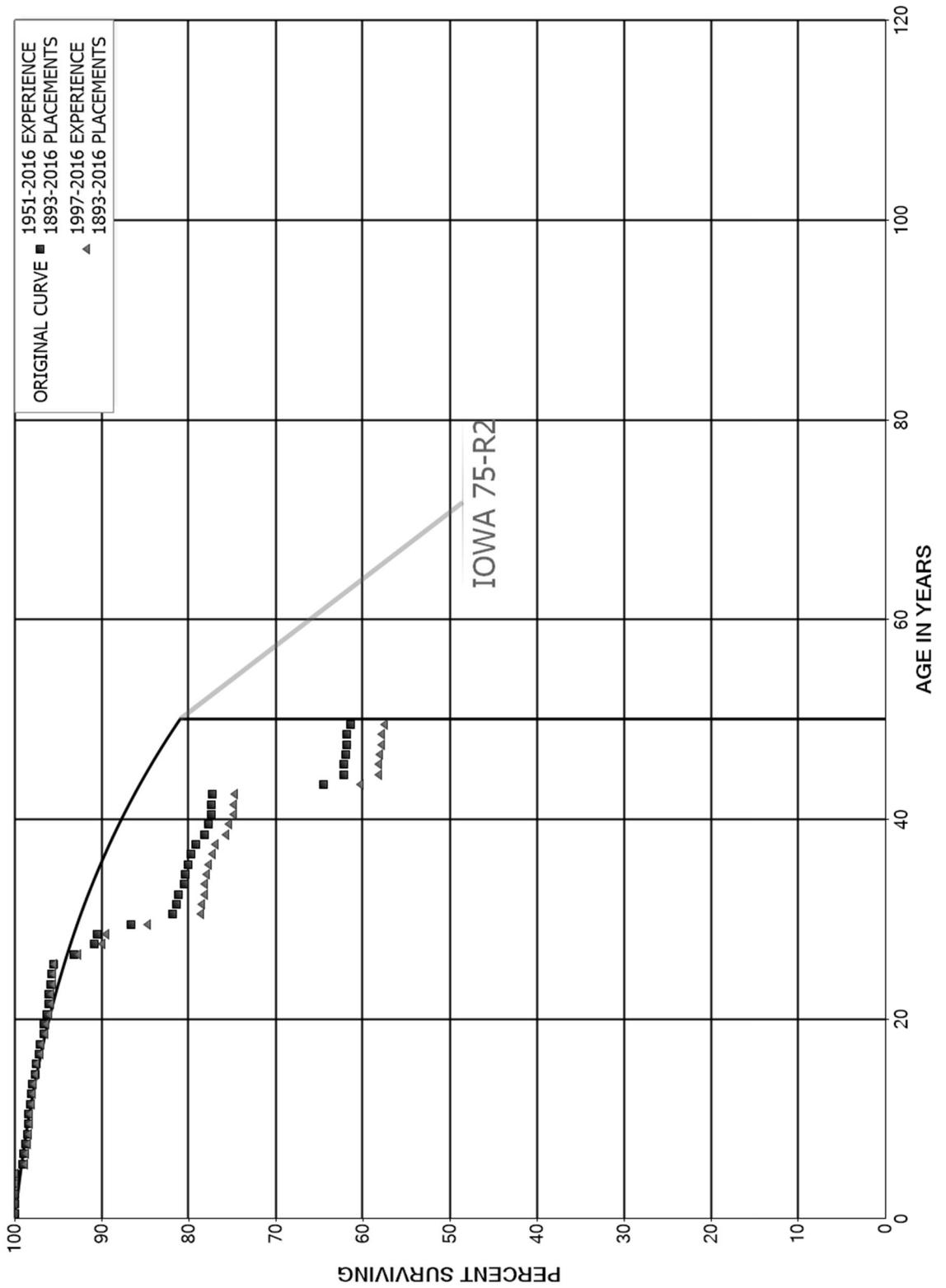
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1916-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	19,296		0.0000		
80.5	19,694		0.0000		
81.5	19,694		0.0000		
82.5	19,694		0.0000		
83.5	19,694		0.0000		
84.5	19,694		0.0000		
85.5	19,694		0.0000		
86.5	19,694		0.0000		
87.5	19,694		0.0000		
88.5	19,694	392	0.0199		
89.5	19,302		0.0000		
90.5	19,302		0.0000		
91.5	18,574		0.0000		
92.5	18,574		0.0000		
93.5	18,574		0.0000		
94.5	18,574		0.0000		
95.5	398		0.0000		
96.5	398		0.0000		
97.5	398		0.0000		
98.5	398		0.0000		
99.5	398		0.0000		
100.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 304.2 POWER AND PUMPING STRUCTURES
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2016

EXPERIENCE BAND 1951-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	92,043,295		0.0000	1.0000	100.00
0.5	90,821,277	65,859	0.0007	0.9993	100.00
1.5	90,953,989	603	0.0000	1.0000	99.93
2.5	86,889,350	16,944	0.0002	0.9998	99.93
3.5	75,597,714	10,207	0.0001	0.9999	99.91
4.5	51,278,517	436,147	0.0085	0.9915	99.89
5.5	50,957,997	58,889	0.0012	0.9988	99.04
6.5	50,713,837	130,000	0.0026	0.9974	98.93
7.5	50,518,622	60,508	0.0012	0.9988	98.68
8.5	49,718,067	74,736	0.0015	0.9985	98.56
9.5	45,338,373	22,025	0.0005	0.9995	98.41
10.5	41,763,690	100,641	0.0024	0.9976	98.36
11.5	41,412,755	36,746	0.0009	0.9991	98.12
12.5	40,968,681	40,591	0.0010	0.9990	98.04
13.5	34,392,199	103,741	0.0030	0.9970	97.94
14.5	34,043,387	32,164	0.0009	0.9991	97.65
15.5	33,205,862	142,511	0.0043	0.9957	97.55
16.5	31,340,983	12,821	0.0004	0.9996	97.13
17.5	26,027,667	120,143	0.0046	0.9954	97.09
18.5	25,193,303	19,766	0.0008	0.9992	96.65
19.5	20,040,892	65,845	0.0033	0.9967	96.57
20.5	19,005,676	36,568	0.0019	0.9981	96.25
21.5	16,655,929	3,164	0.0002	0.9998	96.07
22.5	16,411,061	33,826	0.0021	0.9979	96.05
23.5	13,696,140	16,589	0.0012	0.9988	95.85
24.5	11,864,140	24,064	0.0020	0.9980	95.74
25.5	11,605,402	289,956	0.0250	0.9750	95.54
26.5	8,096,757	203,532	0.0251	0.9749	93.15
27.5	7,355,760	22,462	0.0031	0.9969	90.81
28.5	6,847,464	297,176	0.0434	0.9566	90.54
29.5	5,439,417	300,300	0.0552	0.9448	86.61
30.5	4,903,927	24,868	0.0051	0.9949	81.83
31.5	3,931,335	9,361	0.0024	0.9976	81.41
32.5	3,648,458	30,234	0.0083	0.9917	81.22
33.5	3,463,042	8,190	0.0024	0.9976	80.54
34.5	3,263,055	12,561	0.0038	0.9962	80.35
35.5	3,054,276	14,106	0.0046	0.9954	80.04
36.5	2,933,016	19,104	0.0065	0.9935	79.67
37.5	2,842,458	36,787	0.0129	0.9871	79.15
38.5	2,711,537	12,877	0.0047	0.9953	78.13

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2016			EXPERIENCE BAND 1951-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	2,707,412	13,968	0.0052	0.9948	77.76
40.5	2,659,043	346	0.0001	0.9999	77.36
41.5	2,568,265	3,123	0.0012	0.9988	77.35
42.5	2,472,145	407,573	0.1649	0.8351	77.25
43.5	2,002,476	73,748	0.0368	0.9632	64.52
44.5	1,842,003	533	0.0003	0.9997	62.14
45.5	1,711,557	3,450	0.0020	0.9980	62.12
46.5	1,654,675	4,730	0.0029	0.9971	62.00
47.5	1,539,946	819	0.0005	0.9995	61.82
48.5	1,516,867	8,611	0.0057	0.9943	61.79
49.5	1,420,940	1,839	0.0013	0.9987	61.44
50.5	1,377,560	133	0.0001	0.9999	61.36
51.5	1,342,109	2,985	0.0022	0.9978	61.35
52.5	961,908	636	0.0007	0.9993	61.22
53.5	931,326	785	0.0008	0.9992	61.17
54.5	917,071	17	0.0000	1.0000	61.12
55.5	838,361	1,784	0.0021	0.9979	61.12
56.5	910,254	2,280	0.0025	0.9975	60.99
57.5	882,464	56	0.0001	0.9999	60.84
58.5	861,077	749	0.0009	0.9991	60.84
59.5	843,360	810	0.0010	0.9990	60.78
60.5	808,308	6,653	0.0082	0.9918	60.72
61.5	692,488		0.0000	1.0000	60.22
62.5	543,431		0.0000	1.0000	60.22
63.5	514,140	521	0.0010	0.9990	60.22
64.5	501,462		0.0000	1.0000	60.16
65.5	470,720		0.0000	1.0000	60.16
66.5	457,159		0.0000	1.0000	60.16
67.5	454,920		0.0000	1.0000	60.16
68.5	383,011		0.0000	1.0000	60.16
69.5	372,875		0.0000	1.0000	60.16
70.5	372,402		0.0000	1.0000	60.16
71.5	370,966	171	0.0005	0.9995	60.16
72.5	373,536	650	0.0017	0.9983	60.14
73.5	372,818	2,057	0.0055	0.9945	60.03
74.5	366,652	133	0.0004	0.9996	59.70
75.5	362,903		0.0000	1.0000	59.68
76.5	362,636		0.0000	1.0000	59.68
77.5	359,572		0.0000	1.0000	59.68
78.5	356,343		0.0000	1.0000	59.68

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2016			EXPERIENCE BAND 1951-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	355,363		0.0000	1.0000	59.68
80.5	400,386		0.0000	1.0000	59.68
81.5	398,090		0.0000	1.0000	59.68
82.5	397,874		0.0000	1.0000	59.68
83.5	397,841		0.0000	1.0000	59.68
84.5	393,503		0.0000	1.0000	59.68
85.5	385,443		0.0000	1.0000	59.68
86.5	381,134	283	0.0007	0.9993	59.68
87.5	366,647	311	0.0008	0.9992	59.63
88.5	362,567		0.0000	1.0000	59.58
89.5	361,640	215	0.0006	0.9994	59.58
90.5	360,900	5,375	0.0149	0.9851	59.55
91.5	355,371		0.0000	1.0000	58.66
92.5	319,747		0.0000	1.0000	58.66
93.5	273,145	40,918	0.1498	0.8502	58.66
94.5	220,685		0.0000	1.0000	49.87
95.5	226,271		0.0000	1.0000	49.87
96.5	220,708		0.0000	1.0000	49.87
97.5	219,303		0.0000	1.0000	49.87
98.5	185,329		0.0000	1.0000	49.87
99.5	185,329		0.0000	1.0000	49.87
100.5	185,329	124	0.0007	0.9993	49.87
101.5	184,050		0.0000	1.0000	49.84
102.5	184,050		0.0000	1.0000	49.84
103.5	184,050		0.0000	1.0000	49.84
104.5	182,702	5,350	0.0293	0.9707	49.84
105.5	161,286		0.0000	1.0000	48.38
106.5	147,450		0.0000	1.0000	48.38
107.5	138,787		0.0000	1.0000	48.38
108.5	131,129		0.0000	1.0000	48.38
109.5	131,129		0.0000	1.0000	48.38
110.5	124,679		0.0000	1.0000	48.38
111.5	118,448		0.0000	1.0000	48.38
112.5	116,233		0.0000	1.0000	48.38
113.5	116,233		0.0000	1.0000	48.38
114.5	116,233		0.0000	1.0000	48.38
115.5	108,738		0.0000	1.0000	48.38
116.5	108,380		0.0000	1.0000	48.38
117.5	108,380		0.0000	1.0000	48.38
118.5	108,380		0.0000	1.0000	48.38

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2016			EXPERIENCE BAND 1951-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	101,273		0.0000	1.0000	48.38
120.5	98,090		0.0000	1.0000	48.38
121.5	98,090		0.0000	1.0000	48.38
122.5	3,249		0.0000	1.0000	48.38
123.5					48.38

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	73,865,634		0.0000	1.0000	100.00
0.5	73,117,360	65,821	0.0009	0.9991	100.00
1.5	75,548,578	0	0.0000	1.0000	99.91
2.5	71,788,502	16,692	0.0002	0.9998	99.91
3.5	62,382,891	10,207	0.0002	0.9998	99.89
4.5	39,638,188	433,719	0.0109	0.9891	99.87
5.5	39,634,154	54,270	0.0014	0.9986	98.78
6.5	42,673,033	129,794	0.0030	0.9970	98.64
7.5	43,264,178	49,104	0.0011	0.9989	98.34
8.5	43,001,219	12,811	0.0003	0.9997	98.23
9.5	39,892,357	21,103	0.0005	0.9995	98.20
10.5	36,806,271	73,981	0.0020	0.9980	98.15
11.5	37,715,212	32,358	0.0009	0.9991	97.95
12.5	37,544,673	35,371	0.0009	0.9991	97.87
13.5	31,137,590	103,562	0.0033	0.9967	97.78
14.5	31,128,648	29,739	0.0010	0.9990	97.45
15.5	30,532,008	142,029	0.0047	0.9953	97.36
16.5	28,847,732	12,513	0.0004	0.9996	96.90
17.5	23,579,426	116,939	0.0050	0.9950	96.86
18.5	22,826,567	19,213	0.0008	0.9992	96.38
19.5	17,690,252	65,845	0.0037	0.9963	96.30
20.5	16,713,658	35,182	0.0021	0.9979	95.94
21.5	14,421,938		0.0000	1.0000	95.74
22.5	14,175,537	29,360	0.0021	0.9979	95.74
23.5	11,488,474	5,780	0.0005	0.9995	95.54
24.5	9,735,826	9,266	0.0010	0.9990	95.49
25.5	10,036,778	289,956	0.0289	0.9711	95.40
26.5	6,579,359	203,532	0.0309	0.9691	92.65
27.5	5,955,245	22,000	0.0037	0.9963	89.78
28.5	5,458,475	296,909	0.0544	0.9456	89.45
29.5	4,162,044	299,989	0.0721	0.9279	84.58
30.5	3,656,275	5,688	0.0016	0.9984	78.49
31.5	2,735,306	8,876	0.0032	0.9968	78.37
32.5	2,792,471	2,975	0.0011	0.9989	78.11
33.5	2,680,677	7,608	0.0028	0.9972	78.03
34.5	2,497,841	5,750	0.0023	0.9977	77.81
35.5	2,374,138	14,106	0.0059	0.9941	77.63
36.5	2,253,904	9,621	0.0043	0.9957	77.17
37.5	2,193,389	34,801	0.0159	0.9841	76.84
38.5	2,085,004	9,988	0.0048	0.9952	75.62

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	2,071,454	13,968	0.0067	0.9933	75.26
40.5	2,036,522	346	0.0002	0.9998	74.75
41.5	2,040,897	2,284	0.0011	0.9989	74.74
42.5	2,091,171	406,815	0.1945	0.8055	74.65
43.5	1,657,645	56,914	0.0343	0.9657	60.13
44.5	1,477,866	39	0.0000	1.0000	58.06
45.5	1,378,655	2,330	0.0017	0.9983	58.06
46.5	1,322,893	4,730	0.0036	0.9964	57.96
47.5	1,210,403	38	0.0000	1.0000	57.76
48.5	1,260,015	7,829	0.0062	0.9938	57.76
49.5	1,160,668	1,839	0.0016	0.9984	57.40
50.5	1,117,402		0.0000	1.0000	57.31
51.5	1,083,521	2,491	0.0023	0.9977	57.31
52.5	704,467	636	0.0009	0.9991	57.17
53.5	666,847		0.0000	1.0000	57.12
54.5	654,303	17	0.0000	1.0000	57.12
55.5	576,036	1,739	0.0030	0.9970	57.12
56.5	553,276	2,025	0.0037	0.9963	56.95
57.5	525,431	56	0.0001	0.9999	56.74
58.5	507,274	749	0.0015	0.9985	56.73
59.5	489,837		0.0000	1.0000	56.65
60.5	456,997	6,653	0.0146	0.9854	56.65
61.5	343,473		0.0000	1.0000	55.83
62.5	190,184		0.0000	1.0000	55.83
63.5	160,925	521	0.0032	0.9968	55.83
64.5	152,585		0.0000	1.0000	55.64
65.5	129,904		0.0000	1.0000	55.64
66.5	119,721		0.0000	1.0000	55.64
67.5	128,291		0.0000	1.0000	55.64
68.5	60,741		0.0000	1.0000	55.64
69.5	51,816		0.0000	1.0000	55.64
70.5	51,868		0.0000	1.0000	55.64
71.5	50,585		0.0000	1.0000	55.64
72.5	89,165	650	0.0073	0.9927	55.64
73.5	100,084		0.0000	1.0000	55.24
74.5	107,517	133	0.0012	0.9988	55.24
75.5	107,586		0.0000	1.0000	55.17
76.5	109,352		0.0000	1.0000	55.17
77.5	109,907		0.0000	1.0000	55.17
78.5	140,652		0.0000	1.0000	55.17

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	139,672		0.0000	1.0000	55.17
80.5	184,696		0.0000	1.0000	55.17
81.5	183,554		0.0000	1.0000	55.17
82.5	183,338		0.0000	1.0000	55.17
83.5	183,305		0.0000	1.0000	55.17
84.5	180,316		0.0000	1.0000	55.17
85.5	188,321		0.0000	1.0000	55.17
86.5	197,847	283	0.0014	0.9986	55.17
87.5	197,374		0.0000	1.0000	55.09
88.5	201,264		0.0000	1.0000	55.09
89.5	200,336	215	0.0011	0.9989	55.09
90.5	244,542	5,375	0.0220	0.9780	55.03
91.5	239,014		0.0000	1.0000	53.82
92.5	203,390		0.0000	1.0000	53.82
93.5	156,787	40,918	0.2610	0.7390	53.82
94.5	104,328		0.0000	1.0000	39.78
95.5	117,409		0.0000	1.0000	39.78
96.5	112,204		0.0000	1.0000	39.78
97.5	110,799		0.0000	1.0000	39.78
98.5	76,825		0.0000	1.0000	39.78
99.5	83,932		0.0000	1.0000	39.78
100.5	87,115		0.0000	1.0000	39.78
101.5	85,960		0.0000	1.0000	39.78
102.5	180,801		0.0000	1.0000	39.78
103.5	184,050		0.0000	1.0000	39.78
104.5	182,702	5,350	0.0293	0.9707	39.78
105.5	161,286		0.0000	1.0000	38.61
106.5	147,450		0.0000	1.0000	38.61
107.5	138,787		0.0000	1.0000	38.61
108.5	131,129		0.0000	1.0000	38.61
109.5	131,129		0.0000	1.0000	38.61
110.5	124,679		0.0000	1.0000	38.61
111.5	118,448		0.0000	1.0000	38.61
112.5	116,233		0.0000	1.0000	38.61
113.5	116,233		0.0000	1.0000	38.61
114.5	116,233		0.0000	1.0000	38.61
115.5	108,738		0.0000	1.0000	38.61
116.5	108,380		0.0000	1.0000	38.61
117.5	108,380		0.0000	1.0000	38.61
118.5	108,380		0.0000	1.0000	38.61

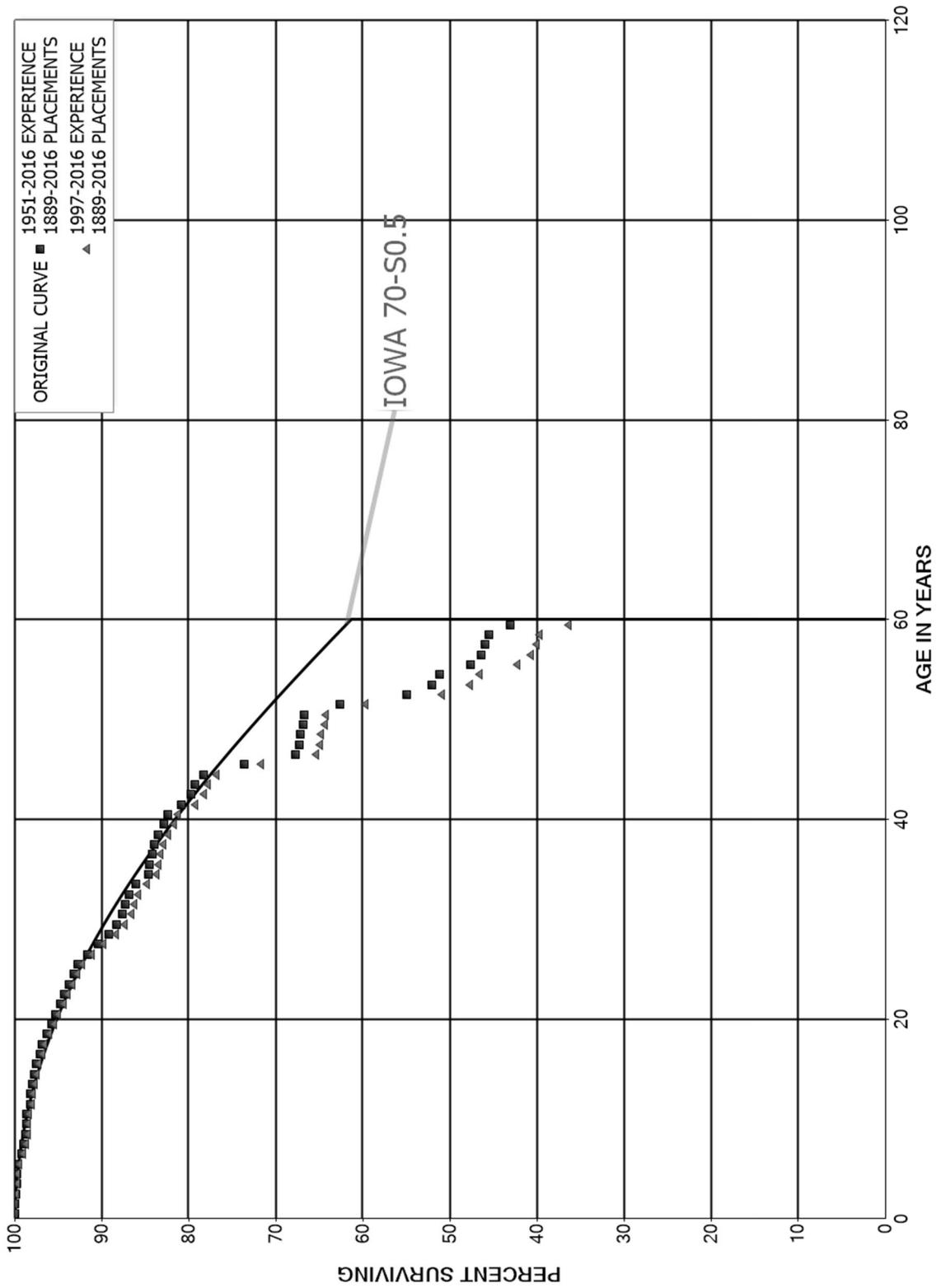
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 304.2 POWER AND PUMPING STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	101,273		0.0000	1.0000	38.61
120.5	98,090		0.0000	1.0000	38.61
121.5	98,090		0.0000	1.0000	38.61
122.5	3,249		0.0000	1.0000	38.61
123.5					38.61

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 304.3 PURIFICATION BUILDINGS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1889-2016

EXPERIENCE BAND 1951-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	234,153,343	5,551	0.0000	1.0000	100.00
0.5	233,086,952	20,709	0.0001	0.9999	100.00
1.5	236,610,592	349,596	0.0015	0.9985	99.99
2.5	230,904,000	146,793	0.0006	0.9994	99.84
3.5	227,513,153	70,597	0.0003	0.9997	99.78
4.5	174,466,567	278,354	0.0016	0.9984	99.75
5.5	159,016,746	588,285	0.0037	0.9963	99.59
6.5	161,912,093	463,566	0.0029	0.9971	99.22
7.5	160,133,274	313,759	0.0020	0.9980	98.93
8.5	157,675,259	127,877	0.0008	0.9992	98.74
9.5	153,838,686	143,575	0.0009	0.9991	98.66
10.5	137,473,917	479,669	0.0035	0.9965	98.57
11.5	135,579,260	144,128	0.0011	0.9989	98.23
12.5	134,257,678	279,314	0.0021	0.9979	98.12
13.5	122,769,076	244,387	0.0020	0.9980	97.92
14.5	121,446,188	246,208	0.0020	0.9980	97.72
15.5	112,746,815	543,916	0.0048	0.9952	97.52
16.5	109,849,021	275,940	0.0025	0.9975	97.05
17.5	101,724,203	520,274	0.0051	0.9949	96.81
18.5	100,051,871	571,378	0.0057	0.9943	96.31
19.5	91,176,284	437,754	0.0048	0.9952	95.76
20.5	88,218,767	541,405	0.0061	0.9939	95.30
21.5	80,739,172	366,498	0.0045	0.9955	94.72
22.5	78,524,366	462,723	0.0059	0.9941	94.29
23.5	59,505,996	340,837	0.0057	0.9943	93.73
24.5	51,126,898	270,979	0.0053	0.9947	93.20
25.5	48,897,104	582,393	0.0119	0.9881	92.70
26.5	24,901,850	313,559	0.0126	0.9874	91.60
27.5	21,489,951	302,885	0.0141	0.9859	90.45
28.5	13,686,663	133,651	0.0098	0.9902	89.17
29.5	12,209,397	96,621	0.0079	0.9921	88.30
30.5	11,889,039	45,077	0.0038	0.9962	87.60
31.5	9,897,893	44,316	0.0045	0.9955	87.27
32.5	9,749,647	91,185	0.0094	0.9906	86.88
33.5	9,440,748	153,448	0.0163	0.9837	86.07
34.5	8,727,129	20,042	0.0023	0.9977	84.67
35.5	8,689,691	26,587	0.0031	0.9969	84.47
36.5	8,665,984	28,114	0.0032	0.9968	84.21
37.5	8,643,628	50,072	0.0058	0.9942	83.94
38.5	8,592,242	60,957	0.0071	0.9929	83.45

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2016

EXPERIENCE BAND 1951-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	8,252,222	45,874	0.0056	0.9944	82.86
40.5	5,062,324	96,853	0.0191	0.9809	82.40
41.5	4,548,933	62,026	0.0136	0.9864	80.83
42.5	4,481,793	23,121	0.0052	0.9948	79.72
43.5	4,443,639	56,943	0.0128	0.9872	79.31
44.5	3,116,086	187,545	0.0602	0.9398	78.30
45.5	2,916,736	231,581	0.0794	0.9206	73.58
46.5	2,681,351	16,245	0.0061	0.9939	67.74
47.5	1,799,448	3,790	0.0021	0.9979	67.33
48.5	1,772,668	9,639	0.0054	0.9946	67.19
49.5	1,969,374	3,481	0.0018	0.9982	66.82
50.5	1,963,974	119,205	0.0607	0.9393	66.71
51.5	1,781,012	218,050	0.1224	0.8776	62.66
52.5	1,564,696	82,608	0.0528	0.9472	54.99
53.5	1,220,232	21,311	0.0175	0.9825	52.08
54.5	1,178,337	81,850	0.0695	0.9305	51.17
55.5	946,855	23,435	0.0248	0.9752	47.62
56.5	914,322	9,720	0.0106	0.9894	46.44
57.5	904,582	8,063	0.0089	0.9911	45.95
58.5	893,304	48,646	0.0545	0.9455	45.54
59.5	842,494	36,629	0.0435	0.9565	43.06
60.5	750,962	11,272	0.0150	0.9850	41.18
61.5	613,386	9,398	0.0153	0.9847	40.57
62.5	474,773	1,669	0.0035	0.9965	39.95
63.5	362,201	7,402	0.0204	0.9796	39.80
64.5	353,615	1,095	0.0031	0.9969	38.99
65.5	346,627	2,464	0.0071	0.9929	38.87
66.5	340,595	146	0.0004	0.9996	38.59
67.5	335,457	50	0.0001	0.9999	38.58
68.5	335,403	5,237	0.0156	0.9844	38.57
69.5	343,649	899	0.0026	0.9974	37.97
70.5	342,750	318	0.0009	0.9991	37.87
71.5	342,431	9,814	0.0287	0.9713	37.84
72.5	334,995		0.0000	1.0000	36.75
73.5	335,414		0.0000	1.0000	36.75
74.5	335,223		0.0000	1.0000	36.75
75.5	338,383		0.0000	1.0000	36.75
76.5	329,668	17	0.0001	0.9999	36.75
77.5	329,651	4	0.0000	1.0000	36.75
78.5	324,250	840	0.0026	0.9974	36.75

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2016			EXPERIENCE BAND 1951-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	322,725	1,339	0.0041	0.9959	36.65	
80.5	331,269		0.0000	1.0000	36.50	
81.5	357,012	10,519	0.0295	0.9705	36.50	
82.5	345,141	16,287	0.0472	0.9528	35.43	
83.5	328,352	26,382	0.0803	0.9197	33.75	
84.5	322,370	206	0.0006	0.9994	31.04	
85.5	320,298	5,951	0.0186	0.9814	31.02	
86.5	313,413		0.0000	1.0000	30.45	
87.5	308,959		0.0000	1.0000	30.45	
88.5	301,642	1,750	0.0058	0.9942	30.45	
89.5	299,893	51	0.0002	0.9998	30.27	
90.5	299,155	15,055	0.0503	0.9497	30.26	
91.5	283,562	243	0.0009	0.9991	28.74	
92.5	206,702	4,842	0.0234	0.9766	28.72	
93.5	169,305		0.0000	1.0000	28.04	
94.5	169,305		0.0000	1.0000	28.04	
95.5	160,597	3,024	0.0188	0.9812	28.04	
96.5	157,574	16,354	0.1038	0.8962	27.52	
97.5	168,562	28	0.0002	0.9998	24.66	
98.5	167,696	1,835	0.0109	0.9891	24.66	
99.5	156,647	15,273	0.0975	0.9025	24.39	
100.5	141,374	45	0.0003	0.9997	22.01	
101.5	141,287	1,920	0.0136	0.9864	22.00	
102.5	138,317		0.0000	1.0000	21.70	
103.5	138,317	9,445	0.0683	0.9317	21.70	
104.5	128,645	21,449	0.1667	0.8333	20.22	
105.5	107,197	1,762	0.0164	0.9836	16.85	
106.5	103,325	112	0.0011	0.9989	16.57	
107.5	102,810	22,493	0.2188	0.7812	16.55	
108.5	73,753		0.0000	1.0000	12.93	
109.5	73,753		0.0000	1.0000	12.93	
110.5	64,678	24,687	0.3817	0.6183	12.93	
111.5	39,991		0.0000	1.0000	8.00	
112.5	39,991		0.0000	1.0000	8.00	
113.5	38,068		0.0000	1.0000	8.00	
114.5	18,162		0.0000	1.0000	8.00	
115.5	18,106		0.0000	1.0000	8.00	
116.5	13,774		0.0000	1.0000	8.00	
117.5	13,774		0.0000	1.0000	8.00	
118.5	13,774		0.0000	1.0000	8.00	

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2016			EXPERIENCE BAND 1951-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
119.5	13,774		0.0000	1.0000	8.00	
120.5	13,774	43	0.0031	0.9969	8.00	
121.5	13,731		0.0000	1.0000	7.97	
122.5	13,731		0.0000	1.0000	7.97	
123.5	13,041		0.0000	1.0000	7.97	
124.5	13,041	760	0.0583	0.9417	7.97	
125.5	12,281		0.0000	1.0000	7.51	
126.5	12,281		0.0000	1.0000	7.51	
127.5					7.51	

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1889-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	146,238,792	5,551	0.0000	1.0000	100.00
0.5	147,313,953	15,466	0.0001	0.9999	100.00
1.5	154,238,872	348,692	0.0023	0.9977	99.99
2.5	150,636,955	146,714	0.0010	0.9990	99.76
3.5	166,442,144	57,976	0.0003	0.9997	99.66
4.5	124,591,099	251,179	0.0020	0.9980	99.63
5.5	111,367,270	557,252	0.0050	0.9950	99.43
6.5	138,629,522	460,892	0.0033	0.9967	98.93
7.5	140,248,700	262,012	0.0019	0.9981	98.60
8.5	145,786,983	104,069	0.0007	0.9993	98.42
9.5	142,760,348	99,868	0.0007	0.9993	98.35
10.5	126,887,890	467,959	0.0037	0.9963	98.28
11.5	128,354,001	129,910	0.0010	0.9990	97.91
12.5	127,302,788	272,753	0.0021	0.9979	97.82
13.5	116,045,638	240,772	0.0021	0.9979	97.61
14.5	115,355,313	241,559	0.0021	0.9979	97.40
15.5	106,795,589	538,148	0.0050	0.9950	97.20
16.5	103,972,554	252,731	0.0024	0.9976	96.71
17.5	96,007,616	519,474	0.0054	0.9946	96.47
18.5	94,392,752	530,624	0.0056	0.9944	95.95
19.5	85,547,926	437,754	0.0051	0.9949	95.41
20.5	82,623,960	536,119	0.0065	0.9935	94.93
21.5	75,956,124	358,655	0.0047	0.9953	94.31
22.5	73,812,799	455,646	0.0062	0.9938	93.86
23.5	54,826,376	339,908	0.0062	0.9938	93.28
24.5	47,796,903	269,767	0.0056	0.9944	92.71
25.5	45,636,886	572,960	0.0126	0.9874	92.18
26.5	21,582,227	311,675	0.0144	0.9856	91.03
27.5	19,151,893	301,469	0.0157	0.9843	89.71
28.5	11,733,265	133,175	0.0114	0.9886	88.30
29.5	10,258,509	94,475	0.0092	0.9908	87.30
30.5	9,955,264	37,193	0.0037	0.9963	86.49
31.5	8,044,292	43,949	0.0055	0.9945	86.17
32.5	7,932,340	89,462	0.0113	0.9887	85.70
33.5	7,637,491	97,930	0.0128	0.9872	84.73
34.5	7,003,470	17,905	0.0026	0.9974	83.65
35.5	7,528,497	26,508	0.0035	0.9965	83.43
36.5	7,507,280	27,581	0.0037	0.9963	83.14
37.5	7,522,509	45,710	0.0061	0.9939	82.83
38.5	7,491,518	60,295	0.0080	0.9920	82.33

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	7,170,846	45,081	0.0063	0.9937	81.67
40.5	3,995,590	96,682	0.0242	0.9758	81.15
41.5	3,799,728	46,892	0.0123	0.9877	79.19
42.5	3,963,856	22,939	0.0058	0.9942	78.21
43.5	4,167,005	56,943	0.0137	0.9863	77.76
44.5	2,813,653	187,445	0.0666	0.9334	76.70
45.5	2,643,280	231,581	0.0876	0.9124	71.59
46.5	2,407,895	16,245	0.0067	0.9933	65.32
47.5	1,527,306	3,790	0.0025	0.9975	64.88
48.5	1,482,137	9,013	0.0061	0.9939	64.71
49.5	1,678,807	3,481	0.0021	0.9979	64.32
50.5	1,668,735	119,205	0.0714	0.9286	64.19
51.5	1,485,773	217,733	0.1465	0.8535	59.60
52.5	1,271,965	82,608	0.0649	0.9351	50.87
53.5	927,816	21,311	0.0230	0.9770	47.56
54.5	891,110	81,850	0.0919	0.9081	46.47
55.5	619,588	23,303	0.0376	0.9624	42.20
56.5	587,604	9,386	0.0160	0.9840	40.62
57.5	578,198	5,667	0.0098	0.9902	39.97
58.5	583,207	48,646	0.0834	0.9166	39.58
59.5	532,396	36,629	0.0688	0.9312	36.27
60.5	440,572	11,195	0.0254	0.9746	33.78
61.5	291,568	9,398	0.0322	0.9678	32.92
62.5	157,523	1,669	0.0106	0.9894	31.86
63.5	44,951	5,189	0.1154	0.8846	31.52
64.5	38,578	562	0.0146	0.9854	27.88
65.5	52,785	2,339	0.0443	0.9557	27.48
66.5	47,993	64	0.0013	0.9987	26.26
67.5	44,079		0.0000	1.0000	26.22
68.5	52,545	2,006	0.0382	0.9618	26.22
69.5	50,538	899	0.0178	0.9822	25.22
70.5	49,638		0.0000	1.0000	24.77
71.5	49,638	184	0.0037	0.9963	24.77
72.5	130,199		0.0000	1.0000	24.68
73.5	178,083		0.0000	1.0000	24.68
74.5	177,892		0.0000	1.0000	24.68
75.5	191,363		0.0000	1.0000	24.68
76.5	182,965	17	0.0001	0.9999	24.68
77.5	182,949	4	0.0000	1.0000	24.68
78.5	178,386	642	0.0036	0.9964	24.68

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2016			EXPERIENCE BAND 1997-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	178,527	1,339	0.0075	0.9925	24.59	
80.5	175,747		0.0000	1.0000	24.41	
81.5	203,355		0.0000	1.0000	24.41	
82.5	209,420	16,287	0.0778	0.9222	24.41	
83.5	192,631	26,359	0.1368	0.8632	22.51	
84.5	188,819	206	0.0011	0.9989	19.43	
85.5	186,747	5,951	0.0319	0.9681	19.41	
86.5	194,440		0.0000	1.0000	18.79	
87.5	191,736		0.0000	1.0000	18.79	
88.5	186,708	1,750	0.0094	0.9906	18.79	
89.5	184,958	51	0.0003	0.9997	18.61	
90.5	222,512	15,055	0.0677	0.9323	18.61	
91.5	207,457		0.0000	1.0000	17.35	
92.5	130,839	4,776	0.0365	0.9635	17.35	
93.5	93,508		0.0000	1.0000	16.72	
94.5	116,671		0.0000	1.0000	16.72	
95.5	108,131	3,024	0.0280	0.9720	16.72	
96.5	109,440	16,154	0.1476	0.8524	16.25	
97.5	119,896	28	0.0002	0.9998	13.85	
98.5	119,030	1,835	0.0154	0.9846	13.85	
99.5	108,274	2,122	0.0196	0.9804	13.63	
100.5	106,152	45	0.0004	0.9996	13.37	
101.5	127,513	1,920	0.0151	0.9849	13.36	
102.5	124,543		0.0000	1.0000	13.16	
103.5	125,276	9,445	0.0754	0.9246	13.16	
104.5	115,605	21,449	0.1855	0.8145	12.17	
105.5	94,156	1,762	0.0187	0.9813	9.91	
106.5	90,285	112	0.0012	0.9988	9.72	
107.5	102,810	22,493	0.2188	0.7812	9.71	
108.5	73,753		0.0000	1.0000	7.59	
109.5	73,753		0.0000	1.0000	7.59	
110.5	64,678	24,687	0.3817	0.6183	7.59	
111.5	39,991		0.0000	1.0000	4.69	
112.5	39,991		0.0000	1.0000	4.69	
113.5	38,068		0.0000	1.0000	4.69	
114.5	18,162		0.0000	1.0000	4.69	
115.5	18,106		0.0000	1.0000	4.69	
116.5	13,774		0.0000	1.0000	4.69	
117.5	13,774		0.0000	1.0000	4.69	
118.5	13,774		0.0000	1.0000	4.69	

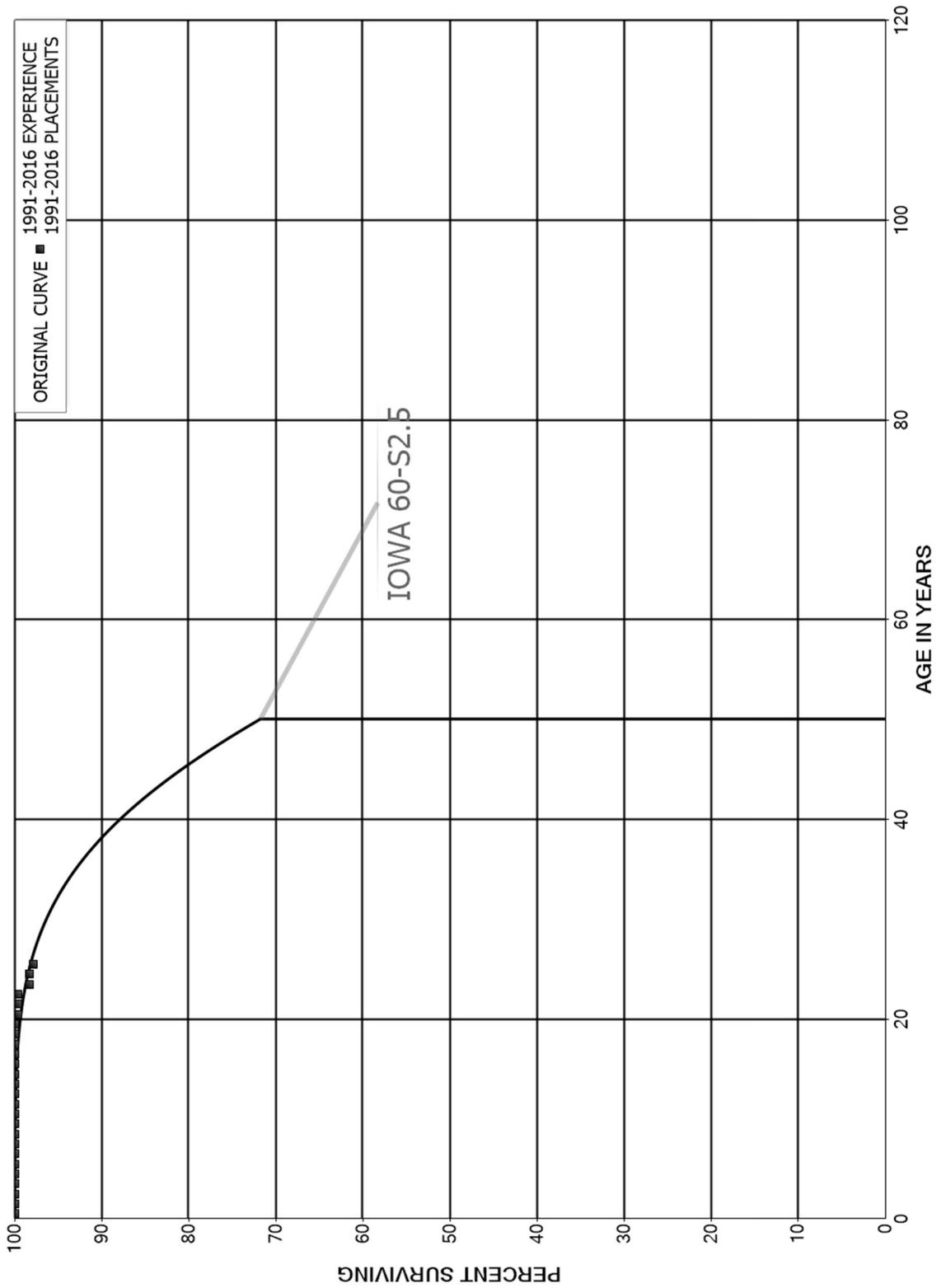
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1889-2016			EXPERIENCE BAND 1997-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
119.5	13,774		0.0000	1.0000	4.69	
120.5	13,774	43	0.0031	0.9969	4.69	
121.5	13,731		0.0000	1.0000	4.68	
122.5	13,731		0.0000	1.0000	4.68	
123.5	13,041		0.0000	1.0000	4.68	
124.5	13,041	760	0.0583	0.9417	4.68	
125.5	12,281		0.0000	1.0000	4.40	
126.5	12,281		0.0000	1.0000	4.40	
127.5					4.40	

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 304.36 WASTE HANDLING AND TREATMENT STRUCTURES
 ORIGINAL AND SMOOTH SURVIVOR CURVES



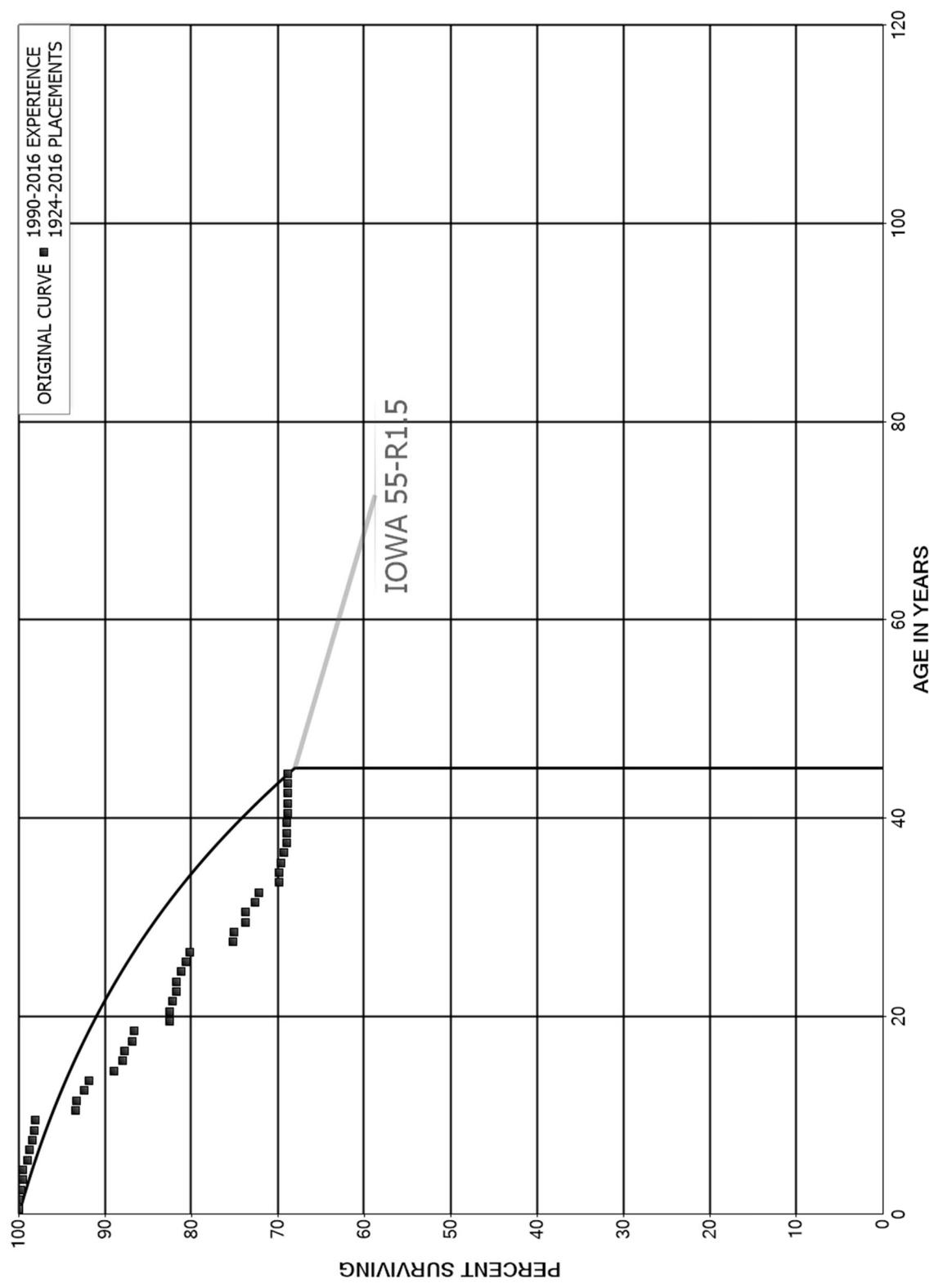
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.36 WASTE HANDLING AND TREATMENT STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-2016		EXPERIENCE BAND 1991-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	11,970,065		0.0000	1.0000	100.00
0.5	11,776,673		0.0000	1.0000	100.00
1.5	11,776,673		0.0000	1.0000	100.00
2.5	11,758,593	9,468	0.0008	0.9992	100.00
3.5	11,619,590		0.0000	1.0000	99.92
4.5	11,422,066		0.0000	1.0000	99.92
5.5	11,422,066	3,279	0.0003	0.9997	99.92
6.5	11,339,521		0.0000	1.0000	99.89
7.5	11,339,521		0.0000	1.0000	99.89
8.5	11,339,521		0.0000	1.0000	99.89
9.5	11,281,399		0.0000	1.0000	99.89
10.5	11,281,399		0.0000	1.0000	99.89
11.5	11,281,399		0.0000	1.0000	99.89
12.5	11,281,399		0.0000	1.0000	99.89
13.5	11,277,335		0.0000	1.0000	99.89
14.5	11,277,335		0.0000	1.0000	99.89
15.5	11,251,501		0.0000	1.0000	99.89
16.5	11,129,184		0.0000	1.0000	99.89
17.5	11,129,184		0.0000	1.0000	99.89
18.5	11,060,215		0.0000	1.0000	99.89
19.5	11,060,215	28,892	0.0026	0.9974	99.89
20.5	11,031,323		0.0000	1.0000	99.63
21.5	11,031,323		0.0000	1.0000	99.63
22.5	11,031,323	145,173	0.0132	0.9868	99.63
23.5	10,886,150	155	0.0000	1.0000	98.32
24.5	10,885,995	49,877	0.0046	0.9954	98.32
25.5					97.87

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 304.61 OFFICE BUILDINGS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1924-2016

EXPERIENCE BAND 1990-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	9,924,135		0.0000	1.0000	100.00
0.5	12,336,218	10,320	0.0008	0.9992	100.00
1.5	13,157,727	19,244	0.0015	0.9985	99.92
2.5	15,555,959	34,504	0.0022	0.9978	99.77
3.5	16,519,024	9,381	0.0006	0.9994	99.55
4.5	16,059,977	90,510	0.0056	0.9944	99.49
5.5	15,643,676	38,752	0.0025	0.9975	98.93
6.5	15,539,345	45,918	0.0030	0.9970	98.69
7.5	15,908,988	30,976	0.0019	0.9981	98.39
8.5	15,522,883	20,189	0.0013	0.9987	98.20
9.5	14,929,454	718,225	0.0481	0.9519	98.08
10.5	13,708,417	7,924	0.0006	0.9994	93.36
11.5	13,273,718	125,334	0.0094	0.9906	93.30
12.5	13,126,326	84,169	0.0064	0.9936	92.42
13.5	12,833,061	402,529	0.0314	0.9686	91.83
14.5	12,274,311	132,559	0.0108	0.9892	88.95
15.5	12,007,175	37,582	0.0031	0.9969	87.99
16.5	11,064,791	112,423	0.0102	0.9898	87.71
17.5	10,720,312	28,483	0.0027	0.9973	86.82
18.5	10,630,940	497,820	0.0468	0.9532	86.59
19.5	9,957,836	1,065	0.0001	0.9999	82.54
20.5	9,661,379	43,732	0.0045	0.9955	82.53
21.5	9,607,539	46,410	0.0048	0.9952	82.15
22.5	7,513,633	5,487	0.0007	0.9993	81.76
23.5	7,486,519	46,220	0.0062	0.9938	81.70
24.5	7,252,133	54,012	0.0074	0.9926	81.19
25.5	7,379,925	36,214	0.0049	0.9951	80.59
26.5	7,191,325	451,327	0.0628	0.9372	80.19
27.5	5,040,271	4,619	0.0009	0.9991	75.16
28.5	4,435,707	79,812	0.0180	0.9820	75.09
29.5	2,450,098	1,754	0.0007	0.9993	73.74
30.5	826,555	12,004	0.0145	0.9855	73.69
31.5	1,203,683	7,082	0.0059	0.9941	72.62
32.5	1,331,624	44,124	0.0331	0.9669	72.19
33.5	1,252,992		0.0000	1.0000	69.80
34.5	844,197	1,873	0.0022	0.9978	69.80
35.5	796,514	4,580	0.0057	0.9943	69.64
36.5	796,036	3,664	0.0046	0.9954	69.24
37.5	764,274	349	0.0005	0.9995	68.92
38.5	761,509		0.0000	1.0000	68.89

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1924-2016			EXPERIENCE BAND 1990-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	748,268	350	0.0005	0.9995	68.89	
40.5	692,751	1	0.0000	1.0000	68.86	
41.5	686,124	106	0.0002	0.9998	68.86	
42.5	684,363		0.0000	1.0000	68.85	
43.5	682,727	0	0.0000	1.0000	68.85	
44.5	184,524	1,089	0.0059	0.9941	68.85	
45.5	174,414		0.0000	1.0000	68.44	
46.5	162,914	5,920	0.0363	0.9637	68.44	
47.5	155,721		0.0000	1.0000	65.96	
48.5	98,108		0.0000	1.0000	65.96	
49.5	49,930		0.0000	1.0000	65.96	
50.5	48,805	2,639	0.0541	0.9459	65.96	
51.5	34,208		0.0000	1.0000	62.39	
52.5	33,128		0.0000	1.0000	62.39	
53.5	83		0.0000	1.0000	62.39	
54.5	83		0.0000	1.0000	62.39	
55.5	62		0.0000	1.0000	62.39	
56.5	13		0.0000	1.0000	62.39	
57.5	13		0.0000	1.0000	62.39	
58.5					62.39	
59.5						
60.5						
61.5						
62.5						
63.5						
64.5						
65.5						
66.5						
67.5						
68.5						
69.5						
70.5						
71.5						
72.5						
73.5						
74.5						
75.5	215		0.0000			
76.5	215		0.0000			
77.5	1,060		0.0000			
78.5	1,060		0.0000			

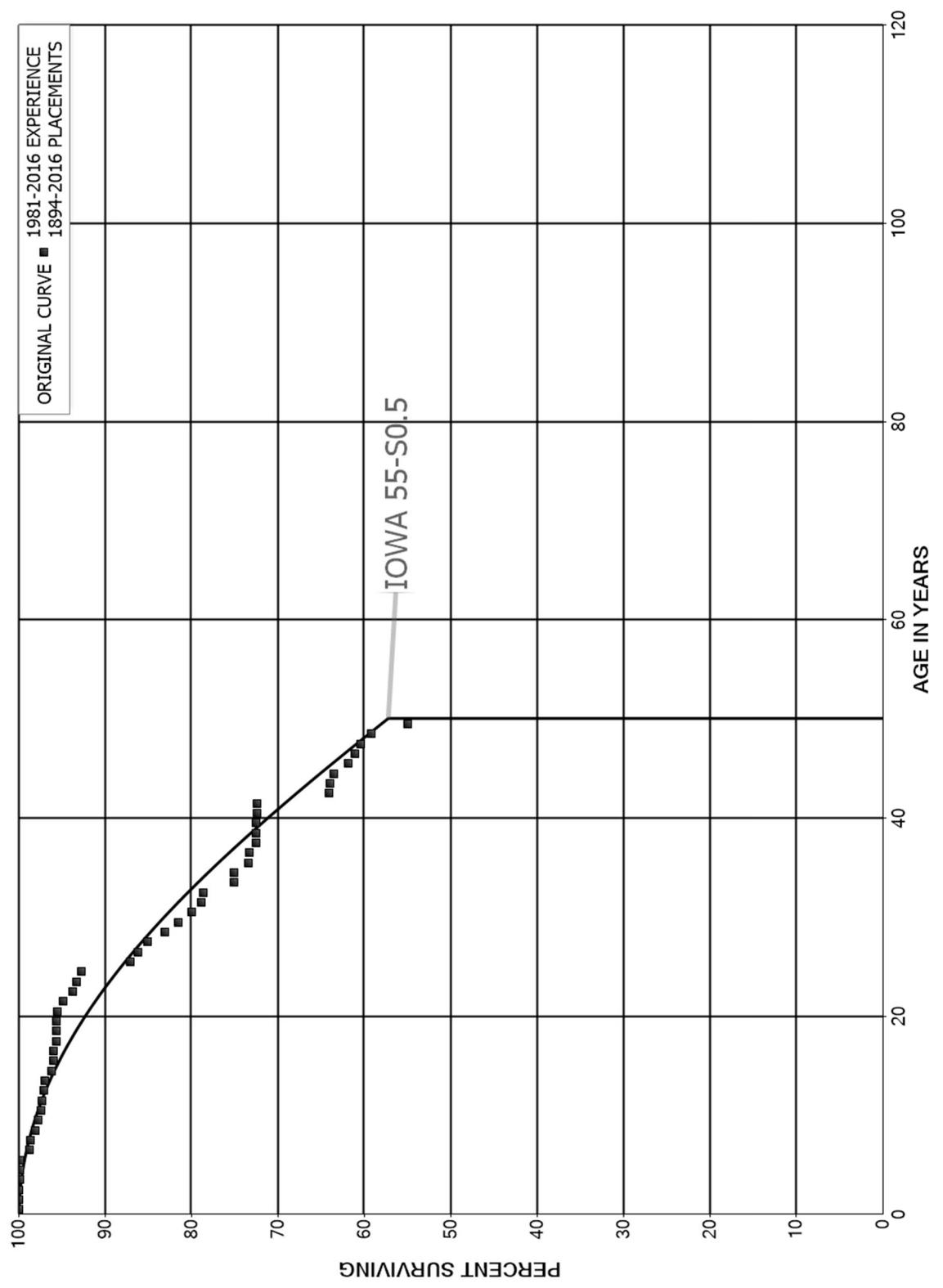
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 304.61 OFFICE BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1924-2016			EXPERIENCE BAND 1990-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	1,060		0.0000		
80.5	1,060		0.0000		
81.5	1,060		0.0000		
82.5	1,060		0.0000		
83.5	1,060		0.0000		
84.5	1,060		0.0000		
85.5	1,060		0.0000		
86.5	1,060		0.0000		
87.5	1,060		0.0000		
88.5	1,060		0.0000		
89.5	1,060		0.0000		
90.5	845		0.0000		
91.5	845		0.0000		
92.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1894-2016

EXPERIENCE BAND 1981-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	31,466,303		0.0000	1.0000	100.00
0.5	31,502,856		0.0000	1.0000	100.00
1.5	30,841,208	3,043	0.0001	0.9999	100.00
2.5	11,347,836	20,003	0.0018	0.9982	99.99
3.5	11,434,298	1,568	0.0001	0.9999	99.81
4.5	9,289,603	567	0.0001	0.9999	99.80
5.5	9,104,357	94,546	0.0104	0.9896	99.79
6.5	8,940,784	14,315	0.0016	0.9984	98.76
7.5	8,485,343	46,212	0.0054	0.9946	98.60
8.5	7,788,074	24,097	0.0031	0.9969	98.06
9.5	7,556,215	27,858	0.0037	0.9963	97.76
10.5	7,447,559	8,034	0.0011	0.9989	97.40
11.5	7,275,413	13,994	0.0019	0.9981	97.29
12.5	7,275,092	15,234	0.0021	0.9979	97.11
13.5	7,310,040	55,000	0.0075	0.9925	96.90
14.5	7,247,710	18,255	0.0025	0.9975	96.17
15.5	7,778,439	3,038	0.0004	0.9996	95.93
16.5	7,656,478	18,389	0.0024	0.9976	95.89
17.5	7,486,727	5,409	0.0007	0.9993	95.66
18.5	7,437,119	2,082	0.0003	0.9997	95.60
19.5	7,190,161	4,081	0.0006	0.9994	95.57
20.5	7,025,946	48,705	0.0069	0.9931	95.51
21.5	6,970,108	84,507	0.0121	0.9879	94.85
22.5	6,800,096	32,067	0.0047	0.9953	93.70
23.5	6,760,404	34,912	0.0052	0.9948	93.26
24.5	6,380,779	391,971	0.0614	0.9386	92.78
25.5	5,275,467	52,466	0.0099	0.9901	87.08
26.5	4,177,334	58,098	0.0139	0.9861	86.21
27.5	3,677,812	83,939	0.0228	0.9772	85.01
28.5	2,813,170	51,471	0.0183	0.9817	83.07
29.5	1,840,693	34,879	0.0189	0.9811	81.55
30.5	1,563,820	23,186	0.0148	0.9852	80.01
31.5	1,381,116	4,069	0.0029	0.9971	78.82
32.5	1,318,556	59,615	0.0452	0.9548	78.59
33.5	1,209,099		0.0000	1.0000	75.04
34.5	1,188,903	25,396	0.0214	0.9786	75.04
35.5	1,161,167	3,115	0.0027	0.9973	73.43
36.5	1,155,216	11,342	0.0098	0.9902	73.24
37.5	1,140,299		0.0000	1.0000	72.52
38.5	1,171,663		0.0000	1.0000	72.52

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2016			EXPERIENCE BAND 1981-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	1,168,854	1,649	0.0014	0.9986	72.52	
40.5	1,160,910	523	0.0005	0.9995	72.42	
41.5	1,160,346	132,496	0.1142	0.8858	72.38	
42.5	1,012,577	3,074	0.0030	0.9970	64.12	
43.5	996,209	5,720	0.0057	0.9943	63.92	
44.5	981,990	26,486	0.0270	0.9730	63.56	
45.5	952,766	12,165	0.0128	0.9872	61.84	
46.5	930,112	10,005	0.0108	0.9892	61.05	
47.5	911,161	18,327	0.0201	0.9799	60.40	
48.5	889,881	64,493	0.0725	0.9275	59.18	
49.5	779,300	1,502	0.0019	0.9981	54.89	
50.5	771,437		0.0000	1.0000	54.79	
51.5	126,143	1,750	0.0139	0.9861	54.79	
52.5	121,946	1,068	0.0088	0.9912	54.03	
53.5	118,759	497	0.0042	0.9958	53.55	
54.5	132,428	61	0.0005	0.9995	53.33	
55.5	112,132	123	0.0011	0.9989	53.30	
56.5	108,062	1,782	0.0165	0.9835	53.25	
57.5	104,849	426	0.0041	0.9959	52.37	
58.5	108,134	55	0.0005	0.9995	52.16	
59.5	103,685		0.0000	1.0000	52.13	
60.5	92,594		0.0000	1.0000	52.13	
61.5	92,452		0.0000	1.0000	52.13	
62.5	81,762		0.0000	1.0000	52.13	
63.5	81,762	4,463	0.0546	0.9454	52.13	
64.5	77,299		0.0000	1.0000	49.28	
65.5	76,428	111	0.0014	0.9986	49.28	
66.5	73,676	194	0.0026	0.9974	49.21	
67.5	73,222		0.0000	1.0000	49.08	
68.5	77,269		0.0000	1.0000	49.08	
69.5	77,269		0.0000	1.0000	49.08	
70.5	77,269	2,148	0.0278	0.9722	49.08	
71.5	88,546	45	0.0005	0.9995	47.72	
72.5	102,500	161	0.0016	0.9984	47.69	
73.5	102,340		0.0000	1.0000	47.62	
74.5	74,876		0.0000	1.0000	47.62	
75.5	74,876		0.0000	1.0000	47.62	
76.5	75,751		0.0000	1.0000	47.62	
77.5	75,751		0.0000	1.0000	47.62	
78.5	75,751		0.0000	1.0000	47.62	

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2016			EXPERIENCE BAND 1981-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	75,456		0.0000	1.0000	47.62
80.5	75,456		0.0000	1.0000	47.62
81.5	73,976		0.0000	1.0000	47.62
82.5	73,976		0.0000	1.0000	47.62
83.5	73,976		0.0000	1.0000	47.62
84.5	73,976	635	0.0086	0.9914	47.62
85.5	73,341	506	0.0069	0.9931	47.21
86.5	74,305		0.0000	1.0000	46.88
87.5	61,209		0.0000	1.0000	46.88
88.5	59,032		0.0000	1.0000	46.88
89.5	58,749	637	0.0108	0.9892	46.88
90.5	43,203		0.0000	1.0000	46.38
91.5	43,203	6,226	0.1441	0.8559	46.38
92.5	36,976	23	0.0006	0.9994	39.69
93.5	75,449		0.0000	1.0000	39.67
94.5	75,411	1,065	0.0141	0.9859	39.67
95.5	74,346		0.0000	1.0000	39.11
96.5	74,346		0.0000	1.0000	39.11
97.5	74,346		0.0000	1.0000	39.11
98.5	74,346		0.0000	1.0000	39.11
99.5	74,346		0.0000	1.0000	39.11
100.5	74,346		0.0000	1.0000	39.11
101.5	74,346	298	0.0040	0.9960	39.11
102.5	74,048		0.0000	1.0000	38.95
103.5	74,048		0.0000	1.0000	38.95
104.5	69,727		0.0000	1.0000	38.95
105.5	69,727		0.0000	1.0000	38.95
106.5	69,727		0.0000	1.0000	38.95
107.5	56,220	38,473	0.6843	0.3157	38.95
108.5	3,747		0.0000	1.0000	12.30
109.5	3,747		0.0000	1.0000	12.30
110.5	1,470		0.0000	1.0000	12.30
111.5	1,470		0.0000	1.0000	12.30
112.5	1,470		0.0000	1.0000	12.30
113.5	1,470		0.0000	1.0000	12.30
114.5	1,470		0.0000	1.0000	12.30
115.5	1,470		0.0000	1.0000	12.30
116.5	1,470		0.0000	1.0000	12.30
117.5	1,470		0.0000	1.0000	12.30
118.5	1,470		0.0000	1.0000	12.30

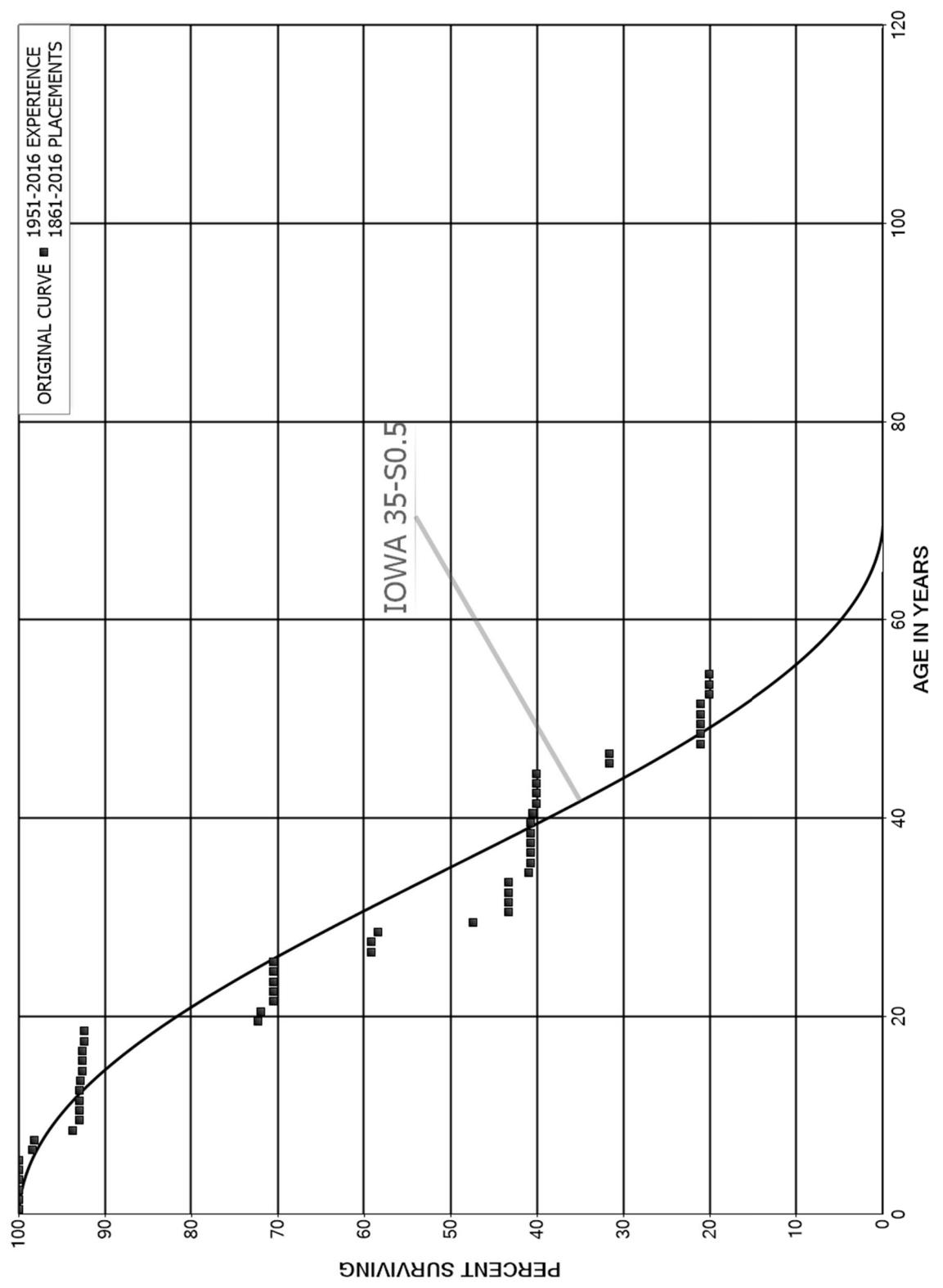
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 304.62 STORES, SHOP AND GARAGE BUILDINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2016			EXPERIENCE BAND 1981-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	1,470		0.0000	1.0000	12.30
120.5	1,470		0.0000	1.0000	12.30
121.5	1,470		0.0000	1.0000	12.30
122.5					12.30

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1861-2016

EXPERIENCE BAND 1951-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	3,251,997		0.0000	1.0000	100.00
0.5	2,787,583		0.0000	1.0000	100.00
1.5	2,195,028		0.0000	1.0000	100.00
2.5	2,177,728		0.0000	1.0000	100.00
3.5	2,124,732		0.0000	1.0000	100.00
4.5	2,064,960		0.0000	1.0000	100.00
5.5	2,062,650	34,059	0.0165	0.9835	100.00
6.5	1,754,034	2,319	0.0013	0.9987	98.35
7.5	1,724,823	78,669	0.0456	0.9544	98.22
8.5	1,282,580	9,990	0.0078	0.9922	93.74
9.5	945,451		0.0000	1.0000	93.01
10.5	945,453	1,000	0.0011	0.9989	93.01
11.5	573,913		0.0000	1.0000	92.91
12.5	367,433	188	0.0005	0.9995	92.91
13.5	298,523	642	0.0022	0.9978	92.86
14.5	299,446		0.0000	1.0000	92.66
15.5	299,446		0.0000	1.0000	92.66
16.5	299,446	700	0.0023	0.9977	92.66
17.5	298,746		0.0000	1.0000	92.45
18.5	292,856	63,771	0.2178	0.7822	92.45
19.5	205,391	932	0.0045	0.9955	72.32
20.5	131,436	2,723	0.0207	0.9793	71.99
21.5	129,427		0.0000	1.0000	70.50
22.5	129,426		0.0000	1.0000	70.50
23.5	132,928		0.0000	1.0000	70.50
24.5	131,428		0.0000	1.0000	70.50
25.5	125,643	20,089	0.1599	0.8401	70.50
26.5	105,553		0.0000	1.0000	59.22
27.5	102,775	1,500	0.0146	0.9854	59.22
28.5	96,625	18,105	0.1874	0.8126	58.36
29.5	43,947	3,887	0.0884	0.9116	47.42
30.5	38,942		0.0000	1.0000	43.23
31.5	38,942		0.0000	1.0000	43.23
32.5	38,943		0.0000	1.0000	43.23
33.5	50,419	2,672	0.0530	0.9470	43.23
34.5	50,794	279	0.0055	0.9945	40.94
35.5	50,371		0.0000	1.0000	40.72
36.5	50,371	2	0.0000	1.0000	40.72
37.5	50,369		0.0000	1.0000	40.71
38.5	50,369		0.0000	1.0000	40.71

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1861-2016			EXPERIENCE BAND 1951-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	50,369	294	0.0058	0.9942	40.71	
40.5	50,076	485	0.0097	0.9903	40.48	
41.5	46,546		0.0000	1.0000	40.08	
42.5	46,565	2	0.0000	1.0000	40.08	
43.5	47,994		0.0000	1.0000	40.08	
44.5	47,412	10,051	0.2120	0.7880	40.08	
45.5	36,879		0.0000	1.0000	31.58	
46.5	33,597	11,234	0.3344	0.6656	31.58	
47.5	22,282		0.0000	1.0000	21.02	
48.5	22,282		0.0000	1.0000	21.02	
49.5	19,237		0.0000	1.0000	21.02	
50.5	19,237		0.0000	1.0000	21.02	
51.5	19,237	867	0.0451	0.9549	21.02	
52.5	17,934		0.0000	1.0000	20.08	
53.5	16,869		0.0000	1.0000	20.08	
54.5	16,685		0.0000	1.0000	20.08	
55.5	31,763	125	0.0039	0.9961	20.08	
56.5	29,320		0.0000	1.0000	20.00	
57.5	32,131		0.0000	1.0000	20.00	
58.5	30,675		0.0000	1.0000	20.00	
59.5	30,675		0.0000	1.0000	20.00	
60.5	30,675		0.0000	1.0000	20.00	
61.5	30,675		0.0000	1.0000	20.00	
62.5	28,368	2	0.0001	0.9999	20.00	
63.5	28,366		0.0000	1.0000	20.00	
64.5	27,667		0.0000	1.0000	20.00	
65.5	27,666		0.0000	1.0000	20.00	
66.5	27,666		0.0000	1.0000	20.00	
67.5	27,666		0.0000	1.0000	20.00	
68.5	27,666		0.0000	1.0000	20.00	
69.5	27,666		0.0000	1.0000	20.00	
70.5	27,666		0.0000	1.0000	20.00	
71.5	27,666		0.0000	1.0000	20.00	
72.5	27,666	15,078	0.5450	0.4550	20.00	
73.5	12,543		0.0000	1.0000	9.10	
74.5	11,970		0.0000	1.0000	9.10	
75.5	12,279		0.0000	1.0000	9.10	
76.5	12,279		0.0000	1.0000	9.10	
77.5	12,279		0.0000	1.0000	9.10	
78.5	12,280		0.0000	1.0000	9.10	

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1861-2016			EXPERIENCE BAND 1951-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	12,280		0.0000	1.0000	9.10
80.5	10,838		0.0000	1.0000	9.10
81.5	10,838		0.0000	1.0000	9.10
82.5	10,838		0.0000	1.0000	9.10
83.5	10,838		0.0000	1.0000	9.10
84.5	10,838		0.0000	1.0000	9.10
85.5	10,838		0.0000	1.0000	9.10
86.5	5,714	1	0.0002	0.9998	9.10
87.5	4,999		0.0000	1.0000	9.10
88.5	4,999		0.0000	1.0000	9.10
89.5	5,948		0.0000	1.0000	9.10
90.5	5,948		0.0000	1.0000	9.10
91.5	5,948		0.0000	1.0000	9.10
92.5	5,948		0.0000	1.0000	9.10
93.5	5,948		0.0000	1.0000	9.10
94.5	5,948		0.0000	1.0000	9.10
95.5	5,948		0.0000	1.0000	9.10
96.5	5,065		0.0000	1.0000	9.10
97.5	5,065		0.0000	1.0000	9.10
98.5	5,065		0.0000	1.0000	9.10
99.5	4,065		0.0000	1.0000	9.10
100.5	4,064	2,951	0.7261	0.2739	9.10
101.5	1,113		0.0000	1.0000	2.49
102.5	1,113		0.0000	1.0000	2.49
103.5	1,113		0.0000	1.0000	2.49
104.5	1,113		0.0000	1.0000	2.49
105.5	1,113		0.0000	1.0000	2.49
106.5	1,113		0.0000	1.0000	2.49
107.5	1,113		0.0000	1.0000	2.49
108.5	1,113		0.0000	1.0000	2.49
109.5	1,113		0.0000	1.0000	2.49
110.5	1,113		0.0000	1.0000	2.49
111.5	1,113		0.0000	1.0000	2.49
112.5	1,113		0.0000	1.0000	2.49
113.5	1,113		0.0000	1.0000	2.49
114.5	1,113		0.0000	1.0000	2.49
115.5	1,113		0.0000	1.0000	2.49
116.5	1,113		0.0000	1.0000	2.49
117.5	1,113		0.0000	1.0000	2.49
118.5	1,113		0.0000	1.0000	2.49

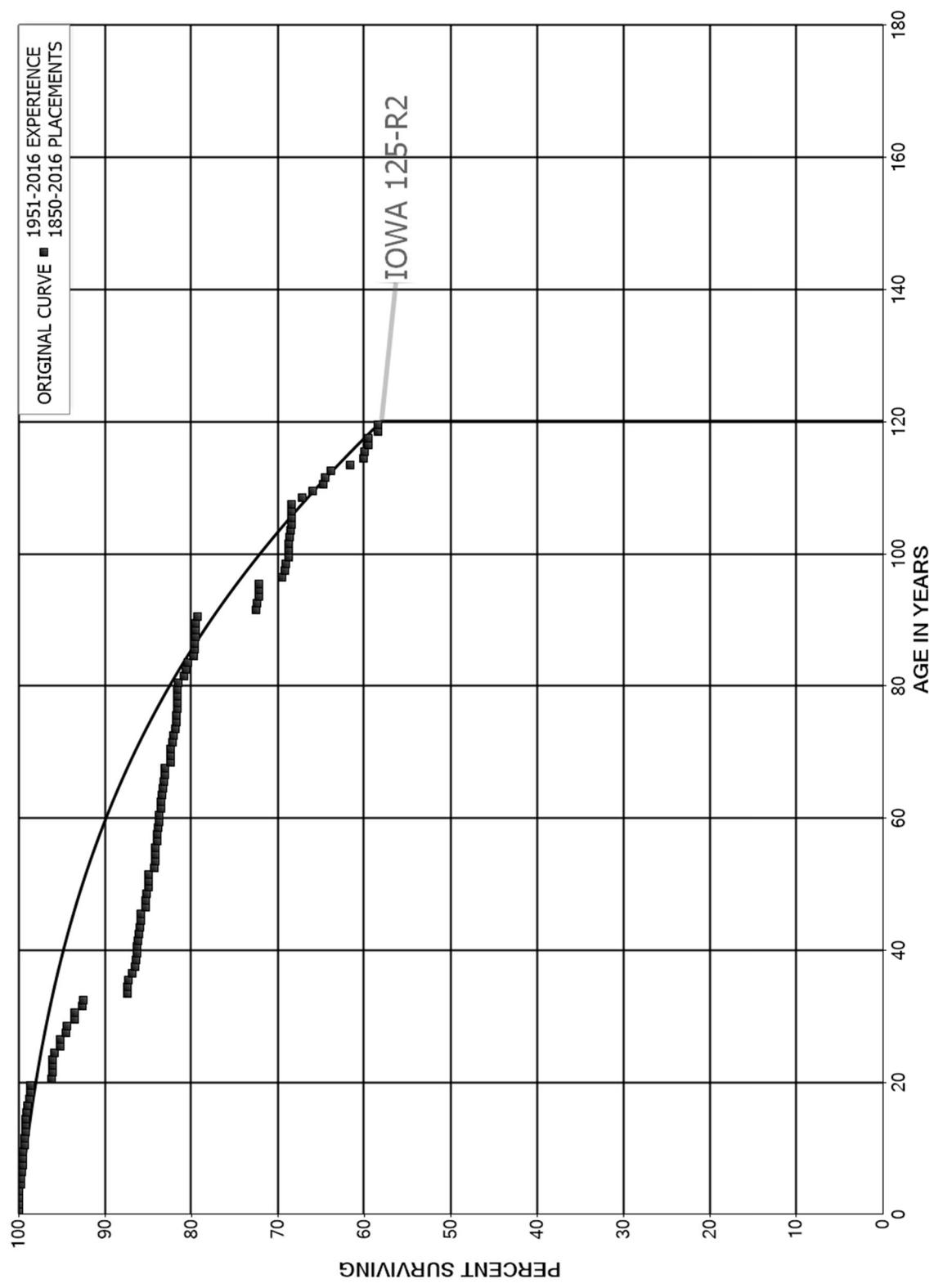
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 304.63 MISCELLANEOUS STRUCTURES AND IMPROVEMENTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1861-2016			EXPERIENCE BAND 1951-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	1,113		0.0000	1.0000	2.49
120.5	1,113		0.0000	1.0000	2.49
121.5	1,113		0.0000	1.0000	2.49
122.5	1,113		0.0000	1.0000	2.49
123.5	1,113		0.0000	1.0000	2.49
124.5	1,113		0.0000	1.0000	2.49
125.5	1,113		0.0000	1.0000	2.49
126.5	1,113		0.0000	1.0000	2.49
127.5	1,113		0.0000	1.0000	2.49
128.5	1,113		0.0000	1.0000	2.49
129.5	1,113		0.0000	1.0000	2.49
130.5	1,113		0.0000	1.0000	2.49
131.5	1,113		0.0000	1.0000	2.49
132.5	1,113		0.0000	1.0000	2.49
133.5	1,113		0.0000	1.0000	2.49
134.5	1,113		0.0000	1.0000	2.49
135.5	1,113		0.0000	1.0000	2.49
136.5	1,113		0.0000	1.0000	2.49
137.5	1,113		0.0000	1.0000	2.49
138.5	1,113		0.0000	1.0000	2.49
139.5	1,113		0.0000	1.0000	2.49
140.5	1,113		0.0000	1.0000	2.49
141.5	1,113		0.0000	1.0000	2.49
142.5	1,113		0.0000	1.0000	2.49
143.5	1,113		0.0000	1.0000	2.49
144.5	1,113		0.0000	1.0000	2.49
145.5	1,113		0.0000	1.0000	2.49
146.5	1,113		0.0000	1.0000	2.49
147.5	1,113		0.0000	1.0000	2.49
148.5	1,113		0.0000	1.0000	2.49
149.5	1,113		0.0000	1.0000	2.49
150.5	1,113		0.0000	1.0000	2.49
151.5	1,113		0.0000	1.0000	2.49
152.5	1,113		0.0000	1.0000	2.49
153.5	1,113		0.0000	1.0000	2.49
154.5	1,113		0.0000	1.0000	2.49
155.5					2.49

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1850-2016

EXPERIENCE BAND 1951-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	81,734,004		0.0000	1.0000	100.00
0.5	82,183,172	16,065	0.0002	0.9998	100.00
1.5	82,147,401	1,429	0.0000	1.0000	99.98
2.5	80,984,599	2,822	0.0000	1.0000	99.98
3.5	72,146,708	197,085	0.0027	0.9973	99.98
4.5	46,138,660	1,930	0.0000	1.0000	99.70
5.5	38,532,101	21,179	0.0005	0.9995	99.70
6.5	38,534,275	65,285	0.0017	0.9983	99.64
7.5	38,625,237	3,124	0.0001	0.9999	99.47
8.5	28,400,381	1,567	0.0001	0.9999	99.47
9.5	28,383,665	56,149	0.0020	0.9980	99.46
10.5	28,394,054	2,948	0.0001	0.9999	99.26
11.5	28,393,476	15,423	0.0005	0.9995	99.25
12.5	28,378,152	2,681	0.0001	0.9999	99.20
13.5	28,376,674	2,637	0.0001	0.9999	99.19
14.5	28,255,337	41,271	0.0015	0.9985	99.18
15.5	28,475,126	34,846	0.0012	0.9988	99.04
16.5	27,984,050	55,106	0.0020	0.9980	98.92
17.5	27,830,758	32,506	0.0012	0.9988	98.72
18.5	27,835,214	8,488	0.0003	0.9997	98.61
19.5	27,219,904	675,332	0.0248	0.9752	98.58
20.5	25,916,646	7,175	0.0003	0.9997	96.13
21.5	24,138,152	6,290	0.0003	0.9997	96.10
22.5	24,125,210	787	0.0000	1.0000	96.08
23.5	23,599,259	54,961	0.0023	0.9977	96.07
24.5	18,537,829	122,153	0.0066	0.9934	95.85
25.5	17,212,840	14,621	0.0008	0.9992	95.22
26.5	17,130,685	122,055	0.0071	0.9929	95.14
27.5	14,457,388	16,637	0.0012	0.9988	94.46
28.5	14,416,121	127,586	0.0089	0.9911	94.35
29.5	13,959,843	6,762	0.0005	0.9995	93.52
30.5	13,750,339	128,399	0.0093	0.9907	93.47
31.5	9,269,403	5,968	0.0006	0.9994	92.60
32.5	9,190,681	510,026	0.0555	0.9445	92.54
33.5	8,603,398	428	0.0000	1.0000	87.40
34.5	8,623,535	6,074	0.0007	0.9993	87.40
35.5	8,534,562	47,590	0.0056	0.9944	87.34
36.5	8,461,274	36,787	0.0043	0.9957	86.85
37.5	8,421,782	7,642	0.0009	0.9991	86.47
38.5	8,293,456	5,855	0.0007	0.9993	86.39

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1850-2016			EXPERIENCE BAND 1951-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	8,273,039	459	0.0001	0.9999	86.33	
40.5	7,553,460	16,423	0.0022	0.9978	86.33	
41.5	7,512,522	10,214	0.0014	0.9986	86.14	
42.5	7,485,683	11,589	0.0015	0.9985	86.02	
43.5	7,534,052	3,540	0.0005	0.9995	85.89	
44.5	5,772,640		0.0000	1.0000	85.85	
45.5	5,803,261	34,857	0.0060	0.9940	85.85	
46.5	5,833,362	6,002	0.0010	0.9990	85.33	
47.5	5,921,115	5,610	0.0009	0.9991	85.25	
48.5	5,937,790	12,955	0.0022	0.9978	85.17	
49.5	5,968,288	994	0.0002	0.9998	84.98	
50.5	6,399,460	828	0.0001	0.9999	84.97	
51.5	6,402,804	53,162	0.0083	0.9917	84.96	
52.5	4,980,595	2,543	0.0005	0.9995	84.25	
53.5	5,515,031	3,608	0.0007	0.9993	84.21	
54.5	5,497,130	818	0.0001	0.9999	84.15	
55.5	5,518,740	8,589	0.0016	0.9984	84.14	
56.5	5,160,384	2,121	0.0004	0.9996	84.01	
57.5	4,854,547	5,964	0.0012	0.9988	83.97	
58.5	4,096,317	5,564	0.0014	0.9986	83.87	
59.5	4,068,509	332	0.0001	0.9999	83.76	
60.5	4,147,347	10,350	0.0025	0.9975	83.75	
61.5	4,166,036	1,681	0.0004	0.9996	83.54	
62.5	4,532,632	3,505	0.0008	0.9992	83.51	
63.5	4,575,985	9,098	0.0020	0.9980	83.44	
64.5	4,566,962	3,980	0.0009	0.9991	83.28	
65.5	4,501,483	7,756	0.0017	0.9983	83.20	
66.5	4,494,718	1,757	0.0004	0.9996	83.06	
67.5	4,530,225	31,582	0.0070	0.9930	83.03	
68.5	4,397,519	95	0.0000	1.0000	82.45	
69.5	4,340,729	561	0.0001	0.9999	82.45	
70.5	4,154,567	13,016	0.0031	0.9969	82.44	
71.5	3,955,860	4,053	0.0010	0.9990	82.18	
72.5	3,953,411	13,779	0.0035	0.9965	82.09	
73.5	3,939,344	2,266	0.0006	0.9994	81.81	
74.5	3,942,502	2,158	0.0005	0.9995	81.76	
75.5	3,936,954	5,006	0.0013	0.9987	81.72	
76.5	3,931,899	1,041	0.0003	0.9997	81.61	
77.5	3,930,359		0.0000	1.0000	81.59	
78.5	3,983,165		0.0000	1.0000	81.59	

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1850-2016			EXPERIENCE BAND 1951-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	3,943,047	4,999	0.0013	0.9987	81.59	
80.5	3,920,137	32,756	0.0084	0.9916	81.49	
81.5	3,921,639	9,259	0.0024	0.9976	80.81	
82.5	3,911,270	10,914	0.0028	0.9972	80.62	
83.5	3,895,507	33,933	0.0087	0.9913	80.39	
84.5	3,824,821	1,318	0.0003	0.9997	79.69	
85.5	4,000,272		0.0000	1.0000	79.66	
86.5	3,897,652	5,571	0.0014	0.9986	79.66	
87.5	3,950,914	1,697	0.0004	0.9996	79.55	
88.5	3,778,158	842	0.0002	0.9998	79.52	
89.5	3,797,916	11,187	0.0029	0.9971	79.50	
90.5	3,786,730	325,051	0.0858	0.9142	79.26	
91.5	3,459,465	2,656	0.0008	0.9992	72.46	
92.5	3,414,766	12,228	0.0036	0.9964	72.40	
93.5	3,297,924	51	0.0000	1.0000	72.14	
94.5	3,290,545	799	0.0002	0.9998	72.14	
95.5	3,210,635	118,973	0.0371	0.9629	72.13	
96.5	3,048,695	12,897	0.0042	0.9958	69.45	
97.5	2,590,459	1,961	0.0008	0.9992	69.16	
98.5	2,572,579	12,840	0.0050	0.9950	69.11	
99.5	2,559,739	1,489	0.0006	0.9994	68.76	
100.5	2,533,740	86	0.0000	1.0000	68.72	
101.5	2,359,258	4,207	0.0018	0.9982	68.72	
102.5	2,323,752	4,661	0.0020	0.9980	68.60	
103.5	2,379,535	1,706	0.0007	0.9993	68.46	
104.5	2,287,399	1,236	0.0005	0.9995	68.41	
105.5	2,643,198	1,141	0.0004	0.9996	68.37	
106.5	2,045,747	67	0.0000	1.0000	68.34	
107.5	2,044,998	35,729	0.0175	0.9825	68.34	
108.5	1,998,609	34,986	0.0175	0.9825	67.15	
109.5	1,818,784	34,623	0.0190	0.9810	65.97	
110.5	1,770,629	5,317	0.0030	0.9970	64.72	
111.5	1,763,608	19,410	0.0110	0.9890	64.52	
112.5	1,719,637	60,299	0.0351	0.9649	63.81	
113.5	1,657,854	42,105	0.0254	0.9746	61.57	
114.5	1,575,823	197	0.0001	0.9999	60.01	
115.5	1,274,904	9,610	0.0075	0.9925	60.00	
116.5	1,025,180	221	0.0002	0.9998	59.55	
117.5	1,020,658	20,165	0.0198	0.9802	59.54	
118.5	1,000,493	42	0.0000	1.0000	58.36	

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1850-2016			EXPERIENCE BAND 1951-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	768,870		0.0000	1.0000	58.36
120.5	764,053	2,997	0.0039	0.9961	58.36
121.5	753,820	18,715	0.0248	0.9752	58.13
122.5	735,105	3,140	0.0043	0.9957	56.69
123.5	719,281	1,862	0.0026	0.9974	56.45
124.5	543,113	6,148	0.0113	0.9887	56.30
125.5	508,891		0.0000	1.0000	55.66
126.5	507,971	13,853	0.0273	0.9727	55.66
127.5	125,154		0.0000	1.0000	54.14
128.5	125,154		0.0000	1.0000	54.14
129.5	68,178		0.0000	1.0000	54.14
130.5	68,178		0.0000	1.0000	54.14
131.5	68,178		0.0000	1.0000	54.14
132.5	68,178		0.0000	1.0000	54.14
133.5	68,178		0.0000	1.0000	54.14
134.5	68,178		0.0000	1.0000	54.14
135.5	68,178		0.0000	1.0000	54.14
136.5	68,178		0.0000	1.0000	54.14
137.5	68,178		0.0000	1.0000	54.14
138.5	68,178		0.0000	1.0000	54.14
139.5	68,178		0.0000	1.0000	54.14
140.5	68,178		0.0000	1.0000	54.14
141.5	68,178	2,867	0.0420	0.9580	54.14
142.5	65,311		0.0000	1.0000	51.87
143.5	65,311		0.0000	1.0000	51.87
144.5					51.87
145.5	4,000		0.0000		
146.5	4,000		0.0000		
147.5	4,000		0.0000		
148.5	4,000		0.0000		
149.5	4,000		0.0000		
150.5	4,000		0.0000		
151.5	4,000		0.0000		
152.5	4,000		0.0000		
153.5	4,000		0.0000		
154.5	4,000		0.0000		
155.5	4,000		0.0000		
156.5	4,000		0.0000		
157.5	4,000		0.0000		
158.5	4,000		0.0000		

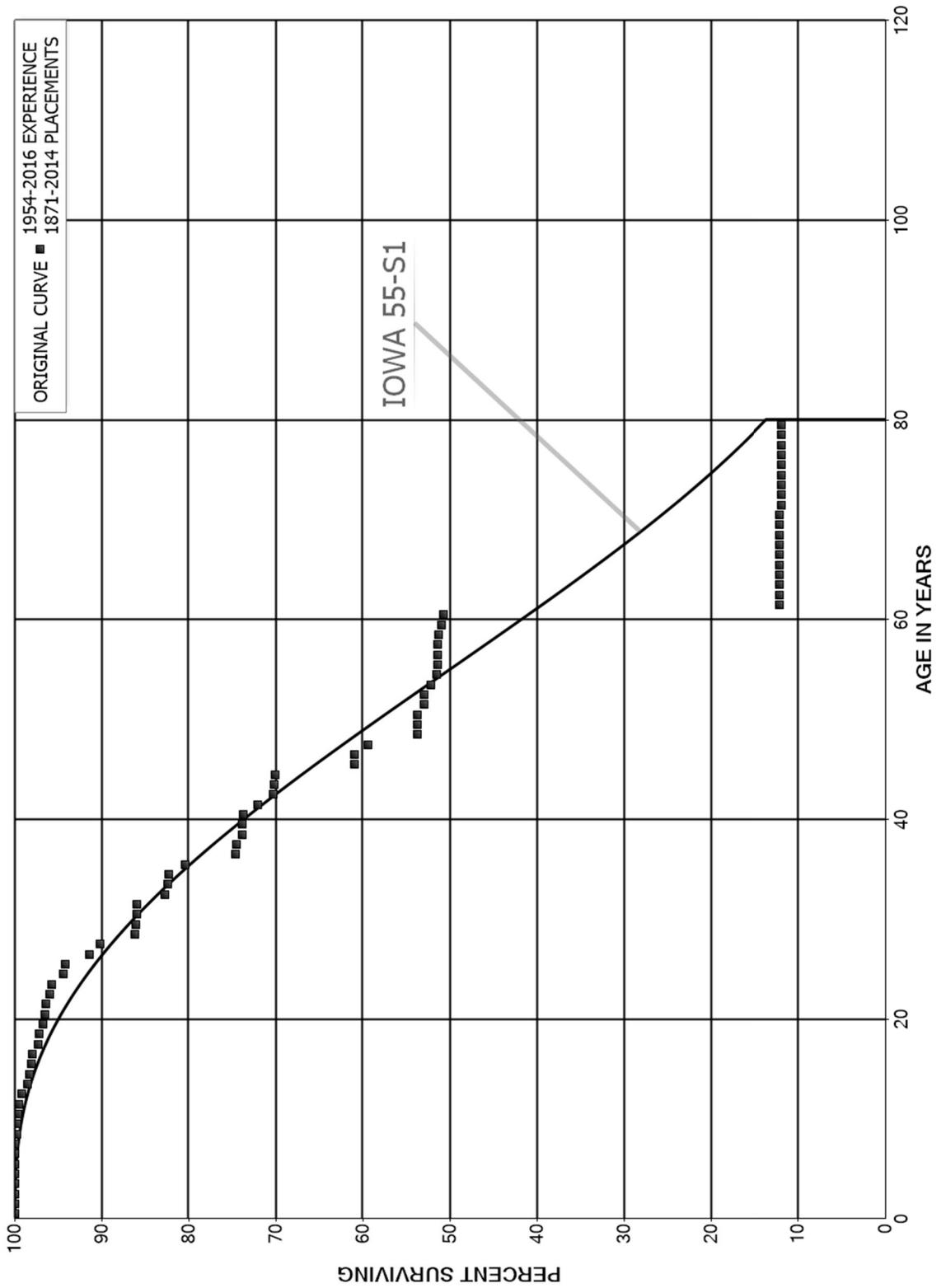
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 305 COLLECTING AND IMPOUNDING RESERVOIRS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1850-2016			EXPERIENCE BAND 1951-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
159.5	4,000		0.0000		
160.5	4,000		0.0000		
161.5	4,000		0.0000		
162.5	4,000		0.0000		
163.5	4,000		0.0000		
164.5	4,000		0.0000		
165.5	4,000		0.0000		
166.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1871-2014

EXPERIENCE BAND 1954-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	17,633,139		0.0000	1.0000	100.00
0.5	17,850,599		0.0000	1.0000	100.00
1.5	18,326,911		0.0000	1.0000	100.00
2.5	18,254,440	3,225	0.0002	0.9998	100.00
3.5	18,769,877		0.0000	1.0000	99.98
4.5	18,813,314		0.0000	1.0000	99.98
5.5	18,781,950	6,093	0.0003	0.9997	99.98
6.5	18,775,905	5,293	0.0003	0.9997	99.95
7.5	18,770,612	40,377	0.0022	0.9978	99.92
8.5	18,634,237	1,340	0.0001	0.9999	99.71
9.5	18,146,792	16,896	0.0009	0.9991	99.70
10.5	17,929,376	21,266	0.0012	0.9988	99.61
11.5	17,859,532	61,444	0.0034	0.9966	99.49
12.5	17,708,659	106,755	0.0060	0.9940	99.15
13.5	17,601,905	55,128	0.0031	0.9969	98.55
14.5	17,398,043	38,874	0.0022	0.9978	98.24
15.5	17,347,851	5,208	0.0003	0.9997	98.02
16.5	17,341,056	118,486	0.0068	0.9932	97.99
17.5	16,747,502	31,971	0.0019	0.9981	97.32
18.5	16,541,530	78,383	0.0047	0.9953	97.14
19.5	6,879,261	14,431	0.0021	0.9979	96.68
20.5	5,854,488	1,910	0.0003	0.9997	96.47
21.5	3,792,501	20,679	0.0055	0.9945	96.44
22.5	3,764,647	9,147	0.0024	0.9976	95.92
23.5	3,756,429	48,651	0.0130	0.9870	95.68
24.5	2,596,439	7,604	0.0029	0.9971	94.44
25.5	2,250,549	67,450	0.0300	0.9700	94.17
26.5	2,164,979	26,791	0.0124	0.9876	91.34
27.5	2,103,144	93,389	0.0444	0.9556	90.21
28.5	2,009,426	2,633	0.0013	0.9987	86.21
29.5	2,006,604	3,176	0.0016	0.9984	86.10
30.5	1,998,276	867	0.0004	0.9996	85.96
31.5	1,994,375	73,202	0.0367	0.9633	85.92
32.5	1,575,597	7,610	0.0048	0.9952	82.77
33.5	1,567,400	650	0.0004	0.9996	82.37
34.5	1,566,749	37,749	0.0241	0.9759	82.33
35.5	1,529,001	109,912	0.0719	0.9281	80.35
36.5	1,418,869	312	0.0002	0.9998	74.57
37.5	1,414,353	14,326	0.0101	0.9899	74.56
38.5	1,402,131	57	0.0000	1.0000	73.80

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1871-2014			EXPERIENCE BAND 1954-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	1,405,819	2,364	0.0017	0.9983	73.80	
40.5	1,398,510	31,586	0.0226	0.9774	73.68	
41.5	1,371,639	31,837	0.0232	0.9768	72.01	
42.5	1,339,107	2,606	0.0019	0.9981	70.34	
43.5	1,257,050	3,412	0.0027	0.9973	70.20	
44.5	1,258,431	162,633	0.1292	0.8708	70.01	
45.5	1,102,900		0.0000	1.0000	60.96	
46.5	1,100,925	28,526	0.0259	0.9741	60.96	
47.5	723,497	69,110	0.0955	0.9045	59.38	
48.5	655,442		0.0000	1.0000	53.71	
49.5	526,139	51	0.0001	0.9999	53.71	
50.5	488,954	6,835	0.0140	0.9860	53.71	
51.5	482,120	116	0.0002	0.9998	52.96	
52.5	472,796	6,575	0.0139	0.9861	52.94	
53.5	486,004	6,360	0.0131	0.9869	52.21	
54.5	473,485	1,570	0.0033	0.9967	51.52	
55.5	270,740		0.0000	1.0000	51.35	
56.5	270,740		0.0000	1.0000	51.35	
57.5	270,740	388	0.0014	0.9986	51.35	
58.5	270,352	1,968	0.0073	0.9927	51.28	
59.5	275,567	896	0.0033	0.9967	50.91	
60.5	274,671	209,607	0.7631	0.2369	50.74	
61.5	63,895		0.0000	1.0000	12.02	
62.5	63,368		0.0000	1.0000	12.02	
63.5	63,368		0.0000	1.0000	12.02	
64.5	63,368		0.0000	1.0000	12.02	
65.5	63,368		0.0000	1.0000	12.02	
66.5	63,368	48	0.0008	0.9992	12.02	
67.5	63,320		0.0000	1.0000	12.01	
68.5	59,150		0.0000	1.0000	12.01	
69.5	75,058		0.0000	1.0000	12.01	
70.5	75,058	1,037	0.0138	0.9862	12.01	
71.5	76,126		0.0000	1.0000	11.84	
72.5	76,126		0.0000	1.0000	11.84	
73.5	76,126	57	0.0007	0.9993	11.84	
74.5	76,251		0.0000	1.0000	11.84	
75.5	76,251		0.0000	1.0000	11.84	
76.5	76,251		0.0000	1.0000	11.84	
77.5	77,251		0.0000	1.0000	11.84	
78.5	77,028		0.0000	1.0000	11.84	

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1871-2014			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	75,378		0.0000	1.0000	11.84
80.5	75,378		0.0000	1.0000	11.84
81.5	75,378		0.0000	1.0000	11.84
82.5	82,587		0.0000	1.0000	11.84
83.5	82,587		0.0000	1.0000	11.84
84.5	83,273		0.0000	1.0000	11.84
85.5	83,273		0.0000	1.0000	11.84
86.5	83,273	182	0.0022	0.9978	11.84
87.5	83,091	2,572	0.0310	0.9690	11.81
88.5	80,519	19	0.0002	0.9998	11.44
89.5	80,500		0.0000	1.0000	11.44
90.5	80,500		0.0000	1.0000	11.44
91.5	80,500		0.0000	1.0000	11.44
92.5	80,316		0.0000	1.0000	11.44
93.5	81,380		0.0000	1.0000	11.44
94.5	81,380		0.0000	1.0000	11.44
95.5	81,380		0.0000	1.0000	11.44
96.5	81,018	686	0.0085	0.9915	11.44
97.5	80,332		0.0000	1.0000	11.34
98.5	80,332		0.0000	1.0000	11.34
99.5	80,332		0.0000	1.0000	11.34
100.5	79,944		0.0000	1.0000	11.34
101.5	77,841		0.0000	1.0000	11.34
102.5	77,749		0.0000	1.0000	11.34
103.5	77,749		0.0000	1.0000	11.34
104.5	77,749		0.0000	1.0000	11.34
105.5	77,749	1,609	0.0207	0.9793	11.34
106.5	76,140		0.0000	1.0000	11.11
107.5	75,515		0.0000	1.0000	11.11
108.5	70,410	8,310	0.1180	0.8820	11.11
109.5	62,050		0.0000	1.0000	9.80
110.5	61,934		0.0000	1.0000	9.80
111.5	61,008		0.0000	1.0000	9.80
112.5	61,008		0.0000	1.0000	9.80
113.5	59,243		0.0000	1.0000	9.80
114.5	59,243		0.0000	1.0000	9.80
115.5	58,988		0.0000	1.0000	9.80
116.5	39,079		0.0000	1.0000	9.80
117.5	34,746		0.0000	1.0000	9.80
118.5	34,746		0.0000	1.0000	9.80

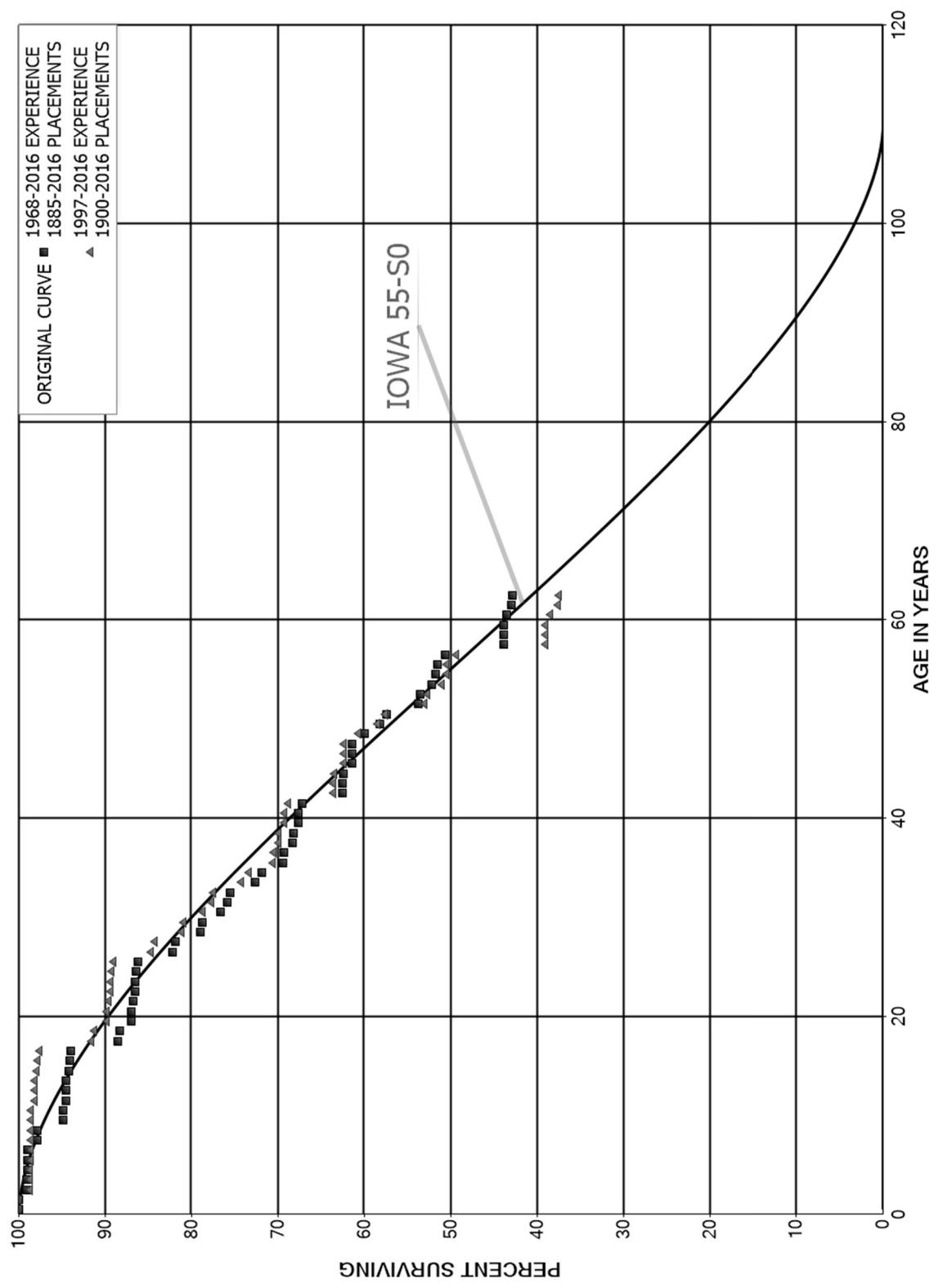
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1871-2014			EXPERIENCE BAND 1954-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
119.5	34,746	7,183	0.2067	0.7933	9.80	
120.5	26,499		0.0000	1.0000	7.77	
121.5	26,499		0.0000	1.0000	7.77	
122.5	26,499		0.0000	1.0000	7.77	
123.5	26,499		0.0000	1.0000	7.77	
124.5	26,499		0.0000	1.0000	7.77	
125.5	26,499		0.0000	1.0000	7.77	
126.5	26,499		0.0000	1.0000	7.77	
127.5	26,499		0.0000	1.0000	7.77	
128.5	26,499		0.0000	1.0000	7.77	
129.5	26,499		0.0000	1.0000	7.77	
130.5	26,499		0.0000	1.0000	7.77	
131.5	26,499		0.0000	1.0000	7.77	
132.5	10,591		0.0000	1.0000	7.77	
133.5	10,591		0.0000	1.0000	7.77	
134.5	8,485		0.0000	1.0000	7.77	
135.5	8,485		0.0000	1.0000	7.77	
136.5	8,485		0.0000	1.0000	7.77	
137.5	8,485		0.0000	1.0000	7.77	
138.5	8,485		0.0000	1.0000	7.77	
139.5	8,485		0.0000	1.0000	7.77	
140.5	7,485		0.0000	1.0000	7.77	
141.5	7,485		0.0000	1.0000	7.77	
142.5	7,485		0.0000	1.0000	7.77	
143.5	7,485		0.0000	1.0000	7.77	
144.5	7,485		0.0000	1.0000	7.77	
145.5					7.77	

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
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PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1885-2016

EXPERIENCE BAND 1968-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	8,428,270		0.0000	1.0000	100.00
0.5	9,402,091		0.0000	1.0000	100.00
1.5	8,339,485	82,336	0.0099	0.9901	100.00
2.5	8,152,036		0.0000	1.0000	99.01
3.5	7,896,909	2,784	0.0004	0.9996	99.01
4.5	8,146,491	2,534	0.0003	0.9997	98.98
5.5	7,822,450	2,046	0.0003	0.9997	98.95
6.5	7,802,382	81,413	0.0104	0.9896	98.92
7.5	7,743,783	4,600	0.0006	0.9994	97.89
8.5	7,451,676	231,294	0.0310	0.9690	97.83
9.5	6,820,451	371	0.0001	0.9999	94.79
10.5	6,832,880	23,176	0.0034	0.9966	94.79
11.5	6,854,039		0.0000	1.0000	94.47
12.5	5,937,475		0.0000	1.0000	94.47
13.5	5,953,994	19,303	0.0032	0.9968	94.47
14.5	5,726,438	5,268	0.0009	0.9991	94.16
15.5	5,539,405	9,791	0.0018	0.9982	94.07
16.5	3,331,946	190,516	0.0572	0.9428	93.91
17.5	3,202,310	10,088	0.0032	0.9968	88.54
18.5	3,213,490	46,631	0.0145	0.9855	88.26
19.5	3,399,477	2,088	0.0006	0.9994	86.98
20.5	3,434,764	8,989	0.0026	0.9974	86.93
21.5	3,567,172	6,553	0.0018	0.9982	86.70
22.5	3,670,991	333	0.0001	0.9999	86.54
23.5	3,689,355	3,589	0.0010	0.9990	86.53
24.5	3,508,463	11,960	0.0034	0.9966	86.45
25.5	3,466,291	158,256	0.0457	0.9543	86.15
26.5	2,361,585	11,794	0.0050	0.9950	82.22
27.5	2,309,802	81,537	0.0353	0.9647	81.81
28.5	1,969,474	4,975	0.0025	0.9975	78.92
29.5	1,793,556	46,883	0.0261	0.9739	78.72
30.5	1,678,781	18,526	0.0110	0.9890	76.66
31.5	1,627,855	5,574	0.0034	0.9966	75.82
32.5	1,602,568	61,723	0.0385	0.9615	75.56
33.5	1,380,234	16,104	0.0117	0.9883	72.65
34.5	1,080,466	36,976	0.0342	0.9658	71.80
35.5	1,065,477	1,478	0.0014	0.9986	69.34
36.5	939,704	13,766	0.0146	0.9854	69.25
37.5	906,058	264	0.0003	0.9997	68.23
38.5	736,624	6,853	0.0093	0.9907	68.21

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1885-2016			EXPERIENCE BAND 1968-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	726,279	76	0.0001	0.9999	67.58	
40.5	643,565	3,309	0.0051	0.9949	67.57	
41.5	672,540	47,383	0.0705	0.9295	67.22	
42.5	572,032		0.0000	1.0000	62.49	
43.5	485,300	530	0.0011	0.9989	62.49	
44.5	389,180	6,260	0.0161	0.9839	62.42	
45.5	354,446	146	0.0004	0.9996	61.41	
46.5	349,596		0.0000	1.0000	61.39	
47.5	289,036	6,733	0.0233	0.9767	61.39	
48.5	275,134	8,339	0.0303	0.9697	59.96	
49.5	262,578	3,500	0.0133	0.9867	58.14	
50.5	202,705	12,902	0.0637	0.9363	57.37	
51.5	176,712	851	0.0048	0.9952	53.72	
52.5	182,582	4,414	0.0242	0.9758	53.46	
53.5	171,742	1,442	0.0084	0.9916	52.17	
54.5	170,274	631	0.0037	0.9963	51.73	
55.5	167,905	2,839	0.0169	0.9831	51.54	
56.5	118,877	15,909	0.1338	0.8662	50.66	
57.5	103,530	55	0.0005	0.9995	43.88	
58.5	100,882		0.0000	1.0000	43.86	
59.5	101,007	790	0.0078	0.9922	43.86	
60.5	98,275	1,261	0.0128	0.9872	43.52	
61.5	84,846	148	0.0017	0.9983	42.96	
62.5	85,015		0.0000	1.0000	42.88	
63.5	73,675		0.0000	1.0000	42.88	
64.5	73,675		0.0000	1.0000	42.88	
65.5	73,067	4,738	0.0648	0.9352	42.88	
66.5	70,201	93	0.0013	0.9987	40.10	
67.5	71,618	1,294	0.0181	0.9819	40.05	
68.5	69,459		0.0000	1.0000	39.33	
69.5	69,459	892	0.0128	0.9872	39.33	
70.5	69,109	1,661	0.0240	0.9760	38.82	
71.5	63,127		0.0000	1.0000	37.89	
72.5	64,668	58	0.0009	0.9991	37.89	
73.5	64,610	2,012	0.0311	0.9689	37.85	
74.5	62,598	5,323	0.0850	0.9150	36.68	
75.5	56,444	277	0.0049	0.9951	33.56	
76.5	56,093	53	0.0010	0.9990	33.39	
77.5	53,223		0.0000	1.0000	33.36	
78.5	52,982		0.0000	1.0000	33.36	

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1885-2016			EXPERIENCE BAND 1968-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	49,927	14	0.0003	0.9997	33.36	
80.5	49,913	7	0.0001	0.9999	33.35	
81.5	48,656		0.0000	1.0000	33.35	
82.5	49,346	463	0.0094	0.9906	33.35	
83.5	50,067		0.0000	1.0000	33.03	
84.5	50,067		0.0000	1.0000	33.03	
85.5	50,067		0.0000	1.0000	33.03	
86.5	50,366	1,072	0.0213	0.9787	33.03	
87.5	49,294		0.0000	1.0000	32.33	
88.5	49,294	426	0.0086	0.9914	32.33	
89.5	47,404		0.0000	1.0000	32.05	
90.5	46,944		0.0000	1.0000	32.05	
91.5	50,811		0.0000	1.0000	32.05	
92.5	42,446		0.0000	1.0000	32.05	
93.5	32,578	193	0.0059	0.9941	32.05	
94.5	29,566		0.0000	1.0000	31.86	
95.5	29,566		0.0000	1.0000	31.86	
96.5	29,504		0.0000	1.0000	31.86	
97.5	31,205		0.0000	1.0000	31.86	
98.5	30,021		0.0000	1.0000	31.86	
99.5	30,021	66	0.0022	0.9978	31.86	
100.5	28,194		0.0000	1.0000	31.79	
101.5	25,679	435	0.0169	0.9831	31.79	
102.5	24,558		0.0000	1.0000	31.25	
103.5	23,062		0.0000	1.0000	31.25	
104.5	22,211		0.0000	1.0000	31.25	
105.5	22,211		0.0000	1.0000	31.25	
106.5	15,853		0.0000	1.0000	31.25	
107.5	15,853		0.0000	1.0000	31.25	
108.5	15,842		0.0000	1.0000	31.25	
109.5	15,782		0.0000	1.0000	31.25	
110.5	15,782		0.0000	1.0000	31.25	
111.5	4,225	0	0.0000	1.0000	31.25	
112.5	2,524	327	0.1294	0.8706	31.25	
113.5	2,197		0.0000	1.0000	27.21	
114.5	2,197		0.0000	1.0000	27.21	
115.5	1,510		0.0000	1.0000	27.21	
116.5					27.21	

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	6,042,862		0.0000	1.0000	100.00
0.5	7,036,029		0.0000	1.0000	100.00
1.5	6,003,563	82,336	0.0137	0.9863	100.00
2.5	5,816,439		0.0000	1.0000	98.63
3.5	5,561,327	2,784	0.0005	0.9995	98.63
4.5	5,834,946	2,534	0.0004	0.9996	98.58
5.5	5,560,555	46	0.0000	1.0000	98.54
6.5	6,436,204		0.0000	1.0000	98.54
7.5	6,478,110	4,600	0.0007	0.9993	98.54
8.5	6,399,914	415	0.0001	0.9999	98.47
9.5	6,206,264	371	0.0001	0.9999	98.46
10.5	6,300,918	22,873	0.0036	0.9964	98.45
11.5	6,354,301		0.0000	1.0000	98.10
12.5	5,515,261		0.0000	1.0000	98.10
13.5	5,646,037	17,381	0.0031	0.9969	98.10
14.5	5,385,497	5,268	0.0010	0.9990	97.79
15.5	5,280,617	9,274	0.0018	0.9982	97.70
16.5	3,085,660	190,516	0.0617	0.9383	97.53
17.5	2,956,024	9,658	0.0033	0.9967	91.51
18.5	2,958,571	46,631	0.0158	0.9842	91.21
19.5	3,150,563	2,088	0.0007	0.9993	89.77
20.5	3,212,616	8,989	0.0028	0.9972	89.71
21.5	3,318,146	5,321	0.0016	0.9984	89.46
22.5	3,408,711	333	0.0001	0.9999	89.31
23.5	3,454,719	3,248	0.0009	0.9991	89.31
24.5	3,304,320	11,960	0.0036	0.9964	89.22
25.5	3,289,158	156,543	0.0476	0.9524	88.90
26.5	2,186,003	11,794	0.0054	0.9946	84.67
27.5	2,184,258	81,537	0.0373	0.9627	84.21
28.5	1,843,777	4,975	0.0027	0.9973	81.07
29.5	1,669,376	46,883	0.0281	0.9719	80.85
30.5	1,557,460	18,526	0.0119	0.9881	78.58
31.5	1,509,707	5,574	0.0037	0.9963	77.64
32.5	1,498,100	61,723	0.0412	0.9588	77.36
33.5	1,297,139	16,104	0.0124	0.9876	74.17
34.5	1,001,233	36,976	0.0369	0.9631	73.25
35.5	995,136	1,478	0.0015	0.9985	70.54
36.5	869,363	6,895	0.0079	0.9921	70.44
37.5	843,287	264	0.0003	0.9997	69.88
38.5	676,447	6,853	0.0101	0.9899	69.86

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016			EXPERIENCE BAND 1997-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	667,953	76	0.0001	0.9999	69.15	
40.5	582,405	3,309	0.0057	0.9943	69.14	
41.5	622,718	47,383	0.0761	0.9239	68.75	
42.5	537,080		0.0000	1.0000	63.52	
43.5	455,749	530	0.0012	0.9988	63.52	
44.5	349,761	6,260	0.0179	0.9821	63.44	
45.5	314,011	146	0.0005	0.9995	62.31	
46.5	309,161		0.0000	1.0000	62.28	
47.5	248,539	6,733	0.0271	0.9729	62.28	
48.5	234,637	8,339	0.0355	0.9645	60.59	
49.5	222,081	3,500	0.0158	0.9842	58.44	
50.5	161,316	12,902	0.0800	0.9200	57.52	
51.5	137,883	851	0.0062	0.9938	52.92	
52.5	142,438	4,414	0.0310	0.9690	52.59	
53.5	130,653	1,442	0.0110	0.9890	50.96	
54.5	127,689		0.0000	1.0000	50.40	
55.5	124,949	2,839	0.0227	0.9773	50.40	
56.5	76,010	15,909	0.2093	0.7907	49.25	
57.5	58,172		0.0000	1.0000	38.95	
58.5	55,819		0.0000	1.0000	38.95	
59.5	58,062	790	0.0136	0.9864	38.95	
60.5	55,270	1,261	0.0228	0.9772	38.42	
61.5	43,091	148	0.0034	0.9966	37.54	
62.5	31,902		0.0000	1.0000	37.41	
63.5	20,562		0.0000	1.0000	37.41	
64.5	20,562		0.0000	1.0000	37.41	
65.5	19,954		0.0000	1.0000	37.41	
66.5	19,855		0.0000	1.0000	37.41	
67.5	19,855	1,294	0.0652	0.9348	37.41	
68.5	23,019		0.0000	1.0000	34.97	
69.5	25,853	892	0.0345	0.9655	34.97	
70.5	25,963	1,661	0.0640	0.9360	33.77	
71.5	19,981		0.0000	1.0000	31.61	
72.5	27,581	58	0.0021	0.9979	31.61	
73.5	37,391	2,012	0.0538	0.9462	31.54	
74.5	38,198	5,323	0.1394	0.8606	29.84	
75.5	32,044	277	0.0086	0.9914	25.68	
76.5	31,755	53	0.0017	0.9983	25.46	
77.5	28,885		0.0000	1.0000	25.42	
78.5	28,644		0.0000	1.0000	25.42	

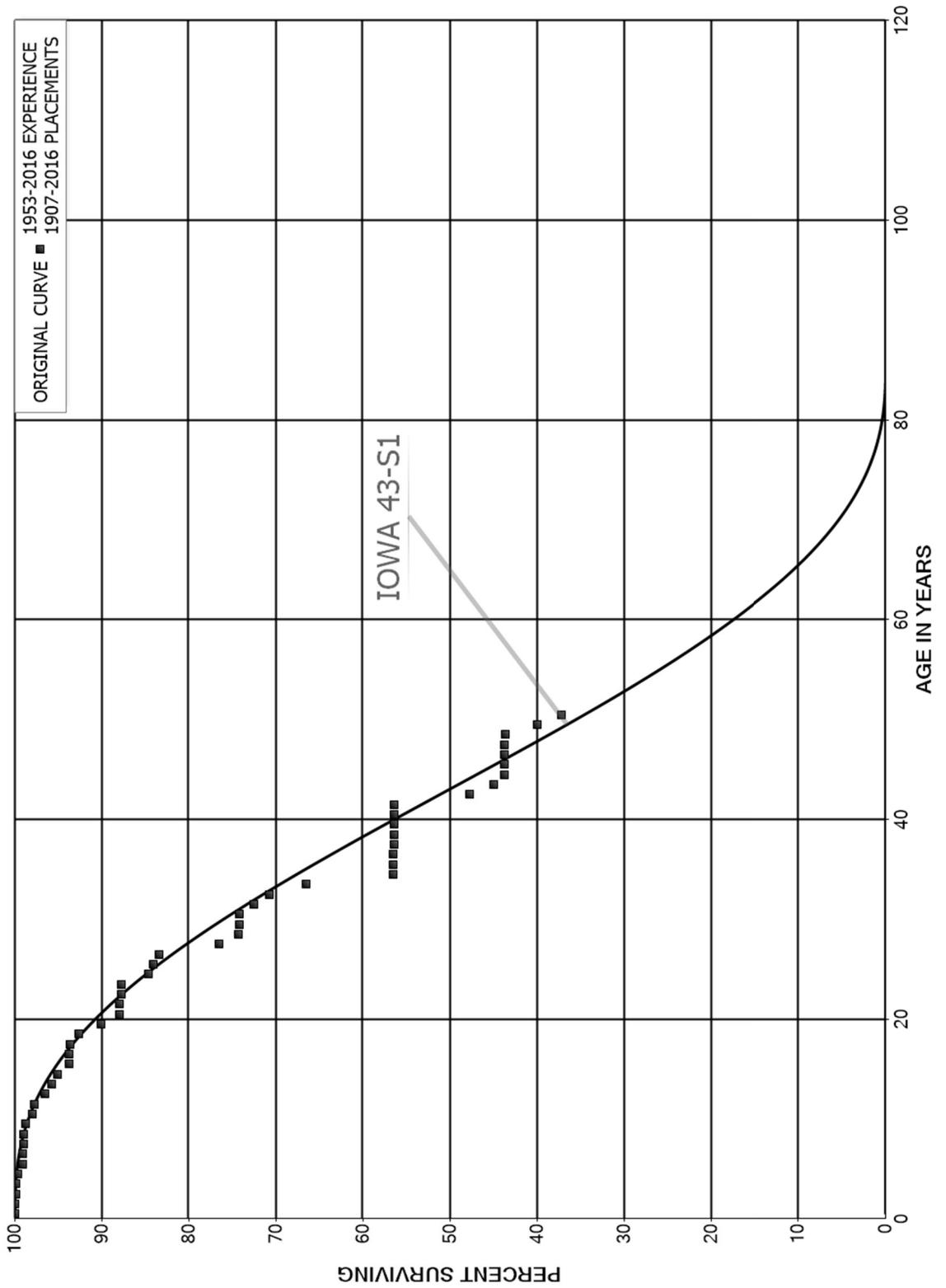
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 307 WELLS AND SPRINGS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016			EXPERIENCE BAND 1997-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	25,589	14	0.0005	0.9995	25.42	
80.5	27,336	7	0.0003	0.9997	25.40	
81.5	28,286		0.0000	1.0000	25.40	
82.5	29,032		0.0000	1.0000	25.40	
83.5	31,712		0.0000	1.0000	25.40	
84.5	32,998		0.0000	1.0000	25.40	
85.5	32,998		0.0000	1.0000	25.40	
86.5	35,788	1,072	0.0300	0.9700	25.40	
87.5	34,716		0.0000	1.0000	24.64	
88.5	34,727		0.0000	1.0000	24.64	
89.5	33,323		0.0000	1.0000	24.64	
90.5	32,863		0.0000	1.0000	24.64	
91.5	48,287		0.0000	1.0000	24.64	
92.5	39,922		0.0000	1.0000	24.64	
93.5	30,054	193	0.0064	0.9936	24.64	
94.5	27,042		0.0000	1.0000	24.48	
95.5	28,056		0.0000	1.0000	24.48	
96.5	29,504		0.0000	1.0000	24.48	
97.5	31,205		0.0000	1.0000	24.48	
98.5	30,021		0.0000	1.0000	24.48	
99.5	30,021	66	0.0022	0.9978	24.48	
100.5	28,194		0.0000	1.0000	24.43	
101.5	25,679	435	0.0169	0.9831	24.43	
102.5	24,558		0.0000	1.0000	24.01	
103.5	23,062		0.0000	1.0000	24.01	
104.5	22,211		0.0000	1.0000	24.01	
105.5	22,211		0.0000	1.0000	24.01	
106.5	15,853		0.0000	1.0000	24.01	
107.5	15,853		0.0000	1.0000	24.01	
108.5	15,842		0.0000	1.0000	24.01	
109.5	15,782		0.0000	1.0000	24.01	
110.5	15,782		0.0000	1.0000	24.01	
111.5	4,225	0	0.0000	1.0000	24.01	
112.5	2,524	327	0.1294	0.8706	24.01	
113.5	2,197		0.0000	1.0000	20.90	
114.5	2,197		0.0000	1.0000	20.90	
115.5	1,510		0.0000	1.0000	20.90	
116.5					20.90	

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 310 POWER GENERATION EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1907-2016

EXPERIENCE BAND 1953-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	16,794,960	2,600	0.0002	0.9998	100.00
0.5	16,813,287	10,729	0.0006	0.9994	99.98
1.5	16,592,481	10,900	0.0007	0.9993	99.92
2.5	16,384,139	5,355	0.0003	0.9997	99.86
3.5	11,205,657	23,343	0.0021	0.9979	99.82
4.5	4,943,456	24,826	0.0050	0.9950	99.61
5.5	4,556,822	1,854	0.0004	0.9996	99.11
6.5	4,331,722	5,673	0.0013	0.9987	99.07
7.5	4,210,253	89	0.0000	1.0000	98.94
8.5	3,826,379	7,001	0.0018	0.9982	98.94
9.5	3,633,256	31,355	0.0086	0.9914	98.76
10.5	3,230,365	4,439	0.0014	0.9986	97.91
11.5	3,046,189	39,129	0.0128	0.9872	97.77
12.5	2,923,352	22,852	0.0078	0.9922	96.52
13.5	2,658,739	20,851	0.0078	0.9922	95.76
14.5	2,398,109	33,403	0.0139	0.9861	95.01
15.5	2,370,223		0.0000	1.0000	93.69
16.5	2,278,632	1,674	0.0007	0.9993	93.69
17.5	2,031,461	22,841	0.0112	0.9888	93.62
18.5	1,987,074	53,677	0.0270	0.9730	92.57
19.5	777,379	17,854	0.0230	0.9770	90.07
20.5	757,139		0.0000	1.0000	88.00
21.5	774,973	2,338	0.0030	0.9970	88.00
22.5	665,286		0.0000	1.0000	87.73
23.5	642,042	22,698	0.0354	0.9646	87.73
24.5	570,592	3,752	0.0066	0.9934	84.63
25.5	542,702	4,370	0.0081	0.9919	84.08
26.5	538,332	44,304	0.0823	0.9177	83.40
27.5	494,027	14,729	0.0298	0.9702	76.53
28.5	485,773	208	0.0004	0.9996	74.25
29.5	472,837		0.0000	1.0000	74.22
30.5	472,837	10,813	0.0229	0.9771	74.22
31.5	462,024	11,600	0.0251	0.9749	72.52
32.5	456,177	27,374	0.0600	0.9400	70.70
33.5	426,294	63,863	0.1498	0.8502	66.46
34.5	351,293	165	0.0005	0.9995	56.50
35.5	350,543	13	0.0000	1.0000	56.48
36.5	325,453	283	0.0009	0.9991	56.48
37.5	325,170		0.0000	1.0000	56.43
38.5	337,745		0.0000	1.0000	56.43

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2016			EXPERIENCE BAND 1953-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	305,544		0.0000	1.0000	56.43
40.5	305,544		0.0000	1.0000	56.43
41.5	267,231	41,460	0.1551	0.8449	56.43
42.5	173,456	9,761	0.0563	0.9437	47.67
43.5	163,559	4,487	0.0274	0.9726	44.99
44.5	151,199		0.0000	1.0000	43.75
45.5	157,449	97	0.0006	0.9994	43.75
46.5	157,146		0.0000	1.0000	43.73
47.5	111,943	336	0.0030	0.9970	43.73
48.5	88,546	7,456	0.0842	0.9158	43.60
49.5	73,771	5,093	0.0690	0.9310	39.93
50.5	68,536		0.0000	1.0000	37.17
51.5	62,517		0.0000	1.0000	37.17
52.5	62,517	257	0.0041	0.9959	37.17
53.5	61,320	7,592	0.1238	0.8762	37.02
54.5	53,728		0.0000	1.0000	32.43
55.5	53,728		0.0000	1.0000	32.43
56.5	53,728	3,792	0.0706	0.9294	32.43
57.5	49,830	1,009	0.0203	0.9797	30.14
58.5	43,484		0.0000	1.0000	29.53
59.5	42,306	18,823	0.4449	0.5551	29.53
60.5	23,483	1,266	0.0539	0.9461	16.39
61.5	22,218		0.0000	1.0000	15.51
62.5	13,879		0.0000	1.0000	15.51
63.5	13,879		0.0000	1.0000	15.51
64.5	13,879		0.0000	1.0000	15.51
65.5	13,879		0.0000	1.0000	15.51
66.5	13,879		0.0000	1.0000	15.51
67.5	13,879		0.0000	1.0000	15.51
68.5	13,879		0.0000	1.0000	15.51
69.5	13,879		0.0000	1.0000	15.51
70.5	13,879		0.0000	1.0000	15.51
71.5	13,879		0.0000	1.0000	15.51
72.5	13,878		0.0000	1.0000	15.51
73.5	13,878		0.0000	1.0000	15.51
74.5	13,878		0.0000	1.0000	15.51
75.5	13,878		0.0000	1.0000	15.51
76.5	10,939		0.0000	1.0000	15.51
77.5	10,939		0.0000	1.0000	15.51
78.5	10,939		0.0000	1.0000	15.51

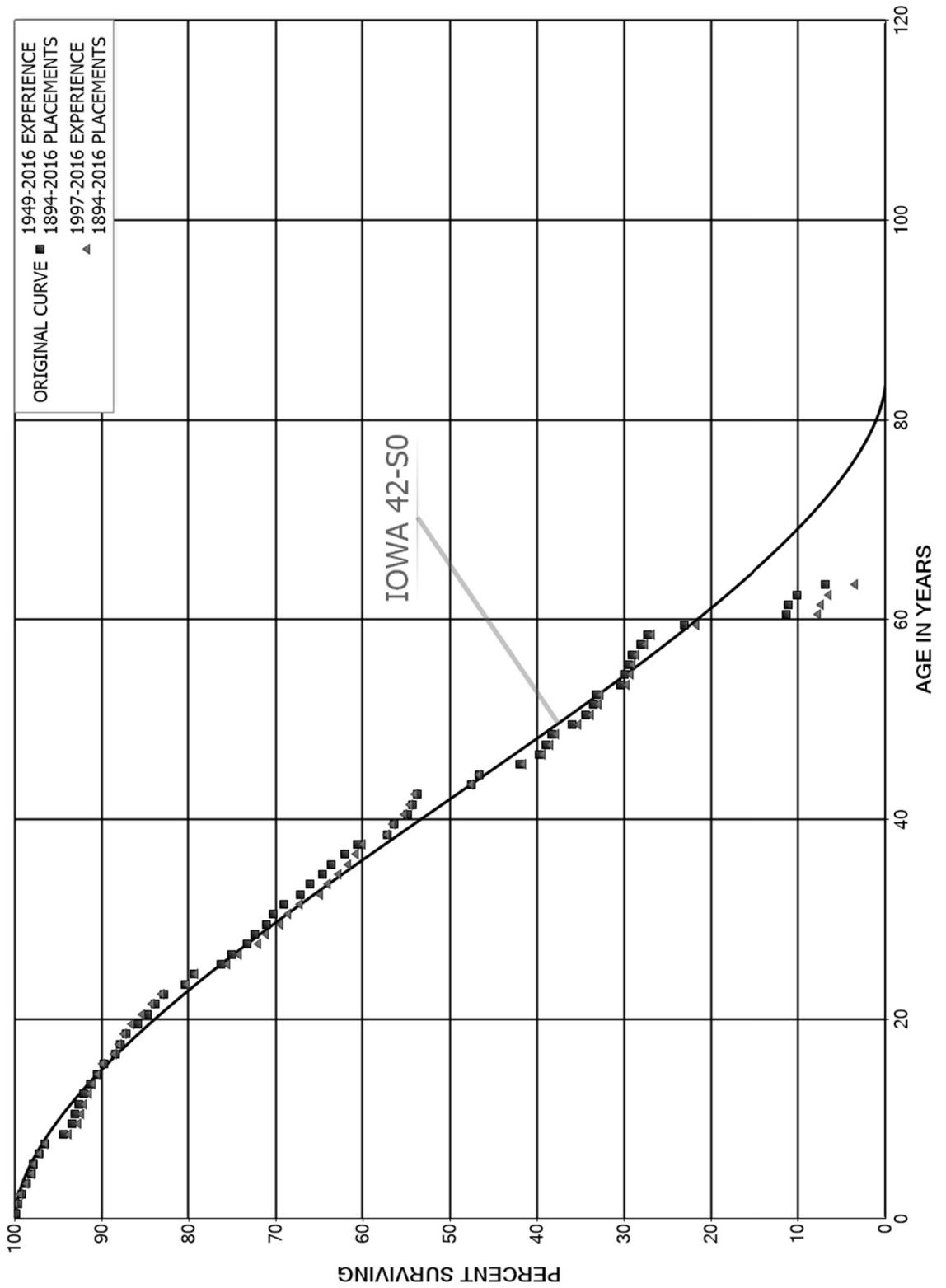
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1907-2016			EXPERIENCE BAND 1953-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	6,419		0.0000	1.0000	15.51
80.5	3,610		0.0000	1.0000	15.51
81.5	3,610		0.0000	1.0000	15.51
82.5	3,610		0.0000	1.0000	15.51
83.5	3,610		0.0000	1.0000	15.51
84.5	3,610		0.0000	1.0000	15.51
85.5					15.51

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNTS 311.2 THROUGH 311.54 PUMPING EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 311.2 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1894-2016

EXPERIENCE BAND 1949-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	92,654,530	120,610	0.0013	0.9987	100.00
0.5	91,103,425	199,869	0.0022	0.9978	99.87
1.5	88,972,873	408,648	0.0046	0.9954	99.65
2.5	84,169,470	506,797	0.0060	0.9940	99.19
3.5	80,179,683	388,369	0.0048	0.9952	98.60
4.5	77,166,672	264,347	0.0034	0.9966	98.12
5.5	75,667,300	453,194	0.0060	0.9940	97.78
6.5	74,391,692	510,064	0.0069	0.9931	97.20
7.5	71,527,619	1,565,970	0.0219	0.9781	96.53
8.5	68,681,629	710,444	0.0103	0.9897	94.42
9.5	63,874,723	238,911	0.0037	0.9963	93.44
10.5	61,950,562	289,476	0.0047	0.9953	93.09
11.5	61,026,934	403,112	0.0066	0.9934	92.66
12.5	59,391,212	495,779	0.0083	0.9917	92.04
13.5	55,558,724	472,835	0.0085	0.9915	91.28
14.5	53,345,624	439,434	0.0082	0.9918	90.50
15.5	50,141,801	743,916	0.0148	0.9852	89.75
16.5	45,898,092	320,051	0.0070	0.9930	88.42
17.5	41,601,737	291,059	0.0070	0.9930	87.80
18.5	40,011,542	608,595	0.0152	0.9848	87.19
19.5	35,929,583	453,785	0.0126	0.9874	85.86
20.5	34,130,591	395,421	0.0116	0.9884	84.78
21.5	30,393,974	361,940	0.0119	0.9881	83.80
22.5	29,279,498	843,139	0.0288	0.9712	82.80
23.5	26,607,119	328,502	0.0123	0.9877	80.42
24.5	24,601,455	986,793	0.0401	0.9599	79.42
25.5	22,177,446	350,890	0.0158	0.9842	76.24
26.5	17,019,165	393,319	0.0231	0.9769	75.03
27.5	15,888,376	196,039	0.0123	0.9877	73.30
28.5	14,458,037	269,588	0.0186	0.9814	72.39
29.5	12,440,014	136,469	0.0110	0.9890	71.04
30.5	11,778,516	194,852	0.0165	0.9835	70.26
31.5	10,288,232	287,931	0.0280	0.9720	69.10
32.5	9,754,256	160,920	0.0165	0.9835	67.17
33.5	9,271,450	207,932	0.0224	0.9776	66.06
34.5	8,103,089	125,133	0.0154	0.9846	64.58
35.5	7,534,091	183,324	0.0243	0.9757	63.58
36.5	7,211,492	161,284	0.0224	0.9776	62.03
37.5	6,816,739	390,248	0.0572	0.9428	60.65
38.5	6,407,491	89,200	0.0139	0.9861	57.17

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 311.2 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2016			EXPERIENCE BAND 1949-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	6,296,986	166,907	0.0265	0.9735	56.38
40.5	6,057,893	65,182	0.0108	0.9892	54.88
41.5	5,861,429	63,903	0.0109	0.9891	54.29
42.5	5,748,972	660,119	0.1148	0.8852	53.70
43.5	5,232,487	100,533	0.0192	0.9808	47.53
44.5	4,663,896	466,633	0.1001	0.8999	46.62
45.5	4,147,390	217,164	0.0524	0.9476	41.96
46.5	3,933,588	85,443	0.0217	0.9783	39.76
47.5	3,122,372	46,522	0.0149	0.9851	38.90
48.5	2,938,917	185,576	0.0631	0.9369	38.32
49.5	2,691,075	109,839	0.0408	0.9592	35.90
50.5	2,358,653	61,058	0.0259	0.9741	34.43
51.5	2,109,976	23,867	0.0113	0.9887	33.54
52.5	2,139,034	180,258	0.0843	0.9157	33.16
53.5	1,859,961	24,537	0.0132	0.9868	30.37
54.5	1,875,413	27,132	0.0145	0.9855	29.97
55.5	1,655,472	26,446	0.0160	0.9840	29.53
56.5	1,548,887	51,785	0.0334	0.9666	29.06
57.5	1,251,811	33,453	0.0267	0.9733	28.09
58.5	1,214,581	192,193	0.1582	0.8418	27.34
59.5	995,523	505,372	0.5076	0.4924	23.01
60.5	681,864	18,425	0.0270	0.9730	11.33
61.5	637,746	56,474	0.0886	0.9114	11.02
62.5	576,848	183,393	0.3179	0.6821	10.05
63.5	395,701	1,505	0.0038	0.9962	6.85
64.5	332,862	11,048	0.0332	0.9668	6.83
65.5	263,710	28,845	0.1094	0.8906	6.60
66.5	233,938	10,009	0.0428	0.9572	5.88
67.5	222,549	4,194	0.0188	0.9812	5.63
68.5	216,579	1,540	0.0071	0.9929	5.52
69.5	209,536	2,232	0.0107	0.9893	5.48
70.5	206,158	8,839	0.0429	0.9571	5.42
71.5	191,889	11,878	0.0619	0.9381	5.19
72.5	200,238	398	0.0020	0.9980	4.87
73.5	199,840	1,208	0.0060	0.9940	4.86
74.5	201,376	2,652	0.0132	0.9868	4.83
75.5	198,317	195	0.0010	0.9990	4.77
76.5	198,191	7,004	0.0353	0.9647	4.76
77.5	187,824	673	0.0036	0.9964	4.59
78.5	187,187	465	0.0025	0.9975	4.58

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 311.2 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2016			EXPERIENCE BAND 1949-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	185,561	1,823	0.0098	0.9902	4.57	
80.5	174,624	7,686	0.0440	0.9560	4.52	
81.5	162,668	5,721	0.0352	0.9648	4.32	
82.5	126,654	23,987	0.1894	0.8106	4.17	
83.5	269,943	541	0.0020	0.9980	3.38	
84.5	268,845	1,222	0.0045	0.9955	3.37	
85.5	263,311	206,666	0.7849	0.2151	3.36	
86.5	55,935	473	0.0085	0.9915	0.72	
87.5	38,437	824	0.0214	0.9786	0.72	
88.5	37,286	2,734	0.0733	0.9267	0.70	
89.5	30,052	6,126	0.2038	0.7962	0.65	
90.5	23,927	1,630	0.0681	0.9319	0.52	
91.5	21,771		0.0000	1.0000	0.48	
92.5	31,180		0.0000	1.0000	0.48	
93.5	30,729		0.0000	1.0000	0.48	
94.5	30,160	1,217	0.0403	0.9597	0.48	
95.5	28,872		0.0000	1.0000	0.46	
96.5	28,641	514	0.0180	0.9820	0.46	
97.5	19,399	1,597	0.0823	0.9177	0.45	
98.5	17,337		0.0000	1.0000	0.42	
99.5	17,204	30	0.0017	0.9983	0.42	
100.5	13,405	360	0.0269	0.9731	0.42	
101.5	11,355	67	0.0059	0.9941	0.40	
102.5	11,987		0.0000	1.0000	0.40	
103.5	10,299	565	0.0549	0.9451	0.40	
104.5	8,836	461	0.0522	0.9478	0.38	
105.5	10,144		0.0000	1.0000	0.36	
106.5	16,736	315	0.0188	0.9812	0.36	
107.5	15,919	5,628	0.3535	0.6465	0.35	
108.5	8,451	6,730	0.7964	0.2036	0.23	
109.5	1,721		0.0000	1.0000	0.05	
110.5	510		0.0000	1.0000	0.05	
111.5	3,375		0.0000	1.0000	0.05	
112.5	3,375		0.0000	1.0000	0.05	
113.5	3,375	3,375	1.0000		0.05	
114.5						
115.5						
116.5						
117.5	646		0.0000			
118.5	646		0.0000			

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNTS 311.2 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2016			EXPERIENCE BAND 1949-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5 120.5	646	646	1.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 311.2 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1894-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	57,105,322		0.0000	1.0000	100.00
0.5	56,093,873	107,202	0.0019	0.9981	100.00
1.5	57,665,873	293,787	0.0051	0.9949	99.81
2.5	53,591,399	364,130	0.0068	0.9932	99.30
3.5	51,943,961	326,262	0.0063	0.9937	98.63
4.5	51,152,616	163,071	0.0032	0.9968	98.01
5.5	50,265,374	330,016	0.0066	0.9934	97.69
6.5	53,439,269	351,088	0.0066	0.9934	97.05
7.5	52,447,853	1,475,995	0.0281	0.9719	96.41
8.5	50,365,245	573,999	0.0114	0.9886	93.70
9.5	46,541,349	164,032	0.0035	0.9965	92.63
10.5	46,506,453	195,395	0.0042	0.9958	92.31
11.5	48,102,350	277,961	0.0058	0.9942	91.92
12.5	46,941,358	234,540	0.0050	0.9950	91.39
13.5	44,080,461	254,191	0.0058	0.9942	90.93
14.5	43,120,059	267,964	0.0062	0.9938	90.41
15.5	41,028,109	589,006	0.0144	0.9856	89.85
16.5	37,176,757	231,489	0.0062	0.9938	88.56
17.5	33,169,474	211,341	0.0064	0.9936	88.00
18.5	31,730,765	322,769	0.0102	0.9898	87.44
19.5	27,929,199	404,266	0.0145	0.9855	86.55
20.5	26,167,717	359,124	0.0137	0.9863	85.30
21.5	22,800,123	279,569	0.0123	0.9877	84.13
22.5	21,795,246	753,111	0.0346	0.9654	83.10
23.5	19,268,066	263,181	0.0137	0.9863	80.23
24.5	17,839,222	807,840	0.0453	0.9547	79.13
25.5	16,246,798	296,252	0.0182	0.9818	75.55
26.5	11,172,908	342,683	0.0307	0.9693	74.17
27.5	11,326,379	134,852	0.0119	0.9881	71.90
28.5	10,253,027	236,437	0.0231	0.9769	71.04
29.5	8,430,701	115,116	0.0137	0.9863	69.40
30.5	7,848,668	152,015	0.0194	0.9806	68.45
31.5	6,809,908	228,341	0.0335	0.9665	67.13
32.5	6,468,683	95,112	0.0147	0.9853	64.88
33.5	6,132,397	109,832	0.0179	0.9821	63.92
34.5	5,063,114	95,759	0.0189	0.9811	62.78
35.5	5,224,972	77,550	0.0148	0.9852	61.59
36.5	5,071,240	64,945	0.0128	0.9872	60.68
37.5	4,819,518	219,225	0.0455	0.9545	59.90
38.5	4,687,711	55,877	0.0119	0.9881	57.18

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 311.2 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	4,628,439	109,056	0.0236	0.9764	56.49
40.5	4,482,457	51,105	0.0114	0.9886	55.16
41.5	4,487,229	52,332	0.0117	0.9883	54.53
42.5	5,129,014	606,445	0.1182	0.8818	53.90
43.5	4,690,491	92,831	0.0198	0.9802	47.52
44.5	4,218,852	457,323	0.1084	0.8916	46.58
45.5	3,741,499	203,639	0.0544	0.9456	41.53
46.5	3,553,078	80,703	0.0227	0.9773	39.27
47.5	2,750,061	44,875	0.0163	0.9837	38.38
48.5	2,564,902	173,981	0.0678	0.9322	37.76
49.5	2,362,226	96,841	0.0410	0.9590	35.19
50.5	2,049,100	54,007	0.0264	0.9736	33.75
51.5	1,811,047	10,749	0.0059	0.9941	32.86
52.5	1,856,010	174,268	0.0939	0.9061	32.67
53.5	1,587,437	23,930	0.0151	0.9849	29.60
54.5	1,618,262	14,261	0.0088	0.9912	29.15
55.5	1,412,553	18,969	0.0134	0.9866	28.90
56.5	1,317,479	48,267	0.0366	0.9634	28.51
57.5	1,024,045	28,114	0.0275	0.9725	27.46
58.5	995,039	190,832	0.1918	0.8082	26.71
59.5	778,376	504,349	0.6479	0.3521	21.59
60.5	466,802	18,263	0.0391	0.9609	7.60
61.5	428,392	53,200	0.1242	0.8758	7.30
62.5	381,841	178,919	0.4686	0.5314	6.40
63.5	211,437	1,503	0.0071	0.9929	3.40
64.5	148,677	11,048	0.0743	0.9257	3.37
65.5	116,865	25,451	0.2178	0.7822	3.12
66.5	96,101	8,940	0.0930	0.9070	2.44
67.5	117,271	595	0.0051	0.9949	2.22
68.5	147,599	1,119	0.0076	0.9924	2.21
69.5	142,060	1,331	0.0094	0.9906	2.19
70.5	141,032	8,839	0.0627	0.9373	2.17
71.5	129,507	11,878	0.0917	0.9083	2.03
72.5	153,018	48	0.0003	0.9997	1.85
73.5	154,871	756	0.0049	0.9951	1.85
74.5	161,358	2,652	0.0164	0.9836	1.84
75.5	158,494	195	0.0012	0.9988	1.81
76.5	158,893	7,004	0.0441	0.9559	1.80
77.5	149,061	673	0.0045	0.9955	1.72
78.5	149,248	465	0.0031	0.9969	1.72

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 311.2 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2016			EXPERIENCE BAND 1997-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	148,191	1,823	0.0123	0.9877	1.71	
80.5	137,326	7,686	0.0560	0.9440	1.69	
81.5	125,601	17	0.0001	0.9999	1.60	
82.5	96,580	14,715	0.1524	0.8476	1.60	
83.5	249,171	541	0.0022	0.9978	1.35	
84.5	248,073	1,068	0.0043	0.9957	1.35	
85.5	246,462	206,666	0.8385	0.1615	1.34	
86.5	41,479	416	0.0100	0.9900	0.22	
87.5	25,969		0.0000	1.0000	0.21	
88.5	27,330	2,312	0.0846	0.9154	0.21	
89.5	21,757	6,126	0.2815	0.7185	0.20	
90.5	19,491	1,630	0.0837	0.9163	0.14	
91.5	17,335		0.0000	1.0000	0.13	
92.5	26,744		0.0000	1.0000	0.13	
93.5	28,134		0.0000	1.0000	0.13	
94.5	27,565	1,217	0.0441	0.9559	0.13	
95.5	27,488		0.0000	1.0000	0.12	
96.5	28,641	514	0.0180	0.9820	0.12	
97.5	19,399	1,597	0.0823	0.9177	0.12	
98.5	17,337		0.0000	1.0000	0.11	
99.5	17,204	30	0.0017	0.9983	0.11	
100.5	13,405	360	0.0269	0.9731	0.11	
101.5	11,355	67	0.0059	0.9941	0.11	
102.5	11,987		0.0000	1.0000	0.11	
103.5	10,299	565	0.0549	0.9451	0.11	
104.5	8,836	461	0.0522	0.9478	0.10	
105.5	10,144		0.0000	1.0000	0.10	
106.5	16,736	315	0.0188	0.9812	0.10	
107.5	15,919	5,628	0.3535	0.6465	0.09	
108.5	8,451	6,730	0.7964	0.2036	0.06	
109.5	1,721		0.0000	1.0000	0.01	
110.5	510		0.0000	1.0000	0.01	
111.5	3,375		0.0000	1.0000	0.01	
112.5	3,375		0.0000	1.0000	0.01	
113.5	3,375	3,375	1.0000		0.01	
114.5						
115.5						
116.5						
117.5	646		0.0000			
118.5	646		0.0000			

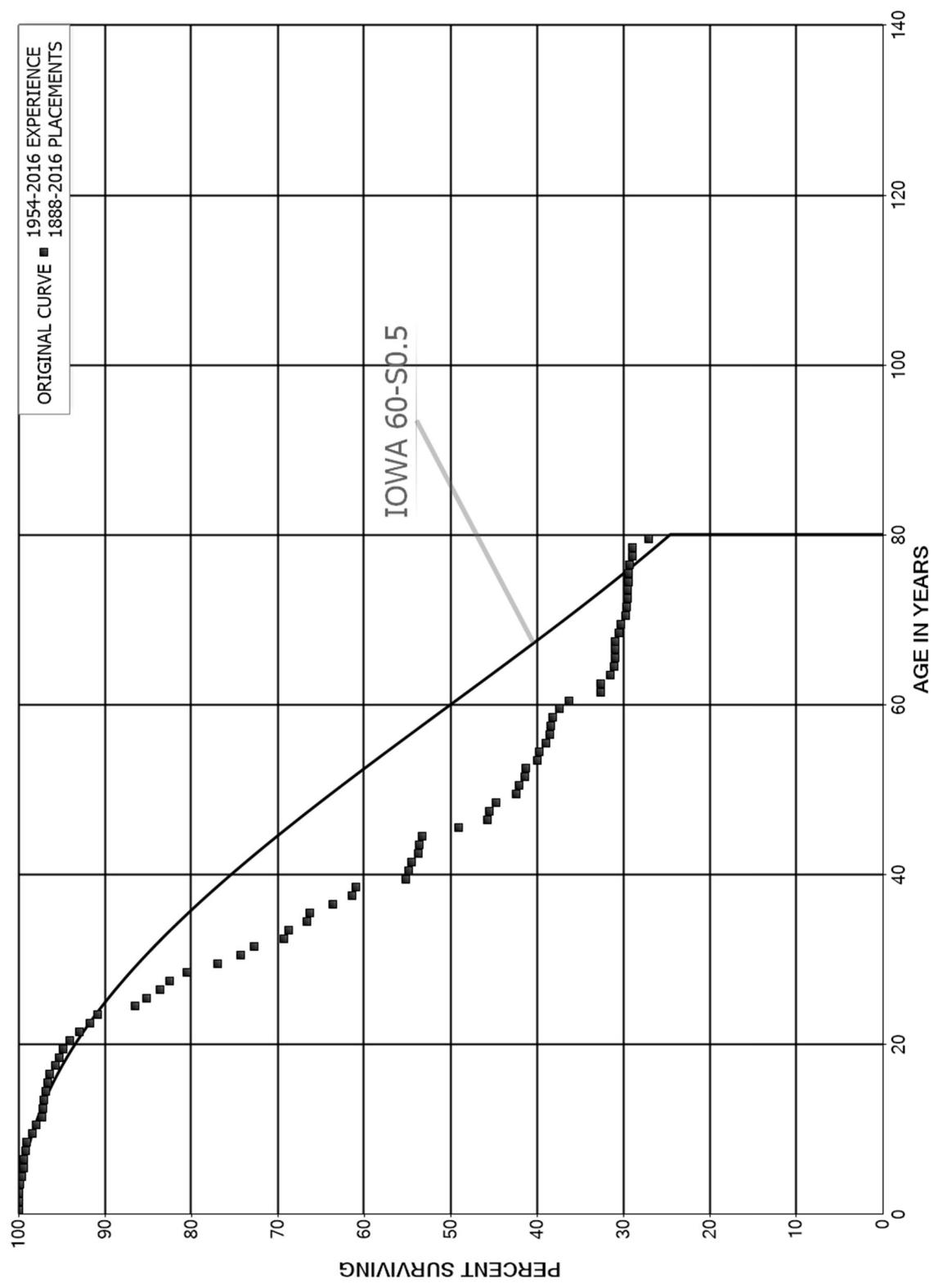
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNTS 311.2 THROUGH 311.54 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1894-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5 120.5	646	646	1.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1888-2016

EXPERIENCE BAND 1954-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	187,650,964		0.0000	1.0000	100.00
0.5	189,243,953	109,707	0.0006	0.9994	100.00
1.5	194,759,306	35,974	0.0002	0.9998	99.94
2.5	192,901,117	162,247	0.0008	0.9992	99.92
3.5	187,676,425	486,509	0.0026	0.9974	99.84
4.5	166,159,714	275,524	0.0017	0.9983	99.58
5.5	157,222,566	115,841	0.0007	0.9993	99.42
6.5	158,131,805	240,667	0.0015	0.9985	99.34
7.5	156,944,233	204,961	0.0013	0.9987	99.19
8.5	155,713,773	1,119,755	0.0072	0.9928	99.06
9.5	154,184,894	583,969	0.0038	0.9962	98.35
10.5	147,206,476	1,036,683	0.0070	0.9930	97.98
11.5	145,843,717	137,081	0.0009	0.9991	97.29
12.5	145,667,324	149,939	0.0010	0.9990	97.20
13.5	145,518,715	425,941	0.0029	0.9971	97.10
14.5	145,096,378	225,052	0.0016	0.9984	96.81
15.5	143,559,926	341,849	0.0024	0.9976	96.66
16.5	143,521,246	1,048,092	0.0073	0.9927	96.43
17.5	132,034,230	646,066	0.0049	0.9951	95.73
18.5	130,463,543	607,710	0.0047	0.9953	95.26
19.5	119,315,681	886,095	0.0074	0.9926	94.81
20.5	117,170,528	1,404,795	0.0120	0.9880	94.11
21.5	109,394,111	1,487,805	0.0136	0.9864	92.98
22.5	105,036,468	961,611	0.0092	0.9908	91.72
23.5	79,876,785	3,866,216	0.0484	0.9516	90.88
24.5	65,260,647	1,011,124	0.0155	0.9845	86.48
25.5	57,580,085	1,056,345	0.0183	0.9817	85.14
26.5	34,795,623	447,126	0.0129	0.9871	83.58
27.5	29,415,538	705,476	0.0240	0.9760	82.50
28.5	22,477,915	992,537	0.0442	0.9558	80.52
29.5	21,456,635	759,268	0.0354	0.9646	76.97
30.5	20,436,903	416,019	0.0204	0.9796	74.25
31.5	17,045,874	820,305	0.0481	0.9519	72.73
32.5	16,145,678	117,074	0.0073	0.9927	69.23
33.5	15,768,767	496,875	0.0315	0.9685	68.73
34.5	12,084,406	45,566	0.0038	0.9962	66.57
35.5	12,049,047	486,629	0.0404	0.9596	66.31
36.5	11,525,257	408,240	0.0354	0.9646	63.64
37.5	11,106,209	69,245	0.0062	0.9938	61.38
38.5	11,055,859	1,058,522	0.0957	0.9043	61.00

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2016			EXPERIENCE BAND 1954-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	9,983,930	67,439	0.0068	0.9932	55.16
40.5	9,876,532	53,052	0.0054	0.9946	54.79
41.5	9,608,366	138,703	0.0144	0.9856	54.49
42.5	9,469,431	19,631	0.0021	0.9979	53.71
43.5	9,432,058	57,457	0.0061	0.9939	53.59
44.5	8,383,082	653,513	0.0780	0.9220	53.27
45.5	7,731,432	531,019	0.0687	0.9313	49.12
46.5	7,194,760	41,820	0.0058	0.9942	45.74
47.5	5,167,893	84,106	0.0163	0.9837	45.48
48.5	4,966,451	255,860	0.0515	0.9485	44.74
49.5	4,681,244	34,936	0.0075	0.9925	42.43
50.5	4,660,669	79,643	0.0171	0.9829	42.11
51.5	4,309,361	9,691	0.0022	0.9978	41.40
52.5	4,296,279	145,686	0.0339	0.9661	41.30
53.5	4,146,721	14,421	0.0035	0.9965	39.90
54.5	4,115,144	83,501	0.0203	0.9797	39.76
55.5	3,401,055	34,908	0.0103	0.9897	38.96
56.5	3,353,641	16,468	0.0049	0.9951	38.56
57.5	3,251,498	15,009	0.0046	0.9954	38.37
58.5	3,198,767	63,402	0.0198	0.9802	38.19
59.5	3,133,299	92,245	0.0294	0.9706	37.43
60.5	3,015,871	311,961	0.1034	0.8966	36.33
61.5	2,674,119	459	0.0002	0.9998	32.57
62.5	2,590,024	87,329	0.0337	0.9663	32.57
63.5	1,501,341	19,248	0.0128	0.9872	31.47
64.5	1,414,072	6,714	0.0047	0.9953	31.07
65.5	1,272,542	1,085	0.0009	0.9991	30.92
66.5	1,271,349	44	0.0000	1.0000	30.89
67.5	1,254,809	17,500	0.0139	0.9861	30.89
68.5	1,237,125	5,103	0.0041	0.9959	30.46
69.5	1,259,495	27,439	0.0218	0.9782	30.33
70.5	1,230,979	1,531	0.0012	0.9988	29.67
71.5	1,229,448	5,273	0.0043	0.9957	29.64
72.5	1,224,023	0	0.0000	1.0000	29.51
73.5	1,245,286	6,091	0.0049	0.9951	29.51
74.5	1,239,182	319	0.0003	0.9997	29.36
75.5	1,238,616	4,376	0.0035	0.9965	29.36
76.5	1,234,240	11,531	0.0093	0.9907	29.25
77.5	1,222,709	162	0.0001	0.9999	28.98
78.5	1,222,272	78,736	0.0644	0.9356	28.98

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2016			EXPERIENCE BAND 1954-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	1,092,779	76	0.0001	0.9999	27.11	
80.5	1,094,131	2,107	0.0019	0.9981	27.11	
81.5	1,091,483	18,211	0.0167	0.9833	27.06	
82.5	1,073,157	72,758	0.0678	0.9322	26.60	
83.5	1,000,374	3,225	0.0032	0.9968	24.80	
84.5	1,007,530		0.0000	1.0000	24.72	
85.5	961,048	9,712	0.0101	0.9899	24.72	
86.5	945,769	1,888	0.0020	0.9980	24.47	
87.5	892,449		0.0000	1.0000	24.42	
88.5	870,518	734	0.0008	0.9992	24.42	
89.5	869,151	992	0.0011	0.9989	24.40	
90.5	868,116	36,014	0.0415	0.9585	24.37	
91.5	832,102	309	0.0004	0.9996	23.36	
92.5	739,706	16,452	0.0222	0.9778	23.35	
93.5	429,095	312	0.0007	0.9993	22.83	
94.5	428,783	11,383	0.0265	0.9735	22.82	
95.5	372,991	21,585	0.0579	0.9421	22.21	
96.5	351,404	6,726	0.0191	0.9809	20.93	
97.5	360,040	211	0.0006	0.9994	20.53	
98.5	359,292	10,323	0.0287	0.9713	20.51	
99.5	345,297	47,573	0.1378	0.8622	19.92	
100.5	297,724	5	0.0000	1.0000	17.18	
101.5	293,598	494	0.0017	0.9983	17.18	
102.5	293,074	1,414	0.0048	0.9952	17.15	
103.5	291,660	8,065	0.0277	0.9723	17.07	
104.5	283,569	62,646	0.2209	0.7791	16.60	
105.5	220,923		0.0000	1.0000	12.93	
106.5	214,516		0.0000	1.0000	12.93	
107.5	210,468	59,977	0.2850	0.7150	12.93	
108.5	146,192	34,155	0.2336	0.7664	9.24	
109.5	111,850		0.0000	1.0000	7.09	
110.5	61,890		0.0000	1.0000	7.09	
111.5	61,306		0.0000	1.0000	7.09	
112.5	56,370		0.0000	1.0000	7.09	
113.5	38,867		0.0000	1.0000	7.09	
114.5	35,215		0.0000	1.0000	7.09	
115.5	35,215		0.0000	1.0000	7.09	
116.5	35,215		0.0000	1.0000	7.09	
117.5	35,215		0.0000	1.0000	7.09	
118.5	35,215	417	0.0118	0.9882	7.09	

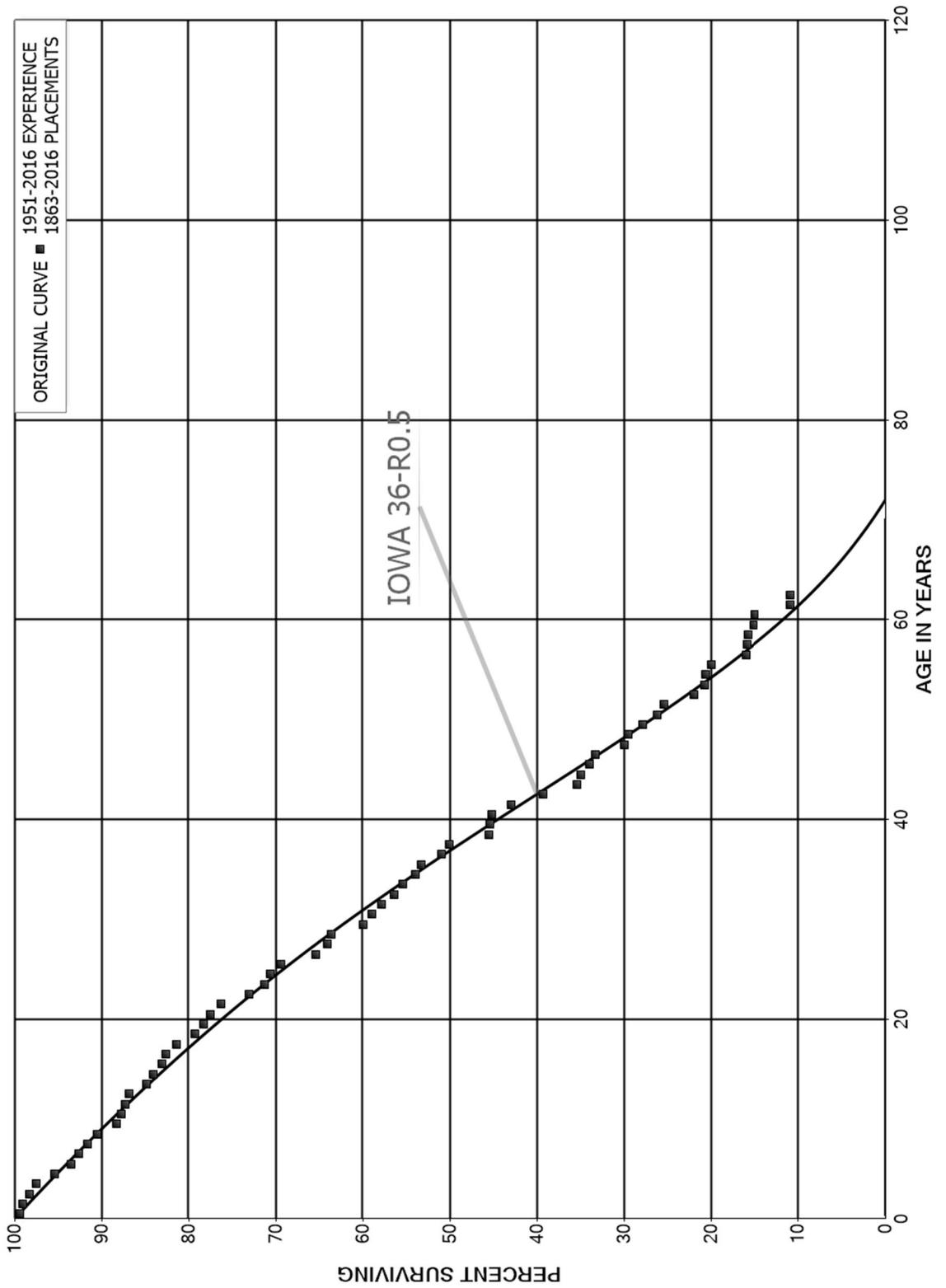
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1888-2016			EXPERIENCE BAND 1954-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
119.5	34,798		0.0000	1.0000	7.00	
120.5	34,798	525	0.0151	0.9849	7.00	
121.5	32,168		0.0000	1.0000	6.90	
122.5	22,476		0.0000	1.0000	6.90	
123.5	7,639		0.0000	1.0000	6.90	
124.5	7,639		0.0000	1.0000	6.90	
125.5	7,639	3,320	0.4346	0.5654	6.90	
126.5	4,319		0.0000	1.0000	3.90	
127.5	4,319		0.0000	1.0000	3.90	
128.5					3.90	

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1863-2016

EXPERIENCE BAND 1951-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	73,342,482	483,202	0.0066	0.9934	100.00
0.5	67,211,891	208,891	0.0031	0.9969	99.34
1.5	62,961,446	501,300	0.0080	0.9920	99.03
2.5	62,432,146	478,340	0.0077	0.9923	98.24
3.5	61,621,400	1,310,914	0.0213	0.9787	97.49
4.5	57,108,544	1,114,900	0.0195	0.9805	95.42
5.5	55,834,273	530,931	0.0095	0.9905	93.55
6.5	56,491,511	653,185	0.0116	0.9884	92.66
7.5	55,854,071	680,819	0.0122	0.9878	91.59
8.5	53,504,300	1,312,706	0.0245	0.9755	90.48
9.5	48,824,968	295,351	0.0060	0.9940	88.26
10.5	47,954,863	218,194	0.0045	0.9955	87.72
11.5	45,393,400	279,432	0.0062	0.9938	87.32
12.5	43,298,997	992,594	0.0229	0.9771	86.79
13.5	40,427,538	330,742	0.0082	0.9918	84.80
14.5	40,044,658	496,811	0.0124	0.9876	84.10
15.5	37,109,515	217,513	0.0059	0.9941	83.06
16.5	35,852,615	513,706	0.0143	0.9857	82.57
17.5	28,214,598	734,034	0.0260	0.9740	81.39
18.5	25,410,650	314,057	0.0124	0.9876	79.27
19.5	21,772,148	221,224	0.0102	0.9898	78.29
20.5	19,489,876	291,657	0.0150	0.9850	77.50
21.5	14,584,750	625,128	0.0429	0.9571	76.34
22.5	13,277,017	323,295	0.0243	0.9757	73.07
23.5	12,852,515	123,385	0.0096	0.9904	71.29
24.5	9,690,595	171,159	0.0177	0.9823	70.60
25.5	8,856,280	499,604	0.0564	0.9436	69.36
26.5	7,921,828	161,640	0.0204	0.9796	65.44
27.5	6,986,446	51,799	0.0074	0.9926	64.11
28.5	6,931,992	404,342	0.0583	0.9417	63.63
29.5	5,812,520	89,771	0.0154	0.9846	59.92
30.5	3,709,682	76,015	0.0205	0.9795	58.99
31.5	2,673,844	63,093	0.0236	0.9764	57.79
32.5	2,326,451	43,167	0.0186	0.9814	56.42
33.5	2,211,157	55,666	0.0252	0.9748	55.38
34.5	2,152,060	26,556	0.0123	0.9877	53.98
35.5	1,980,535	86,835	0.0438	0.9562	53.32
36.5	1,832,518	33,687	0.0184	0.9816	50.98
37.5	1,807,378	163,128	0.0903	0.9097	50.04
38.5	1,594,677	6,374	0.0040	0.9960	45.52

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1863-2016			EXPERIENCE BAND 1951-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	1,560,367	6,932	0.0044	0.9956	45.34	
40.5	492,240	23,312	0.0474	0.9526	45.14	
41.5	427,705	36,474	0.0853	0.9147	43.00	
42.5	363,520	36,651	0.1008	0.8992	39.34	
43.5	314,284	4,164	0.0132	0.9868	35.37	
44.5	275,033	7,339	0.0267	0.9733	34.90	
45.5	289,039	6,119	0.0212	0.9788	33.97	
46.5	278,974	27,267	0.0977	0.9023	33.25	
47.5	249,449	4,207	0.0169	0.9831	30.00	
48.5	244,639	14,153	0.0579	0.9421	29.49	
49.5	340,909	20,193	0.0592	0.9408	27.79	
50.5	319,027	8,482	0.0266	0.9734	26.14	
51.5	279,129	37,977	0.1361	0.8639	25.45	
52.5	233,515	12,802	0.0548	0.9452	21.99	
53.5	236,315	1,590	0.0067	0.9933	20.78	
54.5	228,571	7,087	0.0310	0.9690	20.64	
55.5	221,483	44,777	0.2022	0.7978	20.00	
56.5	176,707	818	0.0046	0.9954	15.96	
57.5	175,889	1,426	0.0081	0.9919	15.88	
58.5	134,439	6,318	0.0470	0.9530	15.75	
59.5	127,394	905	0.0071	0.9929	15.01	
60.5	126,489	34,275	0.2710	0.7290	14.91	
61.5	82,018	158	0.0019	0.9981	10.87	
62.5	81,860		0.0000	1.0000	10.85	
63.5	81,798	52	0.0006	0.9994	10.85	
64.5	81,746	765	0.0094	0.9906	10.84	
65.5	80,860	51	0.0006	0.9994	10.74	
66.5	80,605	48,902	0.6067	0.3933	10.73	
67.5	31,621	27	0.0008	0.9992	4.22	
68.5	31,595		0.0000	1.0000	4.22	
69.5	19,316		0.0000	1.0000	4.22	
70.5	19,316	10,709	0.5544	0.4456	4.22	
71.5	8,578	114	0.0133	0.9867	1.88	
72.5	8,464	582	0.0688	0.9312	1.85	
73.5	9,034	154	0.0170	0.9830	1.73	
74.5	8,880		0.0000	1.0000	1.70	
75.5	8,880		0.0000	1.0000	1.70	
76.5	8,872	394	0.0444	0.9556	1.70	
77.5	8,478		0.0000	1.0000	1.62	
78.5	8,478	57	0.0067	0.9933	1.62	

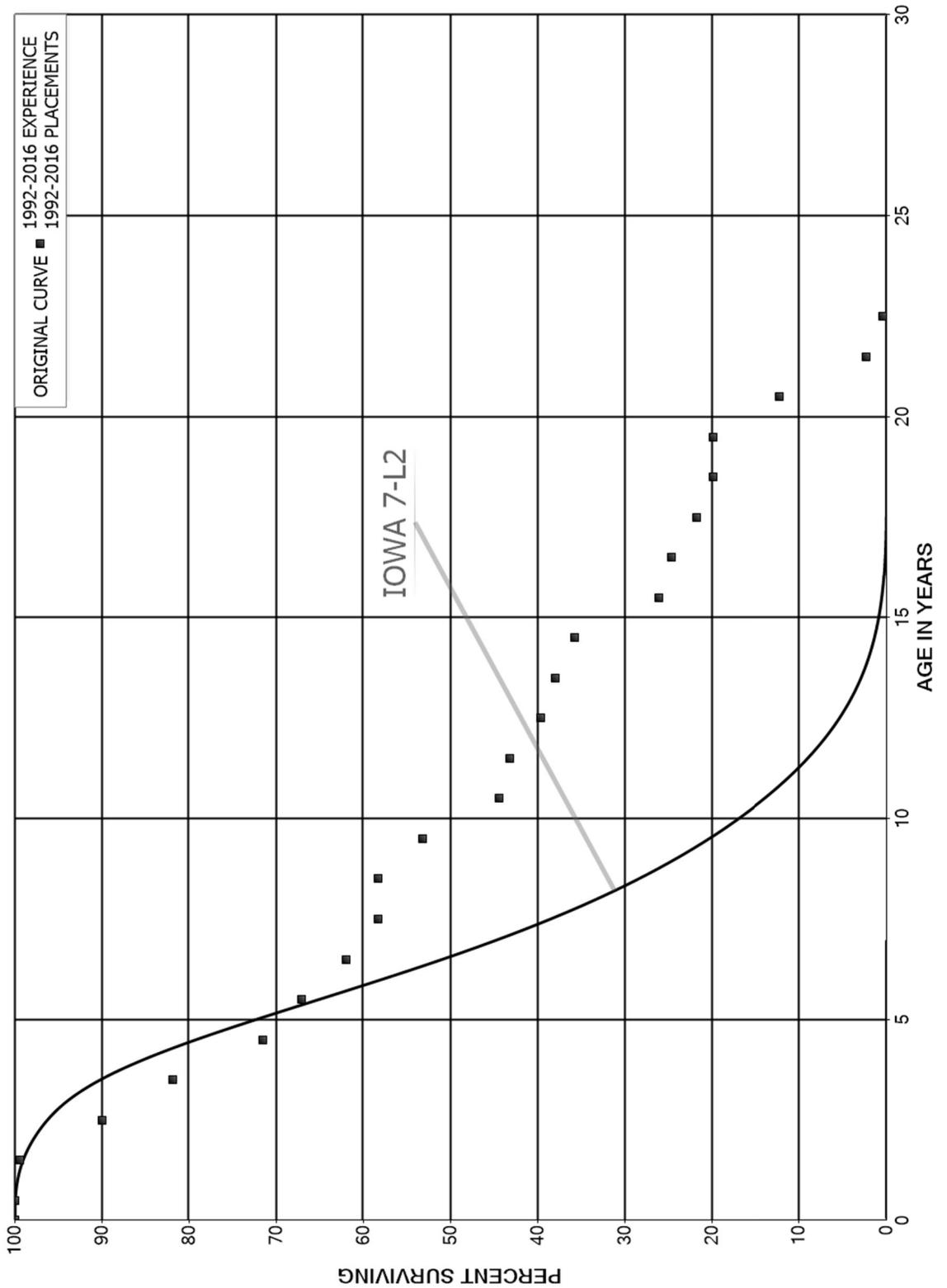
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1863-2016			EXPERIENCE BAND 1951-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	8,421		0.0000	1.0000	1.61	
80.5	8,421	4,740	0.5629	0.4371	1.61	
81.5	3,648	1,687	0.4626	0.5374	0.70	
82.5	1,960		0.0000	1.0000	0.38	
83.5	1,960		0.0000	1.0000	0.38	
84.5	4,902		0.0000	1.0000	0.38	
85.5	4,902	1,458	0.2975	0.7025	0.38	
86.5	3,444		0.0000	1.0000	0.27	
87.5	4,291		0.0000	1.0000	0.27	
88.5	3,835		0.0000	1.0000	0.27	
89.5	3,835		0.0000	1.0000	0.27	
90.5	3,835		0.0000	1.0000	0.27	
91.5	3,835		0.0000	1.0000	0.27	
92.5	3,835		0.0000	1.0000	0.27	
93.5	3,835		0.0000	1.0000	0.27	
94.5	3,835		0.0000	1.0000	0.27	
95.5	3,835		0.0000	1.0000	0.27	
96.5	3,835	1,964	0.5121	0.4879	0.27	
97.5	1,871		0.0000	1.0000	0.13	
98.5	1,871		0.0000	1.0000	0.13	
99.5	893		0.0000	1.0000	0.13	
100.5	893		0.0000	1.0000	0.13	
101.5	893		0.0000	1.0000	0.13	
102.5	893		0.0000	1.0000	0.13	
103.5	893		0.0000	1.0000	0.13	
104.5	893		0.0000	1.0000	0.13	
105.5	893		0.0000	1.0000	0.13	
106.5	893		0.0000	1.0000	0.13	
107.5	893		0.0000	1.0000	0.13	
108.5	893		0.0000	1.0000	0.13	
109.5	893		0.0000	1.0000	0.13	
110.5	893	893	1.0000		0.13	
111.5						

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 320.3 GRANULAR ACTIVATED CARBON
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 320.3 GRANULAR ACTIVATED CARBON

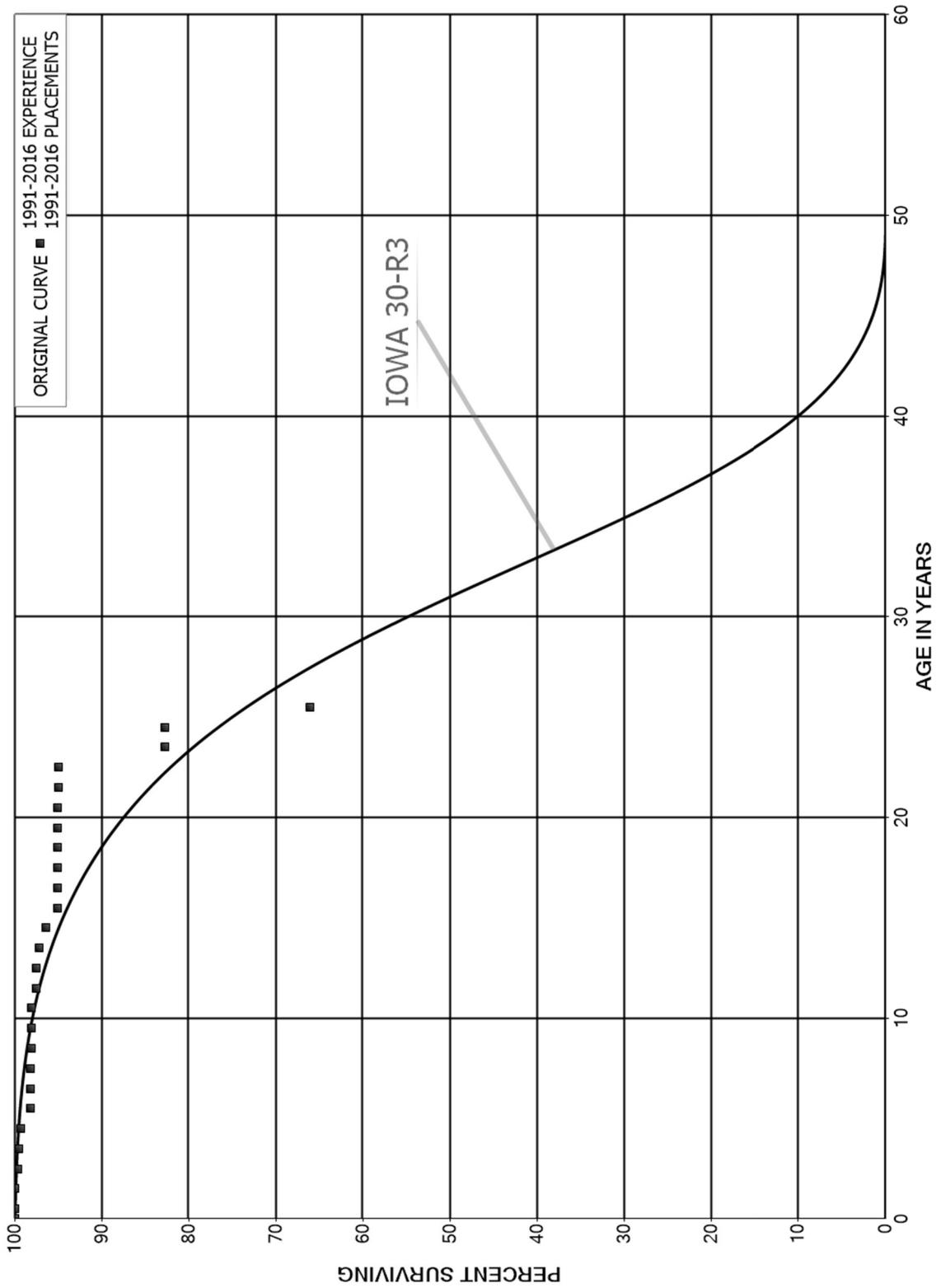
ORIGINAL LIFE TABLE

PLACEMENT BAND 1992-2016

EXPERIENCE BAND 1992-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	17,523,251		0.0000	1.0000	100.00
0.5	17,964,811	111,691	0.0062	0.9938	100.00
1.5	17,907,395	1,701,545	0.0950	0.9050	99.38
2.5	15,557,491	1,408,983	0.0906	0.9094	89.94
3.5	12,487,116	1,562,644	0.1251	0.8749	81.79
4.5	10,413,998	652,180	0.0626	0.9374	71.56
5.5	8,434,258	651,031	0.0772	0.9228	67.07
6.5	7,026,352	404,524	0.0576	0.9424	61.90
7.5	5,724,674	3,950	0.0007	0.9993	58.33
8.5	5,696,364	500,567	0.0879	0.9121	58.29
9.5	4,490,138	737,125	0.1642	0.8358	53.17
10.5	3,753,012	109,334	0.0291	0.9709	44.44
11.5	3,643,678	297,303	0.0816	0.9184	43.15
12.5	3,346,375	137,866	0.0412	0.9588	39.63
13.5	3,162,617	186,217	0.0589	0.9411	37.99
14.5	2,685,668	730,917	0.2722	0.7278	35.76
15.5	963,354	51,634	0.0536	0.9464	26.03
16.5	599,419	71,901	0.1200	0.8800	24.63
17.5	518,499	42,816	0.0826	0.9174	21.68
18.5	433,258	1	0.0000	1.0000	19.89
19.5	433,257	167,045	0.3856	0.6144	19.89
20.5	247,191	201,550	0.8154	0.1846	12.22
21.5	23,111	19,228	0.8320	0.1680	2.26
22.5	756		0.0000	1.0000	0.38
23.5	756		0.0000	1.0000	0.38
24.5					0.38

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



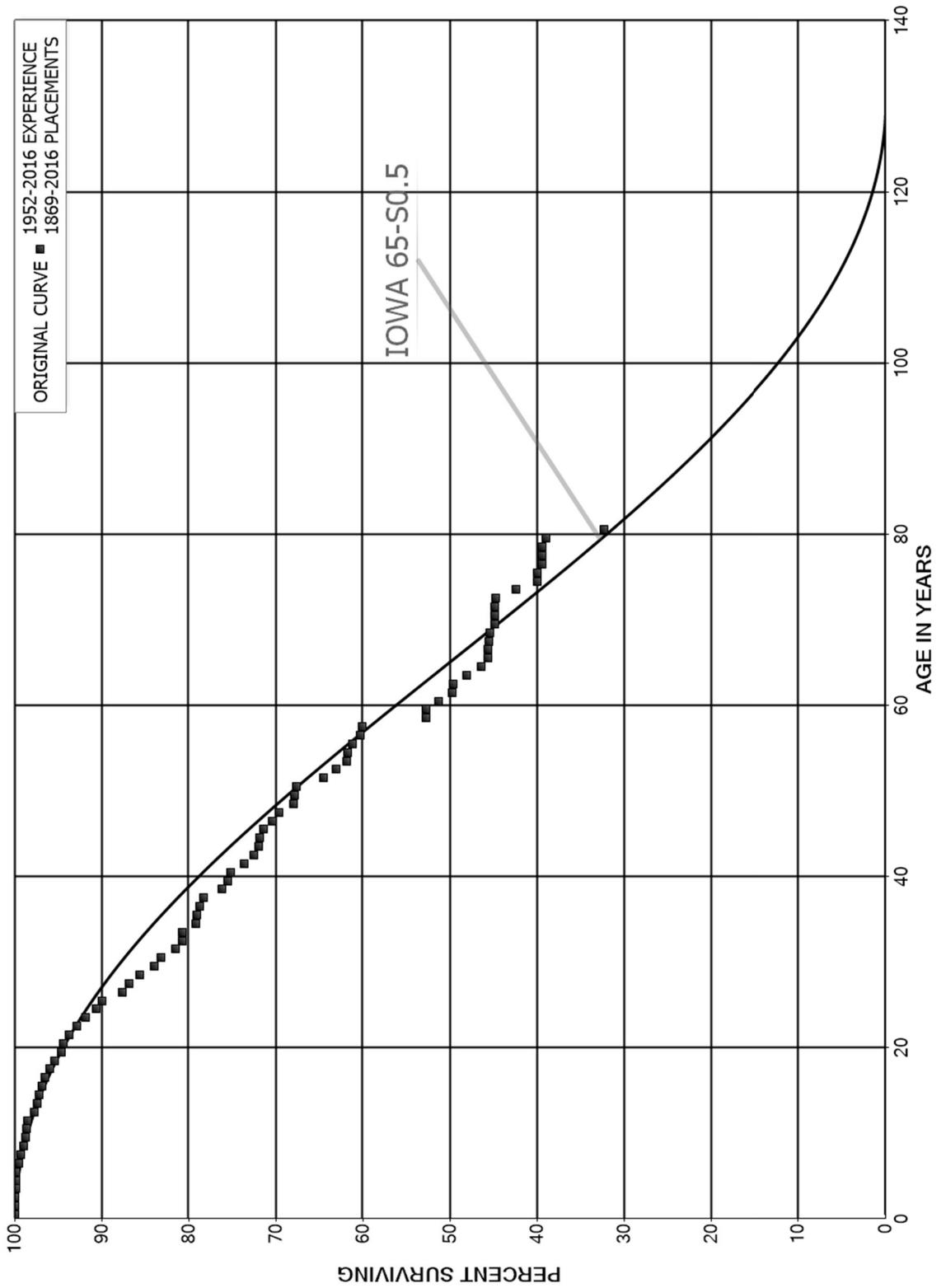
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 320.37 WASTE HANDLING AND TREATMENT - EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1991-2016			EXPERIENCE BAND 1991-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	18,971,677		0.0000	1.0000	100.00
0.5	16,083,609		0.0000	1.0000	100.00
1.5	14,937,648	62,713	0.0042	0.9958	100.00
2.5	14,288,657	8,979	0.0006	0.9994	99.58
3.5	14,264,656	33,450	0.0023	0.9977	99.52
4.5	14,231,206	151,154	0.0106	0.9894	99.28
5.5	14,080,052	3,717	0.0003	0.9997	98.23
6.5	14,076,335	6,570	0.0005	0.9995	98.20
7.5	14,069,765	7,736	0.0005	0.9995	98.16
8.5	14,062,029		0.0000	1.0000	98.10
9.5	14,062,029		0.0000	1.0000	98.10
10.5	14,062,029	79,882	0.0057	0.9943	98.10
11.5	13,968,155		0.0000	1.0000	97.55
12.5	13,783,303	54,173	0.0039	0.9961	97.55
13.5	13,472,858	108,847	0.0081	0.9919	97.16
14.5	13,360,848	189,606	0.0142	0.9858	96.38
15.5	13,102,882		0.0000	1.0000	95.01
16.5	12,211,243		0.0000	1.0000	95.01
17.5	10,025,431		0.0000	1.0000	95.01
18.5	10,025,431		0.0000	1.0000	95.01
19.5	9,432,455		0.0000	1.0000	95.01
20.5	9,432,455	1,590	0.0002	0.9998	95.01
21.5	9,430,865		0.0000	1.0000	94.99
22.5	9,430,865	1,215,126	0.1288	0.8712	94.99
23.5	8,215,739		0.0000	1.0000	82.75
24.5	8,215,739	1,661,349	0.2022	0.7978	82.75
25.5					66.02

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNTS 330 THROUGH 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 330 THROUGH 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1869-2016

EXPERIENCE BAND 1952-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	127,113,830		0.0000	1.0000	100.00
0.5	122,323,009	1,440	0.0000	1.0000	100.00
1.5	122,186,231	15,966	0.0001	0.9999	100.00
2.5	111,751,961	163,251	0.0015	0.9985	99.99
3.5	94,143,280	19,149	0.0002	0.9998	99.84
4.5	81,970,334	22,260	0.0003	0.9997	99.82
5.5	84,223,438	240,398	0.0029	0.9971	99.79
6.5	78,410,663	142,468	0.0018	0.9982	99.51
7.5	78,343,697	256,851	0.0033	0.9967	99.33
8.5	78,053,006	233,303	0.0030	0.9970	99.00
9.5	76,947,706	33,266	0.0004	0.9996	98.71
10.5	75,954,936	128,366	0.0017	0.9983	98.66
11.5	73,295,043	588,252	0.0080	0.9920	98.50
12.5	72,131,500	264,596	0.0037	0.9963	97.71
13.5	70,204,483	103,857	0.0015	0.9985	97.35
14.5	68,573,109	261,271	0.0038	0.9962	97.20
15.5	63,600,877	232,161	0.0037	0.9963	96.83
16.5	60,102,354	364,913	0.0061	0.9939	96.48
17.5	55,071,828	268,706	0.0049	0.9951	95.89
18.5	54,402,698	476,590	0.0088	0.9912	95.43
19.5	51,827,441	111,710	0.0022	0.9978	94.59
20.5	48,849,208	361,136	0.0074	0.9926	94.39
21.5	47,855,309	446,218	0.0093	0.9907	93.69
22.5	46,974,302	522,172	0.0111	0.9889	92.81
23.5	37,033,309	461,977	0.0125	0.9875	91.78
24.5	34,416,362	267,194	0.0078	0.9922	90.64
25.5	33,525,048	873,710	0.0261	0.9739	89.93
26.5	26,864,366	236,821	0.0088	0.9912	87.59
27.5	21,524,481	285,245	0.0133	0.9867	86.82
28.5	18,604,491	382,951	0.0206	0.9794	85.67
29.5	18,017,022	156,709	0.0087	0.9913	83.90
30.5	16,359,479	334,346	0.0204	0.9796	83.17
31.5	13,975,680	123,748	0.0089	0.9911	81.47
32.5	13,825,636	11,472	0.0008	0.9992	80.75
33.5	12,170,311	227,670	0.0187	0.9813	80.69
34.5	10,973,962	21,994	0.0020	0.9980	79.18
35.5	11,151,653	36,328	0.0033	0.9967	79.02
36.5	11,090,679	70,615	0.0064	0.9936	78.76
37.5	10,847,633	282,034	0.0260	0.9740	78.26
38.5	9,801,317	85,936	0.0088	0.9912	76.22

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 330 THROUGH 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1869-2016			EXPERIENCE BAND 1952-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	9,516,967	43,330	0.0046	0.9954	75.56
40.5	9,061,655	194,296	0.0214	0.9786	75.21
41.5	8,480,625	129,703	0.0153	0.9847	73.60
42.5	7,782,228	58,690	0.0075	0.9925	72.47
43.5	6,665,565	7,481	0.0011	0.9989	71.93
44.5	6,452,701	37,261	0.0058	0.9942	71.85
45.5	6,410,161	96,556	0.0151	0.9849	71.43
46.5	5,858,634	61,941	0.0106	0.9894	70.36
47.5	5,320,002	131,550	0.0247	0.9753	69.61
48.5	5,012,370	4,693	0.0009	0.9991	67.89
49.5	4,386,689	11,101	0.0025	0.9975	67.83
50.5	4,149,146	193,911	0.0467	0.9533	67.66
51.5	3,879,711	88,832	0.0229	0.9771	64.49
52.5	3,463,896	66,499	0.0192	0.9808	63.02
53.5	3,396,066	6,691	0.0020	0.9980	61.81
54.5	3,142,570	23,919	0.0076	0.9924	61.69
55.5	2,715,460	40,930	0.0151	0.9849	61.22
56.5	2,625,045	11,140	0.0042	0.9958	60.29
57.5	2,495,269	303,418	0.1216	0.8784	60.04
58.5	2,177,207	866	0.0004	0.9996	52.74
59.5	2,051,461	56,533	0.0276	0.9724	52.72
60.5	1,995,595	58,198	0.0292	0.9708	51.26
61.5	1,869,313	7,321	0.0039	0.9961	49.77
62.5	1,678,075	49,435	0.0295	0.9705	49.57
63.5	727,914	26,409	0.0363	0.9637	48.11
64.5	699,179	11,369	0.0163	0.9837	46.37
65.5	578,801	618	0.0011	0.9989	45.61
66.5	567,193	1,342	0.0024	0.9976	45.56
67.5	535,750	147	0.0003	0.9997	45.46
68.5	539,523	7,431	0.0138	0.9862	45.44
69.5	436,908		0.0000	1.0000	44.82
70.5	446,712	335	0.0007	0.9993	44.82
71.5	449,160	310	0.0007	0.9993	44.78
72.5	447,676	24,009	0.0536	0.9464	44.75
73.5	423,726	23,450	0.0553	0.9447	42.35
74.5	413,474	707	0.0017	0.9983	40.01
75.5	417,396	5,930	0.0142	0.9858	39.94
76.5	388,975		0.0000	1.0000	39.37
77.5	390,136		0.0000	1.0000	39.37
78.5	379,141	4,588	0.0121	0.9879	39.37

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 330 THROUGH 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1869-2016			EXPERIENCE BAND 1952-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	374,553	63,984	0.1708	0.8292	38.90
80.5	299,494		0.0000	1.0000	32.25
81.5	284,392		0.0000	1.0000	32.25
82.5	279,466	5,622	0.0201	0.9799	32.25
83.5	274,002	109	0.0004	0.9996	31.60
84.5	273,893	2,977	0.0109	0.9891	31.59
85.5	270,835	3,611	0.0133	0.9867	31.25
86.5	260,522		0.0000	1.0000	30.83
87.5	253,741	12,950	0.0510	0.9490	30.83
88.5	239,159	4,423	0.0185	0.9815	29.26
89.5	225,701	6,912	0.0306	0.9694	28.72
90.5	163,765		0.0000	1.0000	27.84
91.5	162,776	53	0.0003	0.9997	27.84
92.5	161,740		0.0000	1.0000	27.83
93.5	147,474	1,526	0.0104	0.9896	27.83
94.5	160,478		0.0000	1.0000	27.54
95.5	161,347	239	0.0015	0.9985	27.54
96.5	161,109	1,346	0.0084	0.9916	27.50
97.5	137,904	30	0.0002	0.9998	27.27
98.5	137,874		0.0000	1.0000	27.26
99.5	135,874	1,568	0.0115	0.9885	27.26
100.5	154,559	49	0.0003	0.9997	26.95
101.5	157,073	527	0.0034	0.9966	26.94
102.5	156,546	1,368	0.0087	0.9913	26.85
103.5	155,178	3,280	0.0211	0.9789	26.62
104.5	141,080		0.0000	1.0000	26.05
105.5	102,704	2,150	0.0209	0.9791	26.05
106.5	100,279		0.0000	1.0000	25.51
107.5	100,100		0.0000	1.0000	25.51
108.5	100,100	1,811	0.0181	0.9819	25.51
109.5	48,073	15,936	0.3315	0.6685	25.05
110.5	26,052		0.0000	1.0000	16.74
111.5	25,749		0.0000	1.0000	16.74
112.5	24,095		0.0000	1.0000	16.74
113.5	24,095	430	0.0178	0.9822	16.74
114.5	178,959		0.0000	1.0000	16.44
115.5	178,959		0.0000	1.0000	16.44
116.5	22,271		0.0000	1.0000	16.44
117.5	22,271		0.0000	1.0000	16.44
118.5	22,271		0.0000	1.0000	16.44

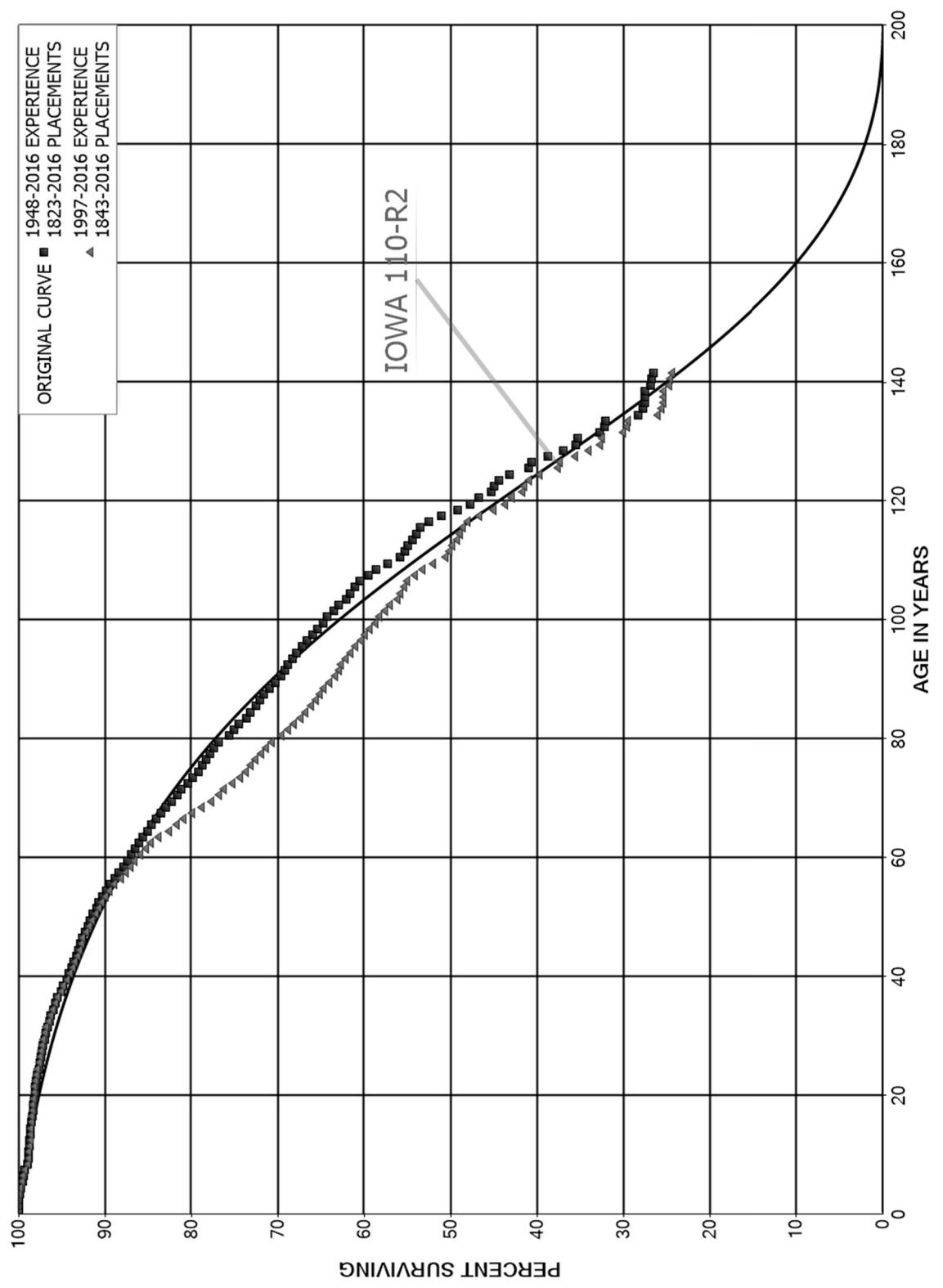
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 330 THROUGH 330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1869-2016			EXPERIENCE BAND 1952-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	22,271		0.0000	1.0000	16.44
120.5	22,271		0.0000	1.0000	16.44
121.5	22,206		0.0000	1.0000	16.44
122.5	22,206		0.0000	1.0000	16.44
123.5	24,356		0.0000	1.0000	16.44
124.5	24,356		0.0000	1.0000	16.44
125.5	24,356		0.0000	1.0000	16.44
126.5	24,356		0.0000	1.0000	16.44
127.5	23,882		0.0000	1.0000	16.44
128.5	20,058		0.0000	1.0000	16.44
129.5	20,058		0.0000	1.0000	16.44
130.5	20,058		0.0000	1.0000	16.44
131.5	17,403		0.0000	1.0000	16.44
132.5	17,403		0.0000	1.0000	16.44
133.5	17,403		0.0000	1.0000	16.44
134.5	17,403		0.0000	1.0000	16.44
135.5	17,403		0.0000	1.0000	16.44
136.5	17,403	17,403	1.0000		16.44
137.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 331 MAINS AND ACCESSORIES
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1823-2016

EXPERIENCE BAND 1948-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	2,232,192,486	120,254	0.0001	0.9999	100.00
0.5	2,111,937,418	690,584	0.0003	0.9997	99.99
1.5	1,949,616,484	711,956	0.0004	0.9996	99.96
2.5	1,814,753,728	1,340,960	0.0007	0.9993	99.93
3.5	1,672,869,410	2,183,995	0.0013	0.9987	99.85
4.5	1,565,768,947	2,906,881	0.0019	0.9981	99.72
5.5	1,454,802,820	1,812,023	0.0012	0.9988	99.54
6.5	1,359,400,978	2,172,068	0.0016	0.9984	99.41
7.5	1,266,586,194	3,405,750	0.0027	0.9973	99.25
8.5	1,160,728,466	1,446,622	0.0012	0.9988	98.99
9.5	1,085,115,755	742,663	0.0007	0.9993	98.86
10.5	1,075,856,107	611,147	0.0006	0.9994	98.80
11.5	1,023,029,306	659,833	0.0006	0.9994	98.74
12.5	965,716,547	456,576	0.0005	0.9995	98.68
13.5	944,526,587	624,762	0.0007	0.9993	98.63
14.5	884,599,095	545,294	0.0006	0.9994	98.56
15.5	824,828,643	916,635	0.0011	0.9989	98.50
16.5	766,815,438	567,341	0.0007	0.9993	98.39
17.5	714,281,381	424,594	0.0006	0.9994	98.32
18.5	625,065,209	492,048	0.0008	0.9992	98.26
19.5	592,536,600	572,610	0.0010	0.9990	98.18
20.5	555,254,516	311,387	0.0006	0.9994	98.09
21.5	509,380,580	425,759	0.0008	0.9992	98.03
22.5	471,910,250	613,525	0.0013	0.9987	97.95
23.5	439,587,609	865,069	0.0020	0.9980	97.83
24.5	417,357,866	553,373	0.0013	0.9987	97.63
25.5	400,019,383	487,425	0.0012	0.9988	97.50
26.5	368,454,608	466,974	0.0013	0.9987	97.38
27.5	335,252,443	326,142	0.0010	0.9990	97.26
28.5	303,266,972	557,702	0.0018	0.9982	97.17
29.5	277,091,024	540,573	0.0020	0.9980	96.99
30.5	251,775,710	352,186	0.0014	0.9986	96.80
31.5	232,319,434	575,531	0.0025	0.9975	96.66
32.5	217,613,341	403,870	0.0019	0.9981	96.42
33.5	209,698,265	566,280	0.0027	0.9973	96.25
34.5	204,034,113	644,878	0.0032	0.9968	95.99
35.5	197,102,191	387,813	0.0020	0.9980	95.68
36.5	184,961,724	807,544	0.0044	0.9956	95.49
37.5	176,272,969	496,945	0.0028	0.9972	95.08
38.5	166,173,962	701,765	0.0042	0.9958	94.81

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1823-2016			EXPERIENCE BAND 1948-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	160,073,178	477,981	0.0030	0.9970	94.41
40.5	156,124,148	543,161	0.0035	0.9965	94.13
41.5	148,079,369	285,692	0.0019	0.9981	93.80
42.5	143,216,985	463,123	0.0032	0.9968	93.62
43.5	134,845,820	382,064	0.0028	0.9972	93.32
44.5	123,478,293	264,954	0.0021	0.9979	93.05
45.5	117,869,693	241,585	0.0020	0.9980	92.85
46.5	113,772,526	432,080	0.0038	0.9962	92.66
47.5	111,316,104	397,074	0.0036	0.9964	92.31
48.5	105,491,732	295,774	0.0028	0.9972	91.98
49.5	99,079,465	380,982	0.0038	0.9962	91.72
50.5	93,289,650	426,032	0.0046	0.9954	91.37
51.5	87,652,814	236,630	0.0027	0.9973	90.95
52.5	82,263,189	380,834	0.0046	0.9954	90.71
53.5	79,244,410	424,065	0.0054	0.9946	90.29
54.5	77,437,979	376,663	0.0049	0.9951	89.80
55.5	72,254,461	412,241	0.0057	0.9943	89.37
56.5	68,180,085	378,879	0.0056	0.9944	88.86
57.5	65,003,477	417,959	0.0064	0.9936	88.36
58.5	61,657,084	296,313	0.0048	0.9952	87.79
59.5	57,831,299	288,115	0.0050	0.9950	87.37
60.5	54,513,458	278,924	0.0051	0.9949	86.94
61.5	49,347,202	220,167	0.0045	0.9955	86.49
62.5	45,893,800	244,273	0.0053	0.9947	86.11
63.5	42,801,854	312,797	0.0073	0.9927	85.65
64.5	41,581,475	225,301	0.0054	0.9946	85.02
65.5	39,441,759	230,987	0.0059	0.9941	84.56
66.5	38,635,218	248,921	0.0064	0.9936	84.07
67.5	38,009,977	286,822	0.0075	0.9925	83.52
68.5	36,662,799	267,865	0.0073	0.9927	82.89
69.5	35,644,930	277,944	0.0078	0.9922	82.29
70.5	34,677,214	192,836	0.0056	0.9944	81.65
71.5	33,848,424	342,679	0.0101	0.9899	81.19
72.5	33,508,085	222,314	0.0066	0.9934	80.37
73.5	33,424,787	267,744	0.0080	0.9920	79.84
74.5	32,978,290	180,431	0.0055	0.9945	79.20
75.5	32,371,969	206,812	0.0064	0.9936	78.77
76.5	31,893,866	183,335	0.0057	0.9943	78.26
77.5	31,276,665	160,561	0.0051	0.9949	77.81
78.5	30,728,019	225,205	0.0073	0.9927	77.41

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1823-2016

EXPERIENCE BAND 1948-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	30,009,210	487,999	0.0163	0.9837	76.85
80.5	29,161,364	193,950	0.0067	0.9933	75.60
81.5	28,646,075	226,608	0.0079	0.9921	75.09
82.5	28,264,971	345,791	0.0122	0.9878	74.50
83.5	27,865,015	174,553	0.0063	0.9937	73.59
84.5	27,620,863	217,574	0.0079	0.9921	73.13
85.5	27,361,924	192,857	0.0070	0.9930	72.55
86.5	26,441,028	167,713	0.0063	0.9937	72.04
87.5	25,723,836	208,921	0.0081	0.9919	71.58
88.5	24,796,654	235,693	0.0095	0.9905	71.00
89.5	23,950,839	250,373	0.0105	0.9895	70.33
90.5	22,967,392	144,428	0.0063	0.9937	69.59
91.5	21,688,788	110,795	0.0051	0.9949	69.15
92.5	20,284,853	148,216	0.0073	0.9927	68.80
93.5	18,134,601	123,933	0.0068	0.9932	68.30
94.5	17,680,580	159,175	0.0090	0.9910	67.83
95.5	17,149,722	143,484	0.0084	0.9916	67.22
96.5	16,665,005	163,691	0.0098	0.9902	66.66
97.5	16,983,485	160,194	0.0094	0.9906	66.00
98.5	16,747,961	167,009	0.0100	0.9900	65.38
99.5	16,319,537	116,415	0.0071	0.9929	64.73
100.5	16,039,087	190,561	0.0119	0.9881	64.27
101.5	15,426,696	138,367	0.0090	0.9910	63.50
102.5	14,759,948	191,995	0.0130	0.9870	62.93
103.5	14,310,513	121,347	0.0085	0.9915	62.11
104.5	13,798,940	118,837	0.0086	0.9914	61.59
105.5	13,373,794	120,801	0.0090	0.9910	61.06
106.5	12,836,744	212,335	0.0165	0.9835	60.51
107.5	12,129,515	191,548	0.0158	0.9842	59.51
108.5	11,323,994	245,767	0.0217	0.9783	58.57
109.5	10,536,760	268,205	0.0255	0.9745	57.29
110.5	9,728,288	86,942	0.0089	0.9911	55.84
111.5	9,025,180	64,895	0.0072	0.9928	55.34
112.5	8,523,667	88,027	0.0103	0.9897	54.94
113.5	7,368,068	63,704	0.0086	0.9914	54.37
114.5	6,860,772	52,135	0.0076	0.9924	53.90
115.5	6,451,060	112,904	0.0175	0.9825	53.49
116.5	4,845,666	141,403	0.0292	0.9708	52.56
117.5	3,919,711	144,186	0.0368	0.9632	51.02
118.5	3,556,973	105,298	0.0296	0.9704	49.15

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1823-2016			EXPERIENCE BAND 1948-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	3,299,923	67,834	0.0206	0.9794	47.69
120.5	2,639,900	83,129	0.0315	0.9685	46.71
121.5	2,472,803	14,179	0.0057	0.9943	45.24
122.5	2,297,378	29,996	0.0131	0.9869	44.98
123.5	1,951,255	53,768	0.0276	0.9724	44.39
124.5	1,718,008	90,123	0.0525	0.9475	43.17
125.5	1,457,629	10,918	0.0075	0.9925	40.90
126.5	984,526	44,818	0.0455	0.9545	40.60
127.5	737,485	33,237	0.0451	0.9549	38.75
128.5	531,463	21,272	0.0400	0.9600	37.00
129.5	408,098	2,668	0.0065	0.9935	35.52
130.5	341,183	25,107	0.0736	0.9264	35.29
131.5	243,456	3,640	0.0150	0.9850	32.69
132.5	235,407	1,212	0.0051	0.9949	32.20
133.5	233,662	27,128	0.1161	0.8839	32.04
134.5	206,254	3,989	0.0193	0.9807	28.32
135.5	201,714	1,542	0.0076	0.9924	27.77
136.5	189,575		0.0000	1.0000	27.56
137.5	175,140	82	0.0005	0.9995	27.56
138.5	167,924	4,333	0.0258	0.9742	27.55
139.5	163,410	816	0.0050	0.9950	26.84
140.5	153,332	1,293	0.0084	0.9916	26.70
141.5	146,847	89	0.0006	0.9994	26.48
142.5	99,503	122	0.0012	0.9988	26.46
143.5	84,626	292	0.0034	0.9966	26.43
144.5	34,654	0	0.0000	1.0000	26.34
145.5	13,249	124	0.0094	0.9906	26.34
146.5	4,051		0.0000	1.0000	26.09
147.5	3,816		0.0000	1.0000	26.09
148.5					26.09
149.5					
150.5					
151.5	72		0.0000		
152.5	72		0.0000		
153.5	72		0.0000		
154.5	72		0.0000		
155.5	72		0.0000		
156.5	72		0.0000		
157.5	72		0.0000		
158.5	72		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1823-2016			EXPERIENCE BAND 1948-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
159.5	72		0.0000		
160.5	72		0.0000		
161.5	72		0.0000		
162.5	72		0.0000		
163.5	72		0.0000		
164.5	72		0.0000		
165.5	72		0.0000		
166.5	72		0.0000		
167.5	72		0.0000		
168.5	72		0.0000		
169.5	72		0.0000		
170.5	72		0.0000		
171.5	226	153	0.6794		
172.5	72		0.0000		
173.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1843-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	1,713,896,156	17,640	0.0000	1.0000	100.00
0.5	1,623,338,337	490,003	0.0003	0.9997	100.00
1.5	1,505,847,100	531,680	0.0004	0.9996	99.97
2.5	1,405,993,146	967,542	0.0007	0.9993	99.93
3.5	1,294,331,735	1,821,469	0.0014	0.9986	99.86
4.5	1,206,982,925	2,782,844	0.0023	0.9977	99.72
5.5	1,109,810,575	1,486,547	0.0013	0.9987	99.49
6.5	1,042,415,313	1,925,649	0.0018	0.9982	99.36
7.5	979,415,809	3,006,633	0.0031	0.9969	99.18
8.5	907,733,387	1,235,761	0.0014	0.9986	98.87
9.5	856,523,246	591,508	0.0007	0.9993	98.74
10.5	867,767,273	473,053	0.0005	0.9995	98.67
11.5	829,606,003	490,738	0.0006	0.9994	98.62
12.5	785,838,659	260,490	0.0003	0.9997	98.56
13.5	773,436,359	461,618	0.0006	0.9994	98.53
14.5	718,295,878	268,729	0.0004	0.9996	98.47
15.5	666,057,137	530,155	0.0008	0.9992	98.43
16.5	619,999,022	334,557	0.0005	0.9995	98.35
17.5	574,048,059	308,252	0.0005	0.9995	98.30
18.5	491,747,548	349,184	0.0007	0.9993	98.25
19.5	463,250,645	438,251	0.0009	0.9991	98.18
20.5	428,182,374	198,675	0.0005	0.9995	98.08
21.5	385,745,358	284,504	0.0007	0.9993	98.04
22.5	350,513,578	522,409	0.0015	0.9985	97.97
23.5	323,547,883	453,552	0.0014	0.9986	97.82
24.5	306,081,868	478,643	0.0016	0.9984	97.68
25.5	294,156,703	324,924	0.0011	0.9989	97.53
26.5	266,316,585	337,923	0.0013	0.9987	97.42
27.5	237,630,986	210,441	0.0009	0.9991	97.30
28.5	211,997,856	382,174	0.0018	0.9982	97.21
29.5	192,418,503	383,694	0.0020	0.9980	97.04
30.5	171,914,754	261,977	0.0015	0.9985	96.84
31.5	157,061,814	466,074	0.0030	0.9970	96.70
32.5	147,883,442	277,116	0.0019	0.9981	96.41
33.5	142,174,023	367,259	0.0026	0.9974	96.23
34.5	138,293,086	505,664	0.0037	0.9963	95.98
35.5	136,694,668	273,639	0.0020	0.9980	95.63
36.5	128,057,784	645,023	0.0050	0.9950	95.44
37.5	122,354,507	356,508	0.0029	0.9971	94.96
38.5	115,031,363	494,638	0.0043	0.9957	94.68

PENNSYLVANIA-AMERICAN WATER COMPANY
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ACCOUNT 331 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1843-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	112,550,794	382,324	0.0034	0.9966	94.27
40.5	111,099,414	429,982	0.0039	0.9961	93.95
41.5	107,274,520	219,667	0.0020	0.9980	93.59
42.5	105,323,732	346,738	0.0033	0.9967	93.40
43.5	99,706,733	301,721	0.0030	0.9970	93.09
44.5	89,010,923	152,757	0.0017	0.9983	92.81
45.5	85,150,960	146,874	0.0017	0.9983	92.65
46.5	81,348,118	338,306	0.0042	0.9958	92.49
47.5	76,866,310	327,828	0.0043	0.9957	92.10
48.5	71,511,278	229,283	0.0032	0.9968	91.71
49.5	65,806,960	295,733	0.0045	0.9955	91.42
50.5	60,775,034	269,067	0.0044	0.9956	91.01
51.5	54,998,647	175,253	0.0032	0.9968	90.60
52.5	49,547,176	259,668	0.0052	0.9948	90.31
53.5	46,566,158	246,665	0.0053	0.9947	89.84
54.5	44,767,805	292,896	0.0065	0.9935	89.37
55.5	40,153,834	306,979	0.0076	0.9924	88.78
56.5	36,517,194	237,832	0.0065	0.9935	88.10
57.5	33,314,631	213,214	0.0064	0.9936	87.53
58.5	30,341,096	172,399	0.0057	0.9943	86.97
59.5	26,940,257	184,564	0.0069	0.9931	86.47
60.5	23,962,025	199,148	0.0083	0.9917	85.88
61.5	18,962,413	126,885	0.0067	0.9933	85.17
62.5	15,499,480	150,528	0.0097	0.9903	84.60
63.5	12,576,026	196,493	0.0156	0.9844	83.78
64.5	11,584,930	114,859	0.0099	0.9901	82.47
65.5	9,949,207	96,262	0.0097	0.9903	81.65
66.5	10,145,425	125,354	0.0124	0.9876	80.86
67.5	10,120,642	139,748	0.0138	0.9862	79.86
68.5	9,596,652	135,610	0.0141	0.9859	78.76
69.5	9,418,039	107,503	0.0114	0.9886	77.64
70.5	9,543,768	66,146	0.0069	0.9931	76.76
71.5	9,968,260	144,258	0.0145	0.9855	76.23
72.5	11,336,803	122,765	0.0108	0.9892	75.12
73.5	13,391,090	124,407	0.0093	0.9907	74.31
74.5	13,432,108	102,743	0.0076	0.9924	73.62
75.5	13,217,470	100,423	0.0076	0.9924	73.06
76.5	13,192,196	119,958	0.0091	0.9909	72.50
77.5	12,948,544	101,458	0.0078	0.9922	71.84
78.5	12,603,462	109,832	0.0087	0.9913	71.28

PENNSYLVANIA-AMERICAN WATER COMPANY
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ACCOUNT 331 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1843-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	12,364,890	196,864	0.0159	0.9841	70.66
80.5	12,006,784	138,128	0.0115	0.9885	69.53
81.5	11,842,267	123,088	0.0104	0.9896	68.73
82.5	12,139,232	126,182	0.0104	0.9896	68.02
83.5	12,227,654	108,592	0.0089	0.9911	67.31
84.5	12,468,419	120,878	0.0097	0.9903	66.71
85.5	12,664,535	110,926	0.0088	0.9912	66.07
86.5	12,404,667	76,123	0.0061	0.9939	65.49
87.5	12,369,102	95,780	0.0077	0.9923	65.09
88.5	12,234,623	124,969	0.0102	0.9898	64.58
89.5	12,128,475	118,175	0.0097	0.9903	63.92
90.5	11,965,436	82,467	0.0069	0.9931	63.30
91.5	11,502,188	52,798	0.0046	0.9954	62.86
92.5	10,607,704	86,286	0.0081	0.9919	62.58
93.5	9,024,303	73,634	0.0082	0.9918	62.07
94.5	9,122,709	95,020	0.0104	0.9896	61.56
95.5	9,055,844	94,673	0.0105	0.9895	60.92
96.5	10,640,277	75,166	0.0071	0.9929	60.28
97.5	11,923,177	108,942	0.0091	0.9909	59.86
98.5	11,987,758	132,609	0.0111	0.9889	59.31
99.5	11,749,134	92,265	0.0079	0.9921	58.65
100.5	12,152,127	148,326	0.0122	0.9878	58.19
101.5	11,799,492	108,834	0.0092	0.9908	57.48
102.5	11,356,299	165,965	0.0146	0.9854	56.95
103.5	11,301,574	74,052	0.0066	0.9934	56.12
104.5	11,068,285	91,314	0.0083	0.9917	55.75
105.5	10,881,672	75,903	0.0070	0.9930	55.29
106.5	10,987,918	169,490	0.0154	0.9846	54.91
107.5	10,649,634	171,465	0.0161	0.9839	54.06
108.5	10,123,850	234,242	0.0231	0.9769	53.19
109.5	9,491,921	261,636	0.0276	0.9724	51.96
110.5	8,794,775	73,350	0.0083	0.9917	50.53
111.5	8,270,546	60,784	0.0073	0.9927	50.10
112.5	7,788,939	84,999	0.0109	0.9891	49.74
113.5	6,663,787	53,382	0.0080	0.9920	49.19
114.5	6,189,167	41,402	0.0067	0.9933	48.80
115.5	5,809,389	67,551	0.0116	0.9884	48.47
116.5	4,340,773	112,469	0.0259	0.9741	47.91
117.5	3,457,589	125,750	0.0364	0.9636	46.67
118.5	3,130,419	97,276	0.0311	0.9689	44.97

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ACCOUNT 331 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1843-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	2,881,483	50,536	0.0175	0.9825	43.57
120.5	2,289,436	63,247	0.0276	0.9724	42.81
121.5	2,157,008	10,828	0.0050	0.9950	41.63
122.5	2,045,527	28,054	0.0137	0.9863	41.42
123.5	1,733,938	51,390	0.0296	0.9704	40.85
124.5	1,605,329	88,458	0.0551	0.9449	39.64
125.5	1,428,503	7,255	0.0051	0.9949	37.45
126.5	976,813	44,818	0.0459	0.9541	37.26
127.5	729,668	33,196	0.0455	0.9545	35.55
128.5	531,310	21,272	0.0400	0.9600	33.94
129.5	407,944	2,668	0.0065	0.9935	32.58
130.5	341,029	25,107	0.0736	0.9264	32.37
131.5	243,303	3,640	0.0150	0.9850	29.98
132.5	235,253	1,212	0.0052	0.9948	29.53
133.5	233,509	27,128	0.1162	0.8838	29.38
134.5	206,100	3,989	0.0194	0.9806	25.97
135.5	201,561	1,542	0.0077	0.9923	25.47
136.5	189,422		0.0000	1.0000	25.27
137.5	174,986	82	0.0005	0.9995	25.27
138.5	167,771	4,333	0.0258	0.9742	25.26
139.5	163,256	816	0.0050	0.9950	24.61
140.5	153,179	1,293	0.0084	0.9916	24.48
141.5	146,847	89	0.0006	0.9994	24.28
142.5	99,503	122	0.0012	0.9988	24.26
143.5	84,626	292	0.0034	0.9966	24.23
144.5	34,654	0	0.0000	1.0000	24.15
145.5	13,249	124	0.0094	0.9906	24.15
146.5	4,051		0.0000	1.0000	23.92
147.5	3,816		0.0000	1.0000	23.92
148.5					23.92
149.5					
150.5					
151.5					
152.5					
153.5	72		0.0000		
154.5	72		0.0000		
155.5	72		0.0000		
156.5	72		0.0000		
157.5	72		0.0000		
158.5	72		0.0000		

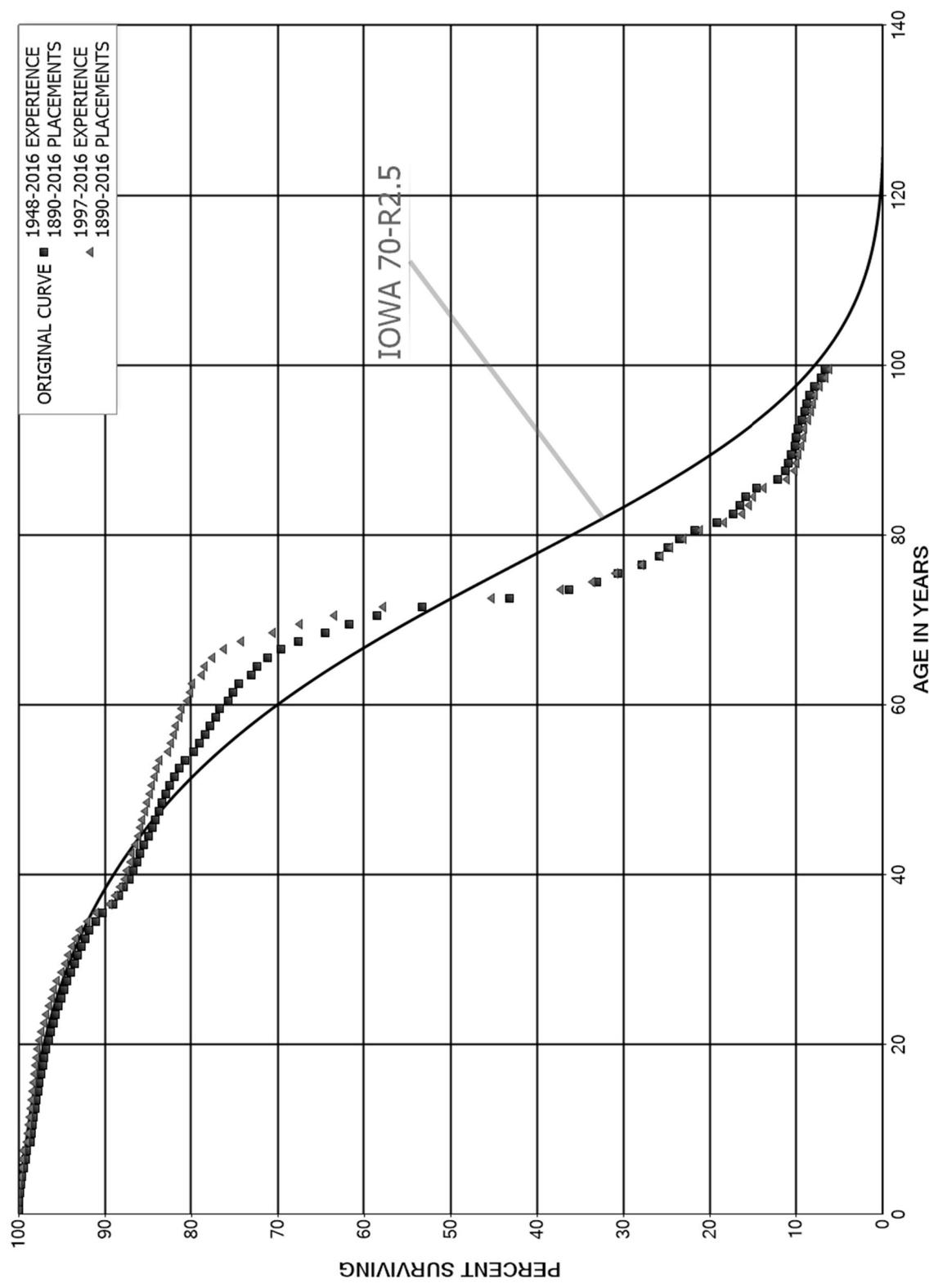
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1843-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
159.5	72		0.0000		
160.5	72		0.0000		
161.5	72		0.0000		
162.5	72		0.0000		
163.5	72		0.0000		
164.5	72		0.0000		
165.5	72		0.0000		
166.5	72		0.0000		
167.5	72		0.0000		
168.5	72		0.0000		
169.5	72		0.0000		
170.5	72		0.0000		
171.5	72		0.0000		
172.5	72		0.0000		
173.5					

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PENNSYLVANIA-AMERICAN WATER COMPANY
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ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1890-2016

EXPERIENCE BAND 1948-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	511,296,313	68,949	0.0001	0.9999	100.00
0.5	495,747,556	329,884	0.0007	0.9993	99.99
1.5	476,031,000	485,634	0.0010	0.9990	99.92
2.5	457,522,391	412,199	0.0009	0.9991	99.82
3.5	435,713,417	595,408	0.0014	0.9986	99.73
4.5	414,623,442	624,302	0.0015	0.9985	99.59
5.5	396,371,579	875,261	0.0022	0.9978	99.44
6.5	377,254,349	534,002	0.0014	0.9986	99.22
7.5	353,940,512	1,497,924	0.0042	0.9958	99.08
8.5	326,816,462	478,183	0.0015	0.9985	98.66
9.5	313,500,754	478,367	0.0015	0.9985	98.52
10.5	314,289,612	432,096	0.0014	0.9986	98.37
11.5	295,606,481	436,557	0.0015	0.9985	98.23
12.5	293,812,280	520,058	0.0018	0.9982	98.09
13.5	290,187,068	451,859	0.0016	0.9984	97.91
14.5	260,140,101	472,103	0.0018	0.9982	97.76
15.5	243,173,657	466,433	0.0019	0.9981	97.58
16.5	228,884,800	415,846	0.0018	0.9982	97.40
17.5	214,982,653	415,839	0.0019	0.9981	97.22
18.5	167,010,571	417,641	0.0025	0.9975	97.03
19.5	156,255,918	452,970	0.0029	0.9971	96.79
20.5	144,727,132	398,874	0.0028	0.9972	96.51
21.5	133,785,506	372,543	0.0028	0.9972	96.24
22.5	125,951,557	380,495	0.0030	0.9970	95.97
23.5	116,424,324	369,695	0.0032	0.9968	95.68
24.5	109,678,005	378,294	0.0034	0.9966	95.38
25.5	103,274,991	308,390	0.0030	0.9970	95.05
26.5	94,680,413	391,428	0.0041	0.9959	94.77
27.5	86,636,345	432,234	0.0050	0.9950	94.38
28.5	79,202,392	328,670	0.0041	0.9959	93.91
29.5	72,330,402	290,369	0.0040	0.9960	93.52
30.5	67,451,913	292,285	0.0043	0.9957	93.14
31.5	63,399,625	321,510	0.0051	0.9949	92.74
32.5	59,676,530	263,628	0.0044	0.9956	92.27
33.5	56,620,369	493,586	0.0087	0.9913	91.86
34.5	53,406,935	459,596	0.0086	0.9914	91.06
35.5	50,375,093	699,466	0.0139	0.9861	90.27
36.5	46,948,084	310,478	0.0066	0.9934	89.02
37.5	43,716,900	285,887	0.0065	0.9935	88.43
38.5	40,671,187	322,112	0.0079	0.9921	87.85

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ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2016

EXPERIENCE BAND 1948-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	37,836,532	164,514	0.0043	0.9957	87.16
40.5	35,826,689	203,875	0.0057	0.9943	86.78
41.5	34,538,734	141,383	0.0041	0.9959	86.29
42.5	33,012,960	180,849	0.0055	0.9945	85.93
43.5	30,314,732	163,349	0.0054	0.9946	85.46
44.5	28,316,025	153,263	0.0054	0.9946	85.00
45.5	26,477,924	105,456	0.0040	0.9960	84.54
46.5	24,907,931	144,060	0.0058	0.9942	84.20
47.5	23,423,732	98,162	0.0042	0.9958	83.72
48.5	22,050,218	116,336	0.0053	0.9947	83.37
49.5	20,813,877	116,395	0.0056	0.9944	82.93
50.5	19,607,063	129,645	0.0066	0.9934	82.46
51.5	18,390,083	122,676	0.0067	0.9933	81.92
52.5	17,182,659	128,754	0.0075	0.9925	81.37
53.5	16,192,112	217,820	0.0135	0.9865	80.76
54.5	15,012,456	120,553	0.0080	0.9920	79.67
55.5	13,884,728	104,602	0.0075	0.9925	79.04
56.5	12,697,255	101,368	0.0080	0.9920	78.44
57.5	11,527,602	88,421	0.0077	0.9923	77.81
58.5	10,518,908	73,222	0.0070	0.9930	77.22
59.5	9,554,418	113,877	0.0119	0.9881	76.68
60.5	8,483,479	62,244	0.0073	0.9927	75.77
61.5	7,545,531	72,161	0.0096	0.9904	75.21
62.5	6,733,261	126,076	0.0187	0.9813	74.49
63.5	5,844,986	59,435	0.0102	0.9898	73.10
64.5	5,042,432	81,563	0.0162	0.9838	72.35
65.5	4,286,929	94,284	0.0220	0.9780	71.18
66.5	3,704,686	109,152	0.0295	0.9705	69.62
67.5	3,175,865	143,263	0.0451	0.9549	67.56
68.5	2,719,502	117,350	0.0432	0.9568	64.52
69.5	2,317,542	122,953	0.0531	0.9469	61.73
70.5	2,094,178	184,238	0.0880	0.9120	58.46
71.5	1,898,654	359,991	0.1896	0.8104	53.32
72.5	1,519,802	243,104	0.1600	0.8400	43.21
73.5	1,253,828	110,110	0.0878	0.9122	36.30
74.5	1,092,966	83,088	0.0760	0.9240	33.11
75.5	962,715	86,041	0.0894	0.9106	30.59
76.5	800,910	57,429	0.0717	0.9283	27.86
77.5	678,578	26,298	0.0388	0.9612	25.86
78.5	603,708	33,321	0.0552	0.9448	24.86

PENNSYLVANIA-AMERICAN WATER COMPANY
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ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2016			EXPERIENCE BAND 1948-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	515,433	38,029	0.0738	0.9262	23.49
80.5	445,603	52,919	0.1188	0.8812	21.75
81.5	353,639	34,376	0.0972	0.9028	19.17
82.5	295,025	14,253	0.0483	0.9517	17.31
83.5	280,648	10,841	0.0386	0.9614	16.47
84.5	269,779	21,833	0.0809	0.9191	15.83
85.5	258,616	44,317	0.1714	0.8286	14.55
86.5	214,282	16,670	0.0778	0.9222	12.06
87.5	197,695	5,244	0.0265	0.9735	11.12
88.5	192,331	5,054	0.0263	0.9737	10.83
89.5	151,761	6,456	0.0425	0.9575	10.54
90.5	145,301	2,895	0.0199	0.9801	10.09
91.5	142,446	2,093	0.0147	0.9853	9.89
92.5	129,868	5,771	0.0444	0.9556	9.75
93.5	95,992	3,474	0.0362	0.9638	9.31
94.5	84,585	2,690	0.0318	0.9682	8.98
95.5	71,067	2,378	0.0335	0.9665	8.69
96.5	56,196	3,943	0.0702	0.9298	8.40
97.5	58,742	5,757	0.0980	0.9020	7.81
98.5	51,989	3,299	0.0635	0.9365	7.05
99.5	42,962	815	0.0190	0.9810	6.60
100.5	38,770	13,254	0.3419	0.6581	6.47
101.5	14,424	3,245	0.2250	0.7750	4.26
102.5	9,706	1,265	0.1304	0.8696	3.30
103.5	5,926	139	0.0234	0.9766	2.87
104.5	2,895	375	0.1295	0.8705	2.80
105.5	2,440	63	0.0256	0.9744	2.44
106.5	2,187	158	0.0724	0.9276	2.38
107.5	1,159	645	0.5566	0.4434	2.21
108.5	499		0.0000	1.0000	0.98
109.5	393	9	0.0238	0.9762	0.98
110.5	340	9	0.0251	0.9749	0.96
111.5	312		0.0000	1.0000	0.93
112.5	311		0.0000	1.0000	0.93
113.5	307	22	0.0726	0.9274	0.93
114.5	284	10	0.0335	0.9665	0.86
115.5	275	225	0.8184	0.1816	0.83
116.5	50	42	0.8333	0.1667	0.15
117.5	8		0.0000	1.0000	0.03
118.5	8		0.0000	1.0000	0.03

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2016			EXPERIENCE BAND 1948-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	8		0.0000	1.0000	0.03
120.5	8		0.0000	1.0000	0.03
121.5	8		0.0000	1.0000	0.03
122.5	8		0.0000	1.0000	0.03
123.5	8		0.0000	1.0000	0.03
124.5	8		0.0000	1.0000	0.03
125.5	8		0.0000	1.0000	0.03
126.5					0.03

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1890-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	365,070,236	11,830	0.0000	1.0000	100.00
0.5	359,762,812	117,556	0.0003	0.9997	100.00
1.5	350,300,959	168,216	0.0005	0.9995	99.96
2.5	339,344,561	177,414	0.0005	0.9995	99.92
3.5	326,045,259	356,684	0.0011	0.9989	99.86
4.5	311,134,371	354,169	0.0011	0.9989	99.75
5.5	298,145,859	566,471	0.0019	0.9981	99.64
6.5	286,528,597	253,385	0.0009	0.9991	99.45
7.5	270,743,980	1,267,678	0.0047	0.9953	99.36
8.5	250,607,275	240,078	0.0010	0.9990	98.90
9.5	243,756,046	244,459	0.0010	0.9990	98.80
10.5	248,860,203	215,908	0.0009	0.9991	98.70
11.5	233,791,021	198,411	0.0008	0.9992	98.62
12.5	235,417,299	257,733	0.0011	0.9989	98.54
13.5	234,803,748	221,383	0.0009	0.9991	98.43
14.5	207,572,211	228,498	0.0011	0.9989	98.33
15.5	193,543,993	253,830	0.0013	0.9987	98.23
16.5	182,078,385	199,871	0.0011	0.9989	98.10
17.5	171,187,044	202,284	0.0012	0.9988	97.99
18.5	125,692,442	201,586	0.0016	0.9984	97.87
19.5	117,565,348	257,318	0.0022	0.9978	97.72
20.5	108,172,619	267,376	0.0025	0.9975	97.50
21.5	98,593,136	260,869	0.0026	0.9974	97.26
22.5	92,221,227	274,928	0.0030	0.9970	97.00
23.5	84,907,732	248,678	0.0029	0.9971	96.72
24.5	80,093,849	269,939	0.0034	0.9966	96.43
25.5	75,425,005	207,220	0.0027	0.9973	96.11
26.5	68,356,582	278,873	0.0041	0.9959	95.84
27.5	61,732,596	317,130	0.0051	0.9949	95.45
28.5	55,694,578	242,338	0.0044	0.9956	94.96
29.5	50,035,588	203,491	0.0041	0.9959	94.55
30.5	46,362,584	202,298	0.0044	0.9956	94.16
31.5	43,474,764	235,693	0.0054	0.9946	93.75
32.5	40,822,787	175,966	0.0043	0.9957	93.25
33.5	38,720,614	388,944	0.0100	0.9900	92.84
34.5	36,586,360	367,277	0.0100	0.9900	91.91
35.5	34,683,530	606,231	0.0175	0.9825	90.99
36.5	32,457,065	226,989	0.0070	0.9930	89.40
37.5	30,385,839	187,334	0.0062	0.9938	88.77
38.5	28,366,791	197,349	0.0070	0.9930	88.23

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	26,589,523	73,592	0.0028	0.9972	87.61
40.5	25,651,202	112,948	0.0044	0.9956	87.37
41.5	25,353,957	54,400	0.0021	0.9979	86.98
42.5	24,758,172	103,295	0.0042	0.9958	86.80
43.5	22,913,917	92,945	0.0041	0.9959	86.44
44.5	21,733,145	67,713	0.0031	0.9969	86.08
45.5	20,671,622	41,482	0.0020	0.9980	85.82
46.5	19,692,778	87,175	0.0044	0.9956	85.64
47.5	18,760,235	38,801	0.0021	0.9979	85.27
48.5	17,876,306	67,378	0.0038	0.9962	85.09
49.5	17,017,259	59,196	0.0035	0.9965	84.77
50.5	16,055,164	54,100	0.0034	0.9966	84.47
51.5	14,986,275	50,751	0.0034	0.9966	84.19
52.5	13,895,798	53,592	0.0039	0.9961	83.90
53.5	13,010,771	145,426	0.0112	0.9888	83.58
54.5	11,988,390	46,989	0.0039	0.9961	82.65
55.5	11,095,061	42,409	0.0038	0.9962	82.32
56.5	10,106,906	40,172	0.0040	0.9960	82.01
57.5	9,123,086	40,072	0.0044	0.9956	81.68
58.5	8,263,383	31,470	0.0038	0.9962	81.32
59.5	7,441,444	55,977	0.0075	0.9925	81.01
60.5	6,529,420	29,486	0.0045	0.9955	80.40
61.5	5,701,012	13,495	0.0024	0.9976	80.04
62.5	5,059,544	71,423	0.0141	0.9859	79.85
63.5	4,313,743	15,749	0.0037	0.9963	78.72
64.5	3,621,196	42,104	0.0116	0.9884	78.44
65.5	2,990,067	52,080	0.0174	0.9826	77.52
66.5	2,617,353	70,423	0.0269	0.9731	76.17
67.5	2,270,597	112,478	0.0495	0.9505	74.12
68.5	1,940,147	84,547	0.0436	0.9564	70.45
69.5	1,786,149	107,004	0.0599	0.9401	67.38
70.5	1,695,199	151,464	0.0893	0.9107	63.35
71.5	1,618,163	351,289	0.2171	0.7829	57.69
72.5	1,285,212	228,300	0.1776	0.8224	45.16
73.5	1,109,376	107,085	0.0965	0.9035	37.14
74.5	966,697	77,104	0.0798	0.9202	33.56
75.5	859,092	85,247	0.0992	0.9008	30.88
76.5	715,489	56,286	0.0787	0.9213	27.81
77.5	600,054	25,709	0.0428	0.9572	25.63
78.5	528,917	32,903	0.0622	0.9378	24.53

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	447,971	37,395	0.0835	0.9165	23.00
80.5	385,637	52,052	0.1350	0.8650	21.08
81.5	299,684	33,572	0.1120	0.8880	18.24
82.5	245,891	11,418	0.0464	0.9536	16.19
83.5	239,500	9,005	0.0376	0.9624	15.44
84.5	235,765	20,584	0.0873	0.9127	14.86
85.5	230,204	43,961	0.1910	0.8090	13.56
86.5	190,033	15,475	0.0814	0.9186	10.97
87.5	177,617	3,532	0.0199	0.9801	10.08
88.5	177,794	4,177	0.0235	0.9765	9.88
89.5	139,771	5,759	0.0412	0.9588	9.65
90.5	135,211	2,676	0.0198	0.9802	9.25
91.5	134,362	1,959	0.0146	0.9854	9.07
92.5	125,811	5,684	0.0452	0.9548	8.93
93.5	94,910	3,426	0.0361	0.9639	8.53
94.5	83,551	2,690	0.0322	0.9678	8.22
95.5	70,033	2,378	0.0340	0.9660	7.96
96.5	55,574	3,943	0.0709	0.9291	7.69
97.5	58,120	5,598	0.0963	0.9037	7.14
98.5	51,526	3,299	0.0640	0.9360	6.45
99.5	42,500	815	0.0192	0.9808	6.04
100.5	38,308	13,098	0.3419	0.6581	5.93
101.5	14,117	3,245	0.2298	0.7702	3.90
102.5	9,400	1,265	0.1346	0.8654	3.00
103.5	5,620	139	0.0247	0.9753	2.60
104.5	2,589	375	0.1448	0.8552	2.53
105.5	2,133	63	0.0293	0.9707	2.17
106.5	2,187	158	0.0724	0.9276	2.10
107.5	1,159	645	0.5566	0.4434	1.95
108.5	499		0.0000	1.0000	0.87
109.5	393	9	0.0238	0.9762	0.87
110.5	340	9	0.0251	0.9749	0.84
111.5	312		0.0000	1.0000	0.82
112.5	311		0.0000	1.0000	0.82
113.5	307	22	0.0726	0.9274	0.82
114.5	284	10	0.0335	0.9665	0.76
115.5	275	225	0.8184	0.1816	0.74
116.5	50	42	0.8333	0.1667	0.13
117.5	8		0.0000	1.0000	0.02
118.5	8		0.0000	1.0000	0.02

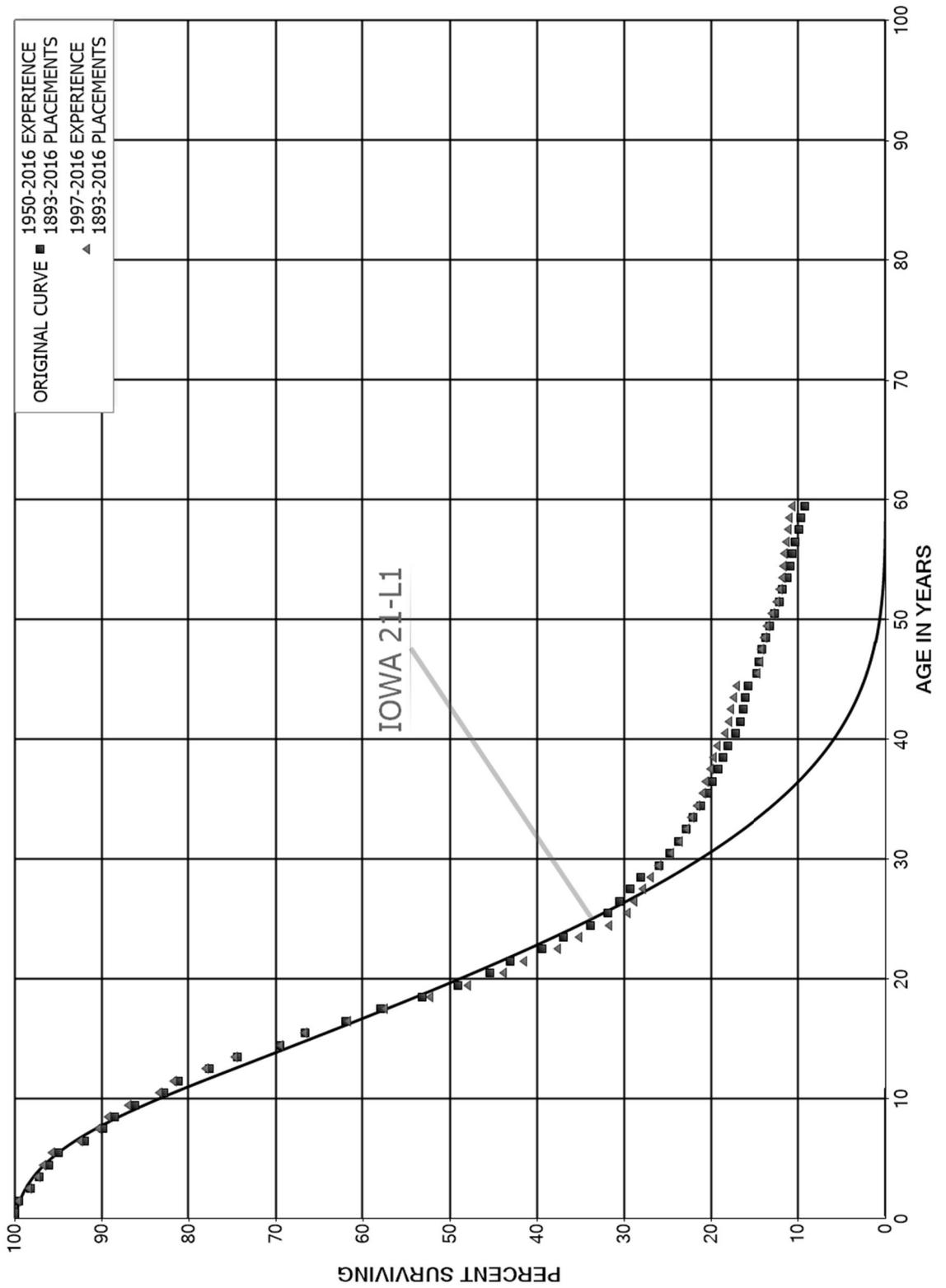
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 333 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1890-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
119.5	8		0.0000	1.0000	0.02
120.5	8		0.0000	1.0000	0.02
121.5	8		0.0000	1.0000	0.02
122.5	8		0.0000	1.0000	0.02
123.5	8		0.0000	1.0000	0.02
124.5	8		0.0000	1.0000	0.02
125.5	8		0.0000	1.0000	0.02
126.5					0.02

PENNSYLVANIA-AMERICAN WATER COMPANY
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PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2016

EXPERIENCE BAND 1950-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	242,865,923	72,020	0.0003	0.9997	100.00
0.5	232,973,324	1,194,230	0.0051	0.9949	99.97
1.5	218,478,488	2,790,367	0.0128	0.9872	99.46
2.5	209,671,395	2,236,473	0.0107	0.9893	98.19
3.5	198,382,393	2,182,544	0.0110	0.9890	97.14
4.5	182,930,355	2,069,495	0.0113	0.9887	96.07
5.5	161,914,775	5,144,650	0.0318	0.9682	94.98
6.5	142,119,139	3,292,598	0.0232	0.9768	91.97
7.5	128,509,724	1,909,136	0.0149	0.9851	89.84
8.5	120,496,378	3,114,695	0.0258	0.9742	88.50
9.5	113,414,883	4,435,186	0.0391	0.9609	86.21
10.5	109,363,542	2,203,307	0.0201	0.9799	82.84
11.5	103,368,913	4,585,463	0.0444	0.9556	81.17
12.5	99,493,293	4,010,473	0.0403	0.9597	77.57
13.5	95,382,518	6,298,435	0.0660	0.9340	74.45
14.5	85,182,086	3,529,311	0.0414	0.9586	69.53
15.5	76,586,413	5,340,829	0.0697	0.9303	66.65
16.5	67,287,605	4,390,768	0.0653	0.9347	62.00
17.5	58,789,156	4,883,562	0.0831	0.9169	57.96
18.5	37,160,806	2,840,637	0.0764	0.9236	53.14
19.5	30,909,779	2,339,482	0.0757	0.9243	49.08
20.5	25,307,032	1,309,008	0.0517	0.9483	45.36
21.5	21,241,296	1,769,750	0.0833	0.9167	43.02
22.5	18,181,920	1,134,001	0.0624	0.9376	39.43
23.5	14,328,783	1,223,513	0.0854	0.9146	36.97
24.5	11,471,953	681,847	0.0594	0.9406	33.82
25.5	9,182,878	368,810	0.0402	0.9598	31.81
26.5	8,928,426	369,232	0.0414	0.9586	30.53
27.5	8,027,721	342,232	0.0426	0.9574	29.27
28.5	7,084,297	510,668	0.0721	0.9279	28.02
29.5	5,186,317	248,210	0.0479	0.9521	26.00
30.5	4,719,704	196,677	0.0417	0.9583	24.76
31.5	4,375,182	163,668	0.0374	0.9626	23.72
32.5	4,022,864	141,612	0.0352	0.9648	22.84
33.5	3,706,345	145,481	0.0393	0.9607	22.03
34.5	3,450,235	121,823	0.0353	0.9647	21.17
35.5	3,124,743	87,896	0.0281	0.9719	20.42
36.5	2,941,357	91,541	0.0311	0.9689	19.85
37.5	2,713,396	86,301	0.0318	0.9682	19.23
38.5	2,508,280	79,896	0.0319	0.9681	18.62

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2016

EXPERIENCE BAND 1950-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	2,328,346	106,554	0.0458	0.9542	18.02
40.5	2,129,912	67,819	0.0318	0.9682	17.20
41.5	2,064,661	42,793	0.0207	0.9793	16.65
42.5	1,973,101	33,415	0.0169	0.9831	16.31
43.5	1,869,969	34,567	0.0185	0.9815	16.03
44.5	1,804,013	115,520	0.0640	0.9360	15.73
45.5	1,640,462	39,368	0.0240	0.9760	14.73
46.5	1,606,068	29,982	0.0187	0.9813	14.37
47.5	1,557,264	51,817	0.0333	0.9667	14.10
48.5	1,481,782	55,001	0.0371	0.9629	13.64
49.5	1,416,158	53,363	0.0377	0.9623	13.13
50.5	1,348,857	59,535	0.0441	0.9559	12.63
51.5	1,235,929	37,828	0.0306	0.9694	12.08
52.5	1,175,205	50,781	0.0432	0.9568	11.71
53.5	1,099,779	35,824	0.0326	0.9674	11.20
54.5	1,029,743	25,297	0.0246	0.9754	10.84
55.5	974,590	30,289	0.0311	0.9689	10.57
56.5	922,647	31,773	0.0344	0.9656	10.24
57.5	861,057	28,068	0.0326	0.9674	9.89
58.5	809,320	30,849	0.0381	0.9619	9.57
59.5	739,735	34,473	0.0466	0.9534	9.20
60.5	640,637	38,210	0.0596	0.9404	8.77
61.5	563,600	32,947	0.0585	0.9415	8.25
62.5	504,215	36,950	0.0733	0.9267	7.77
63.5	443,519	29,139	0.0657	0.9343	7.20
64.5	395,230	41,041	0.1038	0.8962	6.73
65.5	345,395	36,506	0.1057	0.8943	6.03
66.5	306,919	28,585	0.0931	0.9069	5.39
67.5	275,268	24,931	0.0906	0.9094	4.89
68.5	243,481	28,831	0.1184	0.8816	4.45
69.5	212,809	19,994	0.0940	0.9060	3.92
70.5	187,242	29,031	0.1550	0.8450	3.55
71.5	156,154	31,912	0.2044	0.7956	3.00
72.5	123,921	21,649	0.1747	0.8253	2.39
73.5	102,672	19,787	0.1927	0.8073	1.97
74.5	81,801	14,403	0.1761	0.8239	1.59
75.5	66,188	8,300	0.1254	0.8746	1.31
76.5	57,332	11,480	0.2002	0.7998	1.15
77.5	46,052	12,431	0.2699	0.7301	0.92
78.5	33,317	4,779	0.1434	0.8566	0.67

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2016			EXPERIENCE BAND 1950-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	28,133	4,601	0.1636	0.8364	0.57	
80.5	22,972	4,073	0.1773	0.8227	0.48	
81.5	18,829	2,746	0.1458	0.8542	0.39	
82.5	15,858	3,167	0.1997	0.8003	0.34	
83.5	12,661	2,961	0.2339	0.7661	0.27	
84.5	9,444	931	0.0986	0.9014	0.21	
85.5	8,261	45	0.0054	0.9946	0.19	
86.5	8,147	287	0.0352	0.9648	0.19	
87.5	7,860	14	0.0018	0.9982	0.18	
88.5	7,690	717	0.0933	0.9067	0.18	
89.5	6,946	39	0.0056	0.9944	0.16	
90.5	6,811	27	0.0039	0.9961	0.16	
91.5	6,997	7	0.0009	0.9991	0.16	
92.5	6,737	90	0.0134	0.9866	0.16	
93.5	6,647	103	0.0155	0.9845	0.16	
94.5	6,441	31	0.0048	0.9952	0.16	
95.5	6,154	31	0.0051	0.9949	0.15	
96.5	6,059		0.0000	1.0000	0.15	
97.5	5,646	398	0.0705	0.9295	0.15	
98.5	4,915		0.0000	1.0000	0.14	
99.5	4,807	213	0.0444	0.9556	0.14	
100.5	4,225		0.0000	1.0000	0.14	
101.5	3,723	31	0.0083	0.9917	0.14	
102.5	3,475		0.0000	1.0000	0.14	
103.5	3,132		0.0000	1.0000	0.14	
104.5	3,132		0.0000	1.0000	0.14	
105.5	2,844		0.0000	1.0000	0.14	
106.5	2,433		0.0000	1.0000	0.14	
107.5	2,350	45	0.0190	0.9810	0.14	
108.5	2,186	93	0.0424	0.9576	0.13	
109.5	2,041		0.0000	1.0000	0.13	
110.5	1,976	1,762	0.8917	0.1083	0.13	
111.5	98		0.0000	1.0000	0.01	
112.5	95		0.0000	1.0000	0.01	
113.5	50		0.0000	1.0000	0.01	
114.5	16		0.0000	1.0000	0.01	
115.5	15		0.0000	1.0000	0.01	
116.5					0.01	

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1893-2016

EXPERIENCE BAND 1997-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	180,632,795	24,202	0.0001	0.9999	100.00
0.5	175,968,970	869,070	0.0049	0.9951	99.99
1.5	165,583,167	1,964,197	0.0119	0.9881	99.49
2.5	159,831,955	1,686,090	0.0105	0.9895	98.31
3.5	152,677,859	1,049,721	0.0069	0.9931	97.28
4.5	141,702,763	1,396,990	0.0099	0.9901	96.61
5.5	125,945,573	4,296,827	0.0341	0.9659	95.65
6.5	109,709,483	2,438,462	0.0222	0.9778	92.39
7.5	103,359,335	1,343,607	0.0130	0.9870	90.34
8.5	101,714,519	2,664,029	0.0262	0.9738	89.16
9.5	98,596,751	4,027,896	0.0409	0.9591	86.83
10.5	96,630,126	1,891,338	0.0196	0.9804	83.28
11.5	92,196,717	4,238,004	0.0460	0.9540	81.65
12.5	89,375,168	3,743,313	0.0419	0.9581	77.90
13.5	86,169,045	5,986,923	0.0695	0.9305	74.63
14.5	76,820,354	3,177,961	0.0414	0.9586	69.45
15.5	69,069,915	5,090,769	0.0737	0.9263	66.58
16.5	60,377,633	4,200,900	0.0696	0.9304	61.67
17.5	52,337,908	4,741,869	0.0906	0.9094	57.38
18.5	31,100,109	2,594,419	0.0834	0.9166	52.18
19.5	25,327,167	2,162,761	0.0854	0.9146	47.83
20.5	20,063,259	1,099,619	0.0548	0.9452	43.74
21.5	16,328,348	1,531,823	0.0938	0.9062	41.35
22.5	13,534,709	869,220	0.0642	0.9358	37.47
23.5	10,034,059	985,628	0.0982	0.9018	35.06
24.5	7,472,073	490,750	0.0657	0.9343	31.62
25.5	5,440,994	149,412	0.0275	0.9725	29.54
26.5	5,440,333	183,607	0.0337	0.9663	28.73
27.5	4,791,486	156,470	0.0327	0.9673	27.76
28.5	4,107,139	133,716	0.0326	0.9674	26.85
29.5	2,601,974	143,150	0.0550	0.9450	25.98
30.5	2,286,556	101,584	0.0444	0.9556	24.55
31.5	2,116,115	63,186	0.0299	0.9701	23.46
32.5	1,882,415	48,843	0.0259	0.9741	22.76
33.5	1,684,097	48,543	0.0288	0.9712	22.17
34.5	1,562,152	51,411	0.0329	0.9671	21.53
35.5	1,336,411	22,490	0.0168	0.9832	20.82
36.5	1,240,818	30,708	0.0247	0.9753	20.47
37.5	1,100,493	18,898	0.0172	0.9828	19.96
38.5	976,209	21,441	0.0220	0.9780	19.62

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2016			EXPERIENCE BAND 1997-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	920,591	43,343	0.0471	0.9529	19.19
40.5	843,678	21,967	0.0260	0.9740	18.29
41.5	810,769	11,099	0.0137	0.9863	17.81
42.5	780,741	12,568	0.0161	0.9839	17.57
43.5	727,469	15,779	0.0217	0.9783	17.28
44.5	706,188	98,924	0.1401	0.8599	16.91
45.5	580,402	15,342	0.0264	0.9736	14.54
46.5	588,649	5,870	0.0100	0.9900	14.16
47.5	580,258	11,077	0.0191	0.9809	14.01
48.5	565,908	13,042	0.0230	0.9770	13.75
49.5	553,720	26,428	0.0477	0.9523	13.43
50.5	527,161	19,978	0.0379	0.9621	12.79
51.5	458,323	13,003	0.0284	0.9716	12.30
52.5	424,977	11,985	0.0282	0.9718	11.96
53.5	390,819	4,757	0.0122	0.9878	11.62
54.5	357,436	2,559	0.0072	0.9928	11.48
55.5	337,055	6,717	0.0199	0.9801	11.39
56.5	317,515	5,591	0.0176	0.9824	11.17
57.5	288,666	4,142	0.0143	0.9857	10.97
58.5	265,165	6,354	0.0240	0.9760	10.81
59.5	223,749	6,318	0.0282	0.9718	10.55
60.5	156,418	7,009	0.0448	0.9552	10.26
61.5	113,885	4,920	0.0432	0.9568	9.80
62.5	87,521	6,442	0.0736	0.9264	9.37
63.5	59,601	3,067	0.0515	0.9485	8.68
64.5	39,390	2,881	0.0731	0.9269	8.24
65.5	33,847	5,888	0.1739	0.8261	7.63
66.5	33,671	2,504	0.0744	0.9256	6.31
67.5	42,307	5,050	0.1194	0.8806	5.84
68.5	35,864	8,900	0.2481	0.7519	5.14
69.5	45,278	8,430	0.1862	0.8138	3.86
70.5	35,945	16,262	0.4524	0.5476	3.15
71.5	24,862	11,009	0.4428	0.5572	1.72
72.5	19,026	6,824	0.3587	0.6413	0.96
73.5	19,385	6,074	0.3133	0.6867	0.62
74.5	14,384	4,514	0.3138	0.6862	0.42
75.5	10,300	1,421	0.1379	0.8621	0.29
76.5	9,123	2,655	0.2910	0.7090	0.25
77.5	8,195	1,159	0.1414	0.8586	0.18
78.5	7,345	891	0.1213	0.8787	0.15

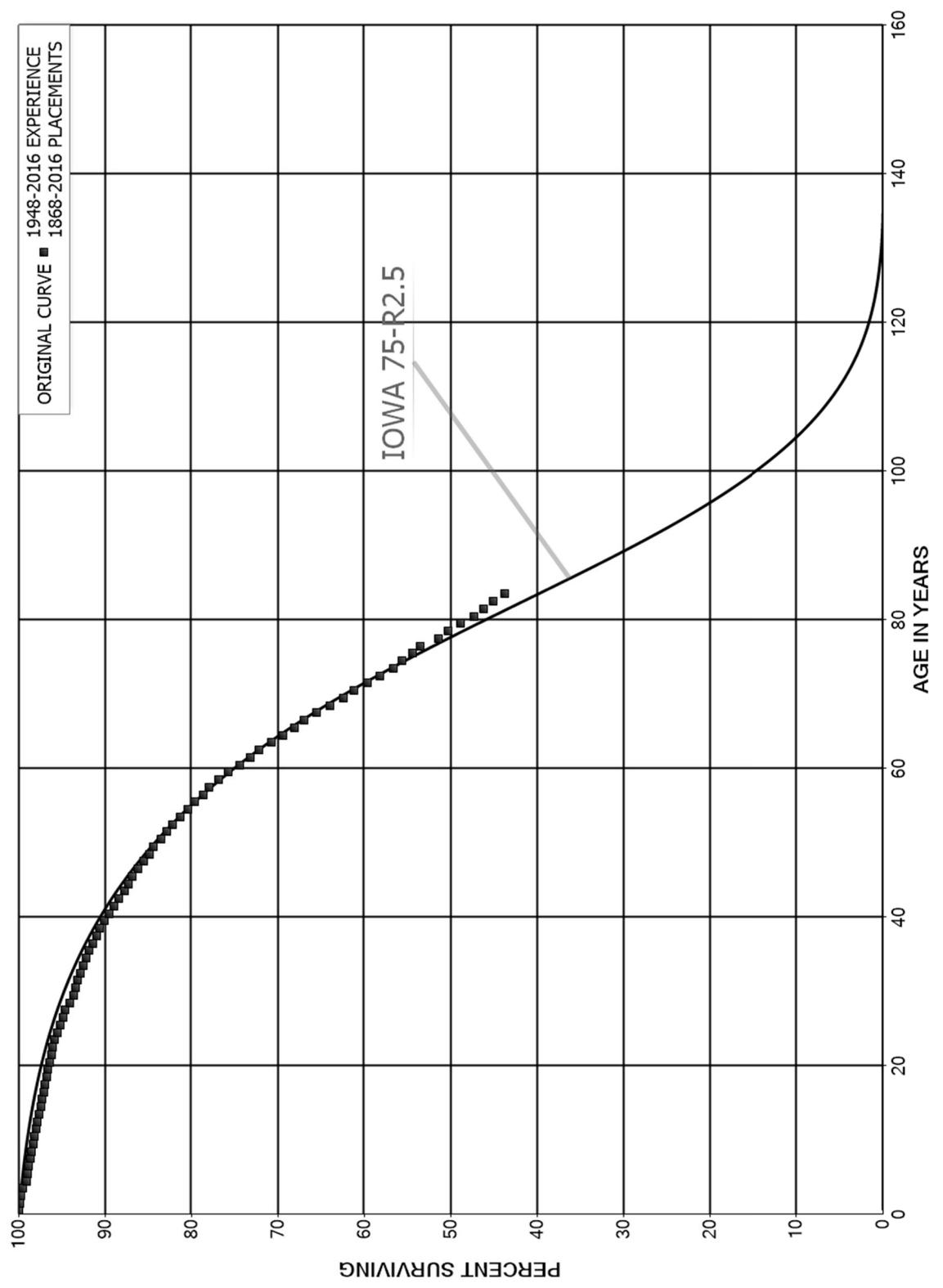
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1893-2016			EXPERIENCE BAND 1997-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
79.5	7,301	1,692	0.2318	0.7682	0.13	
80.5	7,365	1,862	0.2528	0.7472	0.10	
81.5	6,511	526	0.0807	0.9193	0.08	
82.5	5,962	911	0.1528	0.8472	0.07	
83.5	6,189	1,944	0.3141	0.6859	0.06	
84.5	4,352	520	0.1195	0.8805	0.04	
85.5	4,387		0.0000	1.0000	0.04	
86.5	4,711		0.0000	1.0000	0.04	
87.5	4,798	4	0.0007	0.9993	0.04	
88.5	4,814	644	0.1337	0.8663	0.04	
89.5	4,195		0.0000	1.0000	0.03	
90.5	4,164		0.0000	1.0000	0.03	
91.5	4,493		0.0000	1.0000	0.03	
92.5	4,243		0.0000	1.0000	0.03	
93.5	4,288		0.0000	1.0000	0.03	
94.5	4,219		0.0000	1.0000	0.03	
95.5	3,964		0.0000	1.0000	0.03	
96.5	6,028		0.0000	1.0000	0.03	
97.5	5,615	398	0.0709	0.9291	0.03	
98.5	4,884		0.0000	1.0000	0.03	
99.5	4,776	213	0.0447	0.9553	0.03	
100.5	4,194		0.0000	1.0000	0.03	
101.5	3,692		0.0000	1.0000	0.03	
102.5	3,475		0.0000	1.0000	0.03	
103.5	3,132		0.0000	1.0000	0.03	
104.5	3,132		0.0000	1.0000	0.03	
105.5	2,844		0.0000	1.0000	0.03	
106.5	2,433		0.0000	1.0000	0.03	
107.5	2,350	45	0.0190	0.9810	0.03	
108.5	2,186	93	0.0424	0.9576	0.03	
109.5	2,041		0.0000	1.0000	0.03	
110.5	1,976	1,762	0.8917	0.1083	0.03	
111.5	98		0.0000	1.0000	0.00	
112.5	95		0.0000	1.0000	0.00	
113.5	50		0.0000	1.0000	0.00	
114.5	16		0.0000	1.0000	0.00	
115.5	15		0.0000	1.0000	0.00	
116.5					0.00	

PENNSYLVANIA-AMERICAN WATER COMPANY
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PENNSYLVANIA-AMERICAN WATER COMPANY
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ACCOUNT 335 FIRE HYDRANTS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1868-2016

EXPERIENCE BAND 1948-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	90,522,438	37,965	0.0004	0.9996	100.00
0.5	85,205,035	73,171	0.0009	0.9991	99.96
1.5	77,975,220	101,316	0.0013	0.9987	99.87
2.5	73,708,823	149,267	0.0020	0.9980	99.74
3.5	68,322,543	304,483	0.0045	0.9955	99.54
4.5	64,291,730	93,297	0.0015	0.9985	99.10
5.5	66,045,011	89,418	0.0014	0.9986	98.95
6.5	61,633,800	111,755	0.0018	0.9982	98.82
7.5	54,190,520	69,114	0.0013	0.9987	98.64
8.5	51,160,903	91,425	0.0018	0.9982	98.51
9.5	46,437,628	90,488	0.0019	0.9981	98.34
10.5	40,980,886	65,444	0.0016	0.9984	98.15
11.5	41,104,242	79,017	0.0019	0.9981	97.99
12.5	39,082,916	62,506	0.0016	0.9984	97.80
13.5	35,279,727	74,954	0.0021	0.9979	97.64
14.5	33,512,400	49,386	0.0015	0.9985	97.44
15.5	31,816,167	60,182	0.0019	0.9981	97.29
16.5	30,246,073	51,235	0.0017	0.9983	97.11
17.5	28,326,641	57,095	0.0020	0.9980	96.95
18.5	26,741,043	47,472	0.0018	0.9982	96.75
19.5	24,981,136	53,173	0.0021	0.9979	96.58
20.5	23,437,943	41,039	0.0018	0.9982	96.37
21.5	21,786,671	37,786	0.0017	0.9983	96.20
22.5	20,237,776	50,707	0.0025	0.9975	96.04
23.5	19,143,507	58,377	0.0030	0.9970	95.80
24.5	17,770,294	62,704	0.0035	0.9965	95.50
25.5	16,796,592	49,779	0.0030	0.9970	95.17
26.5	15,621,958	48,668	0.0031	0.9969	94.89
27.5	14,540,209	81,460	0.0056	0.9944	94.59
28.5	13,313,021	55,204	0.0041	0.9959	94.06
29.5	12,436,257	30,156	0.0024	0.9976	93.67
30.5	11,676,964	36,874	0.0032	0.9968	93.44
31.5	10,980,945	31,154	0.0028	0.9972	93.15
32.5	10,379,704	36,281	0.0035	0.9965	92.88
33.5	9,771,557	34,991	0.0036	0.9964	92.56
34.5	9,137,775	41,092	0.0045	0.9955	92.23
35.5	8,673,794	41,414	0.0048	0.9952	91.81
36.5	8,063,986	32,472	0.0040	0.9960	91.37
37.5	7,437,786	34,729	0.0047	0.9953	91.01
38.5	6,694,222	34,489	0.0052	0.9948	90.58

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2016

EXPERIENCE BAND 1948-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
39.5	6,282,087	40,213	0.0064	0.9936	90.11
40.5	5,973,295	37,874	0.0063	0.9937	89.54
41.5	5,492,160	32,974	0.0060	0.9940	88.97
42.5	5,082,903	43,884	0.0086	0.9914	88.44
43.5	4,704,580	19,919	0.0042	0.9958	87.67
44.5	4,328,354	24,719	0.0057	0.9943	87.30
45.5	4,086,109	27,428	0.0067	0.9933	86.80
46.5	3,867,523	32,315	0.0084	0.9916	86.22
47.5	3,645,404	26,943	0.0074	0.9926	85.50
48.5	3,416,207	21,152	0.0062	0.9938	84.87
49.5	3,227,884	30,279	0.0094	0.9906	84.34
50.5	3,033,263	24,467	0.0081	0.9919	83.55
51.5	2,832,846	25,175	0.0089	0.9911	82.88
52.5	2,646,114	28,012	0.0106	0.9894	82.14
53.5	2,453,778	26,008	0.0106	0.9894	81.27
54.5	2,304,376	23,305	0.0101	0.9899	80.41
55.5	2,168,966	25,585	0.0118	0.9882	79.60
56.5	1,983,047	19,313	0.0097	0.9903	78.66
57.5	1,855,327	24,065	0.0130	0.9870	77.89
58.5	1,691,512	26,605	0.0157	0.9843	76.88
59.5	1,518,325	24,609	0.0162	0.9838	75.67
60.5	1,335,065	22,747	0.0170	0.9830	74.45
61.5	1,190,333	16,663	0.0140	0.9860	73.18
62.5	1,059,456	21,284	0.0201	0.9799	72.15
63.5	966,297	17,229	0.0178	0.9822	70.70
64.5	902,059	17,206	0.0191	0.9809	69.44
65.5	831,479	13,562	0.0163	0.9837	68.12
66.5	799,597	18,220	0.0228	0.9772	67.01
67.5	732,708	16,496	0.0225	0.9775	65.48
68.5	685,917	17,619	0.0257	0.9743	64.01
69.5	639,393	12,668	0.0198	0.9802	62.36
70.5	609,656	14,993	0.0246	0.9754	61.13
71.5	579,556	13,956	0.0241	0.9759	59.62
72.5	559,113	14,829	0.0265	0.9735	58.19
73.5	541,899	10,353	0.0191	0.9809	56.64
74.5	525,851	10,558	0.0201	0.9799	55.56
75.5	493,663	8,710	0.0176	0.9824	54.45
76.5	473,159	18,098	0.0382	0.9618	53.49
77.5	441,100	10,218	0.0232	0.9768	51.44
78.5	422,623	11,723	0.0277	0.9723	50.25

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2016

EXPERIENCE BAND 1948-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	401,241	12,773	0.0318	0.9682	48.85
80.5	374,632	9,117	0.0243	0.9757	47.30
81.5	351,472	8,116	0.0231	0.9769	46.15
82.5	336,375	10,463	0.0311	0.9689	45.08
83.5	318,254	5,536	0.0174	0.9826	43.68
84.5	306,214	6,028	0.0197	0.9803	42.92
85.5	292,413	9,393	0.0321	0.9679	42.08
86.5	271,782	4,311	0.0159	0.9841	40.72
87.5	251,646	6,378	0.0253	0.9747	40.08
88.5	237,137	5,959	0.0251	0.9749	39.06
89.5	220,310	5,684	0.0258	0.9742	38.08
90.5	204,972	6,897	0.0336	0.9664	37.10
91.5	197,747	3,315	0.0168	0.9832	35.85
92.5	185,889	4,345	0.0234	0.9766	35.25
93.5	176,309	3,481	0.0197	0.9803	34.42
94.5	163,268	6,295	0.0386	0.9614	33.74
95.5	154,086	4,089	0.0265	0.9735	32.44
96.5	140,057	2,744	0.0196	0.9804	31.58
97.5	139,745	4,460	0.0319	0.9681	30.96
98.5	132,424	3,409	0.0257	0.9743	29.98
99.5	124,802	5,409	0.0433	0.9567	29.20
100.5	118,499	1,447	0.0122	0.9878	27.94
101.5	110,313	3,861	0.0350	0.9650	27.60
102.5	104,727	2,445	0.0233	0.9767	26.63
103.5	101,538	2,310	0.0228	0.9772	26.01
104.5	96,031	5,417	0.0564	0.9436	25.42
105.5	89,487	2,273	0.0254	0.9746	23.98
106.5	84,125	6,503	0.0773	0.9227	23.38
107.5	77,345	3,583	0.0463	0.9537	21.57
108.5	73,649	4,644	0.0631	0.9369	20.57
109.5	68,384	6,934	0.1014	0.8986	19.27
110.5	62,309	3,789	0.0608	0.9392	17.32
111.5	61,213	2,502	0.0409	0.9591	16.26
112.5	62,454	4,078	0.0653	0.9347	15.60
113.5	56,999	5,221	0.0916	0.9084	14.58
114.5	49,716	4,698	0.0945	0.9055	13.25
115.5	45,598	1,789	0.0392	0.9608	11.99
116.5	43,952	2,766	0.0629	0.9371	11.52
117.5	38,360	233	0.0061	0.9939	10.80
118.5	47,055		0.0000	1.0000	10.73

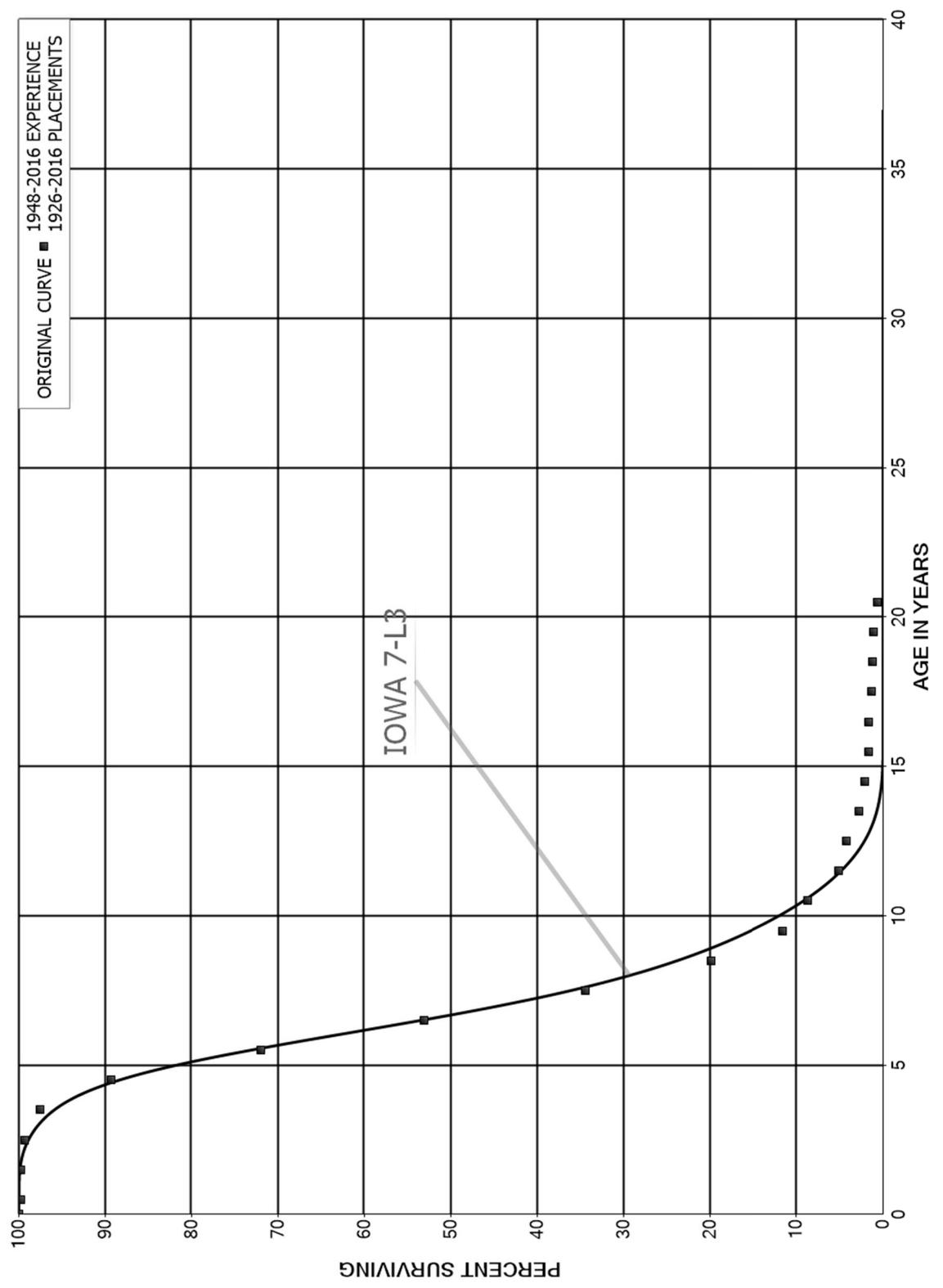
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1868-2016			EXPERIENCE BAND 1948-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
119.5	46,484	735	0.0158	0.9842	10.73	
120.5	44,586	522	0.0117	0.9883	10.56	
121.5	39,840	76	0.0019	0.9981	10.44	
122.5	37,245	125	0.0033	0.9967	10.42	
123.5	23,527	1,065	0.0453	0.9547	10.38	
124.5	18,793	348	0.0185	0.9815	9.91	
125.5	15,518	62	0.0040	0.9960	9.73	
126.5	14,684		0.0000	1.0000	9.69	
127.5	14,167		0.0000	1.0000	9.69	
128.5	14,167		0.0000	1.0000	9.69	
129.5	13,605	869	0.0639	0.9361	9.69	
130.5	11,978	174	0.0145	0.9855	9.07	
131.5	10,525		0.0000	1.0000	8.94	
132.5	9,655	236	0.0245	0.9755	8.94	
133.5	8,599		0.0000	1.0000	8.72	
134.5	8,363		0.0000	1.0000	8.72	
135.5	8,363		0.0000	1.0000	8.72	
136.5	8,363		0.0000	1.0000	8.72	
137.5	8,363		0.0000	1.0000	8.72	
138.5	7,605		0.0000	1.0000	8.72	
139.5	7,605	72	0.0095	0.9905	8.72	
140.5	7,533		0.0000	1.0000	8.64	
141.5	7,533	139	0.0185	0.9815	8.64	
142.5	7,393		0.0000	1.0000	8.48	
143.5					8.48	

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNTS 341 THROUGH 341.4 TRANSPORTATION EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 341 THROUGH 341.4 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1926-2016

EXPERIENCE BAND 1948-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	41,573,926	95,788	0.0023	0.9977	100.00
0.5	36,835,755	28,401	0.0008	0.9992	99.77
1.5	30,733,049	135,059	0.0044	0.9956	99.69
2.5	29,272,402	516,381	0.0176	0.9824	99.25
3.5	18,429,323	1,547,338	0.0840	0.9160	97.50
4.5	8,151,581	1,587,231	0.1947	0.8053	89.32
5.5	6,459,400	1,695,203	0.2624	0.7376	71.93
6.5	2,101,124	736,749	0.3506	0.6494	53.05
7.5	1,741,605	739,620	0.4247	0.5753	34.45
8.5	1,231,595	514,587	0.4178	0.5822	19.82
9.5	917,767	231,407	0.2521	0.7479	11.54
10.5	778,443	322,899	0.4148	0.5852	8.63
11.5	523,937	89,375	0.1706	0.8294	5.05
12.5	504,780	174,087	0.3449	0.6551	4.19
13.5	344,226	84,729	0.2461	0.7539	2.74
14.5	271,914	63,402	0.2332	0.7668	2.07
15.5	213,629	176	0.0008	0.9992	1.59
16.5	209,592	44,646	0.2130	0.7870	1.58
17.5	205,601	4,027	0.0196	0.9804	1.25
18.5	192,818	30,236	0.1568	0.8432	1.22
19.5	154,424	67,296	0.4358	0.5642	1.03
20.5	69,677	7,962	0.1143	0.8857	0.58
21.5	53,847	448	0.0083	0.9917	0.52
22.5	53,399	261	0.0049	0.9951	0.51
23.5	53,119	27,796	0.5233	0.4767	0.51
24.5	25,296	227	0.0090	0.9910	0.24
25.5	24,855	736	0.0296	0.9704	0.24
26.5	18,516	489	0.0264	0.9736	0.23
27.5	8,842	208	0.0235	0.9765	0.23
28.5	7,305	753	0.1031	0.8969	0.22
29.5	4,326	1,444	0.3338	0.6662	0.20
30.5	2,533	284	0.1119	0.8881	0.13
31.5	3,470	385	0.1108	0.8892	0.12
32.5	2,670		0.0000	1.0000	0.10
33.5	2,935	1,802	0.6140	0.3860	0.10
34.5	2,112		0.0000	1.0000	0.04
35.5	2,863	0	0.0001	0.9999	0.04
36.5	2,862	361	0.1261	0.8739	0.04
37.5	2,477	1,141	0.4608	0.5392	0.04
38.5	1,828		0.0000	1.0000	0.02

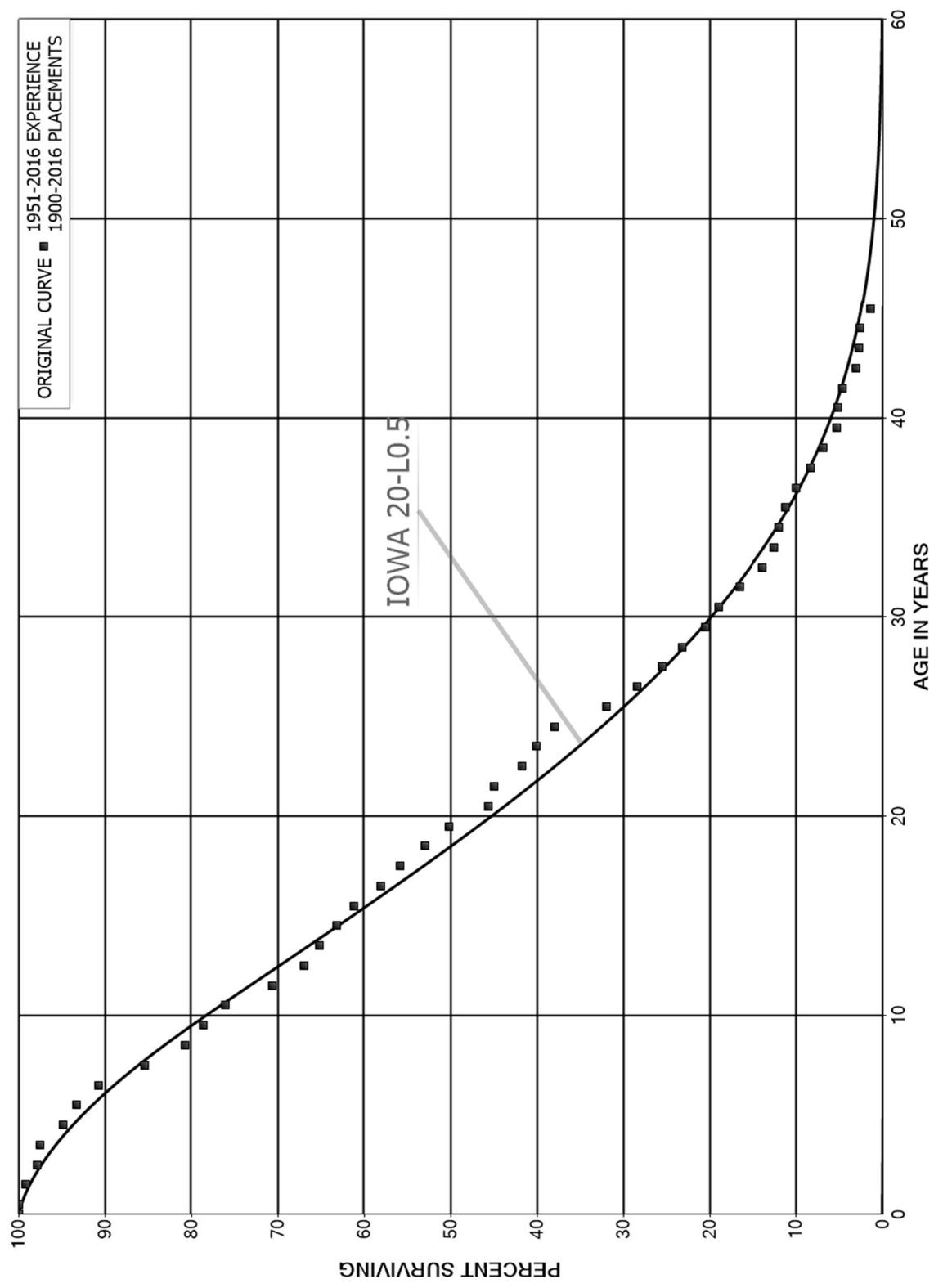
PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNTS 341 THROUGH 341.4 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1926-2016			EXPERIENCE BAND 1948-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	1,210		0.0000	1.0000	0.02	
40.5	1,058	757	0.7160	0.2840	0.02	
41.5	300		0.0000	1.0000	0.01	
42.5	300		0.0000	1.0000	0.01	
43.5	300		0.0000	1.0000	0.01	
44.5	300	70	0.2330	0.7670	0.01	
45.5	230	0	0.0021	0.9979	0.00	
46.5	316		0.0000	1.0000	0.00	
47.5	316	83	0.2628	0.7372	0.00	
48.5	233	147	0.6313	0.3687	0.00	
49.5	86		0.0000	1.0000	0.00	
50.5	461		0.0000	1.0000	0.00	
51.5	375		0.0000	1.0000	0.00	
52.5	375		0.0000	1.0000	0.00	
53.5	375		0.0000	1.0000	0.00	
54.5	375		0.0000	1.0000	0.00	
55.5					0.00	
56.5						
57.5	59		0.0000			
58.5	59		0.0000			
59.5	59	59	1.0000			
60.5						

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 344 LABORATORY EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1900-2016

EXPERIENCE BAND 1951-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	7,065,690	1,204	0.0002	0.9998	100.00
0.5	7,183,136	59,097	0.0082	0.9918	99.98
1.5	7,007,121	93,282	0.0133	0.9867	99.16
2.5	6,832,200	21,752	0.0032	0.9968	97.84
3.5	6,707,208	187,529	0.0280	0.9720	97.53
4.5	6,438,664	105,745	0.0164	0.9836	94.80
5.5	6,161,519	165,429	0.0268	0.9732	93.25
6.5	5,901,385	346,632	0.0587	0.9413	90.74
7.5	5,336,012	291,714	0.0547	0.9453	85.41
8.5	4,847,213	128,307	0.0265	0.9735	80.74
9.5	4,613,770	148,003	0.0321	0.9679	78.60
10.5	4,338,773	313,921	0.0724	0.9276	76.08
11.5	3,959,347	206,250	0.0521	0.9479	70.58
12.5	3,611,462	96,047	0.0266	0.9734	66.90
13.5	3,234,408	98,056	0.0303	0.9697	65.12
14.5	3,035,548	92,970	0.0306	0.9694	63.15
15.5	2,873,200	146,640	0.0510	0.9490	61.21
16.5	2,728,298	107,493	0.0394	0.9606	58.09
17.5	2,525,905	129,215	0.0512	0.9488	55.80
18.5	2,344,663	121,496	0.0518	0.9482	52.95
19.5	2,070,835	189,690	0.0916	0.9084	50.20
20.5	1,822,841	25,350	0.0139	0.9861	45.60
21.5	1,599,937	116,421	0.0728	0.9272	44.97
22.5	1,327,003	51,921	0.0391	0.9609	41.70
23.5	1,277,110	67,954	0.0532	0.9468	40.07
24.5	1,160,827	184,923	0.1593	0.8407	37.93
25.5	879,273	95,142	0.1082	0.8918	31.89
26.5	679,398	70,863	0.1043	0.8957	28.44
27.5	486,620	43,740	0.0899	0.9101	25.47
28.5	387,064	44,999	0.1163	0.8837	23.18
29.5	337,622	25,071	0.0743	0.9257	20.49
30.5	277,518	35,235	0.1270	0.8730	18.97
31.5	206,321	33,709	0.1634	0.8366	16.56
32.5	166,085	16,477	0.0992	0.9008	13.85
33.5	146,794	6,381	0.0435	0.9565	12.48
34.5	135,543	9,179	0.0677	0.9323	11.94
35.5	126,395	13,508	0.1069	0.8931	11.13
36.5	112,215	18,062	0.1610	0.8390	9.94
37.5	92,961	17,373	0.1869	0.8131	8.34
38.5	72,161	16,306	0.2260	0.7740	6.78

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016			EXPERIENCE BAND 1951-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	45,443	442	0.0097	0.9903	5.25	
40.5	45,123	5,085	0.1127	0.8873	5.20	
41.5	40,207	13,506	0.3359	0.6641	4.61	
42.5	26,751	2,958	0.1106	0.8894	3.06	
43.5	24,077	730	0.0303	0.9697	2.72	
44.5	26,543	12,162	0.4582	0.5418	2.64	
45.5	14,651	1,204	0.0821	0.9179	1.43	
46.5	13,447	2,692	0.2002	0.7998	1.31	
47.5	10,755	1,385	0.1287	0.8713	1.05	
48.5	9,371	376	0.0401	0.9599	0.92	
49.5	8,948	140	0.0156	0.9844	0.88	
50.5	9,023	1,146	0.1270	0.8730	0.86	
51.5	7,877	1,143	0.1451	0.8549	0.76	
52.5	6,734	1,072	0.1591	0.8409	0.65	
53.5	5,663	208	0.0368	0.9632	0.54	
54.5	5,414	269	0.0497	0.9503	0.52	
55.5	5,145	248	0.0483	0.9517	0.50	
56.5	4,896	266	0.0543	0.9457	0.47	
57.5	4,630	152	0.0328	0.9672	0.45	
58.5	4,478	140	0.0313	0.9687	0.43	
59.5	4,338	370	0.0853	0.9147	0.42	
60.5	3,968	3,101	0.7815	0.2185	0.38	
61.5	867		0.0000	1.0000	0.08	
62.5	867		0.0000	1.0000	0.08	
63.5	867		0.0000	1.0000	0.08	
64.5	867		0.0000	1.0000	0.08	
65.5	867		0.0000	1.0000	0.08	
66.5	867	252	0.2906	0.7094	0.08	
67.5	615	115	0.1870	0.8130	0.06	
68.5	500	365	0.7301	0.2699	0.05	
69.5	135		0.0000	1.0000	0.01	
70.5	135		0.0000	1.0000	0.01	
71.5	135		0.0000	1.0000	0.01	
72.5	135		0.0000	1.0000	0.01	
73.5	135		0.0000	1.0000	0.01	
74.5	135		0.0000	1.0000	0.01	
75.5	135		0.0000	1.0000	0.01	
76.5	135		0.0000	1.0000	0.01	
77.5	135	12	0.0924	0.9076	0.01	
78.5	123		0.0000	1.0000	0.01	

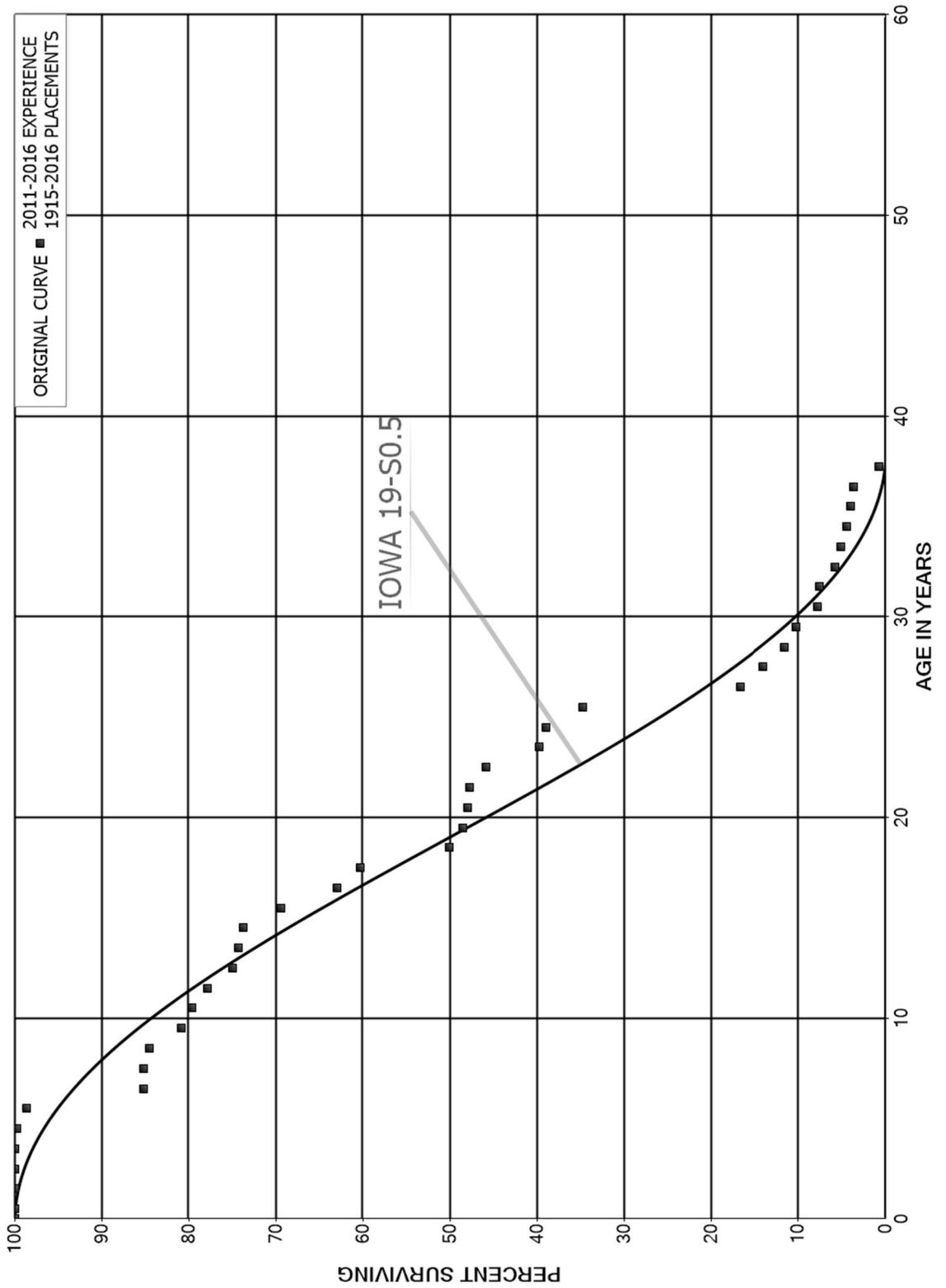
PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1900-2016			EXPERIENCE BAND 1951-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5	123		0.0000	1.0000	0.01
80.5	123		0.0000	1.0000	0.01
81.5	123		0.0000	1.0000	0.01
82.5	123		0.0000	1.0000	0.01
83.5	123		0.0000	1.0000	0.01
84.5	123		0.0000	1.0000	0.01
85.5	123		0.0000	1.0000	0.01
86.5	123	123	1.0000		0.01
87.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
 ALL WATER OPERATIONS
 ACCOUNT 345 POWER OPERATED EQUIPMENT
 ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 345 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1915-2016

EXPERIENCE BAND 2011-2016

AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
0.0	321,425		0.0000	1.0000	100.00
0.5	213,179		0.0000	1.0000	100.00
1.5	207,196		0.0000	1.0000	100.00
2.5	171,470		0.0000	1.0000	100.00
3.5	267,001	706	0.0026	0.9974	100.00
4.5	215,703	2,308	0.0107	0.9893	99.74
5.5	231,650	31,583	0.1363	0.8637	98.67
6.5	251,539		0.0000	1.0000	85.22
7.5	286,447	2,376	0.0083	0.9917	85.22
8.5	742,759	32,572	0.0439	0.9561	84.51
9.5	846,821	12,178	0.0144	0.9856	80.80
10.5	883,811	20,467	0.0232	0.9768	79.64
11.5	816,349	30,168	0.0370	0.9630	77.80
12.5	956,923	7,934	0.0083	0.9917	74.92
13.5	581,774	4,274	0.0073	0.9927	74.30
14.5	606,023	35,404	0.0584	0.9416	73.76
15.5	802,726	75,460	0.0940	0.9060	69.45
16.5	883,586	37,199	0.0421	0.9579	62.92
17.5	772,532	131,102	0.1697	0.8303	60.27
18.5	630,430	19,080	0.0303	0.9697	50.04
19.5	576,682	7,461	0.0129	0.9871	48.53
20.5	503,419	2,268	0.0045	0.9955	47.90
21.5	369,438	13,970	0.0378	0.9622	47.68
22.5	252,890	33,950	0.1342	0.8658	45.88
23.5	351,307	7,274	0.0207	0.9793	39.72
24.5	380,298	40,680	0.1070	0.8930	38.90
25.5	367,562	191,305	0.5205	0.4795	34.74
26.5	251,799	40,372	0.1603	0.8397	16.66
27.5	238,440	42,236	0.1771	0.8229	13.99
28.5	180,134	20,361	0.1130	0.8870	11.51
29.5	173,728	42,395	0.2440	0.7560	10.21
30.5	137,873	4,481	0.0325	0.9675	7.72
31.5	84,593	19,390	0.2292	0.7708	7.47
32.5	64,652	7,346	0.1136	0.8864	5.76
33.5	65,207	8,434	0.1293	0.8707	5.10
34.5	113,370	13,000	0.1147	0.8853	4.44
35.5	79,593	6,110	0.0768	0.9232	3.93
36.5	73,846	59,287	0.8029	0.1971	3.63
37.5	18,825	4,193	0.2227	0.7773	0.72
38.5	31,138	7,527	0.2417	0.7583	0.56

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 345 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2016			EXPERIENCE BAND 2011-2016			
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL	
39.5	29,868	4,438	0.1486	0.8514	0.42	
40.5	27,638	16,093	0.5823	0.4177	0.36	
41.5	28,243	531	0.0188	0.9812	0.15	
42.5	33,550	2,208	0.0658	0.9342	0.15	
43.5	35,135	9,019	0.2567	0.7433	0.14	
44.5	23,364	5,020	0.2149	0.7851	0.10	
45.5	21,579	4,963	0.2300	0.7700	0.08	
46.5	9,179	1,590	0.1732	0.8268	0.06	
47.5	12,032	3,235	0.2688	0.7312	0.05	
48.5	8,051	524	0.0651	0.9349	0.04	
49.5	6,364	5,261	0.8266	0.1734	0.03	
50.5	5,007	286	0.0572	0.9428	0.01	
51.5	5,619	817	0.1454	0.8546	0.01	
52.5	4,802	3,904	0.8130	0.1870	0.00	
53.5	2,087	898	0.4303	0.5697	0.00	
54.5	1,189		0.0000	1.0000	0.00	
55.5	1,431	1,189	0.8311	0.1689	0.00	
56.5	260		0.0000	1.0000	0.00	
57.5	1,446	242	0.1670	0.8330	0.00	
58.5	1,827	18	0.0101	0.9899	0.00	
59.5	2,080	1,186	0.5704	0.4296	0.00	
60.5	6,005	623	0.1037	0.8963	0.00	
61.5	6,311	270	0.0429	0.9571	0.00	
62.5	6,408	5,083	0.7932	0.2068	0.00	
63.5	1,605	929	0.5785	0.4215	0.00	
64.5	967	367	0.3794	0.6206	0.00	
65.5	766	148	0.1931	0.8069	0.00	
66.5	1,195	291	0.2432	0.7568	0.00	
67.5	904	196	0.2163	0.7837	0.00	
68.5	617	577	0.9350	0.0650	0.00	
69.5	40		0.0000	1.0000	0.00	
70.5	177	13	0.0726	0.9274	0.00	
71.5	212	7	0.0346	0.9654	0.00	
72.5	409	137	0.3351	0.6649	0.00	
73.5	252		0.0000	1.0000	0.00	
74.5	371	205	0.5529	0.4471	0.00	
75.5	166		0.0000	1.0000	0.00	
76.5	1,041	118	0.1137	0.8863	0.00	
77.5	923		0.0000	1.0000	0.00	
78.5	923	923	1.0000		0.00	

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WATER OPERATIONS

ACCOUNT 345 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2016			EXPERIENCE BAND 2011-2016		
AGE AT BEGIN OF INTERVAL	EXPOSURES AT BEGINNING OF AGE INTERVAL	RETIREMENTS DURING AGE INTERVAL	RETMT RATIO	SURV RATIO	PCT SURV BEGIN OF INTERVAL
79.5					
80.5					
81.5	153		0.0000		
82.5	153		0.0000		
83.5	153	153	1.0000		
84.5					
85.5					
86.5					
87.5	186		0.0000		
88.5	186		0.0000		
89.5	753	186	0.2473		
90.5	833		0.0000		
91.5	833	567	0.6804		
92.5	266	266	1.0000		
93.5					
94.5					
95.5					
96.5	31		0.0000		
97.5	31		0.0000		
98.5	31	31	1.0000		
99.5					

**PART VII. DETAILED DEPRECIATION
CALCULATIONS**

CUMULATIVE DEPRECIATED ORIGINAL COST

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1907	1,319,469	1,290,399	29,070		29,070	0.1
1916	1,028,853	952,134	76,719		105,789	0.5
1926	1,540,710	1,359,076	181,634		287,423	1.2
1946	111,339	83,383	27,956		315,379	1.4
1956	71,186	48,354	22,832		338,211	1.5
1966	54,355	32,264	22,091		360,302	1.6
1971					360,302	1.6
1972					360,302	1.6
1973	16,252,959	12,967,161	3,285,798		3,646,100	15.8
1976	5,347,578	2,762,500	2,585,078		6,231,178	27.0
1985					6,231,178	27.0
1986	1,718,446	718,213	1,000,233		7,231,411	31.4
1996	1,706,723	539,779	1,166,944		8,398,355	36.5
2001					8,398,355	36.5
2004	19,277	8,321	10,956		8,409,311	36.5
2006	5,389,967	1,052,540	4,337,427		12,746,738	55.3
2009	190,440	64,042	126,398		12,873,136	55.9
2010	4,886,185	1,857,817	3,028,368		15,901,504	69.0
2012	8,018	2,146	5,872		15,907,376	69.0
2014	14,886	3,632	11,254		15,918,630	69.1
2015	472,289	66,417	405,872		16,324,502	70.9
2016	1,305,702	87,129	1,218,573		17,543,075	76.1
2017	2,636,761	360,122	2,276,639		19,819,714	86.0
2018	3,430	329	3,101		19,822,815	86.0
2019	123,858	8,535	115,323		19,938,138	86.5
2020	3,143,242	41,468	3,101,774		23,039,912	100.0
SUBTOTAL	47,345,672	24,305,761	23,039,910			
NONDEPRECIABLE	26,993		26,993			
TOTAL	47,372,665	24,305,761	23,066,903			

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R1.5						
2019	6,843.25	270	210	6,633	36.52	182
	6,843.25	270	210	6,633		182
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					36.4	2.66

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 70-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
1973	6,538,505.79	4,720,801	5,326,218	1,212,288	18.29	66,281
2010	4,886,185.28	1,646,644	1,857,817	3,028,368	20.65	146,652
2014	8,099.14	1,927	2,174	5,925	20.82	285
2017	2,013,406.89	288,320	325,295	1,688,112	20.95	80,578
2019	2,025.12	134	151	1,874	21.07	89
2020	10,000.00	232	262	9,738	21.05	463
	13,458,222.22	6,658,058	7,511,917	5,946,305		294,348
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						20.2 2.19

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S1						
1973	112,013.39	80,874	102,332	9,681	18.29	529
	112,013.39	80,874	102,332	9,681		529
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					18.3	0.47

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 43-S1						
2015	416,788.74	66,019	55,558	361,231	29.22	12,362
	416,788.74	66,019	55,558	361,231		12,362
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						29.2 2.97

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 42-S0						
1973	5,686,620.99	4,457,174	4,676,314	1,010,307	13.10	77,123
2012	8,018.37	2,045	2,146	5,872	24.83	236
2014	6,786.40	1,390	1,458	5,328	25.24	211
2018	2,765.50	245	257	2,508	25.75	97
	5,704,191.26	4,460,854	4,680,175	1,024,016		77,667
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.2 1.36

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 60-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
1973	270,428.53	200,388	214,374	56,055	16.60	3,377
2019	78,536.40	5,340	5,713	72,823	20.57	3,540
2020	206,212.08	4,887	5,228	200,984	20.60	9,757
	555,177.01	210,615	225,315	329,862		16,674
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.8 3.00

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 36-R0.5						
1973	263,933.73	219,382	211,751	52,183	9.65	5,408
2004	19,277.41	8,621	8,321	10,956	20.40	537
2009	190,439.68	66,349	64,042	126,398	21.50	5,879
2015	11,767.89	2,408	2,324	9,444	21.38	442
2016	12,895.76	2,270	2,191	10,705	21.07	508
2017	2,531.95	369	356	2,176	20.54	106
2018	664.82	75	72	593	19.72	30
2019	18,557.84	1,399	1,350	17,208	18.38	936
2020	614,550.09	19,666	18,983	595,567	15.12	39,389
	1,134,619.17	320,539	309,390	825,229		53,235

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.5 4.69

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
1973	2,560,029.90	1,641,491	1,997,250	562,780	26.58	21,173
	2,560,029.90	1,641,491	1,997,250	562,780		21,173
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					26.6	0.83

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 110-R2						
1907	1,319,468.60	1,078,270	1,290,399	29,070	25.39	1,145
1916	1,028,853.13	795,612	952,134	76,719	30.64	2,504
1926	1,540,710.11	1,135,657	1,359,076	181,634	33.71	5,388
1946	111,338.77	69,676	83,383	27,956	44.55	628
1956	71,185.66	40,405	48,354	22,832	49.14	465
1966	54,354.86	26,960	32,264	22,091	55.38	399
1973	821,426.67	366,767	438,922	382,505	58.88	6,496
1976	5,017,395.23	2,121,355	2,538,692	2,478,703	60.76	40,795
1986	1,610,084.15	550,005	658,208	951,876	66.51	14,312
1996	1,528,270.44	389,403	466,011	1,062,259	71.65	14,826
2006	5,029,217.78	802,160	959,970	4,069,248	76.41	53,255
2016	1,292,806.56	70,975	84,938	1,207,869	77.47	15,591
2017	600,147.43	26,046	31,170	568,977	77.15	7,375
2020	574,805.62	4,139	4,953	569,853	68.94	8,266
	20,600,065.01	7,477,430	8,948,474	11,651,591		171,445

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 68.0 0.83

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R2.5						
2020	170,000.00	1,666	1,420	168,580	50.78	3,320
	170,000.00	1,666	1,420	168,580		3,320
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						50.8 1.95

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 21-L1						
2015	1,178.69	383	391-	1,570	11.42	137
2020	582,694.79	21,618	22,091-	604,786	12.98	46,594
	583,873.48	22,001	22,482-	606,355		46,731
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.0 8.00

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R2.5						
1976	330,182.69	191,011	223,808	106,375	32.42	3,281
1986	108,361.49	51,212	60,005	48,356	38.50	1,256
1996	178,452.63	62,958	73,768	104,685	44.94	2,329
2006	360,748.87	79,004	92,570	268,179	51.72	5,185
2020	59,979.09	546	640	59,339	54.45	1,090
	1,037,724.77	384,731	450,791	586,934		13,141
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.7 1.27

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 341.2 TRANSPORTATION EQUIPMENT - EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 7-L3						
2020	300,000.00	24,300	18,060	281,940	5.67	49,725
	300,000.00	24,300	18,060	281,940		49,725
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					5.7	16.58

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 343 TOOLS AND WORK EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
2019	4,967.78	373	374	4,594	18.50	248
2020	200,000.00	5,000	5,012	194,988	19.50	9,999
	204,967.78	5,373	5,386	199,582		10,247
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.5 5.00

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L0.5						
2015	1,948.63	658	437	1,512	10.79	140
2017	20,675.02	4,964	3,301	17,374	11.08	1,568
	22,623.65	5,622	3,738	18,886		1,708
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						11.1 7.55

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 346 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
2020	75,000.00	2,500	2,348	72,652	14.50	5,010
	75,000.00	2,500	2,348	72,652		5,010
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					14.5	6.68

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 347 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2020

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
2015	40,604.99	8,933	8,489	32,116	19.50	1,647
2019	12,927.25	776	737	12,190	23.50	519
2020	350,000.00	7,000	6,653	343,347	24.50	14,014
	403,532.24	16,709	15,879	387,653		16,180
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						24.0 4.01

**PART VIII. EXPERIENCED AND ESTIMATED
NET SALVAGE**

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

ESTIMATED RETIREMENTS BY ACCOUNT AND ASSOCIATED
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
304.30	820.87	106.71	8.21	98.50-
320.10	16,930.51	2,200.97		2,200.97-
320.20	50,791.52	6,602.90		6,602.90-
331.00	46,789.76	43,046.58		43,046.58-
334.00	49,252.38	6,402.81	492.52	5,910.29-
335.00	3,283.49	1,182.06		1,182.06-
348.00	823.15			
	168,691.68	59,542.03	500.73	59,041.30-
TOTAL	168,691.68	59,542.03	500.73	59,041.30-

EXHIBIT NO. 11-G - DEPRECIATION STUDY

WATER STEELTON OPERATIONS

AS OF DECEMBER 31, 2021

Exhibit No. 11-G
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WATER STEELTON OPERATIONS

2021 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS

RELATED TO WATER PLANT

AS OF DECEMBER 31, 2021

Prepared by:



Gannett Fleming

*Excellence Delivered **As Promised***

Exhibit No. 11-G
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WATER STEELTON OPERATIONS

2021 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WATER PLANT
AS OF DECEMBER 31, 2021

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



Gannett Fleming

*Excellence Delivered **As Promised***

April 22, 2020

Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055

Attention: Ashley E. Everette
Director, Rates & Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of December 31, 2021. The results of our study at December 31, 2020 are presented in our report titled "2020 Depreciation Study - Calculated Annual Depreciation Accruals Related to Water Plant as of December 31, 2020". The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 5, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

JOHN J. SPANOS
President

JJS:mle

066548.100

Gannett Fleming Valuation and Rate Consultants, LLC

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PART I. RESULTS OF STUDY

PENNSYLVANIA-AMERICAN WATER COMPANY

WATER STEELTON OPERATIONS

DEPRECIATION STUDY

RESULTS OF STUDY

DESCRIPTION OF SUMMARY TABULATIONS

Tables 1 through 5 presented on pages I-3 through I-7 summarize the results of the depreciation study as of December 31, 2021. Table 1 sets forth the development of the net original cost by account as of December 31, 2021. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of December 31, 2021, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 3 presents the bringforward of the book reserve to December 31, 2021. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended December 31, 2021. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2017 through 2021.

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-5. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2017 through 2021, beginning on page III-2.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2021

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF DECEMBER 31, 2021 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF DECEMBER 31, 2021 (6)
NONDEPRECIABLE PLANT					
303.00 MISCELLANEOUS INTANGIBLE PLANT	3.00				3.00
303.30 PURIFICATION LAND	26,988.00				26,988.00
303.50 DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	1.00				1.00
303.61 OFFICE LAND	1.00				1.00
TOTAL NONDEPRECIABLE PLANT	26,993.00	0.00	0.00	0.00	26,993.00
DEPRECIABLE PLANT					
304.15 OTHER WATER SOURCE STRUCTURES	6,843.25				6,843.25
304.30 PURIFICATION BUILDINGS	13,467,398.15				13,467,398.15
306.00 LAKE, RIVER AND OTHER INTAKES	112,013.39				112,013.39
310.00 POWER GENERATION EQUIPMENT	416,788.74				416,788.74
311.53 PUMPING EQUIPMENT - WATER TREATMENT	5,704,191.26				5,704,191.26
320.10 PURIFICATION SYSTEM - LARGE STRUCTURES	675,611.10				675,611.10
320.20 PURIFICATION SYSTEM - CHEMICAL TREATMENT	1,495,921.45				1,495,921.45
330.00 DISTRIBUTION RESERVOIRS AND STANDPIPES	2,560,029.90				2,560,029.90
331.00 MAINS AND ACCESSORIES	21,128,093.07				21,128,093.07
333.00 SERVICES	340,000.00				340,000.00
334.00 METERS AND METER INSTALLATIONS	1,134,429.33				1,134,429.33
335.00 FIRE HYDRANTS	1,075,252.56				1,075,252.56
341.20 TRANSPORTATION EQUIPMENT - EQUIPMENT	300,000.00				300,000.00
343.00 TOOLS AND WORK EQUIPMENT	224,967.78				224,967.78
344.00 LABORATORY EQUIPMENT	22,623.65				22,623.65
346.00 COMMUNICATION EQUIPMENT	75,000.00				75,000.00
347.00 MISCELLANEOUS EQUIPMENT	403,532.24				403,532.24
TOTAL DEPRECIABLE PLANT	49,142,695.87	0.00	0.00	0.00	49,142,695.87
TOTAL UTILITY PLANT IN SERVICE	49,169,688.87	0.00	0.00	0.00	49,169,688.87

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2021

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	DEPRECIABLE GROUP	SURVIVOR CURVE	NET ORIGINAL COST AS OF DECEMBER 31, 2021	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE, PERCENT	COMPOSITE REMAINING LIFE
		(2)	(3)	(4)	(5)	(6)	(7)	(8)
NONDEPRECIABLE PLANT								
303	MISCELLANEOUS INTANGIBLE PLANT		3.00					
303.3	PURIFICATION LAND		26,988.00					
303.5	DISTRIBUTION RESERVOIRS AND STANDPIPES LAND		1.00					
303.61	OFFICE LAND		1.00					
	TOTAL NONDEPRECIABLE PLANT		26,993.00					
DEPRECIABLE PLANT								
304.15	OTHER WATER SOURCE STRUCTURES	60-R1.5	6,843.25	392	6,451	170	2.48	37.9
304.3	PURIFICATION BUILDINGS	70-S0.5	13,467,398.15	7,805,850	5,661,548	293,420	2.18	19.3
306	LAKE, RIVER AND OTHER INTAKES	55-S1	112,013.39	102,868	9,155	504	0.45	18.2
310	POWER GENERATION EQUIPMENT	43-S1	416,788.74	67,937	348,852	12,253	2.94	28.5
311.53	PUMPING EQUIPMENT - WATER TREATMENT	42-S0	5,704,191.26	4,757,752	946,439	75,305	1.32	12.6
320.1	PURIFICATION SYSTEM - LARGE STRUCTURES	60-S0.5	675,611.10	231,554	444,057	23,083	3.42	19.2
320.2	PURIFICATION SYSTEM - CHEMICAL TREATMENT	36-R0.5	1,495,921.45	333,664	1,162,257	69,054	4.62	16.8
330	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	2,560,029.90	2,018,498	541,532	20,725	0.81	26.1
331	MAINS AND ACCESSORIES	110-R2	21,128,093.07	9,039,596	12,088,497	179,484	0.85	67.4
333	SERVICES	70-R2.5	340,000.00	6,221	333,779	6,446	1.90	51.8
334	METERS AND METER INSTALLATIONS	21-L1	1,134,429.33	(2,334)	1,136,763	87,748	7.73	13.0
335	FIRE HYDRANTS	75-R2.5	1,075,252.56	461,050	614,203	13,789	1.28	44.5
341.2	TRANSPORTATION EQUIPMENT - EQUIPMENT	7-L3	300,000.00	67,800	232,200	49,299	16.43	4.7
343	TOOLS AND WORK EQUIPMENT	20-SQ	224,967.78	16,125	208,843	11,248	5.00	18.6
344	LABORATORY EQUIPMENT	20-L0.5	22,623.65	5,446	17,178	1,571	6.94	10.9
346	COMMUNICATION EQUIPMENT	15-SQ	75,000.00	7,358	67,642	5,011	6.68	13.5
347	MISCELLANEOUS EQUIPMENT	25-SQ	403,532.24	32,061	371,471	16,177	4.01	23.0
	TOTAL DEPRECIABLE PLANT		49,142,695.87	24,951,828	24,190,867	865,287	1.76	
AMORTIZATION OF NET SALVAGE						22,959		
TOTAL UTILITY PLANT IN SERVICE						888,246		

* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

TABLE 3. BRINGFORWARD TO DECEMBER 31, 2021, OF BOOK RESERVE AS OF DECEMBER 31, 2020

ACCOUNT	BOOK RESERVE BALANCE AS OF 12/31/2020	PROJECTED DEPRECIATION ACCRUALS	PROJECTED RETIREMENTS	PROJECTED COST OF REMOVAL	PROJECTED SALVAGE	ACQUISITIONS	PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2021
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
304.15	210	182					392
304.30	7,511,917	294,856	824	107	8		7,805,850
306.00	102,332	526					102,858
310.00	55,558	12,379					67,937
311.53	4,680,175	77,577					4,757,752
320.10	225,315	18,461	10,816	1,406			231,554
320.20	309,390	60,940	32,448	4,218			333,664
330.00	1,997,250	21,248					2,018,498
331.00	8,948,474	181,308	46,972	43,214			9,039,596
333.00	1,420	4,801					6,221
334.00	(22,482)	75,526	49,444	6,428	494		(2,334)
335.00	450,791	13,621	2,472	890			461,050
341.20	18,060	49,740					67,800
343.00	5,386	10,739					16,125
344.00	3,738	1,708					5,446
346.00	2,348	5,010					7,358
347.00	15,879	16,182					32,061
TOTAL	24,305,761	844,804	142,976	56,263	502	0	24,951,828

**PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS**

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2021

ACCOUNT (1)	NET ORIGINAL COST AS OF 12/31/2020 (2)	NET ORIGINAL COST AS OF 12/31/2021 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)*	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
304.15	6,843.25	6,843.25	2.66	182		182
304.30	13,458,222.22	13,467,398.15	2.19	294,836	20	294,856
306.00	112,013.39	112,013.39	0.47	526		526
310.00	416,788.74	416,788.74	2.97	12,379		12,379
311.53	5,704,191.26	5,704,191.26	1.36	77,577		77,577
320.10	555,177.01	675,611.10	3.00	18,021	440	18,461
320.20	1,134,619.17	1,495,921.45	4.69	59,619	1,321	60,940
330.00	2,560,029.90	2,560,029.90	0.83	21,248		21,248
331.00	20,600,065.01	21,128,093.07	0.83	172,699	8,609	181,308
333.00	170,000.00	340,000.00	1.95	4,801		4,801
334.00	583,873.48	1,134,429.33	8.00	74,344	1,182	75,526
335.00	1,037,724.77	1,075,252.56	1.27	13,385	236	13,621
341.20	300,000.00	300,000.00	16.58	49,740		49,740
343.00	204,967.78	224,967.78	5.00	10,739		10,739
344.00	22,623.65	22,623.65	7.55	1,708		1,708
346.00	75,000.00	75,000.00	6.68	5,010		5,010
347.00	403,532.24	403,532.24	4.01	16,182		16,182
TOTAL	47,345,671.87	49,142,695.87		832,996	11,808	844,804

* Annual Accrual developed based on monthly averages.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2017		2018		2019		PROJECTED 2020		PROJECTED 2021		NET SALVAGE (12)	SALVAGE ACCRUAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
304.30							8.21	106.71	8.24	107.13	(197.39)	(39)
320.10								2,200.97		1,406.07	(3,607.04)	(721)
320.20								6,602.90		4,218.20	(10,821.10)	(2,164)
331.00								43,046.58		43,214.18	(86,260.76)	(17,252)
334.00							492.52	6,402.81	494.44	6,427.74	(11,843.59)	(2,369)
335.00								1,182.06		890.00	(2,072.06)	(414)
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	500.73	59,542.03	502.68	56,263.32	(114,801.94)	(22,959)

* Column (12) equals the summation of Columns (2) through (11).

PART II. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1907	1,309,431	1,262,483	46,948		46,948	0.2
1916	1,022,319	946,506	75,813		122,761	0.5
1926	1,532,743	1,336,735	196,008		318,769	1.3
1946	110,957	83,451	27,506		346,275	1.4
1956	70,987	47,968	23,019		369,294	1.5
1966	54,232	32,479	21,753		391,047	1.6
1971					391,047	1.6
1972					391,047	1.6
1973	16,220,804	13,096,107	3,124,697		3,515,744	14.5
1976	5,336,997	2,792,346	2,544,651		6,060,395	25.1
1985					6,060,395	25.1
1986	1,715,763	730,439	985,324		7,045,719	29.1
1996	1,704,587	555,342	1,149,245		8,194,964	33.9
2001					8,194,964	33.9
2004	18,928	8,382	10,546		8,205,510	33.9
2006	5,384,802	1,113,653	4,271,149		12,476,659	51.6
2009	187,490	66,016	121,474		12,598,133	52.1
2010	4,886,185	2,008,299	2,877,886		15,476,019	64.0
2012	8,018	2,346	5,672		15,481,691	64.0
2014	14,886	4,110	10,776		15,492,467	64.0
2015	471,576	81,393	390,183		15,882,650	65.7
2016	1,304,574	103,600	1,200,974		17,083,624	70.6
2017	2,636,294	455,164	2,181,130		19,264,754	79.6
2018	3,422	441	2,981		19,267,735	79.6
2019	123,530	13,676	109,854		19,377,589	80.1
2020	3,093,408	188,487	2,904,921		22,282,510	92.1
2021	1,930,763	22,405	1,908,358		24,190,868	100.0
SUBTOTAL	49,142,696	24,951,828	24,190,867			
NONDEPRECIABLE	26,993		26,993			
TOTAL	49,169,689	24,951,828	24,217,860			

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R1.5						
2019	6,843.25	423	392	6,451	37.98	170
	6,843.25	423	392	6,451		170
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						37.9 2.48

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 70-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
1973	6,537,681.72	4,819,579	5,382,944	1,154,738	17.29	66,786
2010	4,886,185.28	1,798,116	2,008,299	2,877,886	19.75	145,716
2014	8,099.14	2,211	2,469	5,630	19.97	282
2017	2,013,406.89	367,849	410,848	1,602,559	20.13	79,610
2019	2,025.12	223	249	1,776	20.18	88
2020	10,000.00	690	771	9,229	20.24	456
2021	10,000.00	242	270	9,730	20.20	482
	13,467,398.15	6,988,910	7,805,850	5,661,548		293,420
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.3 2.18

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S1						
1973	112,013.39	81,490	102,858	9,155	18.17	504
	112,013.39	81,490	102,858	9,155		504
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					18.2	0.45

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 43-S1						
2015	416,788.74	77,481	67,937	348,852	28.47	12,253
	416,788.74	77,481	67,937	348,852		12,253
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						28.5 2.94

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 42-S0						
1973	5,686,620.99	4,523,138	4,753,416	933,205	12.48	74,776
2012	8,018.37	2,232	2,346	5,672	24.63	230
2014	6,786.40	1,562	1,641	5,145	25.07	205
2018	2,765.50	332	349	2,416	25.66	94
	5,704,191.26	4,527,264	4,757,752	946,439		75,305
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.6 1.32

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 60-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
1973	259,898.05	195,391	203,869	56,029	16.01	3,500
2019	78,429.66	8,800	9,182	69,248	19.77	3,503
2020	206,051.04	14,506	15,135	190,916	19.82	9,632
2021	131,232.35	3,228	3,368	127,864	19.83	6,448
	675,611.10	221,925	231,554	444,057		23,083
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						19.2 3.42

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 36-R0.5						
1973	244,742.43	205,339	196,045	48,697	9.31	5,231
2004	18,928.42	8,779	8,382	10,546	20.23	521
2009	187,490.17	69,146	66,016	121,474	21.40	5,676
2015	11,612.47	2,687	2,565	9,047	21.59	419
2016	12,729.83	2,605	2,487	10,243	21.38	479
2017	2,500.21	440	420	2,080	21.07	99
2018	656.70	96	92	565	20.54	28
2019	18,336.94	2,063	1,970	16,367	19.72	830
2020	607,421.53	45,800	43,726	563,696	18.38	30,669
2021	391,502.75	12,528	11,961	379,542	15.12	25,102
	1,495,921.45	349,483	333,664	1,162,257		69,054
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						16.8 4.62

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
1973	2,560,029.90	1,663,763	2,018,498	541,532	26.13	20,725
	2,560,029.90	1,663,763	2,018,498	541,532		20,725
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					26.1	0.81

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 110-R2						
1907	1,309,430.77	1,064,567	1,262,483	46,948	26.34	1,782
1916	1,022,319.36	798,125	946,506	75,813	29.64	2,558
1926	1,532,742.64	1,127,179	1,336,735	196,008	34.36	5,705
1946	110,956.75	70,369	83,451	27,506	43.55	632
1956	70,986.88	40,448	47,968	23,019	49.45	466
1966	54,231.58	27,387	32,479	21,753	54.40	400
1973	819,817.29	369,738	438,477	381,340	59.03	6,460
1976	5,008,183.18	2,164,537	2,566,949	2,441,234	59.77	40,844
1986	1,607,702.58	564,947	669,977	937,726	65.52	14,312
1996	1,526,460.71	404,817	480,077	1,046,384	70.65	14,811
2006	5,024,479.24	856,674	1,015,940	4,008,539	75.41	53,157
2016	1,291,844.23	85,262	101,113	1,190,731	77.83	15,299
2017	599,711.90	32,924	39,045	560,667	77.47	7,237
2020	574,418.80	11,373	13,487	560,932	74.26	7,554
2021	574,807.16	4,139	4,909	569,898	68.94	8,267
	21,128,093.07	7,622,486	9,039,596	12,088,497		179,484

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 67.4 0.85

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R2.5						
2020	170,000.00	4,692	4,591	165,409	52.85	3,130
2021	170,000.00	1,666	1,630	168,370	50.78	3,316
	340,000.00	6,358	6,221	333,779		6,446
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						51.8 1.90

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 21-L1						
2015	621.16	229	7-	628	11.11	57
2020	540,575.45	56,220	1,672-	542,247	12.93	41,937
2021	593,232.72	22,009	655-	593,888	12.98	45,754
	1,134,429.33	78,458	2,334-	1,136,763		87,748
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						13.0 7.73

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R2.5						
1976	328,813.86	194,493	225,397	103,417	31.42	3,291
1986	108,060.44	52,172	60,462	47,598	38.03	1,252
1996	178,126.32	64,945	75,265	102,861	44.43	2,315
2006	360,322.54	84,315	97,713	262,610	50.73	5,177
2020	59,941.59	1,546	1,791	58,151	56.64	1,027
2021	39,987.81	364	422	39,566	54.45	727
	1,075,252.56	397,835	461,050	614,203		13,789
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.5 1.28

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 341.2 TRANSPORTATION EQUIPMENT - EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 7-L3						
2020	300,000.00	72,420	67,800	232,200	4.71	49,299
	300,000.00	72,420	67,800	232,200		49,299
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						4.7 16.43

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 343 TOOLS AND WORK EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
2019	4,967.78	621	621	4,347	17.50	248
2020	200,000.00	15,000	15,004	184,996	18.50	10,000
2021	20,000.00	500	500	19,500	19.50	1,000
	224,967.78	16,121	16,125	208,843		11,248
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.6 5.00

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L0.5						
2015	1,948.63	739	595	1,354	10.65	127
2017	20,675.02	6,021	4,851	15,824	10.96	1,444
	22,623.65	6,760	5,446	17,178		1,571
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.9 6.94

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 346 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
2020	75,000.00	7,500	7,358	67,642	13.50	5,011
	75,000.00	7,500	7,358	67,642		5,011
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					13.5	6.68

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 347 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2021

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
2015	40,604.99	10,557	10,303	30,302	18.50	1,638
2019	12,927.25	1,293	1,262	11,665	22.50	518
2020	350,000.00	21,000	20,496	329,504	23.50	14,021
	403,532.24	32,850	32,061	371,471		16,177
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						23.0 4.01

PART III. EXPERIENCED AND ESTIMATED NET SALVAGE

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

ESTIMATED RETIREMENTS BY ACCOUNT AND ASSOCIATED
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
304.30	820.87	106.71	8.21	98.50-
320.10	16,930.51	2,200.97		2,200.97-
320.20	50,791.52	6,602.90		6,602.90-
331.00	46,789.76	43,046.58		43,046.58-
334.00	49,252.38	6,402.81	492.52	5,910.29-
335.00	3,283.49	1,182.06		1,182.06-
348.00	823.15			
	168,691.68	59,542.03	500.73	59,041.30-
2021 TRANSACTION YEAR				
304.30	824.07	107.13	8.24	98.89-
320.10	10,815.91	1,406.07		1,406.07-
320.20	32,447.72	4,218.20		4,218.20-
331.00	46,971.94	43,214.18		43,214.18-
334.00	49,444.15	6,427.74	494.44	5,933.30-
335.00	2,472.21	890.00		890.00-
	142,976.00	56,263.32	502.68	55,760.64-
TOTAL	311,667.68	115,805.35	1,003.41	114,801.94-

EXHIBIT NO. 11-H - DEPRECIATION STUDY

WATER STEELTON OPERATIONS

AS OF DECEMBER 31, 2022

Exhibit No. 11-H
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WATER STEELTON OPERATIONS

2022 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WATER PLANT
AS OF DECEMBER 31, 2022

Prepared by:



Gannett Fleming

*Excellence Delivered **As Promised***

Exhibit No. 11-H
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WATER STEELTON OPERATIONS

2022 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WATER PLANT
AS OF DECEMBER 31, 2022

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania



Gannett Fleming

*Excellence Delivered **As Promised***

April 22, 2020

Pennsylvania-American Water Company
852 Wesley Drive
Mechanicsburg, PA 17055

Attention: Ashley.E. Everette
Director, Rates & Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of December 31, 2022. The results of our study at December 31, 2020 are presented in our report titled "2020 Depreciation Study - Calculated Annual Depreciation Accruals Related to Water Plant as of December 31, 2020". The same methods, procedures and estimates are used in both studies.

Summaries of the original cost, annual accruals, book depreciation reserve and amortization of net salvage are presented in Tables 1 through 5, beginning on page I-3 of the attached report.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

JOHN J. SPANOS
President

JJS:mle

066548.100

Gannett Fleming Valuation and Rate Consultants, LLC

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PART I. RESULTS OF STUDY

PENNSYLVANIA-AMERICAN WATER COMPANY

WATER STEELTON OPERATIONS

DEPRECIATION STUDY

RESULTS OF STUDY

DESCRIPTION OF SUMMARY TABULATIONS

Tables 1 through 5 presented on pages I-3 through I-7 summarize the results of the depreciation study as of December 31, 2022. Table 1 sets forth the development of the net original cost by account as of December 31, 2022. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of December 31, 2022, future book accruals, calculated annual accrual amount and rate, and composite remaining life for plant in service. Table 3 presents the bringforward of the book reserve to December 31, 2022. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended December 31, 2022. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2018 through 2022.

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-5. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2017 through 2018, beginning on page III-2.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2022

DEPRECIABLE GROUP (1)	ORIGINAL COST AS OF DECEMBER 31, 2022 (2)	CUSTOMER ADVANCES (3)	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	EXCLUDED PROPERTY (5)	NET ORIGINAL COST AS OF DECEMBER 31, 2022 (6)
NONDEPRECIABLE PLANT					
303.00 MISCELLANEOUS INTANGIBLE PLANT	3.00				3.00
303.30 PURIFICATION LAND	26,988.00				26,988.00
303.50 DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	1.00				1.00
303.61 OFFICE LAND	1.00				1.00
TOTAL NONDEPRECIABLE PLANT	26,993.00	0.00	0.00	0.00	26,993.00
DEPRECIABLE PLANT					
304.15 OTHER WATER SOURCE STRUCTURES	6,843.25				6,843.25
304.30 PURIFICATION BUILDINGS	13,476,554.83				13,476,554.83
306.00 LAKE, RIVER AND OTHER INTAKES	112,013.39				112,013.39
310.00 POWER GENERATION EQUIPMENT	416,788.74				416,788.74
311.53 PUMPING EQUIPMENT - WATER TREATMENT	5,704,191.26				5,704,191.26
320.10 PURIFICATION SYSTEM - LARGE STRUCTURES	687,056.94				687,056.94
320.20 PURIFICATION SYSTEM - CHEMICAL TREATMENT	1,530,258.98				1,530,258.98
330.00 DISTRIBUTION RESERVOIRS AND STANDPIPES	2,560,029.90				2,560,029.90
331.00 MAINS AND ACCESSORIES	21,655,023.55				21,655,023.55
333.00 SERVICES	510,000.00				510,000.00
334.00 METERS AND METER INSTALLATIONS	1,134,429.33				1,134,429.33
335.00 FIRE HYDRANTS	1,112,722.59				1,112,722.59
341.20 TRANSPORTATION EQUIPMENT - EQUIPMENT	300,000.00				300,000.00
343.00 TOOLS AND WORK EQUIPMENT	244,967.78				244,967.78
344.00 LABORATORY EQUIPMENT	22,623.65				22,623.65
346.00 COMMUNICATION EQUIPMENT	75,000.00				75,000.00
347.00 MISCELLANEOUS EQUIPMENT	403,532.24				403,532.24
TOTAL DEPRECIABLE PLANT	49,952,036.43	0.00	0.00	0.00	49,952,036.43
TOTAL UTILITY PLANT IN SERVICE	49,979,029.43	0.00	0.00	0.00	49,979,029.43

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVES, ORIGINAL COST, BOOK RESERVE AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WATER PLANT AS OF DECEMBER 31, 2022

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	DEPRECIABLE GROUP	SURVIVOR CURVE	NET ORIGINAL COST AS OF DECEMBER 31, 2022	BOOK RESERVE	FUTURE ACCRUALS	ANNUAL ACCRUAL AMOUNT	ANNUAL ACCRUAL RATE, PERCENT	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
NONDEPRECIABLE PLANT								
303	MISCELLANEOUS INTANGIBLE PLANT	NONDEPR.	3.00					
303.3	PURIFICATION LAND	NONDEPR.	26,988.00					
303.5	DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	NONDEPR.	1.00					
303.61	OFFICE LAND	NONDEPR.	1.00					
	TOTAL NONDEPRECIABLE PLANT		26,993.00					
DEPRECIABLE PLANT								
304.15	OTHER WATER SOURCE STRUCTURES	60-R1.5	6,843.25	562	6,281	162	2.37	38.8
304.3	PURIFICATION BUILDINGS	70-S0.5	13,476,554.83	8,098,633	5,377,922	290,230	2.15	18.5
306	LAKE, RIVER AND OTHER INTAKES	55-S1	112,013.39	103,362	8,651	491	0.44	17.6
310	POWER GENERATION EQUIPMENT	43-S1	416,788.74	80,191	336,598	12,090	2.90	27.8
311.53	PUMPING EQUIPMENT - WATER TREATMENT	42-S0	5,704,191.26	4,833,047	871,144	70,702	1.24	12.3
320.1	PURIFICATION SYSTEM - LARGE STRUCTURES	60-S0.5	687,056.94	254,474	432,583	23,405	3.41	18.5
320.2	PURIFICATION SYSTEM - CHEMICAL TREATMENT	36-R0.5	1,530,258.98	402,373	1,127,886	60,640	3.96	18.6
330	DISTRIBUTION RESERVOIRS AND STANDPIPES	65-S0.5	2,560,029.90	2,039,234	520,796	20,280	0.79	25.7
331	MAINS AND ACCESSORIES	110-R2	21,655,023.55	9,145,899	12,509,125	185,190	0.86	67.5
333	SERVICES	70-R2.5	510,000.00	14,129	495,871	9,500	1.86	52.2
334	METERS AND METER INSTALLATIONS	21-L1	1,134,429.33	87,726	1,046,703	82,072	7.23	12.8
335	FIRE HYDRANTS	75-R2.5	1,112,722.59	471,993	640,730	14,343	1.29	44.7
341.2	TRANSPORTATION EQUIPMENT - EQUIPMENT	7-L3	300,000.00	117,090	182,910	47,509	15.84	3.9
343	TOOLS AND WORK EQUIPMENT	20-SQ	244,967.78	27,864	217,104	12,248	5.00	17.7
344	LABORATORY EQUIPMENT	20-L0.5	22,623.65	7,016	15,608	1,450	6.41	10.8
346	COMMUNICATION EQUIPMENT	15-SQ	75,000.00	12,368	62,632	5,011	6.68	12.5
347	MISCELLANEOUS EQUIPMENT	25-SQ	403,532.24	48,243	355,289	16,177	4.01	22.0
	TOTAL DEPRECIABLE PLANT		49,952,036.43	25,744,204	24,207,833	851,500	1.70	
	AMORTIZATION OF NET SALVAGE					32,118		
	TOTAL UTILITY PLANT IN SERVICE		49,979,029.43	25,744,204	24,207,833	883,618		

* Life Span Procedure was used. Curve shown is Interim Survivor Curve.

**PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS**

TABLE 3. BRINGFORWARD TO DECEMBER 31, 2022, OF BOOK RESERVE AS OF DECEMBER 31, 2021

ACCOUNT	BOOK RESERVE BALANCE AS OF 12/31/2021	+	PROJECTED DEPRECIATION ACCRUALS	-	PROJECTED RETIREMENTS	-	PROJECTED COST OF REMOVAL	+	PROJECTED SALVAGE	+	ACQUISITIONS	=	PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2022
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
304.15	392		170										562
304.30	7,805,850		293,728		843		110		8				8,098,633
306.00	102,858		504										103,362
310.00	67,937		12,254										80,191
311.53	4,757,752		75,295										4,833,047
320.10	231,554		24,111		1,054		137						254,474
320.20	333,664		72,282		3,162		411						402,373
330.00	2,018,498		20,736										2,039,234
331.00	9,039,596		198,597		48,070		44,224						9,145,899
333.00	6,221		7,908										14,129
334.00	(2,334)		90,060										87,726
335.00	461,050		14,384		2,530		911						471,993
341.20	67,800		49,290										117,090
343.00	16,125		11,739										27,864
344.00	5,446		1,570										7,016
346.00	7,358		5,010										12,368
347.00	32,061		16,182										48,243
TOTAL	24,951,828		893,820		55,659		45,793		8		0		25,744,204

**PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS**

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2022

ACCOUNT (1)	NET ORIGINAL COST AS OF 12/31/2021 (2)	NET ORIGINAL COST AS OF 12/31/2022 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)*	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
304.15	6,843.25	6,843.25	2.48	170		170
304.30	13,467,398.15	13,476,554.83	2.18	293,689	39	293,728
306.00	112,013.39	112,013.39	0.45	504		504
310.00	416,788.74	416,788.74	2.94	12,254		12,254
311.53	5,704,191.26	5,704,191.26	1.32	75,295		75,295
320.10	675,611.10	687,056.94	3.42	23,390	721	24,111
320.20	1,495,921.45	1,530,258.98	4.62	70,118	2,164	72,282
330.00	2,560,029.90	2,560,029.90	0.81	20,736		20,736
331.00	21,128,093.07	21,655,023.55	0.85	181,345	17,252	198,597
333.00	340,000.00	510,000.00	1.90	7,908		7,908
334.00	1,134,429.33	1,134,429.33	7.73	87,691	2,369	90,060
335.00	1,075,252.56	1,112,722.59	1.28	13,970	414	14,384
341.20	300,000.00	300,000.00	16.43	49,290		49,290
343.00	224,967.78	244,967.78	5.00	11,739		11,739
344.00	22,623.65	22,623.65	6.94	1,570		1,570
346.00	75,000.00	75,000.00	6.68	5,010		5,010
347.00	403,532.24	403,532.24	4.01	16,182		16,182
TOTAL	49,142,695.87	49,952,036.43		870,861	22,959	893,820

* Annual Accrual developed based on monthly averages.

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT (1)	2018		2019		PROJECTED 2020		PROJECTED 2021		PROJECTED 2022		NET SALVAGE = (12) =	SALVAGE ACCURAL (13)=(12)/5
	GROSS SALVAGE (2)	COST OF REMOVAL (3)	GROSS SALVAGE (4)	COST OF REMOVAL (5)	GROSS SALVAGE (6)	COST OF REMOVAL (7)	GROSS SALVAGE (8)	COST OF REMOVAL (9)	GROSS SALVAGE (10)	COST OF REMOVAL (11)		
304.30					8.21	106.71	8.24	107.13	8.43	109.63	(298.59)	(60)
320.10						2,200.97		1,406.07		137.04	(3,744.08)	(749)
320.20						6,602.90		4,218.20		411.12	(11,232.22)	(2,246)
331.00						43,046.58		43,214.18		44,223.96	(130,484.72)	(26,097)
334.00					492.52	6,402.81	494.44	6,427.74		910.79	(11,843.59)	(2,369)
335.00						1,182.06		890.00			(2,982.85)	(597)
TOTAL	0.00	0.00	0.00	0.00	500.73	59,542.03	502.68	56,263.32	8.43	45,792.54	(160,586.05)	(32,118)

* Column (12) equals the summation of Columns (2) through (11).

PART II. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT		DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
			(2)	(3)		
1907	1,299,269	1,254,683	44,586		44,586	0.2
1916	1,015,746	942,730	73,016		117,602	0.5
1926	1,524,716	1,334,133	190,583		308,185	1.3
1946	110,571	83,677	26,894		335,079	1.4
1956	70,786	48,234	22,552		357,631	1.5
1966	54,106	32,401	21,705		379,336	1.6
1971					379,336	1.6
1972					379,336	1.6
1973	16,216,750	13,265,306	2,951,444		3,330,780	13.8
1976	5,326,232	2,799,381	2,526,851		5,857,631	24.2
1985					5,857,631	24.2
1986	1,713,022	737,831	975,191		6,832,822	28.2
1996	1,702,395	567,225	1,135,170		7,967,992	32.9
2001					7,967,992	32.9
2004	18,888	9,219	9,669		7,977,661	33.0
2006	5,379,492	1,165,466	4,214,026		12,191,687	50.4
2009	187,097	73,816	113,281		12,304,968	50.8
2010	4,886,185	2,160,609	2,725,576		15,030,544	62.1
2012	8,018	2,559	5,459		15,036,003	62.1
2014	14,886	4,605	10,281		15,046,284	62.2
2015	471,552	96,082	375,470		15,421,754	63.7
2016	1,303,560	120,646	1,182,914		16,604,668	68.6
2017	2,635,843	551,056	2,084,787		18,689,455	77.2
2018	3,421	555	2,866		18,692,321	77.2
2019	123,470	19,055	104,415		18,796,736	77.6
2020	3,091,715	368,427	2,723,288		21,520,024	88.9
2021	1,929,559	97,204	1,832,355		23,352,379	96.5
2022	864,758	9,304	855,454		24,207,833	100.0
SUBTOTAL	49,952,036	25,744,204	24,207,833			
NONDEPRECIABLE	26,993		26,993			
TOTAL	49,979,029	25,744,204	24,234,826			

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 304.15 OTHER WATER SOURCE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 60-R1.5						
2019	6,843.25	568	562	6,281	38.69	162
	6,843.25	568	562	6,281		162
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					38.8	2.37

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 304.3 PURIFICATION BUILDINGS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 70-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
1973	6,536,838.40	4,885,633	5,434,880	1,101,958	16.73	65,867
2010	4,886,185.28	1,942,259	2,160,609	2,725,576	18.95	143,830
2014	8,099.14	2,492	2,772	5,327	19.12	279
2017	2,013,406.89	447,379	497,674	1,515,733	19.25	78,739
2019	2,025.12	310	345	1,680	19.33	87
2020	10,000.00	1,145	1,274	8,726	19.33	451
2021	10,000.00	718	799	9,201	19.38	475
2022	10,000.00	252	280	9,720	19.38	502
	13,476,554.83	7,280,188	8,098,633	5,377,922		290,230
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.5 2.15

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 306 LAKE, RIVER AND OTHER INTAKES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S1						
1973	112,013.39	82,621	103,362	8,651	17.61	491
	112,013.39	82,621	103,362	8,651		491
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.6 0.44

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 310 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 43-S1						
2015	416,788.74	88,443	80,191	336,598	27.84	12,090
	416,788.74	88,443	80,191	336,598		12,090
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						27.8 2.90

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

ACCOUNT 311.53 PUMPING EQUIPMENT - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 42-S0						
1973	5,686,620.99	4,560,101	4,828,217	858,404	12.23	70,188
2012	8,018.37	2,417	2,559	5,459	24.34	224
2014	6,786.40	1,731	1,833	4,953	24.83	199
2018	2,765.50	414	438	2,328	25.53	91
	5,704,191.26	4,564,663	4,833,047	871,144		70,702
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.3 1.24

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 320.1 PURIFICATION SYSTEM - LARGE STRUCTURES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
INTERIM SURVIVOR CURVE.. IOWA 60-S0.5						
PROBABLE RETIREMENT YEAR.. 6-2043						
1973	258,924.24	197,378	206,312	52,612	15.44	3,408
2019	78,406.18	12,239	12,793	65,613	18.92	3,468
2020	206,009.27	23,938	25,022	180,987	19.01	9,521
2021	131,217.77	9,579	10,013	121,205	19.03	6,369
2022	12,499.48	320	334	12,165	19.03	639
	687,056.94	243,454	254,474	432,583		23,405
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.5						3.41

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 320.2 PURIFICATION SYSTEM - CHEMICAL TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 36-R0.5						
1973	244,136.89	206,637	209,683	34,454	8.98	3,837
2004	18,887.74	9,085	9,219	9,669	19.96	484
2009	187,096.73	72,743	73,816	113,281	21.22	5,338
2015	11,588.75	2,973	3,017	8,572	21.74	394
2016	12,703.91	2,940	2,983	9,721	21.59	450
2017	2,495.15	511	519	1,976	21.38	92
2018	655.38	115	117	538	21.07	26
2019	18,300.15	2,665	2,704	15,596	20.54	759
2020	606,207.50	68,198	69,203	537,004	19.72	27,231
2021	390,724.04	29,461	29,895	360,829	18.38	19,632
2022	37,462.74	1,199	1,217	36,246	15.12	2,397
	1,530,258.98	396,527	402,373	1,127,886		60,640
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						18.6 3.96

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 330 DISTRIBUTION RESERVOIRS AND STANDPIPES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 65-S0.5						
1973	2,560,029.90	1,685,524	2,039,234	520,796	25.68	20,280
	2,560,029.90	1,685,524	2,039,234	520,796		20,280
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						25.7 0.79

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 331 MAINS AND ACCESSORIES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 110-R2						
1907	1,299,268.90	1,065,400	1,254,683	44,586	25.35	1,759
1916	1,015,745.56	800,509	942,730	73,016	28.64	2,549
1926	1,524,716.25	1,132,864	1,334,133	190,583	33.38	5,709
1946	110,571.09	71,053	83,677	26,894	42.55	632
1956	70,785.77	40,957	48,234	22,552	48.44	466
1966	54,106.44	27,513	32,401	21,705	54.61	397
1973	818,185.71	376,693	443,618	374,568	58.02	6,456
1976	4,998,797.30	2,184,974	2,573,164	2,425,633	59.88	40,508
1986	1,605,266.54	574,204	676,219	929,048	65.54	14,175
1996	1,524,601.63	416,216	490,162	1,034,440	70.58	14,656
2006	5,019,607.27	902,525	1,062,870	3,956,737	75.25	52,581
2016	1,290,856.14	99,912	117,663	1,173,193	77.53	15,132
2017	599,266.15	39,552	46,579	552,687	77.83	7,101
2020	574,020.42	18,254	21,497	552,523	76.24	7,247
2021	574,420.94	11,374	13,395	561,026	74.26	7,555
2022	574,807.44	4,139	4,874	569,933	68.94	8,267
	21,655,023.55	7,766,139	9,145,899	12,509,125		185,190

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 67.5 0.86

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 333 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 70-R2.5						
2020	170,000.00	7,650	7,716	162,284	53.06	3,058
2021	170,000.00	4,692	4,733	165,267	52.85	3,127
2022	170,000.00	1,666	1,680	168,320	50.78	3,315
	510,000.00	14,008	14,129	495,871		9,500
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						52.2 1.86

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 334 METERS AND METER INSTALLATIONS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 21-L1						
2015	621.16	254	147	474	10.82	44
2020	540,575.45	89,736	51,898	488,677	12.56	38,907
2021	593,232.72	61,696	35,681	557,552	12.93	43,121
	1,134,429.33	151,686	87,726	1,046,703		82,072
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						12.8 7.23

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 335 FIRE HYDRANTS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R2.5						
1976	327,435.18	196,396	226,217	101,218	31.02	3,263
1986	107,755.48	53,490	61,612	46,143	37.03	1,246
1996	177,793.58	66,904	77,063	100,731	43.92	2,294
2006	359,884.63	89,071	102,596	257,289	50.17	5,128
2020	59,902.75	2,516	2,898	57,005	57.02	1,000
2021	39,963.05	1,031	1,188	38,775	56.64	685
2022	39,987.92	364	419	39,569	54.45	727
	1,112,722.59	409,772	471,993	640,730		14,343
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						44.7 1.29

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 341.2 TRANSPORTATION EQUIPMENT - EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 7-L3						
2020	300,000.00	118,200	117,090	182,910	3.85	47,509
	300,000.00	118,200	117,090	182,910		47,509
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					3.9	15.84

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 343 TOOLS AND WORK EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
2019	4,967.78	869	869	4,099	16.50	248
2020	200,000.00	25,000	24,995	175,005	17.50	10,000
2021	20,000.00	1,500	1,500	18,500	18.50	1,000
2022	20,000.00	500	500	19,500	19.50	1,000
	244,967.78	27,869	27,864	217,104		12,248
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						17.7 5.00

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 344 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-L0.5						
2015	1,948.63	813	732	1,217	10.49	116
2017	20,675.02	6,982	6,284	14,391	10.79	1,334
	22,623.65	7,795	7,016	15,608		1,450
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						10.8 6.41

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 346 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
2020	75,000.00	12,500	12,368	62,632	12.50	5,011
	75,000.00	12,500	12,368	62,632		5,011
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..					12.5	6.68

PENNSYLVANIA-AMERICAN WATER COMPANY
 WATER STEELTON OPERATIONS

ACCOUNT 347 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
 RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2022

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
2015	40,604.99	12,181	11,995	28,610	17.50	1,635
2019	12,927.25	1,810	1,782	11,145	21.50	518
2020	350,000.00	35,000	34,466	315,534	22.50	14,024
	403,532.24	48,991	48,243	355,289		16,177
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT ..						22.0 4.01

PART III. EXPERIENCED AND ESTIMATED NET SALVAGE

PENNSYLVANIA-AMERICAN WATER COMPANY
WATER STEELTON OPERATIONS

ESTIMATED RETIREMENTS BY ACCOUNT AND ASSOCIATED
COST OF REMOVAL, GROSS SALVAGE, AND NET SALVAGE

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2020 TRANSACTION YEAR				
304.30	820.87	106.71	8.21	98.50-
320.10	16,930.51	2,200.97		2,200.97-
320.20	50,791.52	6,602.90		6,602.90-
331.00	46,789.76	43,046.58		43,046.58-
334.00	49,252.38	6,402.81	492.52	5,910.29-
335.00	3,283.49	1,182.06		1,182.06-
348.00	823.15			
	168,691.68	59,542.03	500.73	59,041.30-
2021 TRANSACTION YEAR				
304.30	824.07	107.13	8.24	98.89-
320.10	10,815.91	1,406.07		1,406.07-
320.20	32,447.72	4,218.20		4,218.20-
331.00	46,971.94	43,214.18		43,214.18-
334.00	49,444.15	6,427.74	494.44	5,933.30-
335.00	2,472.21	890.00		890.00-
	142,976.00	56,263.32	502.68	55,760.64-
2022 TRANSACTION YEAR				
304.30	843.32	109.63	8.43	101.20-
320.10	1,054.16	137.04		137.04-
320.20	3,162.47	411.12		411.12-
331.00	48,069.52	44,223.96		44,223.96-
335.00	2,529.97	910.79		910.79-
	55,659.44	45,792.54	8.43	45,784.11-
TOTAL	367,327.12	161,597.89	1,011.84	160,586.05-