VOLUME 16

PENNSYLVANIA-AMERICAN WATER COMPANY

2022 GENERAL BASE RATE CASE
R-2022-3031672 (WATER)
R-2022-3031673 (WASTEWATER)

EXHIBITS NO. 11-N, 11-O, 11-P
DEPRECIATION STUDY

WASTEWATER CSS OPERATIONS
AS OF DECEMBER 31, 2021, 2022, 2023

EXHIBIT NO. 11-N - DEPRECIATION STUDY

WASTEWATER CSS OPERATIONS

AS OF DECEMBER 31, 2021

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

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER CSS OPERATIONS

2021 DEPRECIATION STUDY

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

Prepared by:

GANNETT FLEMING

Excellence Delivered As Promised

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

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER CSS OPERATIONS

2021 DEPRECIATION STUDY

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

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

Gannett Fleming
Valuation and Rate Consultants, LLC

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April 20, 2022

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

Attention: Ms. Stacey Gress
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of December 31, 2021. 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 "2022 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of December 31, 2022".

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

John J. Spanos

JOHN J. SPANOS
President

JJS:mle

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PENNSYLVANIA-AMERICAN WATER COMPANY

WASTEWATER CSS OPERATIONS

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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 wastewater plant less advances and 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, 2021, 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, 2017-2021.

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-2. 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, on pages III-2 through III-4.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

DEPRCIABLE 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 DECMEBER 31, 2021 (6)
DEPRECIABLE PLANT									
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	4,775,859.33								4,775,859.33
354.30 STRUCTURES AND IMPROVEMENTS - SPP	20,936,156.25								20,936,156.25
354.40 STRUCTURES AND IMPROVEMENTS - TDP	126,506,457.64				2,500,000.00				124,006,457.64
355.00 POWER GENERATION EQUIPMENT	932,654.26								932,654.26
360.10 COLLECTION SEWERS - FORCE MAINS	4,710,846.52								4,710,846.52
361.10 COLLECTION SEWERS - GRAVITY MAINS	369,807,275.50				8,113,082.47				361,694,193.03
361.20 MANHOLES	42,198,026.62								42,198,026.62
363.00 SERVICES	12,601,347.67				957,516.15				11,643,831.52
364.00 FLOW MEASURING DEVICES	2,023,603.60								2,023,603.60
371.00 PUMPING EQUIPMENT	14,212,221.14								14,212,221.14
380.00 TREATMENT EQUIPMENT	63,729,746.08								63,729,746.08
381.00 PLANT SEWERS	1,576,345.41								1,576,345.41
382.00 OUTFALL SEWER LINES	286,271.26								286,271.26
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	10,342,671.84								10,342,671.84
390.00 OFFICE FURNITURE AND EQUIPMENT	2,201,683.66								2,201,683.66
391.00 TRANSPORTATION EQUIPMENT	6,350,292.12								6,350,292.12
392.00 STORES EQUIPMENT	106,844.28								106,844.28
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	1,873,272.87								1,873,272.87
394.00 LABORATORY EQUIPMENT	271,346.87								271,346.87
395.00 POWER OPERATED EQUIPMENT	1,788,630.55								1,788,630.55
396.00 COMMUNICATION EQUIPMENT	2,075,182.96								2,075,182.96
397.00 MISCELLANEOUS EQUIPMENT	2,424,313.87								2,424,313.87
TOTAL DEPRECIABLE PLANT	**691,731,050.30**				**11,570,598.62**				**680,160,451.68**
NONDEPRECIABLE PLANT									
353.20 LAND AND LAND RIGHTS - COLLECTION	3,161,743.45								3,161,743.45
353.30 LAND AND LAND RIGHTS - SPP	1,153,570.00								1,153,570.00
353.40 LAND AND LAND RIGHTS - TDP	148,041.59								148,041.59
TOTAL NONDEPRECIABLE PLANT	**4,463,355.04**								**4,463,355.04**
TOTAL PLANT	**696,194,405.34**				**11,570,598.62**				**684,623,806.72**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

	DEPRECIABLE GROUP	SURVIVOR CURVE	ORIGINAL COST AS OF DECEMBER 31, 2021	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(3)	(8)
	DEPRECIABLE PLANT							
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	4,775,859.33	235,794	4,540,066	125,561	2.63	36.2
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	20,936,156.25	6,617,444	14,318,712	452,555	2.16	31.6
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	124,006,457.64	50,924,767	73,081,691	2,402,457	1.94	30.4
355.00	POWER GENERATION EQUIPMENT	35-S0.5	932,654.26	249,159	683,496	33,013	3.54	20.7
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	4,710,846.52	977,512	3,733,335	61,552	1.31	60.7
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	361,694,193.03	152,526,408	209,167,785	4,733,828	1.31	44.2
361.20	MANHOLES	50-S2.5	42,198,026.62	21,377,075	20,820,951	904,604	2.14	23.0
363.00	SERVICES	47-R3	11,643,831.52	5,604,942	6,038,889	275,526	2.37	21.9
364.00	FLOW MEASURING DEVICES	15-L2.5	2,023,603.60	471,568	1,552,036	189,925	9.39	8.2
371.00	PUMPING EQUIPMENT	30-S0.5	14,212,221.14	3,764,013	10,448,208	591,915	4.16	17.7
380.00	TREATMENT EQUIPMENT	35-S1.5	63,729,746.08	23,993,697	39,736,050	2,342,831	3.68	17.0
381.00	PLANT SEWERS	50-R3	1,576,345.41	752,403	823,943	32,340	2.05	25.5
382.00	OUTFALL SEWER LINES	50-R3	286,271.26	43,240	243,031	5,994	2.09	40.5
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	10,342,671.84	1,630,762	8,711,910	631,713	6.11	13.8
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	2,201,683.66	318,830	1,882,853	124,016	5.63	15.2
391.00	TRANSPORTATION EQUIPMENT	14-L4	6,350,292.12	3,176,388	3,173,904	443,556	6.98	7.2
392.00	STORES EQUIPMENT	25-SQ	106,844.28	4,969	101,875	4,370	4.09	23.3
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	1,873,272.87	105,926	1,767,347	116,693	6.23	15.1
394.00	LABORATORY EQUIPMENT	15-SQ	271,346.87	104,867	166,480	17,979	6.63	9.3
395.00	POWER OPERATED EQUIPMENT	22-R2	1,788,630.55	968,041	820,589	64,896	3.63	12.6
396.00	COMMUNICATION EQUIPMENT	15-SQ	2,075,182.96	653,798	1,421,385	133,066	6.41	10.7
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	2,424,313.87	188,848	2,235,466	166,650	6.87	13.4
	TOTAL DEPRECIABLE PLANT		**680,160,451.68**	**274,690,451**	**405,470,002**	**13,855,040**	**2.04**	
	NONDEPRECIABLE PLANT							
353.20	LAND AND LAND RIGHTS - COLLECTION		3,161,743.45					
353.30	LAND AND LAND RIGHTS - SPP		1,153,570.00					
353.40	LAND AND LAND RIGHTS - TDP		148,041.59					
	TOTAL NONDEPRECIABLE PLANT		**4,463,355.04**					
	AMORTIZATION OF NET SALVAGE					**1,235,203**		
	TOTAL UTILITY PLANT		**684,623,806.72**	**274,690,451**	**405,470,002**	**15,090,243**		

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

TABLE 3. AMORTIZATION OF EXPERIENCED NET SALVAGE

	2017		2018		2019		2020		2021			
ACCOUNT	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	NET SALVAGE	SALVAGE ACCRUAL
(1)	(2)	- (3)	+ (4)	- (5)	+ (6)	- (7)	+ (8)	- (9)	+ (10)	- (11)	= (12)*	(13)=(12)/5
354.20				12,897				27,262		0	(40,159)	(8,032)
354.30				2,859		85,935				7,614	(96,408)	(19,282)
354.40		1,715		2,466		67,527		3,036		76,589	(151,333)	(30,267)
360.10				2,819		2,368		22,982		164,970	(193,139)	(38,628)
361.10		70,300		26,539		1,430,976	3,491	1,344,641		1,074,276	(3,943,241)	(788,648)
361.20						90,279		81,137		219,778	(391,194)	(78,239)
363.00	250	18,802		27,682		52,930		75,298		129,689	(304,151)	(60,830)
364.00								8,901			(8,901)	(1,780)
371.00				523		66,936		24,730		51,353	(143,542)	(28,708)
380.00		4,298		58,050		92,448		399,155		104,870	(658,822)	(131,764)
382.00				1,046		3,306					(4,352)	(870)
389.10				3,678							(3,678)	(736)
390.00				13,129		9,976		1,887		1,483	(26,474)	(5,295)
391.00				42,450		48,014					(90,464)	(18,093)
393.00				4,039		28,437		7,289		953	(40,718)	(8,144)
394.00						5,445		1,548		1,919	(8,913)	(1,783)
395.00						5,218		510			(5,728)	(1,146)
396.00						39,091		1,822		9,834	(50,747)	(10,149)
397.00						4,027		3,318		6,699	(14,044)	(2,809)
TOTAL	**250**	**95,114**	**0**	**198,177**	**0**	**2,032,913**	**3,491**	**2,003,518**	**0**	**1,850,027**	**(6,176,007)**	**(1,235,203)**

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

PART II. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

			DEPRECIATED ORIGINAL COST		
YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
1918	3,514,247	3,250,506	263,741	263,741	0.1
1938	1,288,720	1,129,893	158,827	422,568	0.1
1945	275,920	230,332	45,588	468,156	0.1
1950	1,118,544	891,036	227,508	695,664	0.2
1952				695,664	0.2
1953				695,664	0.2
1955	21,114,719	15,765,315	5,349,404	6,045,068	1.5
1959	67,832,227	49,928,004	17,904,223	23,949,291	5.9
1960	14,488,571	12,071,326	2,417,245	26,366,536	6.5
1962	11,542,277	7,978,205	3,564,072	29,930,608	7.4
1963	28,918,420	20,106,499	8,811,921	38,742,529	9.6
1965	851,205	601,334	249,871	38,992,400	9.6
1967				38,992,400	9.6
1968	3,026,491	2,110,338	916,153	39,908,553	9.8
1969				39,908,553	9.8
1970	1,066,370	717,896	348,474	40,257,027	9.9
1971				40,257,027	9.9
1972	30,863,471	21,138,796	9,724,675	49,981,702	12.3
1973	942,792	641,701	301,091	50,282,793	12.4
1974	748,426	494,108	254,318	50,537,111	12.5
1975	35,951,639	26,421,176	9,530,463	60,067,574	14.8
1976	36,885,967	21,086,362	15,799,605	75,867,179	18.7
1977	561,075	360,594	200,481	76,067,660	18.8
1978	1,486,154	939,704	546,450	76,614,110	18.9
1979	1,553,818	968,141	585,677	77,199,787	19.0
1980	2,032,751	1,194,172	838,579	78,038,366	19.2
1981	1,211,589	732,319	479,270	78,517,636	19.4
1982	933,812	558,858	374,954	78,892,590	19.5
1983	669,743	390,616	279,127	79,171,717	19.5
1984	992,403	550,521	441,882	79,613,599	19.6
1985	3,609,510	2,067,825	1,541,685	81,155,284	20.0
1986	1,407,658	778,488	629,170	81,784,454	20.2
1987	2,622,497	1,595,392	1,027,105	82,811,559	20.4
1988	898,769	528,374	370,395	83,181,954	20.5
1989	26,746,176	11,923,347	14,822,829	98,004,783	24.2
1990	4,855,017	2,398,940	2,456,077	100,460,860	24.8
1991	2,023,842	990,613	1,033,229	101,494,089	25.0
1992	3,107,547	1,406,182	1,701,365	103,195,454	25.5
1993	482,667	205,870	276,797	103,472,251	25.5
1994	1,431,406	622,695	808,711	104,280,962	25.7
1995	18,193,836	9,551,308	8,642,528	112,923,490	27.9
1996	9,082,089	4,191,383	4,890,706	117,814,196	29.1
1997	432,662	181,011	251,651	118,065,847	29.1
1998	2,759,164	1,098,388	1,660,776	119,726,623	29.5
1999	13,259,819	4,457,567	8,802,252	128,528,875	31.7

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS 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)	DEPRECIATED ORIGINAL COST AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
2000	420,960	142,848	278,112	128,806,987	31.8
2001	2,547,838	1,137,080	1,410,758	130,217,745	32.1
2002	523,350	209,553	313,797	130,531,542	32.2
2003	3,243,293	1,331,149	1,912,144	132,443,686	32.7
2004	7,669,841	2,966,866	4,702,975	137,146,661	33.8
2005	2,547,240	734,247	1,812,993	138,959,654	34.3
2006	5,511,385	1,908,331	3,603,054	142,562,708	35.2
2007	5,888,587	1,452,505	4,436,082	146,998,790	36.3
2008	4,568,849	1,317,495	3,251,354	150,250,144	37.1
2009	10,737,075	2,657,008	8,080,067	158,330,211	39.0
2010	17,757,836	5,042,291	12,715,545	171,045,756	42.2
2011	4,841,465	943,361	3,898,104	174,943,860	43.1
2012	3,471,649	1,184,827	2,286,822	177,230,682	43.7
2013	6,234,915	2,058,980	4,175,935	181,406,617	44.7
2014	29,325,701	5,918,137	23,407,564	204,814,181	50.5
2015	24,893,582	5,286,555	19,607,027	224,421,208	55.3
2016	39,781,201	5,385,222	34,395,979	258,817,187	63.8
2017	15,894,241	1,670,552	14,223,689	273,040,876	67.3
2018	12,687,531	1,314,049	11,373,482	284,414,358	70.1
2019	49,416,003	2,343,821	47,072,182	331,486,540	81.8
2020	53,901,183	1,949,606	51,951,577	383,438,117	94.6
2021	29,083,321	389,689	28,693,632	412,131,749	101.6
9999	11,570,599-	4,908,857-	6,661,742-	405,470,007	100.0
SUBTOTAL	680,160,457	274,690,450	405,470,007		
NONDEPRECIABLE	4,463,353		4,463,353		
TOTAL	684,623,810	274,690,450	409,933,360		

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

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 45-R3						
NET SALVAGE PERCENT.. 0						
2017	1,144,650.58	129,803	79,170	1,065,481	35.18	30,287
2018	1,972,757.86	174,786	106,606	1,866,152	36.02	51,809
2019	1,101,547.39	70,279	42,865	1,058,682	36.71	28,839
2020	173,808.85	6,709	4,092	169,717	37.41	4,537
2021	383,094.65	5,019	3,061	380,034	37.67	10,089
	4,775,859.33	386,596	235,794	4,540,066		125,561

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 36.2   2.63

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

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

SURVIVOR CURVE.. IOWA 55-S0
NET SALVAGE PERCENT.. 0

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
1960	2,307,540.06	1,802,189	1,899,948	407,592	17.24	23,642
1968	671,326.79	488,457	514,953	156,374	20.03	7,807
1970	60,405.27	43,238	45,583	14,822	20.45	725
1972	433,209.59	302,380	318,782	114,428	21.42	5,342
1990	89,924.53	48,433	51,060	38,865	26.98	1,441
1995	131,932.60	63,631	67,083	64,850	28.45	2,279
1996	514,216.58	241,270	254,358	259,859	28.85	9,007
2000	105,072.37	44,046	46,435	58,637	29.78	1,969
2004	244,354.55	88,090	92,868	151,487	31.04	4,880
2005	52,725.90	18,180	19,166	33,560	31.35	1,070
2006	2,710,094.59	894,873	943,415	1,766,680	31.45	56,174
2011	7,145.91	1,741	1,835	5,311	32.60	163
2012	10,787.71	2,419	2,550	8,238	32.87	251
2013	148,319.26	30,376	32,024	116,295	33.00	3,524
2014	10,489,746.72	1,935,358	2,040,342	8,449,405	33.15	254,884
2015	40,952.90	6,684	7,047	33,906	33.34	1,017
2017	726,754.63	85,684	90,332	636,423	33.67	18,902
2018	1,524,641.23	143,621	151,411	1,373,230	33.67	40,785
2019	487,322.52	33,625	35,449	451,874	33.73	13,397
2021	179,682.54	2,659	2,803	176,879	33.40	5,296
	20,936,156.25	6,276,954	6,617,444	14,318,712		452,555

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.6   2.16

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

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

SURVIVOR CURVE.. IOWA 55-S0
NET SALVAGE PERCENT.. 0

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
1960	10,599,624.45	8,278,307	8,974,991	1,624,633	17.24	94,236
1972	12,790,150.88	8,927,525	9,678,846	3,111,305	21.42	145,252
1975	17,982,761.29	12,208,497	13,235,938	4,746,823	21.99	215,863
1985	1,267,451.78	744,755	807,432	460,020	25.61	17,963
1993	12,736.38	6,424	6,965	5,771	28.00	206
1994	101,865.06	50,423	54,666	47,199	28.06	1,682
1995	8,797,962.75	4,243,257	4,600,360	4,197,603	28.45	147,543
1996	2,958,647.48	1,388,197	1,505,025	1,453,622	28.85	50,386
1999	75,887.27	32,783	35,542	40,345	29.58	1,364
2001	236,542.84	95,516	103,554	132,989	30.26	4,395
2003	2,470,398.84	927,882	1,005,971	1,464,428	30.76	47,608
2004	367,499.67	132,484	143,634	223,866	31.04	7,212
2006	131,140.18	43,302	46,946	84,194	31.45	2,677
2007	18,890.83	5,917	6,415	12,476	31.80	392
2008	404,821.01	120,232	130,350	274,471	31.95	8,591
2009	16,621.70	4,654	5,046	11,576	32.14	360
2010	12,125,568.86	3,179,324	3,446,889	8,678,680	32.36	268,192
2011	393,025.03	95,741	103,798	289,227	32.60	8,872
2012	282,267.24	63,284	68,610	213,657	32.87	6,500
2013	8,325.00	1,705	1,848	6,477	33.00	196
2014	16,814,574.82	3,102,289	3,363,371	13,451,204	33.15	405,768
2015	5,564,740.72	908,166	984,595	4,580,146	33.34	137,377
2016	19,818,007.39	2,790,375	3,025,208	16,792,799	33.56	500,381
2017	3,095,376.46	364,945	395,658	2,699,718	33.67	80,182
2018	101,683.42	9,579	10,385	91,298	33.67	2,712
2019	265,878.40	18,346	19,890	245,988	33.73	7,293
2020	1,060,026.32	45,369	49,187	1,010,839	33.59	30,093
2021	8,743,981.57	129,411	140,302	8,603,680	33.40	257,595
9999	2,500,000.00-	946,961-	1,026,655-	1,473,345-		48,434-
	124,006,457.64	46,971,728	50,924,767	73,081,691		2,402,457

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 30.4 1.94

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 355.00 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 35-S0.5						
NET SALVAGE PERCENT.. 0						
1991	21,295.06	15,068	13,736	7,559	12.60	600
2002	19,740.16	10,701	9,755	9,985	16.47	606
2004	38,295.54	19,301	17,594	20,702	17.22	1,202
2012	403,177.35	128,291	116,948	286,229	20.35	14,065
2015	426,122.43	98,605	89,887	336,235	21.59	15,574
2020	22,037.01	1,318	1,201	20,836	23.56	884
2021	1,986.71	41	38	1,949	23.83	82
	932,654.26	273,325	249,159	683,496		33,013

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.7   3.54

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

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-R3						
NET SALVAGE PERCENT.. 0						
1955	2,857.40	2,242	2,857			
1960	17,379.90	13,040	17,380			
1972	234,615.90	149,826	234,616			
1989	4,590.34	2,074	3,960	630	39.44	16
1995	338,721.27	127,461	243,350	95,371	43.92	2,171
1996	180,459.83	65,796	125,619	54,841	44.43	1,234
2004	32,074.48	8,195	15,646	16,428	50.99	322
2015	1,454,957.37	142,877	272,783	1,182,174	59.72	19,795
2018	135,572.51	7,267	13,874	121,699	61.86	1,967
2019	37,085.16	1,428	2,726	34,359	62.44	550
2020	352,264.03	8,243	15,738	336,526	62.60	5,376
2021	1,920,268.33	15,170	28,963	1,891,306	62.79	30,121
	4,710,846.52	543,619	977,512	3,733,335		61,552

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 60.7   1.31

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

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 80-R2.5						
NET SALVAGE PERCENT.. 0						
1918	3,302,516.67	3,007,932	3,038,775	263,742	10.14	26,010
1938	882,535.28	736,917	744,473	138,062	16.50	8,367
1945	212,233.20	170,466	172,214	40,019	18.74	2,135
1950	961,827.96	742,724	750,340	211,488	21.09	10,028
1955	20,980,218.98	15,487,598	15,646,409	5,333,810	23.59	226,105
1959	57,061,184.95	40,296,609	40,709,812	16,351,373	26.00	628,899
1960	1,057,190.84	741,196	748,796	308,395	26.22	11,762
1962	11,542,276.72	7,897,226	7,978,205	3,564,072	27.46	129,791
1963	27,097,985.26	18,388,693	18,577,251	8,520,734	27.71	307,497
1965	656,939.52	434,237	438,690	218,250	28.97	7,534
1968	1,816,850.93	1,156,607	1,168,467	648,384	30.54	21,231
1970	767,650.15	474,408	479,273	288,377	31.83	9,060
1972	15,419,587.74	9,236,333	9,331,043	6,088,545	33.14	183,722
1973	525,390.09	310,873	314,061	211,329	33.47	6,314
1974	463,559.46	268,633	271,388	192,171	34.47	5,575
1975	2,159,885.45	1,235,454	1,248,122	911,763	34.80	26,200
1976	35,669,420.82	19,960,608	20,165,284	15,504,137	35.80	433,076
1977	318,326.57	175,653	177,454	140,873	36.15	3,897
1978	839,018.07	452,566	457,207	381,811	37.15	10,278
1979	876,480.12	465,586	470,360	406,120	37.50	10,830
1980	1,422,018.28	743,573	751,198	670,820	37.87	17,714
1981	672,958.55	343,411	346,932	326,027	38.87	8,388
1982	502,557.95	252,083	254,668	247,890	39.24	6,317
1983	369,740.90	180,803	182,657	187,084	40.24	4,649
1984	641,463.39	307,902	311,059	330,404	40.62	8,134
1985	1,591,989.01	749,508	757,193	834,796	41.02	20,351
1986	749,820.61	343,418	346,939	402,882	42.02	9,588
1987	695,349.18	311,864	315,062	380,287	42.42	8,965
1988	278,437.01	121,259	122,502	155,935	43.42	3,591
1989	24,514,540.11	10,438,291	10,545,326	13,969,214	43.83	318,714
1990	2,876,889.03	1,196,210	1,208,476	1,668,413	44.26	37,696
1991	1,115,200.79	448,980	453,584	661,617	45.26	14,618
1992	2,127,649.44	834,890	843,451	1,284,198	45.68	28,113
1993	362,246.78	137,292	138,700	223,547	46.69	4,788
1994	943,322.05	347,614	351,178	592,144	47.13	12,564
1995	2,290,835.85	819,661	828,066	1,462,770	47.57	30,750
1996	3,470,186.46	1,194,438	1,206,686	2,263,500	48.58	46,593
1997	222,510.56	74,141	74,901	147,610	49.03	3,011
1998	1,460,730.01	466,849	471,636	989,094	50.03	19,770
1999	11,551,304.73	3,560,112	3,596,618	7,954,687	50.50	157,519
2000	303,806.51	90,139	91,063	212,744	50.96	4,175

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

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 80-R2.5						
NET SALVAGE PERCENT.. 0						
2001	543,534.45	153,766	155,343	388,191	51.96	7,471
2002	203,064.99	55,031	55,595	147,470	52.45	2,812
2003	33,631.17	8,710	8,799	24,832	52.93	469
2004	1,872,993.30	458,883	463,588	1,409,405	53.93	26,134
2005	1,351,223.10	314,294	317,517	1,033,706	54.43	18,991
2006	1,135,635.89	249,953	252,516	883,120	54.92	16,080
2007	4,888,888.18	1,013,955	1,024,352	3,864,536	55.43	69,719
2008	2,341,549.71	451,919	456,553	1,884,997	56.43	33,404
2009	9,136,983.23	1,644,657	1,661,522	7,475,461	56.94	131,287
2010	3,746,998.74	624,999	631,408	3,115,591	57.46	54,222
2011	3,668,073.43	562,316	568,082	3,099,991	57.99	53,457
2012	260,419.22	36,355	36,728	223,691	58.53	3,822
2013	436,419.34	54,902	55,465	380,954	59.07	6,449
2014	1,125,472.88	125,828	127,118	998,355	59.61	16,748
2015	16,178.80	1,577	1,593	14,586	60.17	242
2016	12,902,510.39	1,078,650	1,089,711	11,812,799	60.29	195,933
2017	6,749,350.24	467,730	472,526	6,276,824	60.44	103,852
2018	3,925,901.09	212,784	214,966	3,710,935	61.02	60,815
2019	39,939,933.84	1,577,627	1,593,804	38,346,130	60.79	630,797
2020	23,519,438.95	571,522	577,382	22,942,057	60.23	380,907
2021	11,234,438.58	96,616	97,607	11,136,832	57.98	192,081
9999	8,113,082.47-	3,386,560-	3,421,286-	4,691,797-		106,183-
	361,694,193.03	150,978,271	152,526,408	209,167,785		4,733,828

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 44.2 1.31

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

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 50-S2.5						
NET SALVAGE PERCENT.. 0						
1918	192,002.76	192,003	192,003			
1938	263,057.70	254,798	242,293	20,765	2.71	7,662
1945	40,698.28	38,606	36,711	3,987	4.15	961
1950	100,436.85	94,069	89,452	10,985	4.84	2,270
1955	82,962.76	76,135	72,399	10,564	5.96	1,772
1959	10,771,041.87	9,693,938	9,218,192	1,552,850	6.94	223,754
1960	124,835.20	112,090	106,589	18,246	6.99	2,610
1963	1,820,434.96	1,608,172	1,529,248	291,187	7.72	37,719
1965	115,835.77	100,789	95,843	19,993	8.44	2,369
1968	63,258.02	54,149	51,492	11,766	9.00	1,307
1970	131,490.13	110,373	104,956	26,534	9.85	2,694
1972	1,406,333.16	1,162,475	1,105,425	300,908	10.38	28,989
1973	300,514.18	246,301	234,213	66,301	10.67	6,214
1974	145,131.67	117,876	112,091	33,041	10.98	3,009
1975	428,835.35	344,955	328,026	100,809	11.31	8,913
1976	1,216,546.67	968,614	921,078	295,469	11.65	25,362
1977	135,672.33	106,259	101,044	34,628	12.32	2,811
1978	365,240.42	282,806	268,927	96,313	12.68	7,596
1979	376,391.09	287,939	273,808	102,583	13.06	7,855
1980	344,640.29	260,307	247,532	97,108	13.45	7,220
1981	303,876.29	226,449	215,336	88,540	13.85	6,393
1982	241,192.22	177,204	168,507	72,685	14.26	5,097
1983	167,201.76	121,021	115,082	52,120	14.69	3,548
1984	193,153.85	137,622	130,868	62,286	15.13	4,117
1985	425,383.15	298,109	283,479	141,904	15.58	9,108
1986	362,362.31	248,291	236,106	126,256	16.31	7,741
1987	251,003.20	168,875	160,587	90,416	16.78	5,388
1988	96,404.18	63,627	60,504	35,900	17.26	2,080
1989	1,480,246.96	957,424	910,437	569,810	17.75	32,102
1990	1,029,539.70	648,610	616,778	412,762	18.50	22,311
1991	480,597.06	296,096	281,564	199,033	19.00	10,475
1992	446,706.85	267,488	254,361	192,346	19.76	9,734
1993	106,820.01	62,404	59,341	47,479	20.28	2,341
1994	172,867.94	97,930	93,124	79,744	21.04	3,790
1995	499,983.10	275,591	262,066	237,917	21.58	11,025
1996	766,899.42	408,757	388,696	378,203	22.34	16,929
1997	99,518.88	51,202	48,689	50,830	23.12	2,199
1998	667,600.22	330,996	314,752	352,848	23.90	14,764
1999	377,718.65	180,172	171,330	206,389	24.67	8,366
2001	40,639.52	17,829	16,954	23,686	26.23	903
2004	391,028.74	148,513	141,224	249,805	28.58	8,741

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

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 50-S2.5						
NET SALVAGE PERCENT.. 0						
2005	622,671.32	222,916	211,976	410,695	29.59	13,880
2006	485,376.83	164,009	155,960	329,417	30.37	10,847
2007	261,475.47	83,045	78,969	182,506	31.16	5,857
2008	302,656.61	89,465	85,074	217,583	32.16	6,766
2010	100,531.28	25,434	24,186	76,345	33.95	2,249
2011	258,381.57	59,686	56,757	201,625	34.95	5,769
2012	100,205.47	20,943	19,915	80,290	35.95	2,233
2013	16,187.94	3,027	2,878	13,310	36.95	360
2014	101,870.38	16,890	16,061	85,809	37.75	2,273
2016	19,978.89	2,429	2,310	17,669	39.75	445
2019	3,733,855.31	206,109	195,994	3,537,861	42.75	82,757
2020	8,051,975.43	267,326	254,207	7,797,768	43.75	178,235
2021	1,116,756.65	12,284	11,681	1,105,075	44.75	24,694
	42,198,026.62	22,470,427	21,377,075	20,820,951		904,604

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.0 2.14

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 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 47-R3						
NET SALVAGE PERCENT.. 0						
1918	19,727.62	19,728	19,728			
1938	143,126.96	143,127	143,127			
1945	22,988.29	22,862	21,407	1,581	0.42	1,581
1950	56,278.80	54,726	51,244	5,035	2.03	2,480
1955	48,679.71	46,616	43,650	5,030	2.94	1,711
1960	76,154.48	71,189	66,659	9,495	4.29	2,213
1965	78,429.72	71,340	66,801	11,629	5.61	2,073
1970	106,824.27	94,069	88,084	18,740	6.98	2,685
1972	579,573.92	502,027	470,084	109,490	7.65	14,312
1973	116,887.81	99,775	93,427	23,461	8.32	2,820
1974	139,735.00	118,146	110,629	29,106	8.68	3,353
1975	332,974.60	278,700	260,967	72,008	9.06	7,948
1977	107,076.26	87,674	82,096	24,980	9.85	2,536
1978	281,896.00	228,082	213,570	68,326	10.26	6,659
1979	300,946.68	239,192	223,973	76,974	10.97	7,017
1980	266,091.96	208,723	195,442	70,650	11.41	6,192
1981	234,753.75	181,606	170,051	64,703	11.85	5,460
1982	190,062.15	144,903	135,683	54,379	12.31	4,417
1983	132,799.92	99,188	92,877	39,923	13.05	3,059
1984	157,785.94	115,973	108,594	49,192	13.52	3,638
1985	324,685.98	234,651	219,721	104,965	14.01	7,492
1986	295,474.98	208,724	195,443	100,032	14.75	6,782
1987	205,043.94	142,177	133,131	71,913	15.25	4,716
1988	70,509.94	47,947	44,896	25,614	15.76	1,625
1989	746,798.97	495,128	463,624	283,175	16.52	17,141
1990	832,608.91	540,280	505,904	326,705	17.04	19,173
1991	393,283.11	248,319	232,519	160,764	17.81	9,027
1992	531,951.61	328,001	307,131	224,821	18.34	12,259
1994	66,342.64	38,678	36,217	30,126	19.67	1,532
1995	100,262.25	56,588	52,987	47,275	20.45	2,312
1996	266,829.64	146,276	136,969	129,861	21.01	6,181
1997	87,126.12	46,107	43,173	43,953	21.80	2,016
1998	573,379.95	293,743	275,053	298,327	22.37	13,336
1999	165,344.70	81,482	76,298	89,047	23.16	3,845
2000	12,081.20	5,714	5,350	6,731	23.95	281
2004	188,269.92	74,461	69,723	118,547	26.75	4,432
2005	502,155.36	188,107	176,139	326,016	27.55	11,834
2006	406,003.36	143,482	134,353	271,650	28.36	9,579
2007	228,819.60	75,968	71,134	157,686	29.17	5,406
2008	64,952.16	20,168	18,885	46,067	29.98	1,537
2009	79,573.30	23,076	21,608	57,965	30.60	1,894

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 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 47-R3						
NET SALVAGE PERCENT.. 0						
2011	170,969.39	42,007	39,334	131,635	32.24	4,083
2012	79,926.00	17,839	16,704	63,222	33.06	1,912
2013	16,092.23	3,228	3,023	13,069	33.87	386
2014	63,321.52	11,259	10,543	52,779	34.69	1,521
2016	134,440.98	17,746	16,617	117,824	36.17	3,258
2017	252,322.20	27,352	25,611	226,711	37.00	6,127
2018	234,894.55	19,966	18,696	216,199	37.65	5,742
2019	393,391.30	23,997	22,470	370,921	38.48	9,639
2020	623,900.47	23,022	21,557	602,343	39.15	15,386
2021	1,097,797.55	13,832	12,952	1,084,846	39.34	27,576
9999	957,516.15-	491,394-	460,916-	496,600-		22,658-
	11,643,831.52	5,975,577	5,604,942	6,038,889		275,526

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 21.9   2.37

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

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 15-L2.5						
NET SALVAGE PERCENT.. 0						
1960	34,668.83	34,669	34,669			
1996	10,667.26	9,656	5,808	4,859	2.67	1,820
1998	11,518.92	10,206	6,139	5,380	3.02	1,781
2008	91,182.72	68,196	41,023	50,160	4.55	11,024
2010	110,716.42	77,546	46,647	64,069	4.92	13,022
2011	38,771.91	25,892	15,575	23,197	5.22	4,444
2013	175,978.36	102,771	61,821	114,157	6.06	18,838
2015	40,642.36	19,232	11,569	29,073	7.24	4,016
2016	442,654.44	181,621	109,252	333,402	7.90	42,203
2017	160,544.63	54,970	33,067	127,478	8.64	14,754
2018	43,907.33	11,894	7,155	36,752	9.42	3,901
2019	799,101.52	156,784	94,311	704,791	10.24	68,827
2020	63,248.90	7,533	4,532	58,717	11.09	5,295
	2,023,603.60	760,970	471,568	1,552,036		189,925

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.2   9.39

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

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

SURVIVOR CURVE.. IOWA 30-S0.5
NET SALVAGE PERCENT.. 0

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
1991	13,465.71	10,309	9,210	4,256	9.34	456
1996	865,409.03	604,661	540,224	325,185	11.00	29,562
1997	21,556.38	14,736	13,166	8,390	11.34	740
1998	37,465.46	25,004	22,339	15,126	11.71	1,292
2001	72,361.53	44,647	39,889	32,473	12.72	2,553
2002	68,610.87	40,940	36,577	32,034	13.18	2,431
2004	392,031.81	218,832	195,512	196,520	13.85	14,189
2005	8,726.79	4,694	4,194	4,533	14.17	320
2006	427,783.72	220,138	196,679	231,105	14.62	15,807
2007	12,937.95	6,360	5,682	7,256	15.00	484
2008	19,211.28	8,999	8,040	11,171	15.32	729
2009	466,279.80	206,329	184,341	281,939	15.75	17,901
2010	709,519.49	295,373	263,896	445,623	16.12	27,644
2011	128,559.92	49,946	44,623	83,937	16.53	5,078
2012	1,573,089.45	566,312	505,962	1,067,127	16.89	63,181
2013	413,699.69	136,438	121,898	291,802	17.27	16,896
2014	92,722.35	27,613	24,670	68,052	17.69	3,847
2015	3,950,785.73	1,042,612	931,504	3,019,282	18.13	166,535
2016	1,239,193.93	283,528	253,313	985,881	18.54	53,176
2017	146,258.17	28,111	25,115	121,143	18.92	6,403
2018	1,395,756.98	213,970	191,168	1,204,589	19.33	62,317
2019	583,880.42	65,687	58,687	525,193	19.72	26,633
2020	1,321,341.94	91,701	81,929	1,239,413	20.10	61,662
2021	251,572.74	6,038	5,395	246,178	20.38	12,079
	14,212,221.14	4,212,978	3,764,013	10,448,208		591,915

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.7   4.16

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 380.00 TREATMENT 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 35-S1.5						
NET SALVAGE PERCENT.. 0						
1960	271,177.54	261,849	222,294	48,884	2.19	22,321
1968	475,055.02	442,229	375,426	99,629	3.97	25,095
1975	15,038,566.99	13,357,255	11,339,508	3,699,059	5.85	632,318
1987	1,471,100.21	1,162,169	986,612	484,488	9.17	52,834
1988	453,417.65	353,938	300,472	152,946	9.42	16,236
1990	26,054.86	19,697	16,722	9,333	10.17	918
1994	147,008.14	103,082	87,510	59,498	11.72	5,077
1995	5,121,686.82	3,515,526	2,984,471	2,137,216	12.11	176,484
1996	48,237.17	32,348	27,462	20,775	12.52	1,659
1997	1,949.57	1,275	1,082	868	12.95	67
1999	1,063,142.61	660,212	560,480	502,663	13.73	36,611
2001	1,647,259.92	959,035	814,163	833,097	14.71	56,635
2002	199,136.09	111,835	94,941	104,195	15.22	6,846
2003	91,197.97	49,265	41,823	49,375	15.75	3,135
2004	4,077,256.02	2,112,019	1,792,978	2,284,278	16.28	140,312
2006	15,980.22	7,530	6,393	9,587	17.39	551
2007	294,938.32	131,719	111,822	183,116	17.97	10,190
2008	1,128,495.46	475,322	403,520	724,975	18.55	39,082
2009	55,372.86	21,872	18,568	36,805	19.15	1,922
2010	111,128.89	40,762	34,604	76,525	19.85	3,855
2012	120,670.02	37,372	31,727	88,943	21.17	4,201
2013	57,973.54	16,209	13,760	44,214	21.90	2,019
2014	33,877.11	8,435	7,161	26,716	22.62	1,181
2015	11,571,720.19	2,512,220	2,132,724	9,438,996	23.44	402,688
2016	4,260,629.69	789,921	670,595	3,590,035	24.17	148,533
2017	2,515,710.99	383,897	325,906	2,189,805	25.00	87,592
2018	1,100,838.64	131,440	111,585	989,254	25.82	38,313
2019	196,822.98	16,828	14,286	182,537	26.74	6,826
2020	9,917,191.42	509,744	432,742	9,484,449	27.66	342,894
2021	2,216,149.17	38,118	32,360	2,183,790	28.57	76,436
	63,729,746.08	28,263,123	23,993,697	39,736,050		2,342,831

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.0   3.68

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

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 50-R3						
NET SALVAGE PERCENT.. 0						
1995	874,635.54	470,554	475,110	399,526	22.76	17,554
1999	17,293.00	8,093	8,171	9,122	25.58	357
2002	27,056.54	11,131	11,239	15,818	27.90	567
2003	603,123.96	236,545	238,835	364,289	28.67	12,706
2004	48,787.57	18,188	18,364	30,424	29.45	1,033
2016	5,448.80	677	684	4,765	38.75	123
	1,576,345.41	745,188	752,403	823,943		32,340

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.5 2.05

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

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 50-R3						
NET SALVAGE PERCENT.. 0						
2017	12,867.84	1,315	2,713	10,155	39.55	257
2018	176,024.64	14,047	28,977	147,048	40.36	3,643
2019	97,378.78	5,599	11,550	85,828	40.98	2,094
	286,271.26	20,961	43,240	243,031		5,994

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 40.5 2.09

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES

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-S2.5						
NET SALVAGE PERCENT.. 0						
2003	732.57	587	400	333	4.60	72
2013	4,140,223.53	1,879,247	1,280,473	2,859,751	10.23	279,546
2019	38.03	5	3	35	15.62	2
2020	6,201,677.71	513,499	349,886	5,851,792	16.62	352,093
	10,342,671.84	2,393,338	1,630,762	8,711,910		631,713

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.8 6.11

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND 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						
NET SALVAGE PERCENT.. 0						
1992	1,238.99	1,239	1,239			
1993	864.05	864	864			
1995	12,696.60	12,697	12,697			
1998	3,039.80	3,040	3,040			
2003	9,926.25	9,182	6,007	3,919	1.50	2,613
2004	147.61	129	84	64	2.50	26
2005	9,737.15	8,033	5,255	4,482	3.50	1,281
2008	12,008.00	8,105	5,303	6,705	6.50	1,032
2009	35,815.06	22,384	14,644	21,171	7.50	2,823
2010	61,541.56	35,386	23,151	38,391	8.50	4,517
2011	17,379.55	9,124	5,969	11,411	9.50	1,201
2012	39,909.19	18,957	12,402	27,507	10.50	2,620
2013	34,906.68	14,835	9,705	25,202	11.50	2,191
2014	23,508.40	8,816	5,768	17,740	12.50	1,419
2015	19,770.58	6,425	4,203	15,568	13.50	1,153
2016	717,221.40	197,236	129,038	588,183	14.50	40,564
2017	200,445.74	45,100	29,506	170,940	15.50	11,028
2018	57,523.48	10,067	6,586	50,937	16.50	3,087
2019	218,312.76	27,289	17,853	200,460	17.50	11,455
2020	417,202.09	31,290	20,471	396,731	18.50	21,445
2021	308,488.72	7,712	5,045	303,443	19.50	15,561
	2,201,683.66	477,910	318,830	1,882,853		124,016

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.2 5.63

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 391.00 TRANSPORTATION 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 14-L4						
NET SALVAGE PERCENT.. 0						
1995	13,240.08	13,018	13,240			
2001	7,500.00	7,026	7,177	323	1.38	234
2003	25,581.36	23,330	23,832	1,749	1.78	983
2004	6,788.48	6,106	6,237	551	1.96	281
2006	99,532.58	86,852	88,721	10,812	2.26	4,784
2007	154,794.96	133,093	135,957	18,838	2.36	7,982
2008	150,540.49	126,815	129,544	20,996	2.53	8,299
2009	672,138.06	550,347	562,190	109,948	2.77	39,692
2010	253,581.52	198,605	202,879	50,703	3.18	15,944
2011	91,691.79	67,586	69,040	22,652	3.75	6,041
2012	283,568.72	193,422	197,584	85,985	4.43	19,410
2013	590,227.54	367,240	375,143	215,085	5.16	41,683
2014	555,945.44	309,773	316,439	239,506	5.96	40,186
2015	697,815.92	340,674	348,006	349,810	6.81	51,367
2016	185,576.14	77,051	78,709	106,867	7.75	13,789
2017	177,747.52	60,541	61,844	115,904	8.71	13,307
2018	1,449,339.70	384,510	392,785	1,056,555	9.69	109,036
2019	845,104.39	160,147	163,593	681,511	10.69	63,752
2021	89,577.43	3,395	3,468	86,109	12.69	6,786
	6,350,292.12	3,109,531	3,176,388	3,173,904		443,556

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.2   6.98

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 392.00 STORES 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						
NET SALVAGE PERCENT.. 0						
2017	6,402.78	1,153	798	5,605	20.50	273
2020	100,441.50	6,026	4,171	96,270	23.50	4,097
	106,844.28	7,179	4,969	101,875		4,370

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.3 4.09

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE 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						
NET SALVAGE PERCENT.. 0						
1975	8,615.27	8,615	8,615			
1998	4,439.88	4,440	4,440			
1999	9,128.19	9,128	9,128			
2002	5,741.52	5,598	1,446	4,296	0.50	4,296
2003	4,229.58	3,912	1,011	3,219	1.50	2,146
2004	1,162.57	1,017	263	900	2.50	360
2006	5,970.32	4,627	1,195	4,775	4.50	1,061
2007	7,829.70	5,677	1,467	6,363	5.50	1,157
2008	5,161.15	3,484	900	4,261	6.50	656
2009	28,227.61	17,642	4,558	23,670	7.50	3,156
2010	23,867.97	13,724	3,545	20,323	8.50	2,391
2011	11,907.00	6,251	1,615	10,292	9.50	1,083
2012	34,047.65	16,173	4,178	29,870	10.50	2,845
2013	19,113.82	8,123	2,098	17,016	11.50	1,480
2014	13,575.00	5,091	1,315	12,260	12.50	981
2015	28,072.98	9,124	2,357	25,716	13.50	1,905
2016	36,897.99	10,147	2,621	34,277	14.50	2,364
2017	332,504.39	74,813	19,327	313,177	15.50	20,205
2018	392,093.18	68,616	17,726	374,367	16.50	22,689
2019	298,121.90	37,265	9,627	288,495	17.50	16,485
2020	356,281.91	26,721	6,903	349,379	18.50	18,885
2021	246,283.29	6,157	1,591	244,693	19.50	12,548
	1,873,272.87	346,345	105,926	1,767,347		116,693

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.1 6.23

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 394.00 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.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
1995	10,666.42	10,666	10,666			
2003	3,982.13	3,982	3,982			
2007	76.65	74	71	6	0.50	6
2010	63,682.43	48,823	46,615	17,067	3.50	4,876
2011	7,356.65	5,150	4,917	2,440	4.50	542
2012	727.50	461	440	288	5.50	52
2013	4,573.96	2,592	2,475	2,099	6.50	323
2014	8,402.05	4,201	4,011	4,391	7.50	585
2015	18,226.62	7,898	7,541	10,686	8.50	1,257
2017	9,868.23	2,960	2,826	7,042	10.50	671
2018	16,270.55	3,796	3,624	12,647	11.50	1,100
2019	99,574.04	16,596	15,846	83,728	12.50	6,698
2020	15,147.63	1,515	1,446	13,702	13.50	1,015
2021	12,792.01	426	407	12,385	14.50	854
	271,346.87	109,140	104,867	166,480		17,979

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.3 6.63

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 395.00 POWER OPERATED 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 22-R2						
NET SALVAGE PERCENT.. 0						
2006	93,867.04	60,525	82,153	11,714	8.54	1,372
2007	19,935.00	12,256	16,636	3,299	9.08	363
2008	48,270.00	28,219	38,303	9,967	9.59	1,039
2009	246,063.00	135,950	184,531	61,532	10.12	6,080
2010	440,226.19	228,301	309,884	130,342	10.67	12,216
2011	45,902.54	22,171	30,094	15,809	11.24	1,406
2012	282,853.13	126,039	171,079	111,774	11.82	9,456
2013	157,521.76	64,143	87,064	70,458	12.38	5,691
2014	2,683.87	986	1,338	1,346	12.91	104
2015	7,815.84	2,545	3,454	4,362	13.46	324
2016	15,995.00	4,514	6,127	9,868	13.99	705
2017	29,847.33	7,065	9,590	20,257	14.51	1,396
2018	44,891.21	8,502	11,540	33,351	14.98	2,226
2020	9,692.97	855	1,161	8,532	15.51	550
2021	343,065.67	11,115	15,087	327,978	14.93	21,968
	1,788,630.55	713,186	968,041	820,589		64,896

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.6 3.63

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 396.00 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						
NET SALVAGE PERCENT.. 0						
1996	536.15	536	536			
2003	489.16	489	489			
2004	6,078.99	6,079	6,079			
2010	10,472.81	8,029	8,587	1,886	3.50	539
2011	2,300.20	1,610	1,722	578	4.50	128
2013	15,352.54	8,700	9,305	6,048	6.50	930
2015	1,055,779.23	457,501	489,292	566,487	8.50	66,646
2016	2,645.52	970	1,037	1,609	9.50	169
2017	232,168.62	69,651	74,491	157,678	10.50	15,017
2018	92,490.12	21,581	23,081	69,409	11.50	6,036
2019	110,546.56	18,425	19,705	90,842	12.50	7,267
2021	546,323.06	18,209	19,474	526,849	14.50	36,334
	2,075,182.96	611,780	653,798	1,421,385		133,066

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.7 6.41

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 397.00 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.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
1995	1,212.28	1,212	1,212			
1998	989.39	989	989			
2004	3,071.72	3,072	3,072			
2017	101,420.98	30,426	22,072	79,349	10.50	7,557
2018	22,944.61	5,354	3,884	19,061	11.50	1,657
2019	208,107.21	34,685	25,162	182,945	12.50	14,636
2020	1,695,505.55	169,551	123,001	1,572,505	13.50	116,482
2021	391,062.13	13,034	9,456	381,607	14.50	26,318
	2,424,313.87	258,323	188,848	2,235,466		166,650

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.4 6.87

PART III. EXPERIENCED NET SALVAGE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2017 TRANSACTION YEAR				
354.40	5,819.01	1,715.39		1,715.39-
361.10	30,872.99	70,299.53		70,299.53-
363.00	802.02	18,801.55	250.00	18,551.55-
371.00	1,772.00			
380.00	79,306.20	4,297.60		4,297.60-
390.00	68,118.70			
393.00	58,434.64			
394.00	49,060.15			
395.00	6,125.00			
	300,310.71	95,114.07	250.00	94,864.07-
2018 TRANSACTION YEAR				
354.20		12,897.00		12,897.00-
354.30	5,732.53	2,921.63		2,921.63-
354.40	202,178.63	2,403.28		2,403.28-
355.00	3,187.39			
360.10		2,819.19		2,819.19-
361.10	229,297.81	26,538.94		26,538.94-
363.00	4,745.21	27,682.42		27,682.42-
371.00	65,154.40	522.61		522.61-
380.00	1,806,025.87	58,050.21		58,050.21-
382.00		1,045.59		1,045.59-
389.10		3,678.20		3,678.20-
390.00	64,677.45	13,128.96		13,128.96-
391.00	423,853.34	42,449.74		42,449.74-
393.00	225,336.27	4,038.83		4,038.83-
394.00	11,316.17			
395.00	8,551.14			
	3,050,056.21	198,176.60		198,176.60-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2019 TRANSACTION YEAR				
354.30	796,005.52	85,934.54		85,934.54-
354.40	1,080,902.70	67,526.93		67,526.93-
360.10	3,403.50	2,367.85		2,367.85-
361.10	6,619.40	1,430,976.01		1,430,976.01-
361.20		90,279.20		90,279.20-
363.00	3,929.16	52,929.84		52,929.84-
364.00	59,781.23			
371.00	185,795.47	66,936.02		66,936.02-
380.00	1,622,269.11	92,448.13		92,448.13-
382.00		3,306.40		3,306.40-
390.00	130,250.08	9,975.61		9,975.61-
391.00	83,792.82	48,014.34		48,014.34-
393.00	7,573.30	28,436.64		28,436.64-
394.00	19,315.01	5,445.26		5,445.26-
395.00	52,412.61	5,217.77		5,217.77-
396.00		39,091.19		39,091.19-
397.00		4,026.89		4,026.89-
	4,052,049.91	2,032,912.62		2,032,912.62-
2020 TRANSACTION YEAR				
354.20	5,414.90	27,261.65		27,261.65-
354.30	15,012.08			
354.40	5,402.39	3,035.88		3,035.88-
360.10	2,601.63	22,982.08		22,982.08-
361.10	1,935,411.80	1,344,641.09	3,491.13	1,341,149.96-
361.20	855,928.79	81,137.04		81,137.04-
363.00		75,298.32		75,298.32-
364.00		8,901.01		8,901.01-
371.00	208,080.94	24,730.31		24,730.31-
380.00	702,130.50	399,155.43		399,155.43-
390.00	724.38	1,886.85		1,886.85-
391.00	20,099.66			
393.00	68,342.45	7,289.38		7,289.38-
394.00	8,232.73	1,548.07		1,548.07-
395.00		510.16		510.16-
396.00		1,822.13		1,822.13-
397.00		3,318.49		3,318.49-
	3,827,382.25	2,003,517.89	3,491.13	2,000,026.76-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2021 TRANSACTION YEAR				
354.30	1,942.90	7,613.98		7,613.98-
354.40	45,344.71	76,589.11		76,589.11-
360.10	2,808.79	164,970.27		164,970.27-
361.10	1,848,146.44	1,074,276.48		1,074,276.48-
361.20	512,911.70	219,777.95		219,777.95-
363.00	130,642.17	129,688.68		129,688.68-
371.00	60,139.27	51,352.70		51,352.70-
380.00	230,130.31	104,870.48		104,870.48-
390.00		1,482.56		1,482.56-
393.00	33.43	953.49		953.49-
394.00	633.03	1,919.19		1,919.19-
396.00		9,833.75		9,833.75-
397.00		6,698.53		6,698.53-
	2,832,732.75	1,850,027.17		1,850,027.17-
TOTAL	14,062,531.83	6,179,748.35	3,741.13	6,176,007.22-

EXHIBIT NO. 11-O - DEPRECIATION STUDY

WASTEWATER CSS OPERATIONS

AS OF DECEMBER 31, 2022

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

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER CSS OPERATIONS

2022 DEPRECIATION STUDY

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

Prepared by:

GANNETT FLEMING

Excellence Delivered As Promised

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

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER CSS OPERATIONS

2022 DEPRECIATION STUDY

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

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

Gannett Fleming
Valuation and Rate Consultants, LLC

Corporate Headquarters
207 Senate Avenue
Camp Hill, PA 17011
P 717.763.7211 | **F** 717.763.8150

gannettfleming.com

April 20, 2022

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

Attention Ms. Stacey Gress
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant. The results of our study as of December 31, 2022, are presented in the attached report. The results of our study as of December 31, 2021, are presented in our report, "2021 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of December 31, 2021." 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, 2022.

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

John J. Spanos

JOHN J. SPANOS
President

JJS:mle

TABLE OF CONTENTS

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PART I. INTRODUCTION

PENNSYLVANIA-AMERICAN WATER COMPANY

WASTEWATER CSS OPERATIONS

DEPRECIATION STUDY

PART I. INTRODUCTION

SCOPE

This report sets forth the results of the depreciation study for Pennsylvania-American Water Company to determine the annual depreciation accrual rates and amounts applicable to the original cost of wastewater plant as of December 31, 2022. The rates and amounts are based on the straight line remaining life method of depreciation. This report also describes the concepts, methods and judgments which underlie the recommended annual depreciation accrual rates related to wastewater plant in service as of December 31, 2022.

Part I, Introduction, contains statements with respect to the basis of the study and the development of net original cost. Part II, Estimation of Survivor Curves, presents descriptions of the considerations and methods used in the service life study. Part III, Service Life Considerations, presents the results of 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 summaries 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 2018-2022.

BASIS OF THE STUDY

The purpose of the depreciation study was to determine the annual depreciation accruals applicable to the original cost of wastewater plant in service as of December 31, 2022. For most accounts, the straight line remaining life method using attained ages, the book depreciation reserve and estimated survivor curves, was the basis for the calculation of annual depreciation. For certain accounts, the annual and accrued amortization amounts were based on the age of the property and the selected amortization period.

The survivor curve estimates were based on judgment which incorporated (1) analyses of historical data related to wastewater property for all Pennsylvania-American Water Company Wastewater Operations; (2) consideration of the character, use and location of the property; (3) probable future events and management plans; and (4) a general knowledge of wastewater property lives. The use of Iowa type survivor curves is a generally-accepted method of estimating average service life when the actual lives of individual property units are dispersed.

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 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.

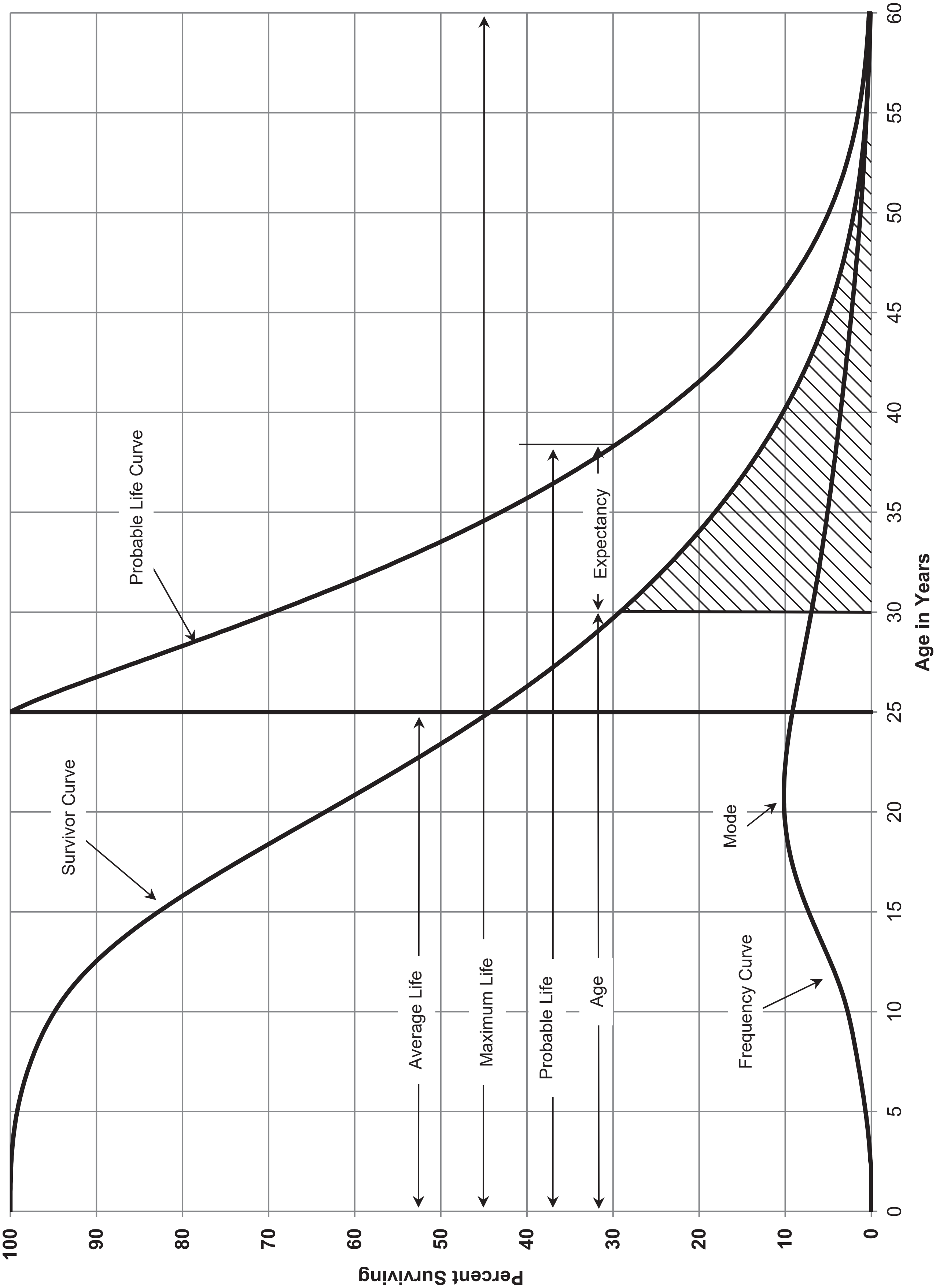


FIGURE 1. TYPICAL SURVIVOR CURVE AND DERIVED CURVES

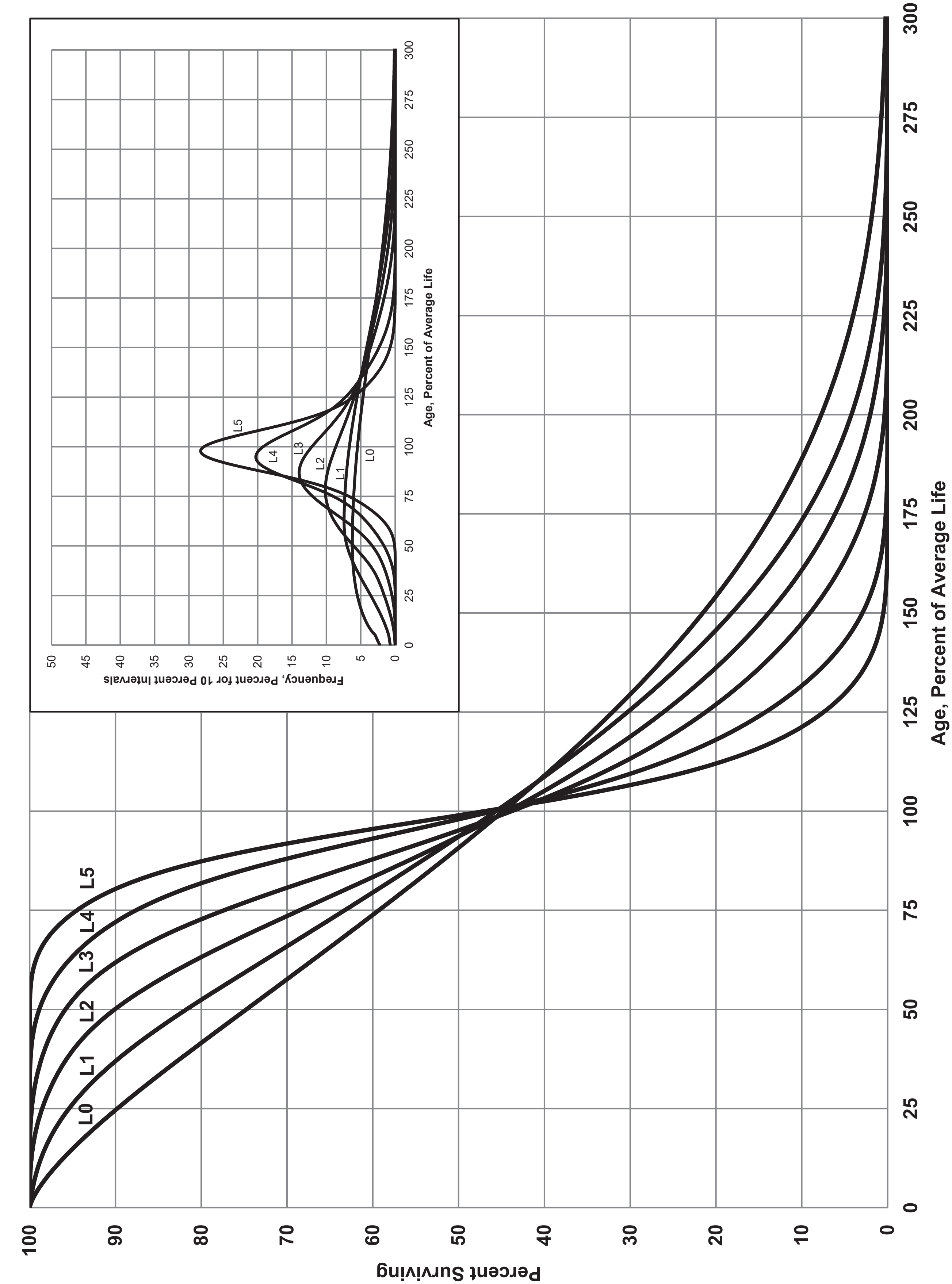


FIGURE 2. LEFT MODAL OR "L" IOWA TYPE SURVIVOR CURVES

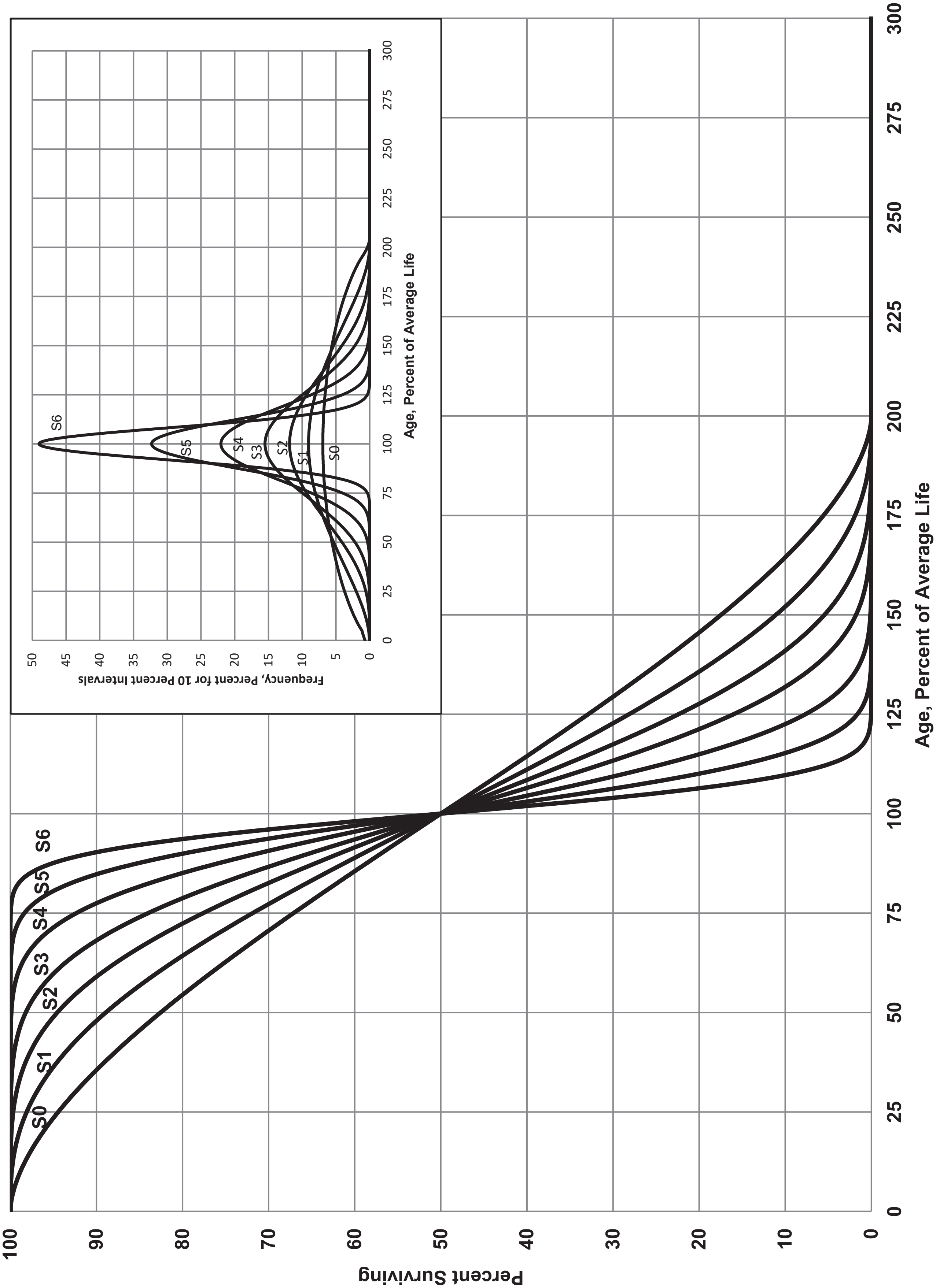


FIGURE 3. SYMMETRICAL OR "S" IOWA TYPE SURVIVOR CURVES

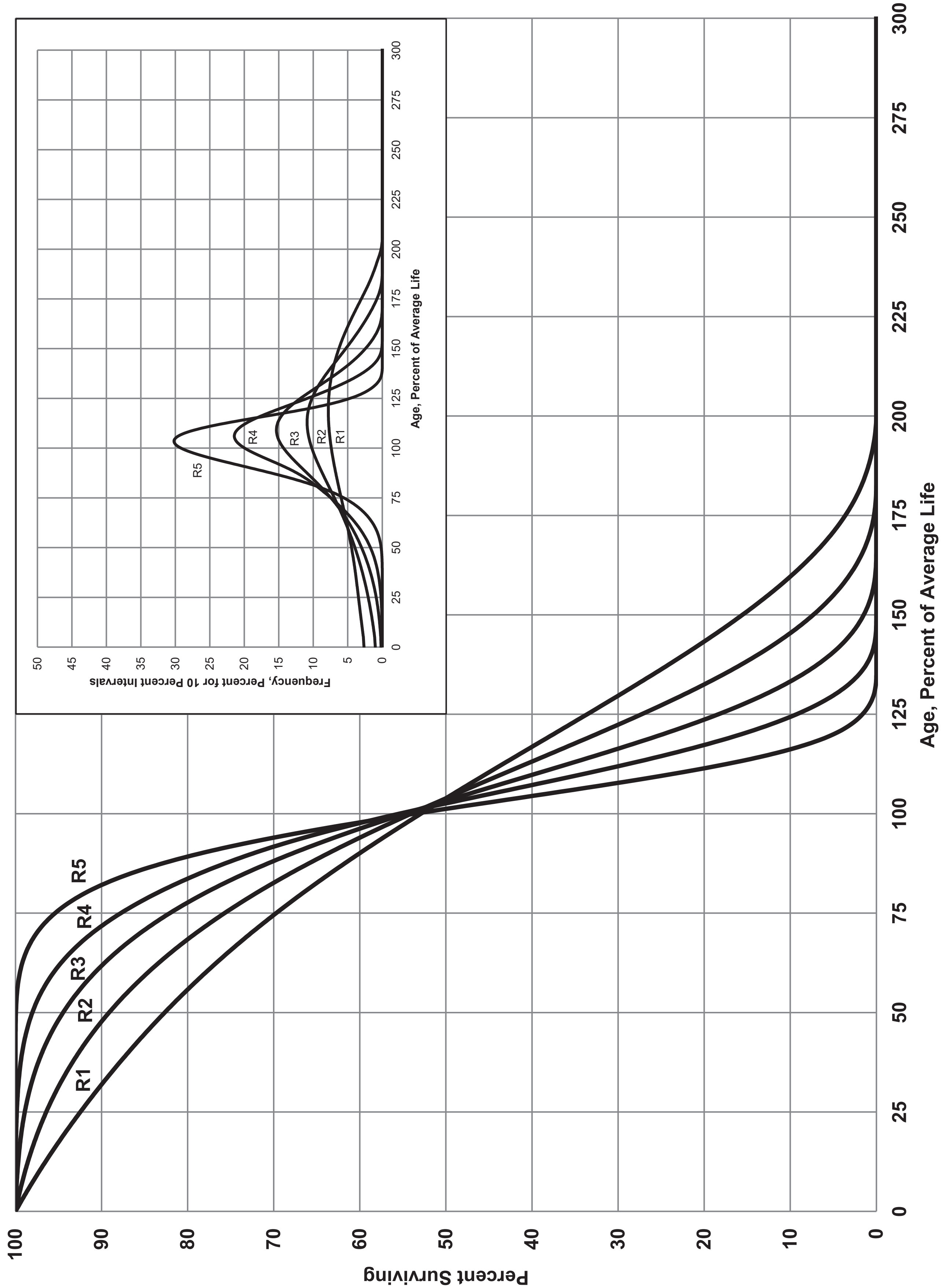


FIGURE 4. RIGHT MODAL OR "R" IOWA TYPE SURVIVOR CURVES

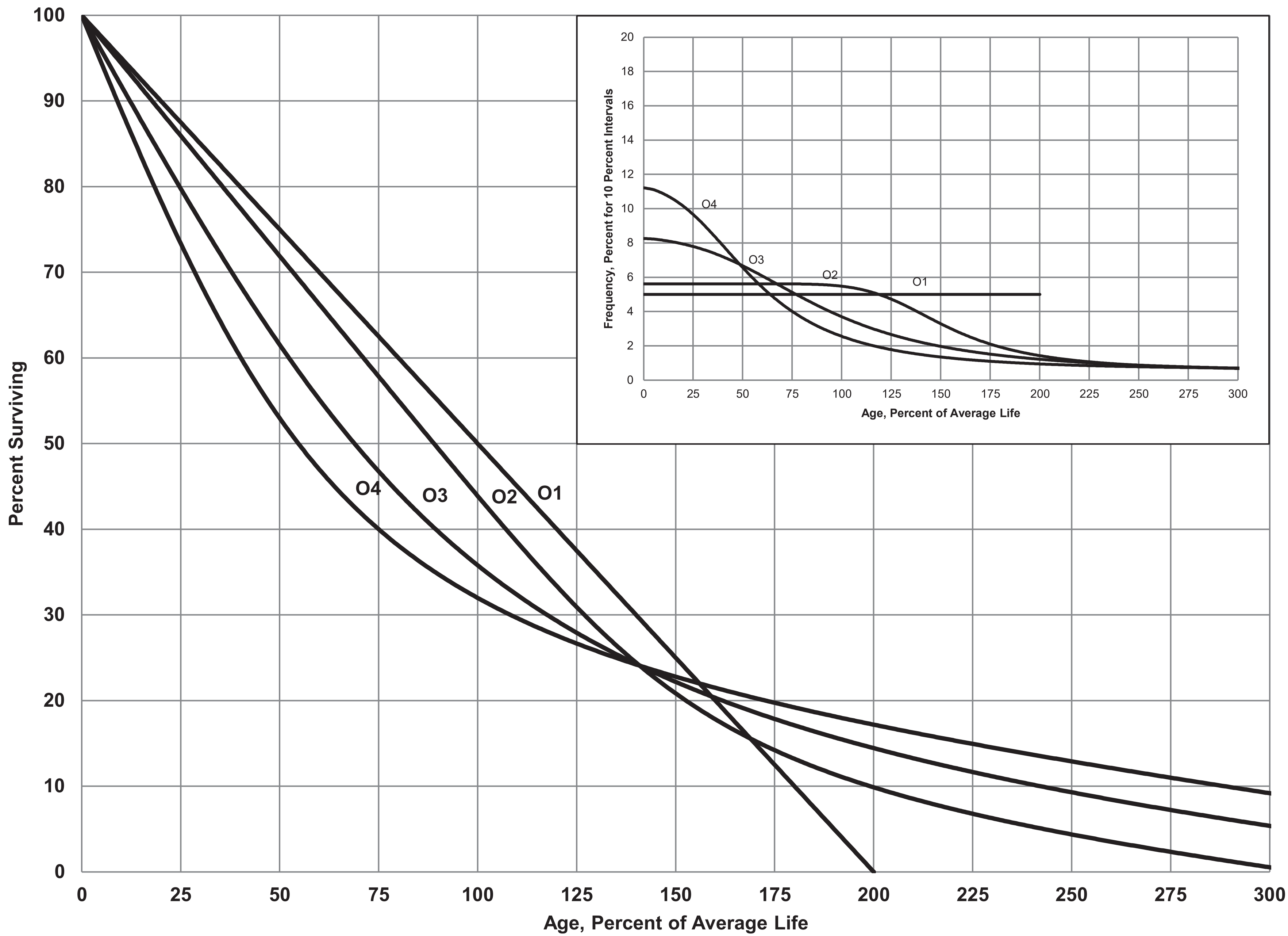


FIGURE 5. ORIGIN MODAL OR "O" IOWA TYPE SURVIVOR CURVES

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. 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.

[1]Marston, Anson, Robley Winfrey and Jean C. Hempstead. Engineering Valuation and Depreciation, 2nd Edition. New York, McGraw-Hill Book Company. 1953.
[2]Winfrey, Robley, Statistical Analyses of Industrial Property Retirements. Iowa State College, Engineering Experiment Station, Bulletin 125. 1935.
[3]Marston, Anson, Robley Winfrey, and Jean C. Hempstead, Supra Note 1.
[4]Wolf, Frank K. and W. Chester Fitch. Depreciation Systems. Iowa State University Press. 1994.

Schedules of Annual Transactions in Plant Records

The property group used to illustrate the retirement rate method is observed for the experience band 2012-2021 for which there were placements during the years 2007-2021. 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, the year of installation (year placed) and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, $10,000 of the dollars invested in 2007 were retired in 2012. 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 2012 retirements of 2007 installations and ending with the 2021 retirements of the 2016 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 2012-2021
SUMMARIZED BY AGE INTERVAL

Experience Band 2012-2021 | Placement Band 2007-2021

Year Placed	Retirements, Thousands of Dollars During Year 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total During Age Interval	Age Interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2007	10	11	12	13	14	16	23	24	25	26	26	13½-14½
2008	11	12	13	15	16	18	20	21	22	19	44	12½-13½
2009	11	12	13	14	16	17	19	21	22	18	64	11½-12½
2010	8	9	10	11	11	13	14	15	16	17	83	10½-11½
2011	9	10	11	12	13	14	16	17	19	20	93	9½-10½
2012	4	9	10	11	12	13	14	15	16	20	105	8½-9½
2013		5	11	12	13	14	15	16	18	20	113	7½-8½
2014			6	12	13	15	16	17	19	19	124	6½-7½
2015				6	13	15	16	17	19	19	131	5½-6½
2016					7	14	16	17	19	20	143	4½-5½
2017						8	18	20	22	23	146	3½-4½
2018							9	20	22	25	150	2½-3½
2019								11	23	25	151	1½-2½
2020									11	24	153	½-1½
2021										13	80	0-½
Total	53	68	86	106	128	157	196	231	273	308	1,606	

SCHEDULE 2. OTHER TRANSACTIONS FOR EACH YEAR 2012-2021
SUMMARIZED BY AGE INTERVAL

Experience Band 2012-2021 | Placement Band 2007-2021

Year Placed (1)	2012 (2)	2013 (3)	2014 (4)	2015 (5)	2016 (6)	2017 (7)	2018 (8)	2019 (9)	2020 (10)	2021 (11)	Total During Age Interval (12)	Age Interval (13)
	Acquisitions, Transfers and Sales, Thousands of Dollars During Year											
2007	-	-	-	-	-	-	60[a]	-	-	-	-	13½-14½
2008	-	-	-	-	-	-	-	-	-	-	-	12½-13½
2009	-	-	-	-	-	-	-	-	-	-	-	11½-12½
2010	-	-	-	-	-	-	-	(5)[b]	-	-	60	10½-11½
2011	-	-	-	-	-	-	-	6[a]	-	-	-	9½-10½
2012	-	-	-	-	-	-	-	-	-	-	(5)	8½-9½
2013		-	-	-	-	-	-	-	-	-	6	7½-8½
2014			-	-	-	-	-	-	-	-	-	6½-7½
2015				-	-	-	-	(12)[b]	-	-	-	5½-6½
2016					-	-	-	-	22[a]	-	-	4½-5½
2017						-	-	(19)[b]	-	-	10	3½-4½
2018							-	-	-	-	-	2½-3½
2019								-	-	(102)[c]	(121)	1½-2½
2020									-	-	-	½-1½
2021											-	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 2012 through 2021 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 2017 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 2012-2021
SUMMARIZED BY AGE INTERVAL

Experience Band 2012-2021 | Placement Band 2007-2021

Year Placed	Exposures, Thousands of Dollars — Annual Survivors at the Beginning of the Year 2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total at Beginning of Age Interval	Age Interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2007	255	245	234	222	209	195	239	216	192	167	167	13½-14½
2008	279	268	256	243	228	212	194	174	153	131	323	12½-13½
2009	307	296	284	271	257	241	224	205	184	162	531	11½-12½
2010	338	330	321	311	300	289	276	262	242	226	823	10½-11½
2011	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½
2012	420[a]	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2013		460[a]	455	444	432	419	405	390	374	356	1,952	7½-8½
2014			510[a]	504	492	479	464	448	431	412	2,463	6½-7½
2015				580[a]	574	561	546	530	501	482	3,057	5½-6½
2016					660[a]	653	639	623	628	609	3,789	4½-5½
2017						750[a]	742	724	685	663	4,332	3½-4½
2018							850[a]	841	821	799	4,955	2½-3½
2019								960[a]	949	926	5,719	1½-2½
2020									1,080[a]	1,069	6,579	½-1½
2021										1,220[a]	7,490	0-½
Total	1,975	2,382	2,824	3,318	3,872	4,494	5,247	6,017	6,852	7,799	44,780	

[a]Additions during the year

For the entire experience band 2012-2021, 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	÷	3,789,000	=	0.0377
Survivor Ratio	=	1.000	-	0.0377	=	0.9623
Percent surviving at age 5½	=	(88.15)	x	(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 2012-2021 Placement Band 2007-2021

(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
					35.66
Total	44,780	1,606			

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

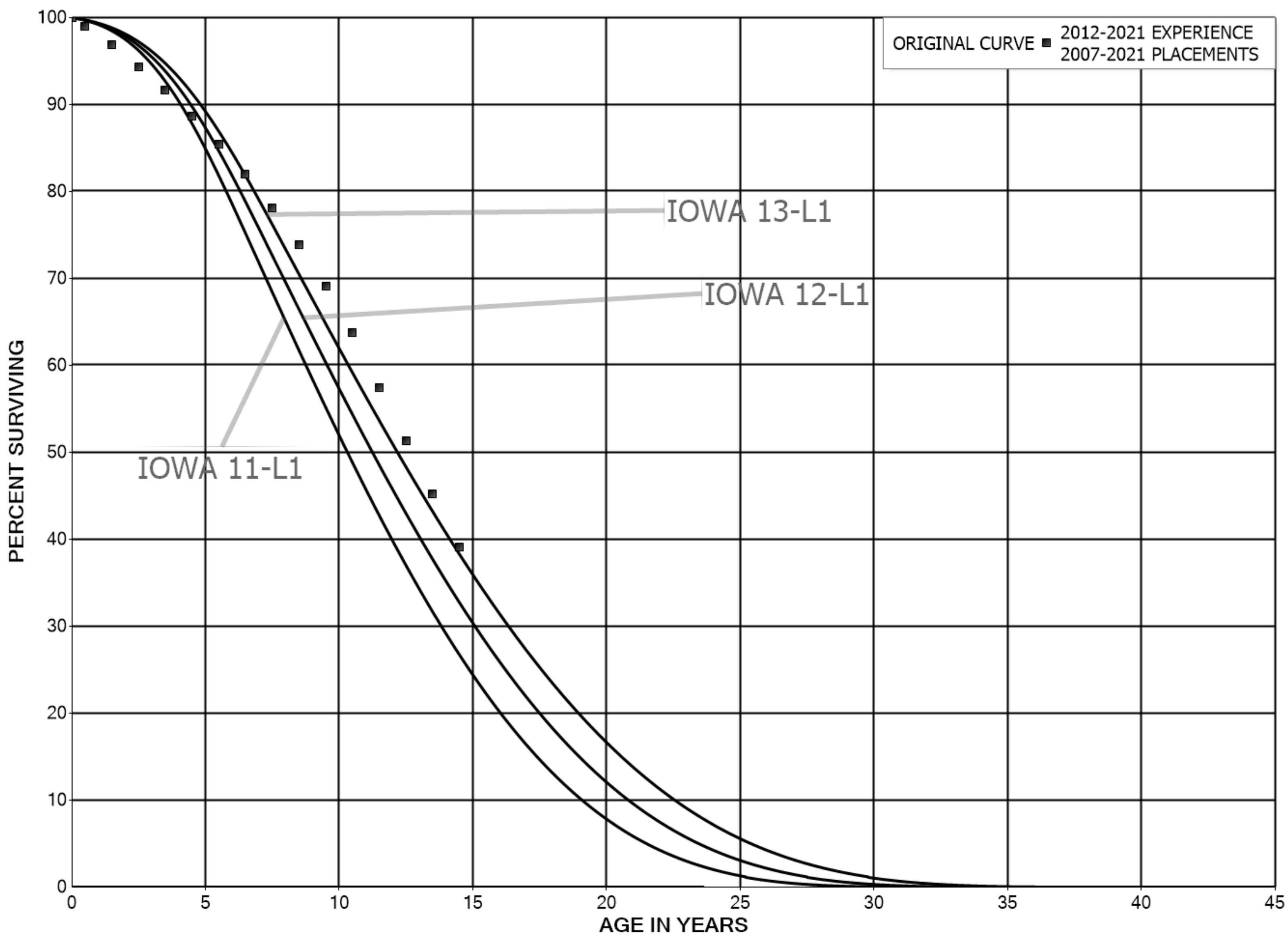


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES

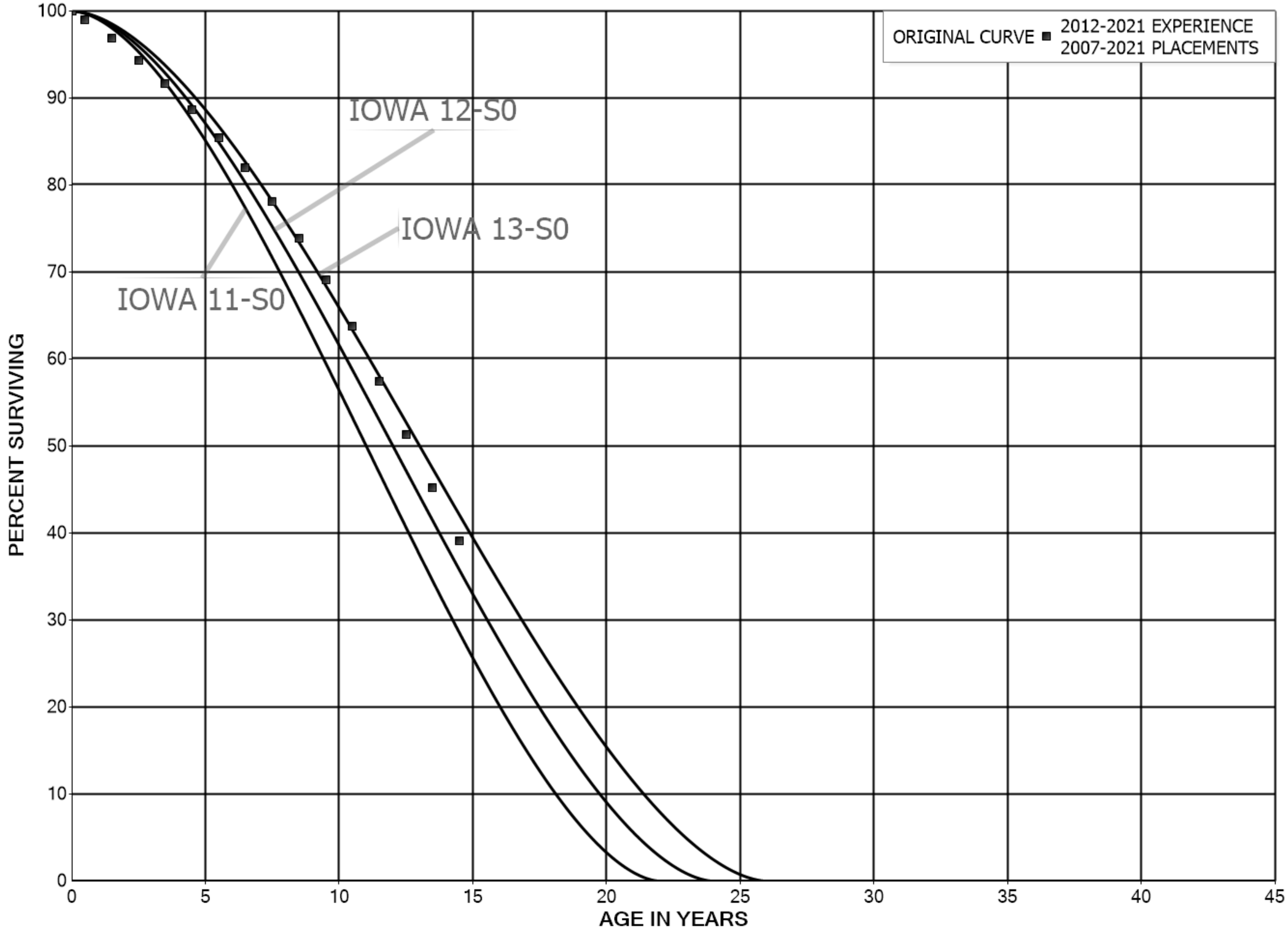


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES

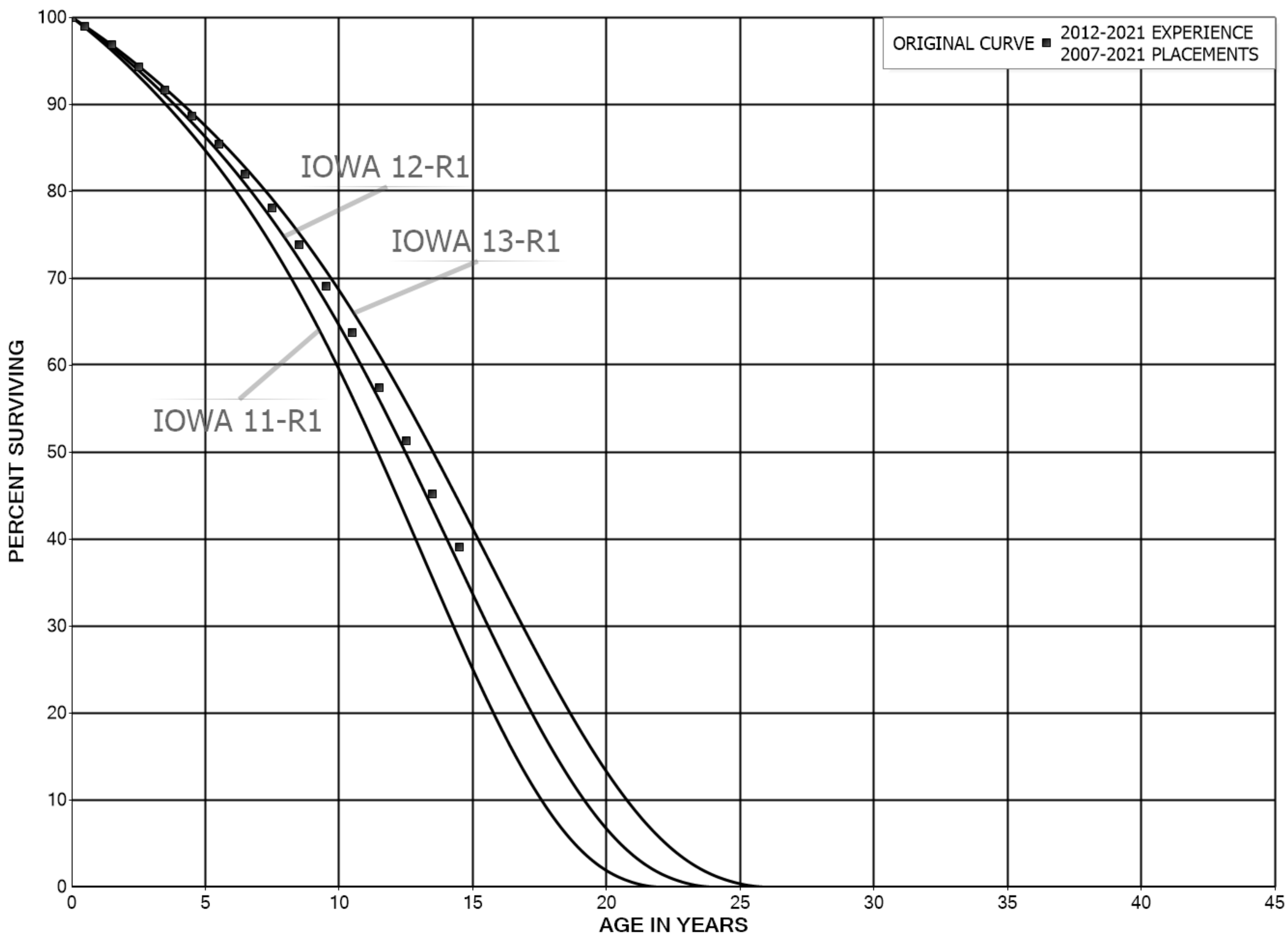
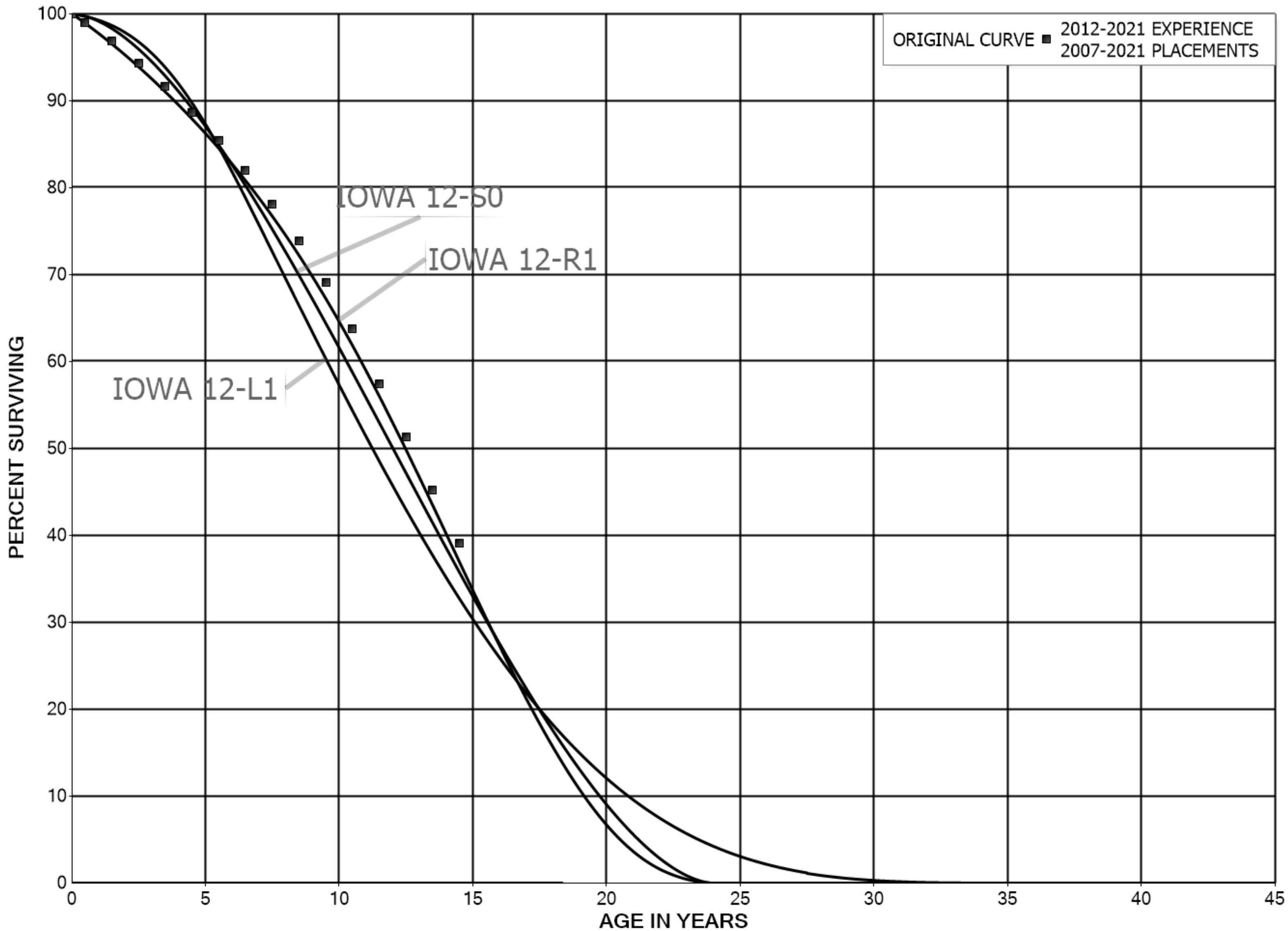


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES



PART III. SERVICE LIFE CONSIDERATIONS

PART III. SERVICE LIFE CONSIDERATIONS

FIELD TRIPS

In order to be familiar with the operation of the Company and observe representative portions of the plant, field trips have been conducted for the system. 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 retirements are obtained during field trips. This knowledge and information were incorporated in the interpretation and extrapolation of the statistical analyses.

The following is a list of the locations visited during the most recent field trip.

January 28, 2020

McKeesport Wastewater Treatment Plant
West Shore Pump Station
28th Street Pump Station
Long Run Pump Station
Dravosburg Wastewater Treatment Plant
Duquesne Wastewater Treatment Plant

March 27, 2017

Keyser Valley Pump Station
Parrott Avenue Pump Station
Scranton Wastewater Treatment Facility

Judgments. The survivor curve estimates were based on judgment which considered factors including statistical analyses of retirements, Company policies and outlook as determined during discussions with management, and survivor curve estimates from previous studies of other Pennsylvania-American wastewater systems. 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 390, 392, 393, 394, 396 and 397 are discussed in the section, “Amortization of General Plant Accounts.”

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, 2021, is the result of a bringforward of the book reserves established by the Commission for the CSS wastewater operations. The projected book reserve as of December 31, 2022, is a bringforward of the December 31, 2021 book reserve based on projected accruals, retirements, cost of removal, salvage and other credits.

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. There are two primary group procedures, namely, average service life and equal life group. 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.

Single Unit of Property

The calculation of straight line depreciation for a single unit of property is straightforward. For example, if a $1,000 unit of property attains an age of four years and has a life expectancy of six years, the annual accrual over the total life is:

$$\frac{\$1,000}{(4\ +\ 6)} = \ \$100\ per\ year.$$

The accrued depreciation is:

$$\$1,000\left(1\ -\ \frac{6}{10}\right) = \ \$400.$$

Remaining Life Annual Accruals

For the purpose of calculating remaining life accruals as of December 31, 2022, the 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 follow. The detailed calculations as of December 31, 2022, 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:

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

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

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

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:

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

AMORTIZATION OF GENERAL PLANT ACCOUNTS

In order to use a more efficient and cost effective accounting process for equipment recorded in general plant Accounts 390, 392, 393, 394, 396 and 397; amounts capitalized in these accounts are amortized rather than depreciated. Amortization as defined in the Uniform System of Accounts 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.

The primary reasons for the amortization of certain general plant accounts is that the effort required to unitize additions, periodically inventory equipment and determine amounts to be retired for equipment recorded in these accounts is disproportionate to the original cost of the equipment when compared to other wastewater plant accounts.

Accounting for such equipment using an amortization concept consists of capitalization of amounts to these accounts based on the same criteria as used previously under depreciation accounting, amortization of the asset over a fixed period, retirement of the equipment at the end of the amortization period and recognition of any net salvage related to disposition of equipment in these accounts as a gain or loss. For equipment in these accounts that was placed in service prior to implementation of amortization accounting, the net book value by vintage amortized over the remaining amortization period specified for each account and the original cost will be retired at the end of this period.

The amortization periods selected for each account or subaccount are based on a review of the existing depreciation rates for the accounts, typical service lives used for each type of equipment and a consideration of the period during which it is anticipated that most of the benefit of the equipment will be realized. The amortization periods are as follows:

Account Number	Description	Amortization Period, Years
390	Office Furniture and Equipment	20
392	Stores Equipment	25
393	Tools, Shop and Garage Equipment	20
394	Laboratory Equipment	15
396	Communication Equipment	15
397	Miscellaneous Equipment	15

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, 2018 through December 31, 2021, and estimated for the period January 1, 2022 through December 31, 2022. 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, 2022 of the book reserve as of December 31, 2021. Table 4 sets forth the calculation of estimated depreciation accruals for the twelve months ended December 31, 2022. Table 5 presents the amortization of experienced and estimated net salvage, by account, based on the five-year period, 2018-2022. 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 gross salvage and cost of removal for the years 2018-2022 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 2018-2022, 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
WASTEWATER CSS OPERATIONS

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

DEPRCIABLE 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)
DEPRECIABLE PLANT									
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	5,611,733.32								5,611,733.32
354.30 STRUCTURES AND IMPROVEMENTS - SPP	21,384,984.76								21,384,984.76
354.40 STRUCTURES AND IMPROVEMENTS - TDP	133,349,003.78				2,500,000.00				130,849,003.78
355.00 POWER GENERATION EQUIPMENT	932,654.26								932,654.26
360.10 COLLECTION SEWERS - FORCE MAINS	8,891,396.46								8,891,396.46
361.10 COLLECTION SEWERS - GRAVITY MAINS	393,314,471.81				8,145,082.47				385,169,389.34
361.20 MANHOLES	44,085,935.35								44,085,935.35
363.00 SERVICES	13,539,596.02				957,516.15				12,582,079.87
364.00 FLOW MEASURING DEVICES	2,023,603.60								2,023,603.60
371.00 PUMPING EQUIPMENT	16,760,052.04								16,760,052.04
380.00 TREATMENT EQUIPMENT	75,071,021.73								75,071,021.73
381.00 PLANT SEWERS	1,576,345.41								1,576,345.41
382.00 OUTFALL SEWER LINES	286,271.26								286,271.26
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	10,342,671.84								10,342,671.84
390.00 OFFICE FURNITURE AND EQUIPMENT	2,183,844.22								2,183,844.22
391.00 TRANSPORTATION EQUIPMENT	6,502,324.35								6,502,324.35
392.00 STORES EQUIPMENT	106,844.28								106,844.28
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	1,845,348.01								1,845,348.01
394.00 LABORATORY EQUIPMENT	256,621.67								256,621.67
395.00 POWER OPERATED EQUIPMENT	1,853,787.22								1,853,787.22
396.00 COMMUNICATION EQUIPMENT	2,207,646.02								2,207,646.02
397.00 MISCELLANEOUS EQUIPMENT	2,853,022.78								2,853,022.78
TOTAL DEPRECIABLE PLANT	**744,979,180.19**		**0.00**		**11,602,598.62**		**0.00**		**733,376,581.57**
NONDEPRECIABLE PLANT									
353.20 LAND AND LAND RIGHTS - COLLECTION	3,161,743.45								3,161,743.45
353.30 LAND AND LAND RIGHTS - SPP	1,153,570.00								1,153,570.00
353.40 LAND AND LAND RIGHTS - TDP	148,041.59								148,041.59
TOTAL NONDEPRECIABLE PLANT	**4,463,355.04**		**0.00**		**0.00**		**0.00**		**4,463,355.04**
TOTAL PLANT	**749,442,535.23**		**0.00**		**11,602,598.62**		**0.00**		**737,839,936.61**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

	DEPRECIABLE GROUP	SURVIVOR CURVE	ORIGINAL COST AS OF DECEMBER 31, 2022	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(3)	(8)
	DEPRECIABLE PLANT							
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	5,611,733.32	367,262	5,244,471	146,564	2.61	35.8
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	21,384,984.76	7,073,695	14,311,290	453,079	2.12	31.6
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	130,849,003.78	52,886,648	77,962,356	2,556,158	1.95	30.5
355.00	POWER GENERATION EQUIPMENT	35-S0.5	932,654.26	282,175	650,480	32,012	3.43	20.3
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	8,891,396.46	710,973	8,180,423	133,102	1.50	61.5
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	385,169,389.34	154,870,627	230,298,763	5,124,759	1.33	44.9
361.20	MANHOLES	50-S2.5	44,085,935.35	22,198,551	21,887,385	899,397	2.04	24.3
363.00	SERVICES	47-R3	12,582,079.87	5,882,659	6,699,421	290,824	2.31	23.0
364.00	FLOW MEASURING DEVICES	15-L2.5	2,023,603.60	663,364	1,360,240	177,551	8.77	7.7
371.00	PUMPING EQUIPMENT	30-S0.5	16,760,052.04	4,153,359	12,606,693	706,009	4.21	17.9
380.00	TREATMENT EQUIPMENT	35-S1.5	75,071,021.73	25,624,317	49,446,705	2,653,885	3.54	18.6
381.00	PLANT SEWERS	50-R3	1,576,345.41	784,718	791,628	31,839	2.02	24.9
382.00	OUTFALL SEWER LINES	50-R3	286,271.26	50,093	236,178	5,935	2.07	39.8
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	10,342,671.84	2,263,435	8,079,237	623,641	6.03	13.0
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	2,183,844.22	427,955	1,755,889	123,459	5.65	14.2
391.00	TRANSPORTATION EQUIPMENT	14-L4	6,502,324.35	3,628,450	2,873,875	427,198	6.57	6.7
392.00	STORES EQUIPMENT	25-SQ	106,844.28	9,339	97,505	4,369	4.09	22.3
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	1,845,348.01	198,908	1,646,440	111,602	6.05	14.8
394.00	LABORATORY EQUIPMENT	15-SQ	256,621.67	107,954	148,667	18,024	7.02	8.2
395.00	POWER OPERATED EQUIPMENT	22-R2	1,853,787.22	1,029,473	824,314	65,614	3.54	12.6
396.00	COMMUNICATION EQUIPMENT	15-SQ	2,207,646.02	794,108	1,413,538	141,245	6.40	10.0
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	2,853,022.78	367,660	2,485,363	195,232	6.84	12.7
	TOTAL DEPRECIABLE PLANT		**733,376,581.57**	**284,375,722**	**449,000,861**	**14,921,498**	**2.03**	
	NONDEPRECIABLE PLANT							
353.20	LAND AND LAND RIGHTS - COLLECTION		3,161,743.45					
353.30	LAND AND LAND RIGHTS - SPP		1,153,570.00					
353.40	LAND AND LAND RIGHTS - TDP		148,041.59					
	TOTAL NONDEPRECIABLE PLANT		**4,463,355.04**					
	AMORTIZATION OF NET SALVAGE					**1,586,614**		
	TOTAL UTILITY PLANT		**737,839,936.61**	**284,375,722**	**449,000,861**	**16,508,112**		

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 12/31/2021 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2022 (8)
354.20	235,794		144,629		11,964		1,196		0		0		367,262
354.30	6,617,444		476,350		17,946		2,154		0		0		7,073,695
354.40	50,924,767		2,502,365		486,923		53,562		0		0		52,886,648
355.00	249,159		33,016		0		0		0		0		282,175
360.10	977,512		127,723		342,836		51,425		0		0		710,973
361.10	152,526,408		5,680,604		1,853,548		1,482,838		0		0		154,870,627
361.20	21,377,075		1,001,477		139,536		40,466		0		0		22,198,551
363.00	5,604,942		347,907		58,492		11,698		0		0		5,882,659
364.00	471,568		191,796		0		0		0		0		663,364
371.00	3,764,013		672,931		221,551		62,034		0		0		4,153,359
380.00	23,993,697		2,685,698		917,459		137,619		0		0		25,624,317
381.00	752,403		32,315		0		0		0		0		784,718
382.00	43,240		6,853		0		0		0		0		50,093
389.10	1,630,762		632,673		0		0		0		0		2,263,435
390.00	318,830		128,748		17,839		1,784		0		0		427,955
391.00	3,176,388		466,649		12,468		2,120		0		0		3,628,450
392.00	4,969		4,370		0		0		0		0		9,339
393.00	105,926		123,979		27,925		3,072		0		0		198,908
394.00	104,867		19,285		14,725		1,473		0		0		107,954
395.00	968,041		67,256		5,343		481		0		0		1,029,473
396.00	653,798		147,414		7,104		0		0		0		794,108
397.00	188,848		184,086		5,273		0		0		0		367,660
TOTAL	**274,690,451**		**15,678,124**		**4,140,932**		**1,851,920**		**0**		**0**		**284,375,722**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

ACCOUNT	NET ORIGINALCOST AS OF 12/31/2021	NET ORIGINALCOST AS OF 12/31/2022	ACCRUAL RATE	AVERAGE ACCRUALS	AMORTIZATION OF NET SALVAGE	PROJECTED DEPRECIATION ACCRUALS
(1)	(2)	(3)	(4)	(5)=([(2)+(3)]/2)*(4)	(6)	(7)=(5)+(6)
354.20	4,775,859.33	5,611,733.32	2.63	136,597	8,032	144,629
354.30	20,936,156.25	21,384,984.76	2.16	457,068	19,282	476,350
354.40	124,006,457.64	130,849,003.78	1.94	2,472,098	30,267	2,502,365
355.00	932,654.26	932,654.26	3.54	33,016	0	33,016
360.10	4,710,846.52	8,891,396.46	1.31	89,095	38,628	127,723
361.10	361,694,193.03	385,169,389.34	1.31	4,891,956	788,648	5,680,604
361.20	42,198,026.62	44,085,935.35	2.14	923,238	78,239	1,001,477
363.00	11,643,831.52	12,582,079.87	2.37	287,077	60,830	347,907
364.00	2,023,603.60	2,023,603.60	9.39	190,016	1,780	191,796
371.00	14,212,221.14	16,760,052.04	4.16	644,223	28,708	672,931
380.00	63,729,746.08	75,071,021.73	3.68	2,553,934	131,764	2,685,698
381.00	1,576,345.41	1,576,345.41	2.05	32,315	0	32,315
382.00	286,271.26	286,271.26	2.09	5,983	870	6,853
389.10	10,342,671.84	10,342,671.84	6.11	631,937	736	632,673
390.00	2,201,683.66	2,183,844.22	5.63	123,453	5,295	128,748
391.00	6,350,292.12	6,502,324.35	6.98	448,556	18,093	466,649
392.00	106,844.28	106,844.28	4.09	4,370	0	4,370
393.00	1,873,272.87	1,845,348.01	6.23	115,835	8,144	123,979
394.00	271,346.87	256,621.67	6.63	17,502	1,783	19,285
395.00	1,788,630.55	1,853,787.22	3.63	66,110	1,146	67,256
396.00	2,075,182.96	2,207,646.02	6.41	137,265	10,149	147,414
397.00	2,424,313.87	2,853,022.78	6.87	181,277	2,809	184,086
TOTAL	**680,160,451.68**	**733,376,581.57**		**14,442,921**	**1,235,203**	**15,678,124**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

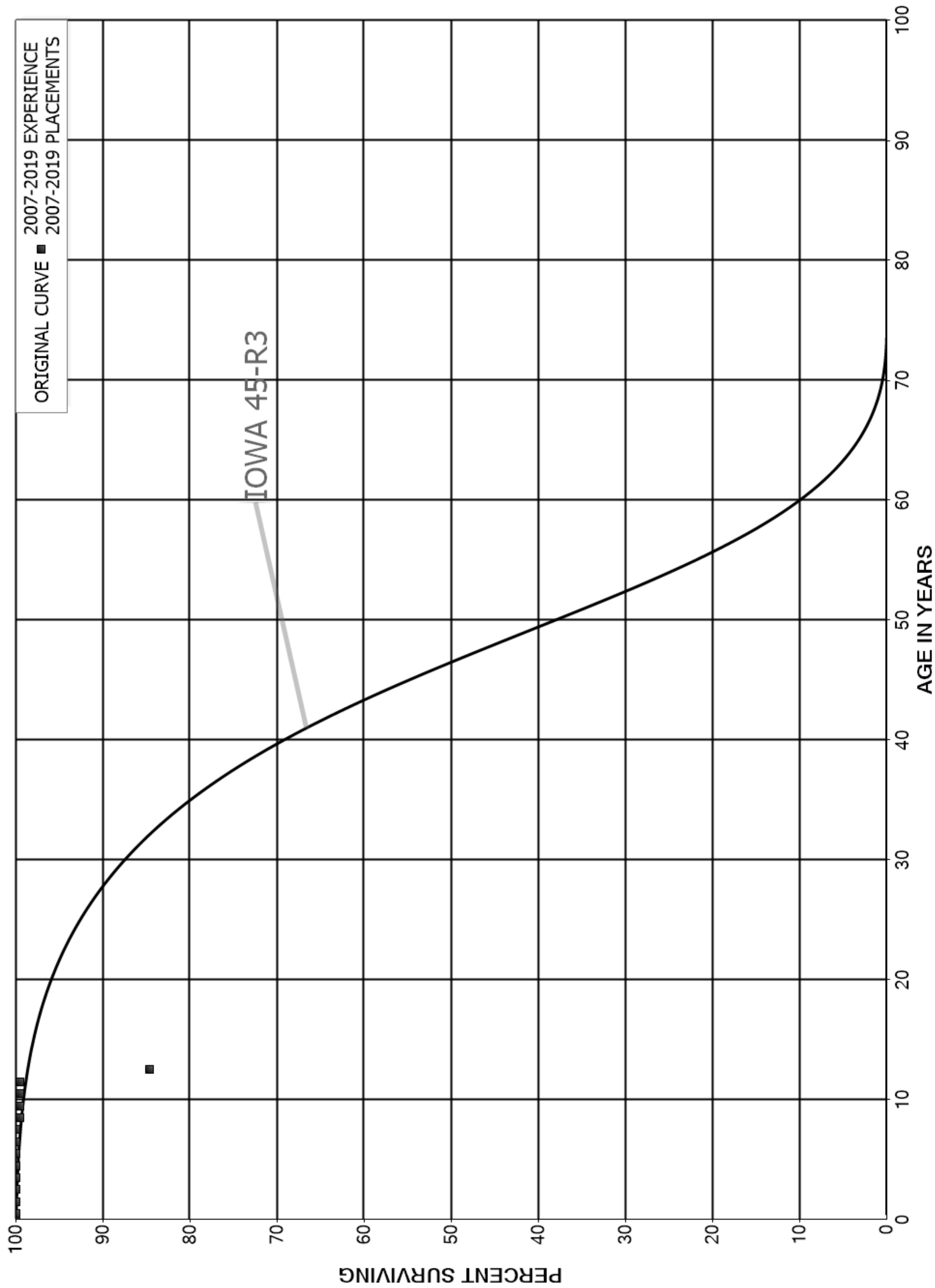
TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

	2018		2019		2020		2021		PROJECTED 2022			
ACCOUNT	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	GROSS SALVAGE	COST OF REMOVAL	NET SALVAGE	SALVAGE ACCRUAL
(1)	(2)	- (3)	+ (4)	- (5)	+ (6)	- (7)	+ (8)	- (9)	+ (10)	- (11)	= (12)*	(13)=(12)/5
354.20		12,897				27,262				1,196	(41,355)	(8,271)
354.30		2,859		85,935				7,614		2,154	(98,561)	(19,712)
354.40		2,466		67,527		3,036		76,589		53,562	(203,179)	(40,636)
360.10		2,819		2,368		22,982		164,970		51,425	(244,565)	(48,913)
361.10		26,539		1,430,976	3,491	1,344,641		1,074,276		1,482,838	(5,355,779)	(1,071,156)
361.20				90,279		81,137		219,778		40,466	(431,660)	(86,332)
363.00		27,682		52,930		75,298		129,689		11,698	(297,298)	(59,460)
364.00						8,901					(8,901)	(1,780)
371.00		523		66,936		24,730		51,353		62,034	(205,576)	(41,115)
380.00		58,050		92,448		399,155		104,870		137,619	(792,143)	(158,429)
382.00		1,046		3,306							(4,352)	(870)
389.10		3,678									(3,678)	(736)
390.00		13,129		9,976		1,887		1,483		1,784	(28,258)	(5,652)
391.00		42,450		48,014						2,120	(92,584)	(18,517)
393.00		4,039		28,437		7,289		953		3,072	(43,790)	(8,758)
394.00				5,445		1,548		1,919		1,473	(10,385)	(2,077)
395.00				5,218		510				481	(6,209)	(1,242)
396.00				39,091		1,822		9,834			(50,747)	(10,149)
397.00				4,027		3,318		6,699			(14,044)	(2,809)
TOTAL	**0**	**198,177**	**0**	**2,032,913**	**3,491**	**2,003,518**	**0**	**1,850,027**	**0**	**1,851,920**	**(7,933,063)**	**(1,586,614)**

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

PART VI. SERVICE LIFE STATISTICS

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

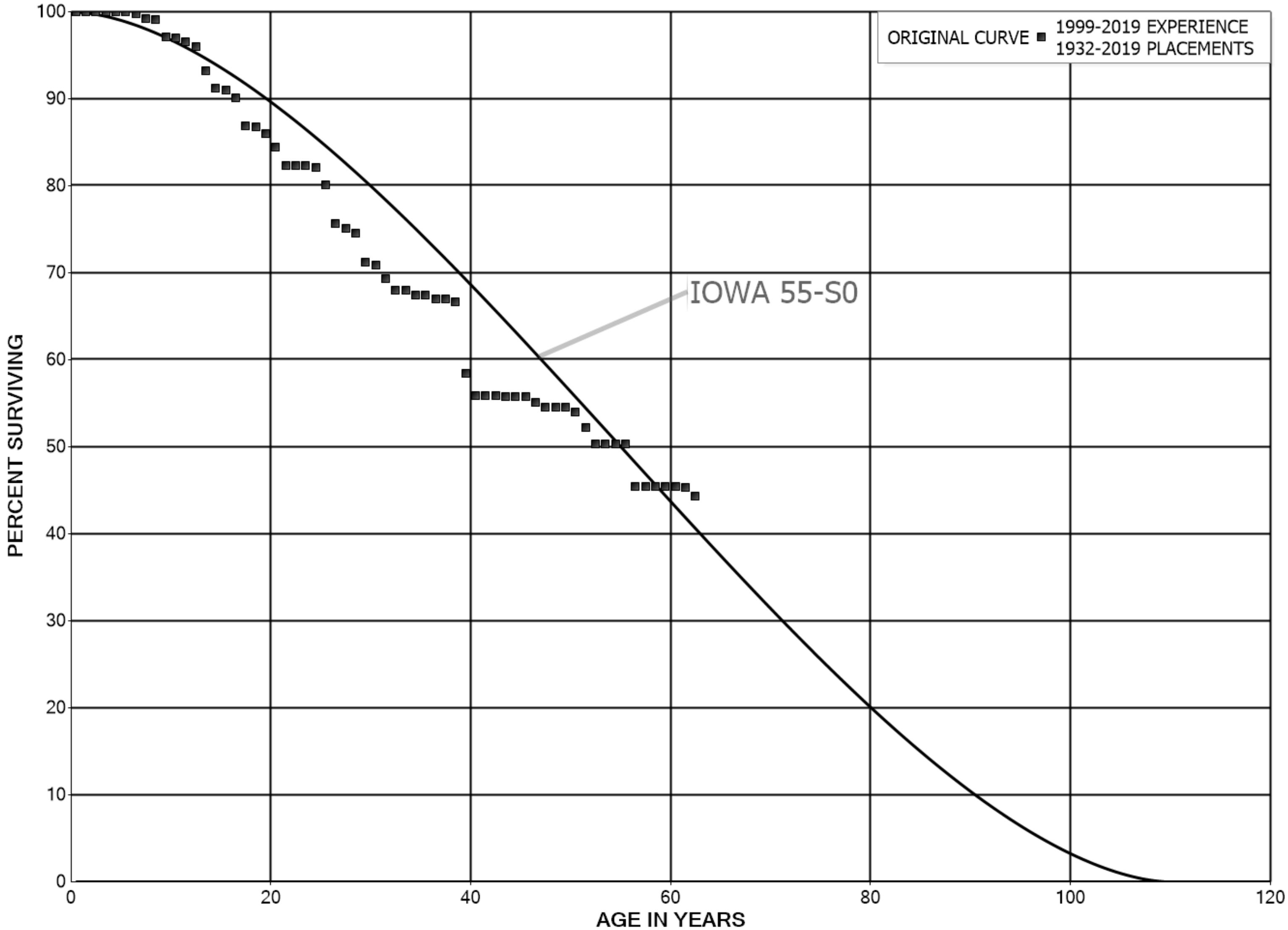
ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2019 EXPERIENCE BAND 2007-2019

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	4,844,636		0.0000	1.0000	100.00
0.5	3,478,774		0.0000	1.0000	100.00
1.5	1,864,154		0.0000	1.0000	100.00
2.5	516,452	0	0.0000	1.0000	100.00
3.5	479,797		0.0000	1.0000	100.00
4.5	437,900	416	0.0010	0.9990	100.00
5.5	422,717		0.0000	1.0000	99.90
6.5	321,516		0.0000	1.0000	99.90
7.5	321,516	1,408	0.0044	0.9956	99.90
8.5	311,522		0.0000	1.0000	99.47
9.5	311,522		0.0000	1.0000	99.47
10.5	134,415		0.0000	1.0000	99.47
11.5	20,659	3,076	0.1489	0.8511	99.47
12.5					84.66

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE

PLACEMENT BAND 1932-2019 EXPERIENCE BAND 1999-2019

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	70,500,767		0.0000	1.0000	100.00
0.5	76,131,665		0.0000	1.0000	100.00
1.5	80,233,751	6,642	0.0001	0.9999	100.00
2.5	105,447,960		0.0000	1.0000	99.99
3.5	85,605,007	28,836	0.0003	0.9997	99.99
4.5	79,002,174	4,425	0.0001	0.9999	99.96
5.5	46,624,214	105,422	0.0023	0.9977	99.95
6.5	51,444,895	277,564	0.0054	0.9946	99.73
7.5	50,906,335	75,090	0.0015	0.9985	99.19
8.5	50,793,050	1,027,715	0.0202	0.9798	99.04
9.5	34,780,266	28,544	0.0008	0.9992	97.04
10.5	15,695,508	65,025	0.0041	0.9959	96.96
11.5	15,618,899	88,716	0.0057	0.9943	96.56
12.5	20,002,643	601,564	0.0301	0.9699	96.01
13.5	17,169,269	353,428	0.0206	0.9794	93.12
14.5	16,203,968	41,247	0.0025	0.9975	91.20
15.5	16,204,082	163,309	0.0101	0.9899	90.97
16.5	13,585,539	481,677	0.0355	0.9645	90.06
17.5	12,995,837	17,548	0.0014	0.9986	86.86
18.5	12,210,208	114,143	0.0093	0.9907	86.74
19.5	7,393,964	134,551	0.0182	0.9818	85.93
20.5	6,513,761	157,405	0.0242	0.9758	84.37
21.5	6,711,244	2,801	0.0004	0.9996	82.33
22.5	7,374,817	1,543	0.0002	0.9998	82.30
23.5	6,783,698	15,823	0.0023	0.9977	82.28
24.5	6,921,413	166,617	0.0241	0.9759	82.09
25.5	6,763,696	380,532	0.0563	0.9437	80.11
26.5	5,899,041	38,147	0.0065	0.9935	75.60
27.5	4,281,769	34,820	0.0081	0.9919	75.12
28.5	3,967,252	175,318	0.0442	0.9558	74.50
29.5	4,051,668	21,732	0.0054	0.9946	71.21
30.5	5,300,696	114,682	0.0216	0.9784	70.83
31.5	4,027,463	76,382	0.0190	0.9810	69.30
32.5	2,813,504	2,190	0.0008	0.9992	67.98
33.5	2,649,698	20,846	0.0079	0.9921	67.93
34.5	1,122,954		0.0000	1.0000	67.40
35.5	398,615	2,457	0.0062	0.9938	67.40
36.5	369,394		0.0000	1.0000	66.98
37.5	339,885	1,942	0.0057	0.9943	66.98
38.5	249,055	30,753	0.1235	0.8765	66.60

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1932-2019 EXPERIENCE BAND 1999-2019

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	877,505	37,754	0.0430	0.9570	58.37
40.5	1,351,121		0.0000	1.0000	55.86
41.5	19,298,436	4,893	0.0003	0.9997	55.86
42.5	19,293,543	30,808	0.0016	0.9984	55.85
43.5	32,745,779		0.0000	1.0000	55.76
44.5	14,343,608	10,968	0.0008	0.9992	55.76
45.5	14,332,640	153,806	0.0107	0.9893	55.72
46.5	14,199,715	156,087	0.0110	0.9890	55.12
47.5	552,598		0.0000	1.0000	54.51
48.5	1,223,925		0.0000	1.0000	54.51
49.5	1,265,936	12,500	0.0099	0.9901	54.51
50.5	1,284,936	43,517	0.0339	0.9661	53.98
51.5	570,093	20,853	0.0366	0.9634	52.15
52.5	524,823		0.0000	1.0000	50.24
53.5	524,823		0.0000	1.0000	50.24
54.5	447,474		0.0000	1.0000	50.24
55.5	447,474	42,843	0.0957	0.9043	50.24
56.5	13,313,486	1,903	0.0001	0.9999	45.43
57.5	13,311,583		0.0000	1.0000	45.42
58.5	13,049,341	13	0.0000	1.0000	45.42
59.5	140,486		0.0000	1.0000	45.42
60.5	140,486	363	0.0026	0.9974	45.42
61.5	140,123	3,040	0.0217	0.9783	45.31
62.5					44.32
63.5					
64.5					
65.5					
66.5					
67.5					
68.5	39,928		0.0000		
69.5	39,928		0.0000		
70.5	39,928		0.0000		
71.5	39,928		0.0000		
72.5	40,428		0.0000		
73.5	39,928		0.0000		
74.5	39,928		0.0000		
75.5	39,928		0.0000		
76.5	602		0.0000		
77.5	602		0.0000		
78.5	602		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

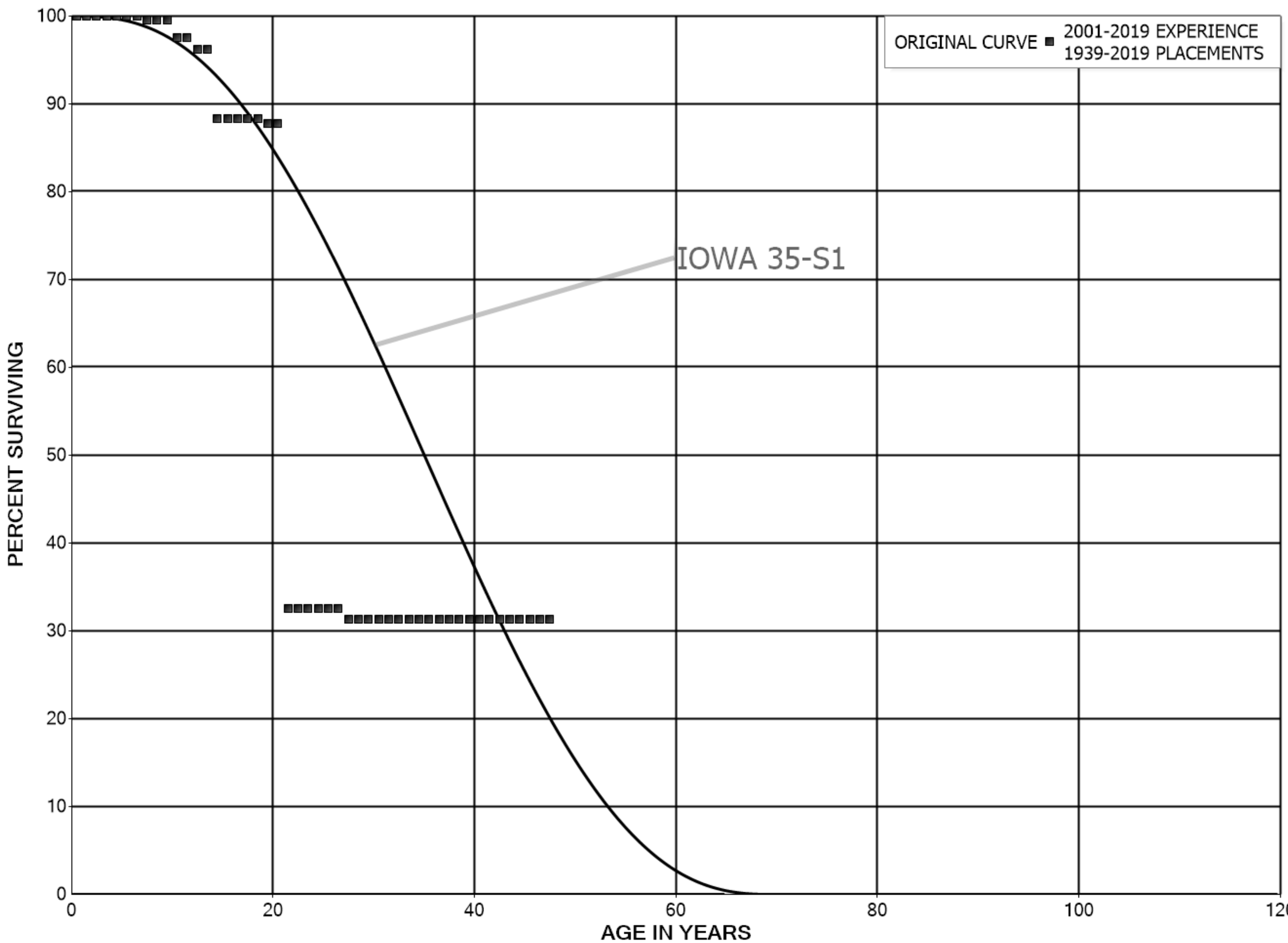
ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1932-2019 EXPERIENCE BAND 1999-2019

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	602		0.0000		
80.5	602		0.0000		
81.5	602		0.0000		
82.5	602		0.0000		
83.5	602		0.0000		
84.5	602		0.0000		
85.5	602		0.0000		
86.5	602		0.0000		
87.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE

PLACEMENT BAND 1939-2019 EXPERIENCE BAND 2001-2019

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	2,331,347		0.0000	1.0000	100.00
0.5	2,248,872	400	0.0002	0.9998	100.00
1.5	2,139,519		0.0000	1.0000	99.98
2.5	2,007,976		0.0000	1.0000	99.98
3.5	1,998,798		0.0000	1.0000	99.98
4.5	978,189		0.0000	1.0000	99.98
5.5	566,034		0.0000	1.0000	99.98
6.5	540,776	2,524	0.0047	0.9953	99.98
7.5	668,631		0.0000	1.0000	99.52
8.5	661,526		0.0000	1.0000	99.52
9.5	622,592	12,303	0.0198	0.9802	99.52
10.5	529,371	373	0.0007	0.9993	97.55
11.5	209,362	2,752	0.0131	0.9869	97.48
12.5	204,311		0.0000	1.0000	96.20
13.5	220,425	18,073	0.0820	0.9180	96.20
14.5	208,207		0.0000	1.0000	88.31
15.5	208,207		0.0000	1.0000	88.31
16.5	165,317		0.0000	1.0000	88.31
17.5	193,471		0.0000	1.0000	88.31
18.5	210,457	1,510	0.0072	0.9928	88.31
19.5	223,914		0.0000	1.0000	87.68
20.5	223,914	140,772	0.6287	0.3713	87.68
21.5	67,028		0.0000	1.0000	32.56
22.5	73,481		0.0000	1.0000	32.56
23.5	73,481		0.0000	1.0000	32.56
24.5	73,481		0.0000	1.0000	32.56
25.5	44,261		0.0000	1.0000	32.56
26.5	27,275	1,047	0.0384	0.9616	32.56
27.5	11,260		0.0000	1.0000	31.31
28.5	11,260		0.0000	1.0000	31.31
29.5	11,260		0.0000	1.0000	31.31
30.5	11,260		0.0000	1.0000	31.31
31.5	11,260		0.0000	1.0000	31.31
32.5	11,260		0.0000	1.0000	31.31
33.5	11,260		0.0000	1.0000	31.31
34.5	11,260		0.0000	1.0000	31.31
35.5	450		0.0000	1.0000	31.31
36.5	450		0.0000	1.0000	31.31
37.5	450		0.0000	1.0000	31.31
38.5	450		0.0000	1.0000	31.31

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019 EXPERIENCE BAND 2001-2019

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	450		0.0000	1.0000	31.31
40.5	450		0.0000	1.0000	31.31
41.5	450		0.0000	1.0000	31.31
42.5	450		0.0000	1.0000	31.31
43.5	450		0.0000	1.0000	31.31
44.5	450		0.0000	1.0000	31.31
45.5	450		0.0000	1.0000	31.31
46.5	450		0.0000	1.0000	31.31
47.5					31.31
48.5					
49.5					
50.5					
51.5					
52.5					
53.5					
54.5					
55.5					
56.5					
57.5					
58.5					
59.5					
60.5					
61.5					
62.5					
63.5					
64.5					
65.5					
66.5					
67.5					
68.5	3,802		0.0000		
69.5	3,802		0.0000		
70.5	3,802	283	0.0744		
71.5	3,519		0.0000		
72.5	3,519		0.0000		
73.5	3,519		0.0000		
74.5	3,519		0.0000		
75.5	3,519		0.0000		
76.5	3,519		0.0000		
77.5	3,519		0.0000		
78.5	3,519		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

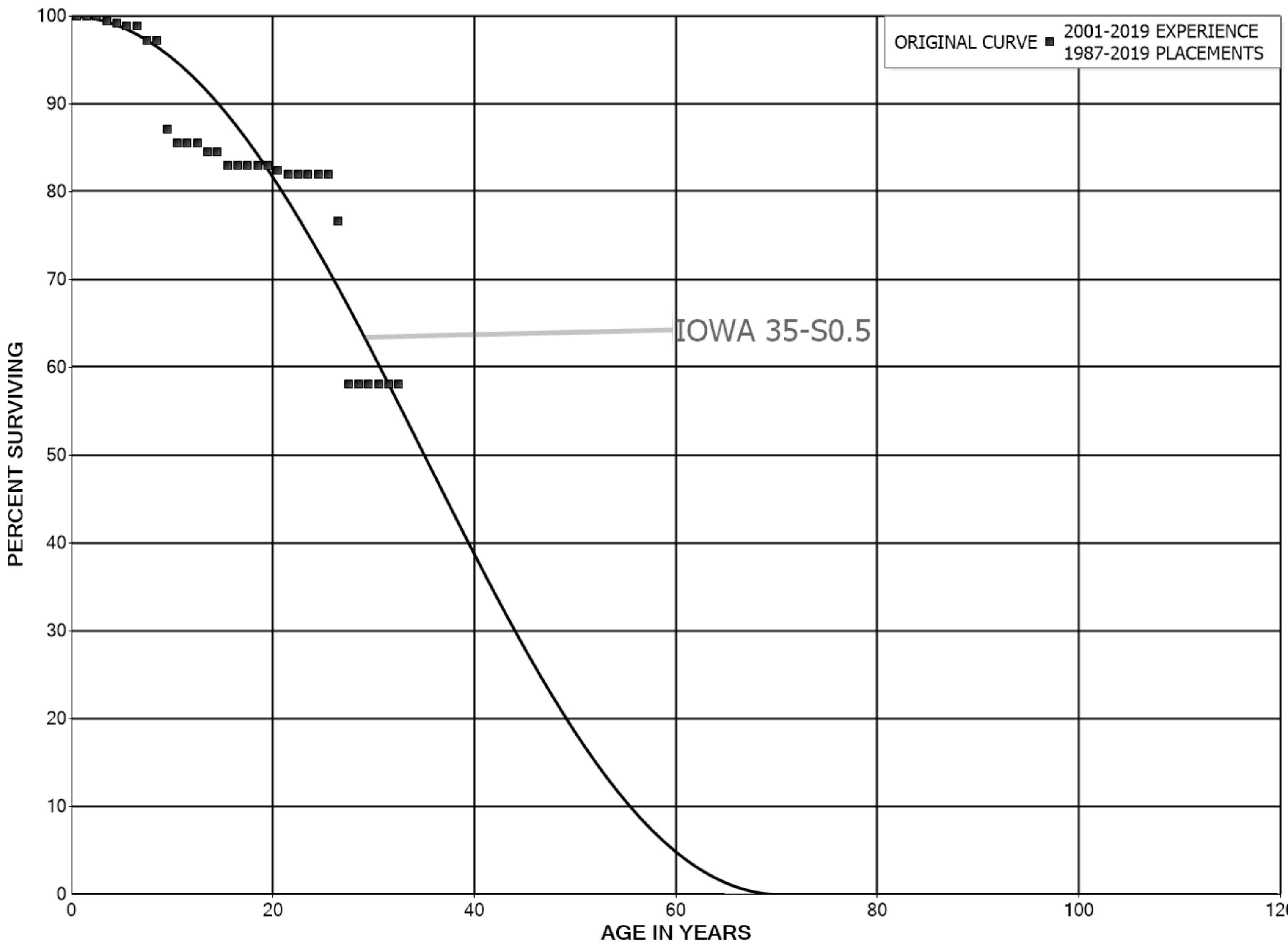
ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019 EXPERIENCE BAND 2001-2019

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	3,519		0.0000		
80.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 355.00 POWER GENERATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

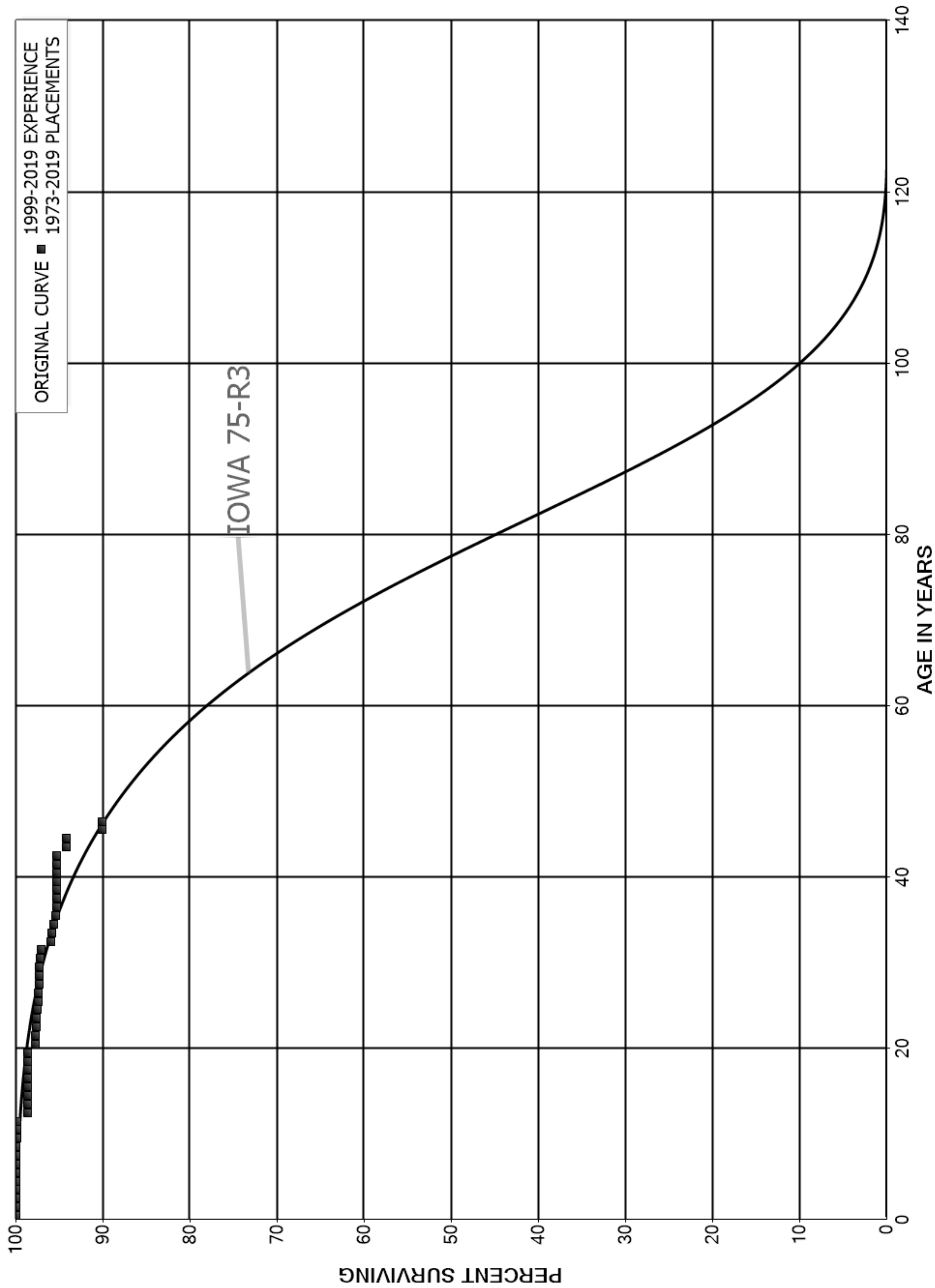
ACCOUNT 355.00 POWER GENERATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1987-2019 EXPERIENCE BAND 2001-2019

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	3,656,122		0.0000	1.0000	100.00
0.5	3,685,338		0.0000	1.0000	100.00
1.5	4,385,880		0.0000	1.0000	100.00
2.5	4,494,639	26,926	0.0060	0.9940	100.00
3.5	4,479,665	10,161	0.0023	0.9977	99.40
4.5	4,398,000	14,523	0.0033	0.9967	99.18
5.5	3,773,674	1,387	0.0004	0.9996	98.85
6.5	3,828,658	61,470	0.0161	0.9839	98.81
7.5	3,336,361		0.0000	1.0000	97.23
8.5	3,321,984	347,576	0.1046	0.8954	97.23
9.5	2,953,727	51,388	0.0174	0.9826	87.05
10.5	328,249		0.0000	1.0000	85.54
11.5	144,528		0.0000	1.0000	85.54
12.5	267,555	3,097	0.0116	0.9884	85.54
13.5	327,093		0.0000	1.0000	84.55
14.5	278,538	5,336	0.0192	0.9808	84.55
15.5	281,064		0.0000	1.0000	82.93
16.5	293,645		0.0000	1.0000	82.93
17.5	241,944		0.0000	1.0000	82.93
18.5	203,466		0.0000	1.0000	82.93
19.5	203,466	1,204	0.0059	0.9941	82.93
20.5	202,262	1,103	0.0055	0.9945	82.44
21.5	432,455		0.0000	1.0000	81.99
22.5	402,008		0.0000	1.0000	81.99
23.5	402,008		0.0000	1.0000	81.99
24.5	402,008		0.0000	1.0000	81.99
25.5	402,978	26,388	0.0655	0.9345	81.99
26.5	174,978	42,310	0.2418	0.7582	76.62
27.5	89,880		0.0000	1.0000	58.09
28.5	68,585		0.0000	1.0000	58.09
29.5	68,585		0.0000	1.0000	58.09
30.5	19,246		0.0000	1.0000	58.09
31.5	19,246		0.0000	1.0000	58.09
32.5					58.09

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1973-2019 EXPERIENCE BAND 1999-2019

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	31,766,704	19	0.0000	1.0000	100.00
0.5	28,215,316	26	0.0000	1.0000	100.00
1.5	35,558,986	33	0.0000	1.0000	100.00
2.5	23,783,577	70	0.0000	1.0000	100.00
3.5	21,373,939	350	0.0000	1.0000	100.00
4.5	18,774,036	315	0.0000	1.0000	100.00
5.5	14,425,014	397	0.0000	1.0000	100.00
6.5	14,188,090	1,611	0.0001	0.9999	99.99
7.5	14,122,868	1,747	0.0001	0.9999	99.98
8.5	13,850,582	16,747	0.0012	0.9988	99.97
9.5	13,465,099	64	0.0000	1.0000	99.85
10.5	13,318,392	82	0.0000	1.0000	99.85
11.5	10,748,868	127,626	0.0119	0.9881	99.85
12.5	9,661,386		0.0000	1.0000	98.66
13.5	7,868,737	3,291	0.0004	0.9996	98.66
14.5	7,779,655	99	0.0000	1.0000	98.62
15.5	5,905,707	9	0.0000	1.0000	98.62
16.5	5,774,986	949	0.0002	0.9998	98.62
17.5	5,344,267	1,253	0.0002	0.9998	98.60
18.5	4,614,847	826	0.0002	0.9998	98.58
19.5	4,197,905	37,017	0.0088	0.9912	98.56
20.5	3,986,776	70	0.0000	1.0000	97.69
21.5	4,475,797	1,897	0.0004	0.9996	97.69
22.5	3,907,599	569	0.0001	0.9999	97.65
23.5	4,900,347	3,932	0.0008	0.9992	97.64
24.5	6,419,851	13,411	0.0021	0.9979	97.56
25.5	6,580,720	788	0.0001	0.9999	97.35
26.5	6,033,834	1,095	0.0002	0.9998	97.34
27.5	6,011,515	2,049	0.0003	0.9997	97.32
28.5	5,991,855	3,135	0.0005	0.9995	97.29
29.5	6,011,945	3,365	0.0006	0.9994	97.24
30.5	5,911,879	4,784	0.0008	0.9992	97.19
31.5	5,517,306	65,876	0.0119	0.9881	97.11
32.5	5,225,480	4,106	0.0008	0.9992	95.95
33.5	5,192,765	13,636	0.0026	0.9974	95.87
34.5	4,869,190	12,733	0.0026	0.9974	95.62
35.5	4,856,457	2,869	0.0006	0.9994	95.37
36.5	4,661,206	15	0.0000	1.0000	95.31
37.5	4,607,713		0.0000	1.0000	95.31
38.5	4,446,768	1,883	0.0004	0.9996	95.31

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

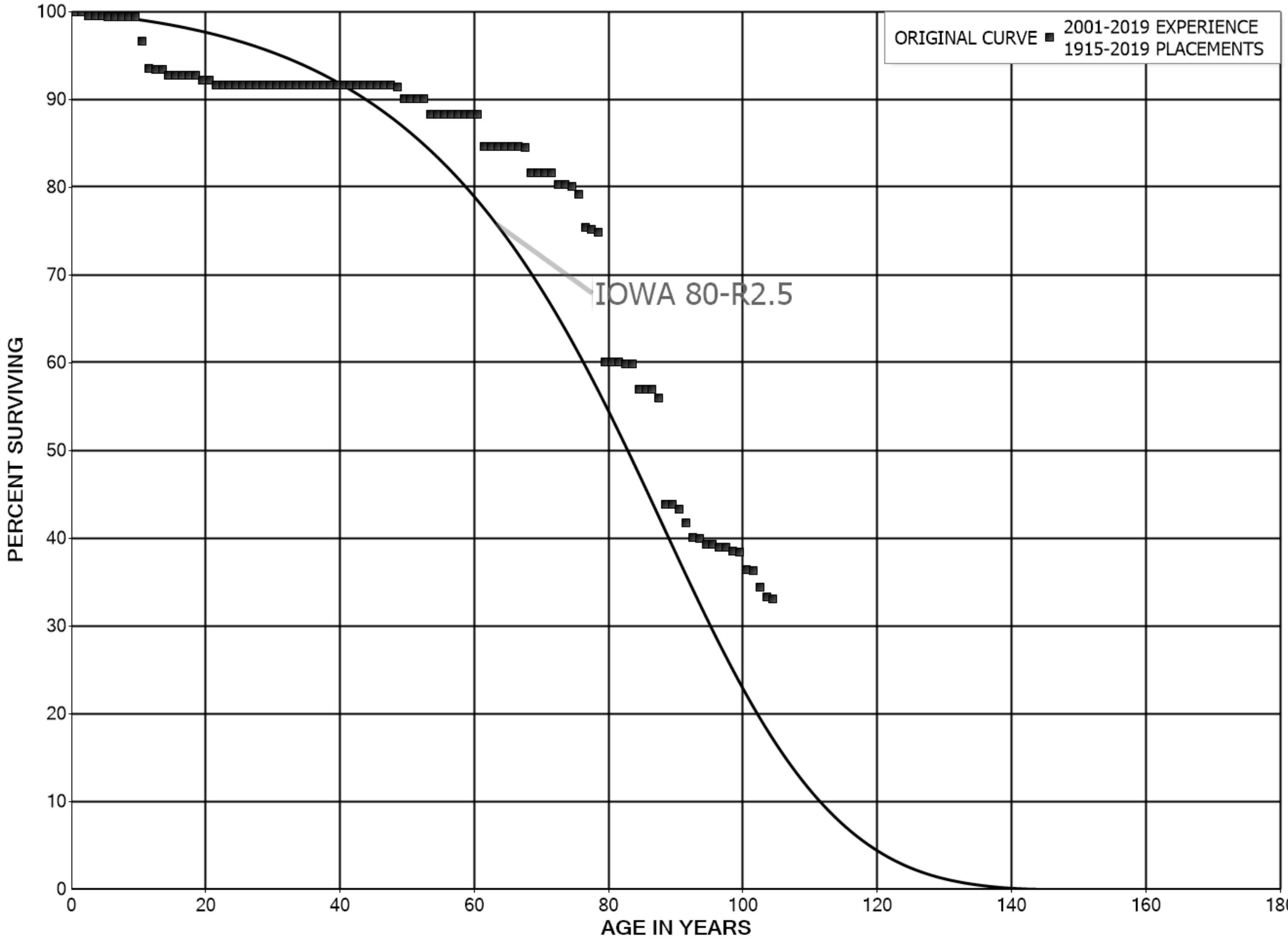
ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1973-2019 EXPERIENCE BAND 1999-2019

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	4,369,779	82	0.0000	1.0000	95.27
40.5	4,295,948	6	0.0000	1.0000	95.27
41.5	4,025,587	0	0.0000	1.0000	95.27
42.5	3,566,737	42,283	0.0119	0.9881	95.27
43.5	2,553,034		0.0000	1.0000	94.14
44.5	1,703,254	73,783	0.0433	0.9567	94.14
45.5	125,695		0.0000	1.0000	90.06
46.5					90.06

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE

PLACEMENT BAND 1915-2019 EXPERIENCE BAND 2001-2019

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	123,698,865	1,489	0.0000	1.0000	100.00
0.5	80,968,134	1,744	0.0000	1.0000	100.00
1.5	71,427,735	349,743	0.0049	0.9951	100.00
2.5	61,491,291		0.0000	1.0000	99.51
3.5	47,985,505		0.0000	1.0000	99.51
4.5	43,496,282	26,093	0.0006	0.9994	99.51
5.5	34,622,702	11,064	0.0003	0.9997	99.45
6.5	36,236,717	10,556	0.0003	0.9997	99.42
7.5	44,473,440	0	0.0000	1.0000	99.39
8.5	44,403,805	13,334	0.0003	0.9997	99.39
9.5	42,579,956	1,180,167	0.0277	0.9723	99.36
10.5	27,257,562	886,763	0.0325	0.9675	96.60
11.5	23,041,413	10,064	0.0004	0.9996	93.46
12.5	15,696,984	13,300	0.0008	0.9992	93.42
13.5	13,197,516	82,522	0.0063	0.9937	93.34
14.5	9,898,866	187	0.0000	1.0000	92.76
15.5	8,175,329	367	0.0000	1.0000	92.75
16.5	11,005,722	1,374	0.0001	0.9999	92.75
17.5	22,668,123		0.0000	1.0000	92.74
18.5	22,367,436	144,378	0.0065	0.9935	92.74
19.5	21,841,271		0.0000	1.0000	92.14
20.5	10,429,000	56,430	0.0054	0.9946	92.14
21.5	13,494,984		0.0000	1.0000	91.64
22.5	12,095,717		0.0000	1.0000	91.64
23.5	13,846,891		0.0000	1.0000	91.64
24.5	14,182,481		0.0000	1.0000	91.64
25.5	19,071,002		0.0000	1.0000	91.64
26.5	16,170,692		0.0000	1.0000	91.64
27.5	36,060,280		0.0000	1.0000	91.64
28.5	35,923,542		0.0000	1.0000	91.64
29.5	33,683,971		0.0000	1.0000	91.64
30.5	8,391,683	866	0.0001	0.9999	91.64
31.5	8,167,272	21	0.0000	1.0000	91.63
32.5	8,027,418		0.0000	1.0000	91.63
33.5	7,266,714		0.0000	1.0000	91.63
34.5	5,540,059		0.0000	1.0000	91.63
35.5	3,406,034		0.0000	1.0000	91.63
36.5	3,951,146		0.0000	1.0000	91.63
37.5	4,287,296		0.0000	1.0000	91.63
38.5	4,273,219		0.0000	1.0000	91.63

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019 EXPERIENCE BAND 2001-2019

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	4,243,666		0.0000	1.0000	91.63
40.5	41,503,891	5,447	0.0001	0.9999	91.63
41.5	41,043,016	49	0.0000	1.0000	91.62
42.5	41,341,828		0.0000	1.0000	91.62
43.5	20,516,395		0.0000	1.0000	91.62
44.5	17,262,745	4,573	0.0003	0.9997	91.62
45.5	17,447,879		0.0000	1.0000	91.60
46.5	16,922,111	1,617	0.0001	0.9999	91.60
47.5	1,493,981	2,878	0.0019	0.9981	91.59
48.5	1,491,103	21,283	0.0143	0.9857	91.41
49.5	995,707	187	0.0002	0.9998	90.11
50.5	1,249,631		0.0000	1.0000	90.09
51.5	1,214,773		0.0000	1.0000	90.09
52.5	1,253,366	24,618	0.0196	0.9804	90.09
53.5	28,374,663		0.0000	1.0000	88.32
54.5	38,998,170		0.0000	1.0000	88.32
55.5	39,986,553		0.0000	1.0000	88.32
56.5	13,005,874		0.0000	1.0000	88.32
57.5	59,432,346		0.0000	1.0000	88.32
58.5	60,820,282	557	0.0000	1.0000	88.32
59.5	59,761,303	747	0.0000	1.0000	88.32
60.5	2,094,297	87,761	0.0419	0.9581	88.32
61.5	22,663,762	8	0.0000	1.0000	84.62
62.5	21,213,491	61	0.0000	1.0000	84.62
63.5	21,215,934	289	0.0000	1.0000	84.62
64.5	46,353		0.0000	1.0000	84.62
65.5	1,102,303		0.0000	1.0000	84.62
66.5	1,102,303	1,673	0.0015	0.9985	84.62
67.5	1,100,630	37,140	0.0337	0.9663	84.49
68.5	1,259,440		0.0000	1.0000	81.64
69.5	290,689		0.0000	1.0000	81.64
70.5	962,463	168	0.0002	0.9998	81.64
71.5	962,295	15,230	0.0158	0.9842	81.62
72.5	1,042,298	993	0.0010	0.9990	80.33
73.5	946,072	2,053	0.0022	0.9978	80.25
74.5	683,176	7,508	0.0110	0.9890	80.08
75.5	675,668	32,767	0.0485	0.9515	79.20
76.5	642,901	1,310	0.0020	0.9980	75.36
77.5	1,531,686	8,017	0.0052	0.9948	75.20
78.5	1,523,669	299,242	0.1964	0.8036	74.81

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

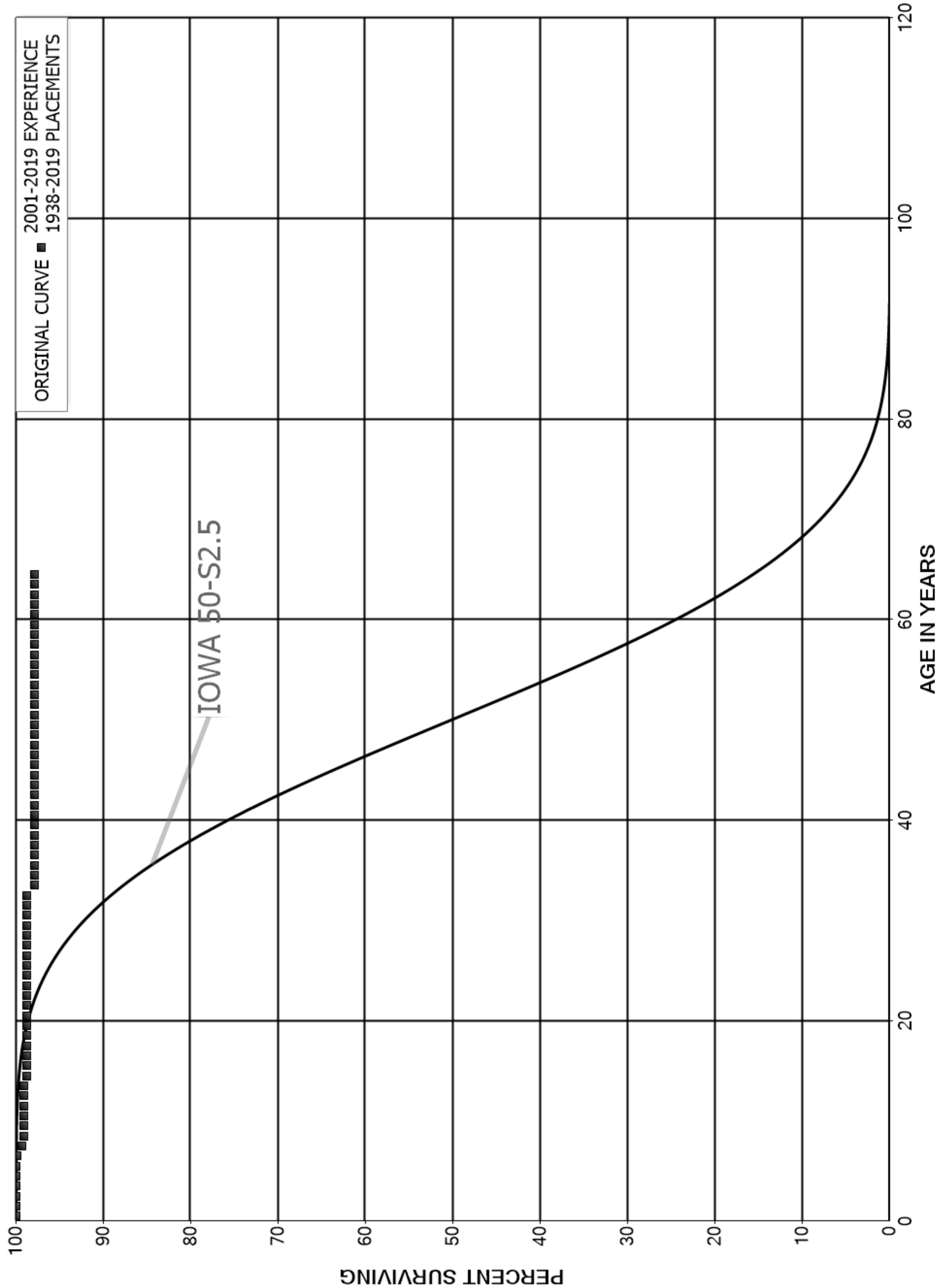
ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1915-2019 EXPERIENCE BAND 2001-2019

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	1,224,427	291	0.0002	0.9998	60.12
80.5	1,522,508		0.0000	1.0000	60.10
81.5	632,413	2,303	0.0036	0.9964	60.10
82.5	648,868		0.0000	1.0000	59.89
83.5	648,868	31,252	0.0482	0.9518	59.89
84.5	601,981	10	0.0000	1.0000	57.00
85.5	722,814		0.0000	1.0000	57.00
86.5	722,814	13,485	0.0187	0.9813	57.00
87.5	709,329	153,014	0.2157	0.7843	55.94
88.5	556,315	264	0.0005	0.9995	43.87
89.5	329,027	4,352	0.0132	0.9868	43.85
90.5	306,175	11,276	0.0368	0.9632	43.27
91.5	294,898	11,132	0.0377	0.9623	41.68
92.5	283,767	1,273	0.0045	0.9955	40.10
93.5	282,494	4,366	0.0155	0.9845	39.92
94.5	278,128	221	0.0008	0.9992	39.31
95.5	277,906	1,967	0.0071	0.9929	39.27
96.5	275,939	42	0.0002	0.9998	39.00
97.5	3,804,626	42,906	0.0113	0.9887	38.99
98.5	3,761,720	15,091	0.0040	0.9960	38.55
99.5	3,616,599	191,754	0.0530	0.9470	38.40
100.5	3,424,846	6,012	0.0018	0.9982	36.36
101.5	96,405	5,167	0.0536	0.9464	36.30
102.5	91,238	2,967	0.0325	0.9675	34.35
103.5	88,271	309	0.0035	0.9965	33.23
104.5					33.12

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 361.20 MANHOLES
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1938-2019 EXPERIENCE BAND 2001-2019

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	14,379,651		0.0000	1.0000	100.00
0.5	10,176,887		0.0000	1.0000	100.00
1.5	10,661,285	0	0.0000	1.0000	100.00
2.5	11,952,425		0.0000	1.0000	100.00
3.5	12,083,028	911	0.0001	0.9999	100.00
4.5	7,585,455		0.0000	1.0000	99.99
5.5	5,573,639	6,667	0.0012	0.9988	99.99
6.5	4,589,383	27,566	0.0060	0.9940	99.87
7.5	4,569,090	10,961	0.0024	0.9976	99.27
8.5	5,066,097		0.0000	1.0000	99.03
9.5	5,304,644		0.0000	1.0000	99.03
10.5	5,838,060		0.0000	1.0000	99.03
11.5	5,353,439		0.0000	1.0000	99.03
12.5	4,555,554		0.0000	1.0000	99.03
13.5	4,114,028	12,188	0.0030	0.9970	99.03
14.5	2,635,311		0.0000	1.0000	98.74
15.5	2,105,291	0	0.0000	1.0000	98.74
16.5	2,247,105	472	0.0002	0.9998	98.74
17.5	2,934,821		0.0000	1.0000	98.72
18.5	2,849,242		0.0000	1.0000	98.72
19.5	2,782,656		0.0000	1.0000	98.72
20.5	2,425,509	0	0.0000	1.0000	98.72
21.5	1,772,096		0.0000	1.0000	98.72
22.5	970,343		0.0000	1.0000	98.72
23.5	1,299,611		0.0000	1.0000	98.72
24.5	1,741,110		0.0000	1.0000	98.72
25.5	2,636,710		0.0000	1.0000	98.72
26.5	3,361,749		0.0000	1.0000	98.72
27.5	3,450,899		0.0000	1.0000	98.72
28.5	3,240,536		0.0000	1.0000	98.72
29.5	2,574,979		0.0000	1.0000	98.72
30.5	1,538,799		0.0000	1.0000	98.72
31.5	1,635,548		0.0000	1.0000	98.72
32.5	1,551,747	13,277	0.0086	0.9914	98.72
33.5	1,328,056		0.0000	1.0000	97.88
34.5	1,038,030		0.0000	1.0000	97.88
35.5	1,093,592		0.0000	1.0000	97.88
36.5	1,326,879		0.0000	1.0000	97.88
37.5	1,450,927		0.0000	1.0000	97.88
38.5	1,304,196		0.0000	1.0000	97.88

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1938-2019 EXPERIENCE BAND 2001-2019

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	994,944		0.0000	1.0000	97.88
40.5	2,263,935		0.0000	1.0000	97.88
41.5	2,043,826		0.0000	1.0000	97.88
42.5	2,216,232		0.0000	1.0000	97.88
43.5	2,406,018		0.0000	1.0000	97.88
44.5	2,040,304		0.0000	1.0000	97.88
45.5	2,008,665		0.0000	1.0000	97.88
46.5	1,708,150		0.0000	1.0000	97.88
47.5	301,817		0.0000	1.0000	97.88
48.5	301,817		0.0000	1.0000	97.88
49.5	170,327		0.0000	1.0000	97.88
50.5	201,568		0.0000	1.0000	97.88
51.5	166,180		0.0000	1.0000	97.88
52.5	172,781		0.0000	1.0000	97.88
53.5	1,995,623		0.0000	1.0000	97.88
54.5	1,827,036		0.0000	1.0000	97.88
55.5	1,951,871		0.0000	1.0000	97.88
56.5	131,436		0.0000	1.0000	97.88
57.5	10,950,272		0.0000	1.0000	97.88
58.5	10,950,272		0.0000	1.0000	97.88
59.5	10,825,437		0.0000	1.0000	97.88
60.5	89,564		0.0000	1.0000	97.88
61.5	89,564		0.0000	1.0000	97.88
62.5	89,564		0.0000	1.0000	97.88
63.5	89,564		0.0000	1.0000	97.88
64.5					97.88
65.5	100,437		0.0000		
66.5	100,437		0.0000		
67.5	123,426		0.0000		
68.5	167,059	22,989	0.1376		
69.5	43,633		0.0000		
70.5	84,331		0.0000		
71.5	84,331		0.0000		
72.5	90,699		0.0000		
73.5	84,331		0.0000		
74.5	43,633		0.0000		
75.5	43,633		0.0000		
76.5	43,633		0.0000		
77.5	306,691		0.0000		
78.5	306,691		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

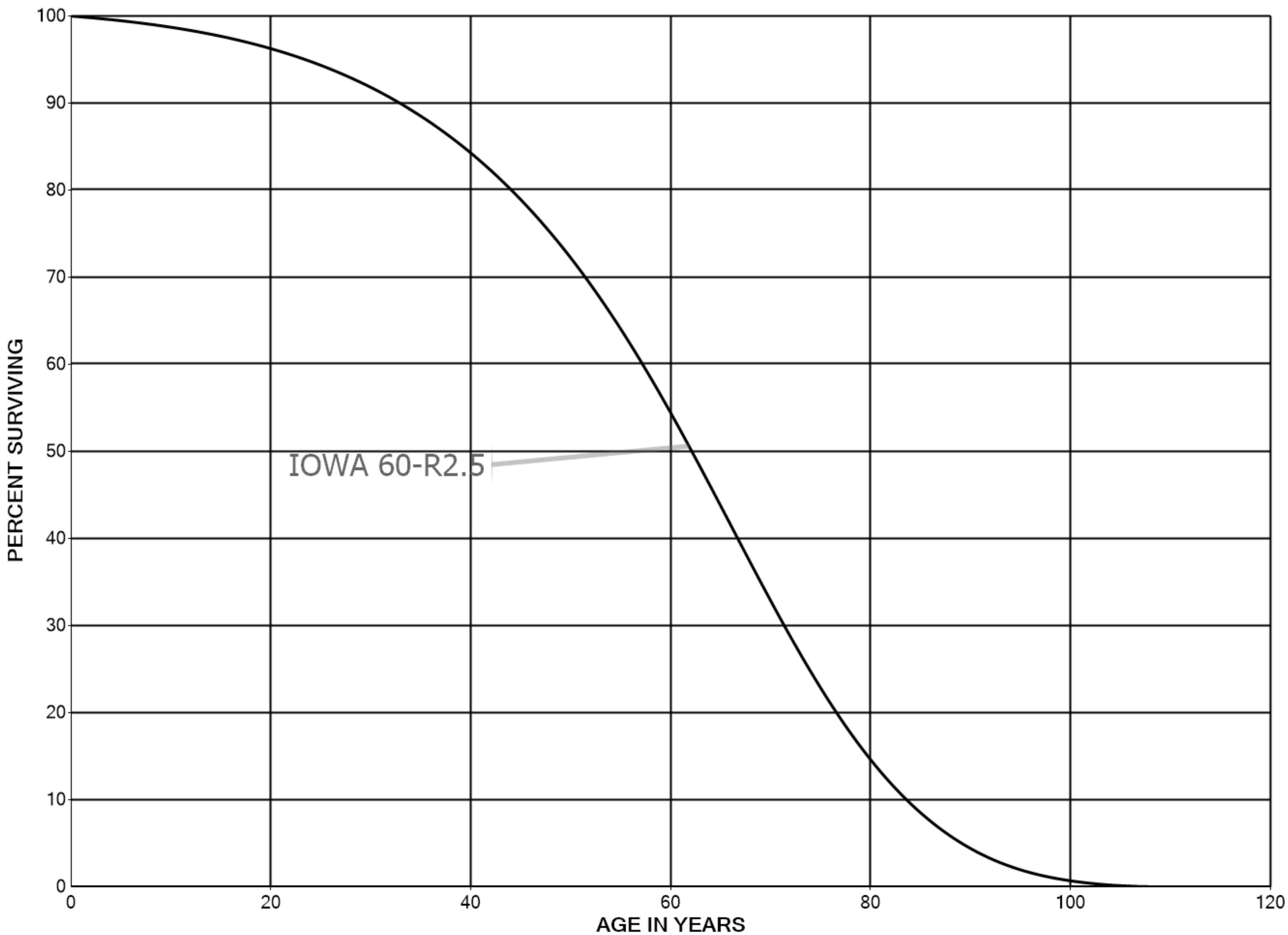
ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

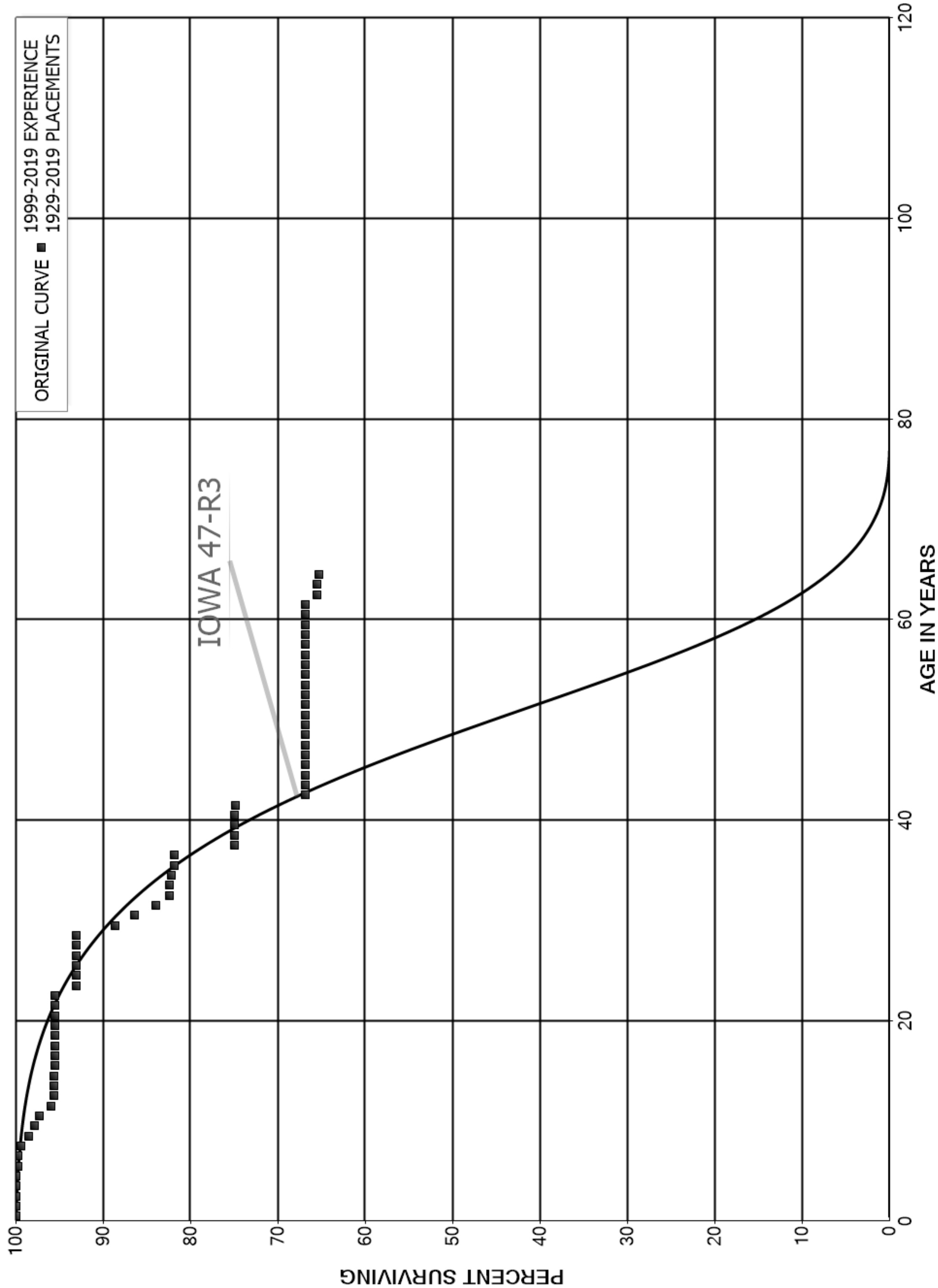
PLACEMENT BAND 1938-2019 EXPERIENCE BAND 2001-2019

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	306,691	1,171	0.0038		
80.5	263,058		0.0000		
81.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 362.00 SPECIAL COLLECTION STRUCTURES
SMOOTH SURVIVOR CURVE



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 363.00 SERVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1929-2019 EXPERIENCE BAND 1999-2019

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	10,615,796	0	0.0000	1.0000	100.00
0.5	10,038,138	0	0.0000	1.0000	100.00
1.5	9,510,472	60	0.0000	1.0000	100.00
2.5	8,790,677	5,668	0.0006	0.9994	100.00
3.5	8,679,530	421	0.0000	1.0000	99.93
4.5	7,932,683	12,635	0.0016	0.9984	99.93
5.5	6,966,530	2,890	0.0004	0.9996	99.77
6.5	8,411,000	31,963	0.0038	0.9962	99.73
7.5	8,278,555	65,894	0.0080	0.9920	99.35
8.5	8,313,922	64,649	0.0078	0.9922	98.56
9.5	8,351,147	42,617	0.0051	0.9949	97.79
10.5	6,470,010	87,729	0.0136	0.9864	97.29
11.5	6,246,021	19,892	0.0032	0.9968	95.98
12.5	5,858,877	0	0.0000	1.0000	95.67
13.5	4,698,450	4,942	0.0011	0.9989	95.67
14.5	4,095,435	871	0.0002	0.9998	95.57
15.5	3,284,377		0.0000	1.0000	95.55
16.5	3,511,888	0	0.0000	1.0000	95.55
17.5	3,953,464	0	0.0000	1.0000	95.55
18.5	3,909,166	55	0.0000	1.0000	95.55
19.5	3,630,733		0.0000	1.0000	95.55
20.5	3,925,137		0.0000	1.0000	95.55
21.5	3,646,749		0.0000	1.0000	95.55
22.5	3,395,484	87,997	0.0259	0.9741	95.55
23.5	3,780,922		0.0000	1.0000	93.07
24.5	4,115,954	497	0.0001	0.9999	93.07
25.5	5,003,579		0.0000	1.0000	93.06
26.5	5,176,777		0.0000	1.0000	93.06
27.5	4,635,070		0.0000	1.0000	93.06
28.5	4,421,930	209,578	0.0474	0.9526	93.06
29.5	3,596,999	92,585	0.0257	0.9743	88.65
30.5	2,947,708	80,733	0.0274	0.9726	86.37
31.5	2,783,645	51,927	0.0187	0.9813	84.00
32.5	2,491,265	1,241	0.0005	0.9995	82.43
33.5	2,228,511	4,871	0.0022	0.9978	82.39
34.5	1,965,612	8,461	0.0043	0.9957	82.21
35.5	1,925,423	503	0.0003	0.9997	81.86
36.5	1,973,278	167,021	0.0846	0.9154	81.84
37.5	1,839,375	192	0.0001	0.9999	74.91
38.5	1,657,395		0.0000	1.0000	74.90

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2019 EXPERIENCE BAND 1999-2019

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	1,207,182		0.0000	1.0000	74.90
40.5	1,197,802	385	0.0003	0.9997	74.90
41.5	1,022,673	110,064	0.1076	0.8924	74.88
42.5	886,687		0.0000	1.0000	66.82
43.5	1,408,938		0.0000	1.0000	66.82
44.5	900,914		0.0000	1.0000	66.82
45.5	855,938		0.0000	1.0000	66.82
46.5	736,586		0.0000	1.0000	66.82
47.5	156,414		0.0000	1.0000	66.82
48.5	155,860		0.0000	1.0000	66.82
49.5	82,277		0.0000	1.0000	66.82
50.5	145,022		0.0000	1.0000	66.82
51.5	132,653		0.0000	1.0000	66.82
52.5	134,754	0	0.0000	1.0000	66.82
53.5	137,757		0.0000	1.0000	66.82
54.5	20,119		0.0000	1.0000	66.82
55.5	100,869		0.0000	1.0000	66.82
56.5	100,869		0.0000	1.0000	66.82
57.5	97,866		0.0000	1.0000	66.82
58.5	256,316		0.0000	1.0000	66.82
59.5	180,162	20	0.0001	0.9999	66.82
60.5	228,822		0.0000	1.0000	66.81
61.5	228,822	4,595	0.0201	0.9799	66.81
62.5	50,781		0.0000	1.0000	65.47
63.5	50,781	162	0.0032	0.9968	65.47
64.5					65.26
65.5	60,144		0.0000		
66.5	60,144		0.0000		
67.5	60,144		0.0000		
68.5	70,211		0.0000		
69.5	13,932	819	0.0588		
70.5	36,101		0.0000		
71.5	36,101	4,521	0.1252		
72.5	31,580	1,251	0.0396		
73.5	30,329	442	0.0146		
74.5	6,899	644	0.0933		
75.5	6,255		0.0000		
76.5	6,255		0.0000		
77.5	151,010		0.0000		
78.5	151,010		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

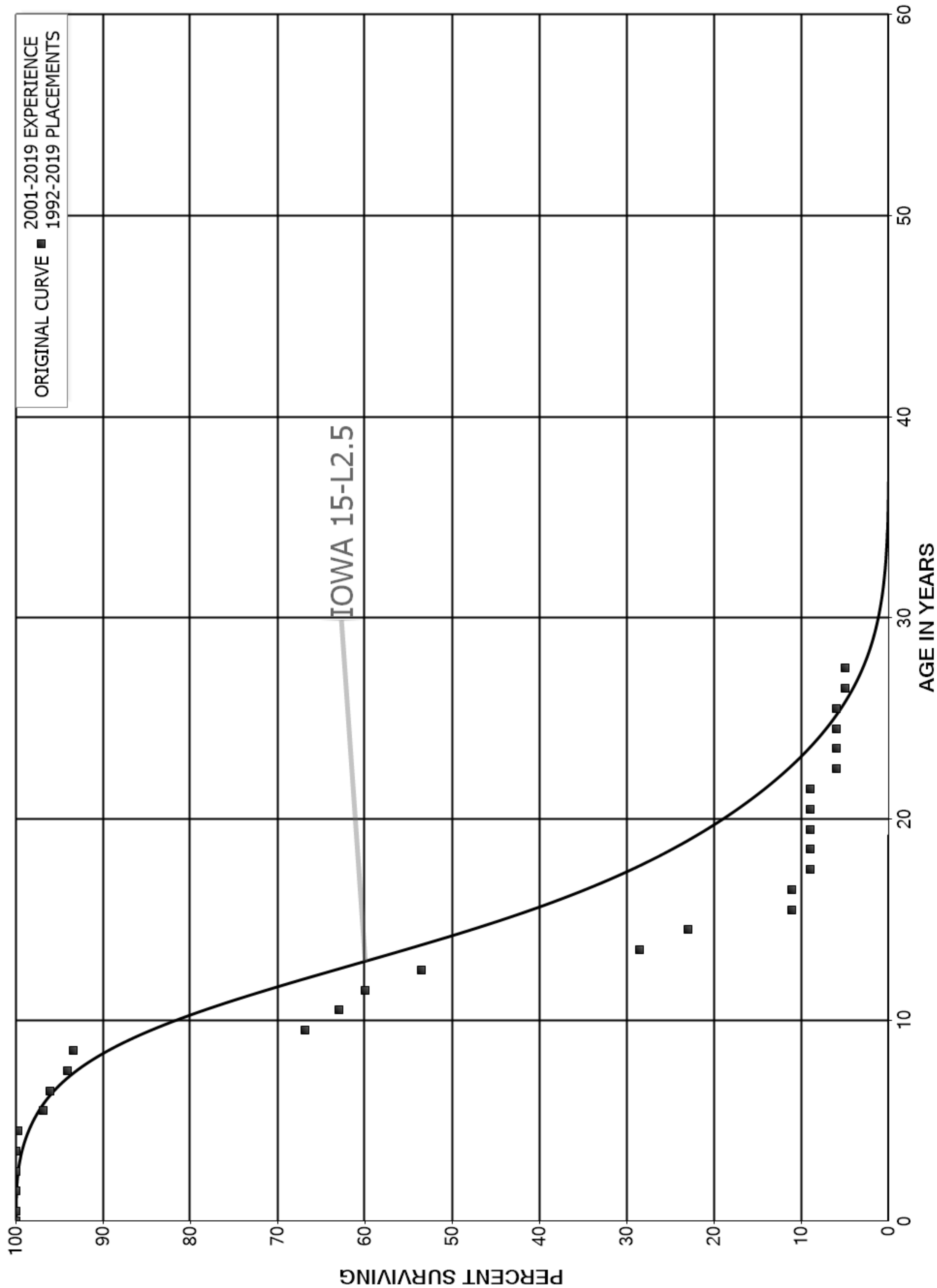
ACCOUNT 363.00 SERVICES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1929-2019 EXPERIENCE BAND 1999-2019

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	151,010		0.0000		
80.5	144,755	1,628	0.0112		
81.5					
82.5	717		0.0000		
83.5	717		0.0000		
84.5	717		0.0000		
85.5	717		0.0000		
86.5	717		0.0000		
87.5	717		0.0000		
88.5	717		0.0000		
89.5	717		0.0000		
90.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 364.00 FLOW MEASURING DEVICES
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

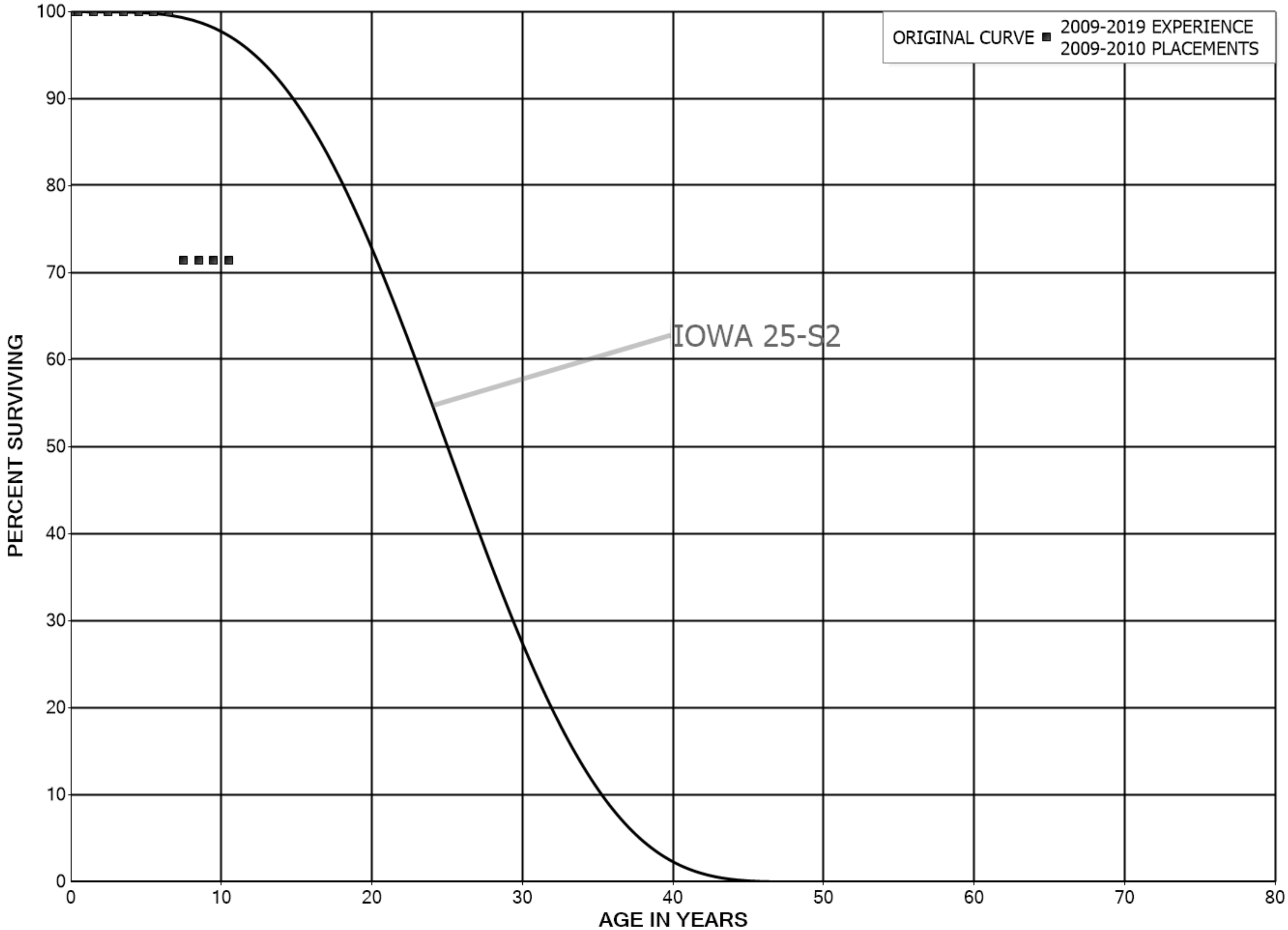
ACCOUNT 364.00 FLOW MEASURING DEVICES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1992-2019 EXPERIENCE BAND 2001-2019

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	1,359,184		0.0000	1.0000	100.00
0.5	993,961		0.0000	1.0000	100.00
1.5	1,007,023		0.0000	1.0000	100.00
2.5	1,088,761		0.0000	1.0000	100.00
3.5	829,368	2,564	0.0031	0.9969	100.00
4.5	790,917	22,463	0.0284	0.9716	99.69
5.5	745,466	5,882	0.0079	0.9921	96.86
6.5	575,156	12,254	0.0213	0.9787	96.10
7.5	576,785	4,337	0.0075	0.9925	94.05
8.5	639,652	181,670	0.2840	0.7160	93.34
9.5	332,968	19,182	0.0576	0.9424	66.83
10.5	221,704	10,816	0.0488	0.9512	62.98
11.5	90,287	9,617	0.1065	0.8935	59.91
12.5	71,639	33,466	0.4671	0.5329	53.53
13.5	31,704	6,133	0.1934	0.8066	28.52
14.5	16,849	8,739	0.5187	0.4813	23.00
15.5	16,281		0.0000	1.0000	11.07
16.5	16,281	3,203	0.1967	0.8033	11.07
17.5	13,078		0.0000	1.0000	8.90
18.5	13,078		0.0000	1.0000	8.90
19.5	13,078		0.0000	1.0000	8.90
20.5	13,078		0.0000	1.0000	8.90
21.5	13,078	4,272	0.3266	0.6734	8.90
22.5	8,806		0.0000	1.0000	5.99
23.5	8,806		0.0000	1.0000	5.99
24.5	8,806		0.0000	1.0000	5.99
25.5	8,806	1,522	0.1728	0.8272	5.99
26.5	7,285		0.0000	1.0000	4.95
27.5					4.95

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

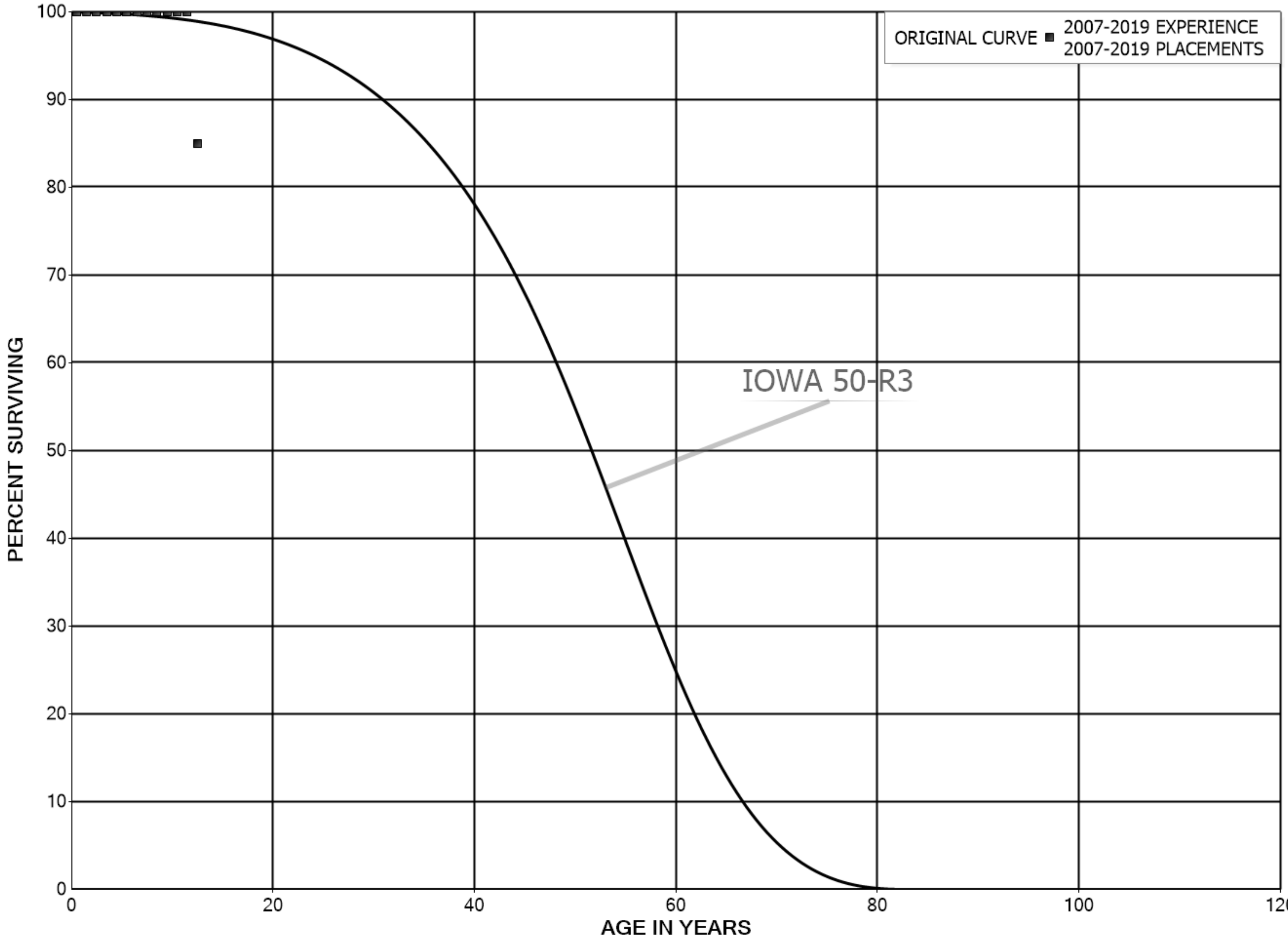
ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2009-2010 EXPERIENCE BAND 2009-2019

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	20,918		0.0000	1.0000	100.00
0.5	20,918		0.0000	1.0000	100.00
1.5	20,918		0.0000	1.0000	100.00
2.5	20,918		0.0000	1.0000	100.00
3.5	20,918		0.0000	1.0000	100.00
4.5	20,918		0.0000	1.0000	100.00
5.5	20,918		0.0000	1.0000	100.00
6.5	20,918	5,980	0.2859	0.7141	100.00
7.5	14,938		0.0000	1.0000	71.41
8.5	14,938		0.0000	1.0000	71.41
9.5	14,938		0.0000	1.0000	71.41
10.5					71.41

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 370.00 RECEIVING WELLS
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

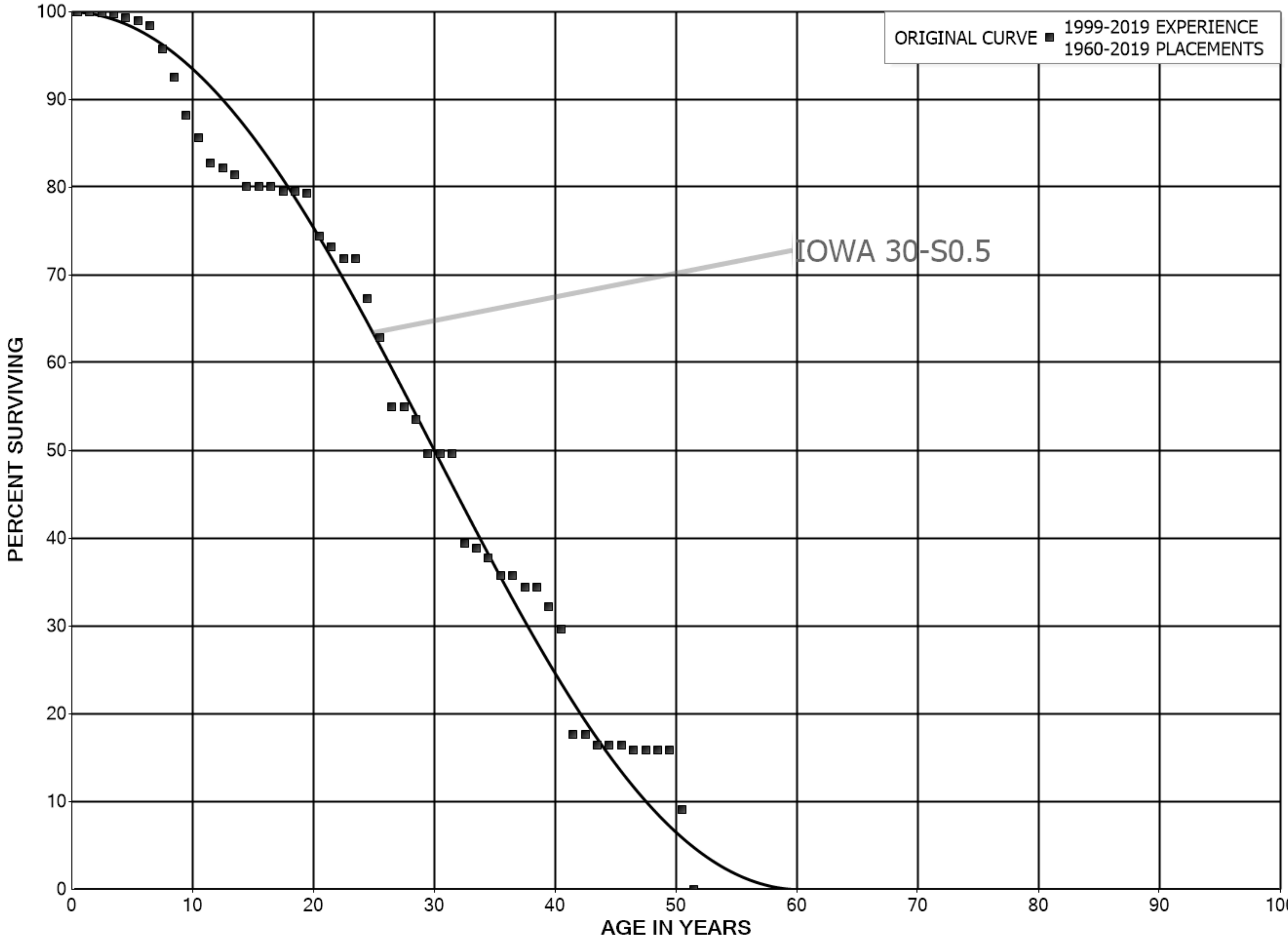
ACCOUNT 370.00 RECEIVING WELLS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2007-2019 EXPERIENCE BAND 2007-2019

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	121,180		0.0000	1.0000	100.00
0.5	111,148		0.0000	1.0000	100.00
1.5	111,148		0.0000	1.0000	100.00
2.5	132,949		0.0000	1.0000	100.00
3.5	132,949		0.0000	1.0000	100.00
4.5	132,949		0.0000	1.0000	100.00
5.5	132,949		0.0000	1.0000	100.00
6.5	99,482		0.0000	1.0000	100.00
7.5	99,482		0.0000	1.0000	100.00
8.5	99,482		0.0000	1.0000	100.00
9.5	99,482		0.0000	1.0000	100.00
10.5	7,370		0.0000	1.0000	100.00
11.5	7,370	1,109	0.1505	0.8495	100.00
12.5					84.95

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 371.00 PUMPING EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1960-2019 EXPERIENCE BAND 1999-2019

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	13,928,914		0.0000	1.0000	100.00
0.5	8,653,630	5,419	0.0006	0.9994	100.00
1.5	11,021,964	12,306	0.0011	0.9989	99.94
2.5	10,781,219	12,096	0.0011	0.9989	99.83
3.5	9,453,412	44,345	0.0047	0.9953	99.71
4.5	6,817,321	23,246	0.0034	0.9966	99.25
5.5	5,785,361	27,560	0.0048	0.9952	98.91
6.5	5,413,591	148,677	0.0275	0.9725	98.44
7.5	3,768,518	126,794	0.0336	0.9664	95.73
8.5	3,446,810	160,001	0.0464	0.9536	92.51
9.5	2,549,487	73,710	0.0289	0.9711	88.22
10.5	1,455,129	50,056	0.0344	0.9656	85.67
11.5	1,043,502	7,445	0.0071	0.9929	82.72
12.5	1,137,255	10,025	0.0088	0.9912	82.13
13.5	837,345	14,096	0.0168	0.9832	81.41
14.5	784,395		0.0000	1.0000	80.04
15.5	677,887		0.0000	1.0000	80.04
16.5	534,434	3,610	0.0068	0.9932	80.04
17.5	610,401	101	0.0002	0.9998	79.50
18.5	664,971	1,413	0.0021	0.9979	79.48
19.5	663,558	41,426	0.0624	0.9376	79.31
20.5	588,736	9,514	0.0162	0.9838	74.36
21.5	638,927	11,409	0.0179	0.9821	73.16
22.5	599,786		0.0000	1.0000	71.85
23.5	517,501	33,177	0.0641	0.9359	71.85
24.5	484,324	31,555	0.0652	0.9348	67.25
25.5	497,723	62,415	0.1254	0.8746	62.87
26.5	428,133		0.0000	1.0000	54.98
27.5	312,603	8,673	0.0277	0.9723	54.98
28.5	241,647	17,595	0.0728	0.9272	53.46
29.5	235,281		0.0000	1.0000	49.56
30.5	280,168		0.0000	1.0000	49.56
31.5	280,168	57,666	0.2058	0.7942	49.56
32.5	222,502	2,887	0.0130	0.9870	39.36
33.5	140,599	3,932	0.0280	0.9720	38.85
34.5	136,159	7,170	0.0527	0.9473	37.77
35.5	183,946		0.0000	1.0000	35.78
36.5	183,946	7,008	0.0381	0.9619	35.78
37.5	176,938		0.0000	1.0000	34.41
38.5	127,299	8,408	0.0660	0.9340	34.41

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

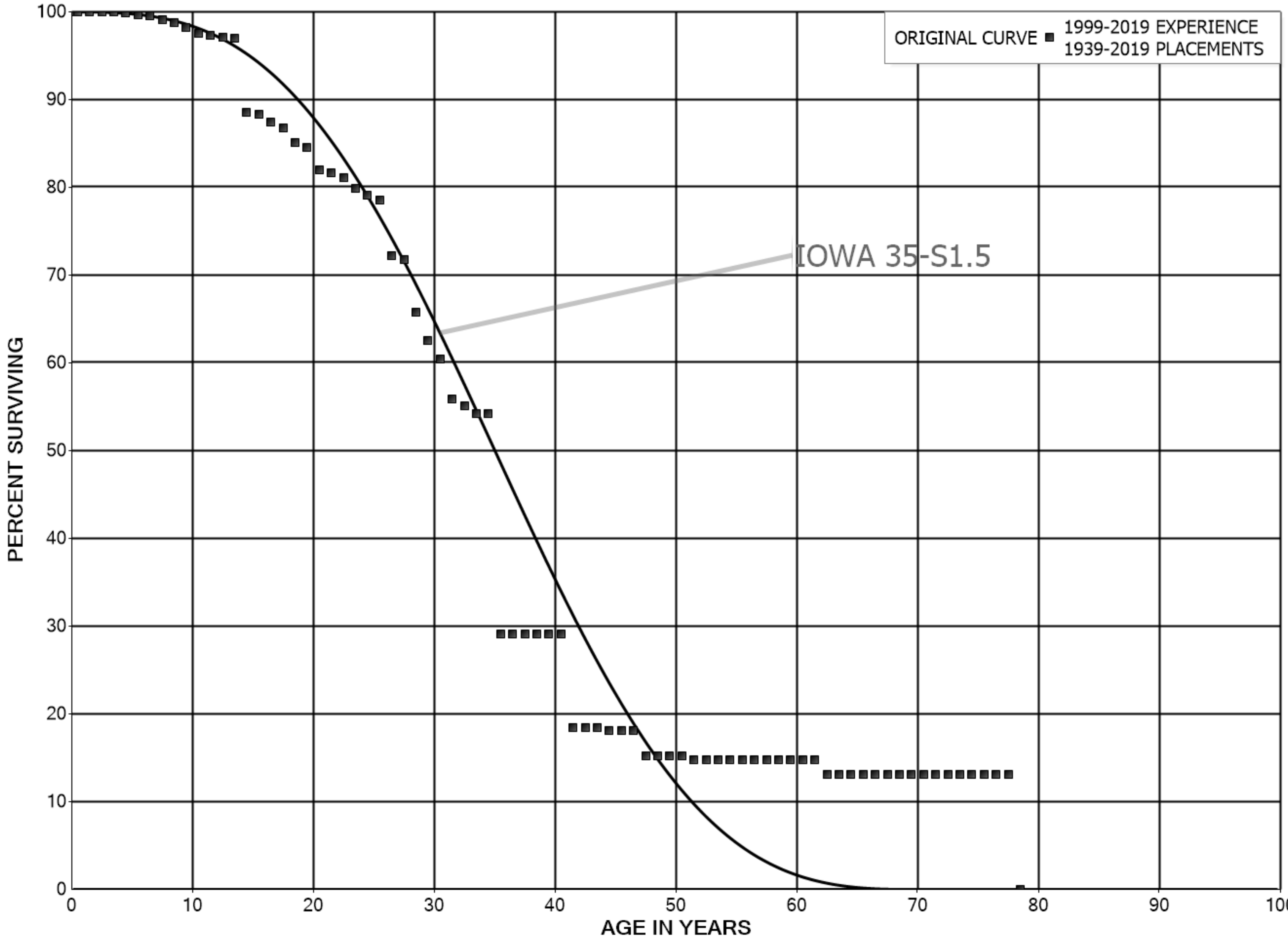
ACCOUNT 371.00 PUMPING EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1960-2019 EXPERIENCE BAND 1999-2019

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	128,004	9,910	0.0774	0.9226	32.14
40.5	140,361	56,891	0.4053	0.5947	29.65
41.5	83,470		0.0000	1.0000	17.63
42.5	83,470	6,122	0.0733	0.9267	17.63
43.5	28,842		0.0000	1.0000	16.34
44.5	28,842		0.0000	1.0000	16.34
45.5	28,842	860	0.0298	0.9702	16.34
46.5	27,983		0.0000	1.0000	15.85
47.5	21,408		0.0000	1.0000	15.85
48.5	5,141		0.0000	1.0000	15.85
49.5	5,141	2,187	0.4255	0.5745	15.85
50.5	2,953	2,953	1.0000		9.11
51.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 380.00 TREATMENT EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1939-2019 EXPERIENCE BAND 1999-2019

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	52,484,979		0.0000	1.0000	100.00
0.5	52,338,297		0.0000	1.0000	100.00
1.5	64,377,580	1,853	0.0000	1.0000	100.00
2.5	61,280,085	2,456	0.0000	1.0000	100.00
3.5	56,645,719	97,216	0.0017	0.9983	99.99
4.5	44,542,853	95,360	0.0021	0.9979	99.82
5.5	39,192,994	29,279	0.0007	0.9993	99.61
6.5	37,993,990	195,343	0.0051	0.9949	99.53
7.5	37,038,634	104,008	0.0028	0.9972	99.02
8.5	38,046,057	237,211	0.0062	0.9938	98.74
9.5	28,856,102	179,693	0.0062	0.9938	98.13
10.5	11,015,164	26,343	0.0024	0.9976	97.52
11.5	15,100,040	30,352	0.0020	0.9980	97.28
12.5	16,280,292	28,816	0.0018	0.9982	97.09
13.5	16,807,417	1,468,058	0.0873	0.9127	96.92
14.5	14,676,816	22,218	0.0015	0.9985	88.45
15.5	11,808,330	121,942	0.0103	0.9897	88.32
16.5	11,627,778	92,492	0.0080	0.9920	87.41
17.5	12,550,432	231,211	0.0184	0.9816	86.71
18.5	10,724,551	78,054	0.0073	0.9927	85.11
19.5	10,812,422	322,982	0.0299	0.9701	84.49
20.5	9,468,414	37,906	0.0040	0.9960	81.97
21.5	9,609,732	62,020	0.0065	0.9935	81.64
22.5	9,543,450	153,592	0.0161	0.9839	81.11
23.5	9,334,263	87,607	0.0094	0.9906	79.81
24.5	9,070,811	59,133	0.0065	0.9935	79.06
25.5	8,792,217	707,485	0.0805	0.9195	78.54
26.5	4,703,706	32,521	0.0069	0.9931	72.22
27.5	4,778,474	397,707	0.0832	0.9168	71.72
28.5	6,059,797	298,086	0.0492	0.9508	65.75
29.5	6,184,153	215,062	0.0348	0.9652	62.52
30.5	5,152,304	387,965	0.0753	0.9247	60.35
31.5	5,356,247	72,674	0.0136	0.9864	55.80
32.5	3,421,800	52,448	0.0153	0.9847	55.05
33.5	2,753,091		0.0000	1.0000	54.20
34.5	2,272,767	1,055,181	0.4643	0.5357	54.20
35.5	635,826		0.0000	1.0000	29.04
36.5	779,480		0.0000	1.0000	29.04
37.5	801,627		0.0000	1.0000	29.04
38.5	778,140		0.0000	1.0000	29.04

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

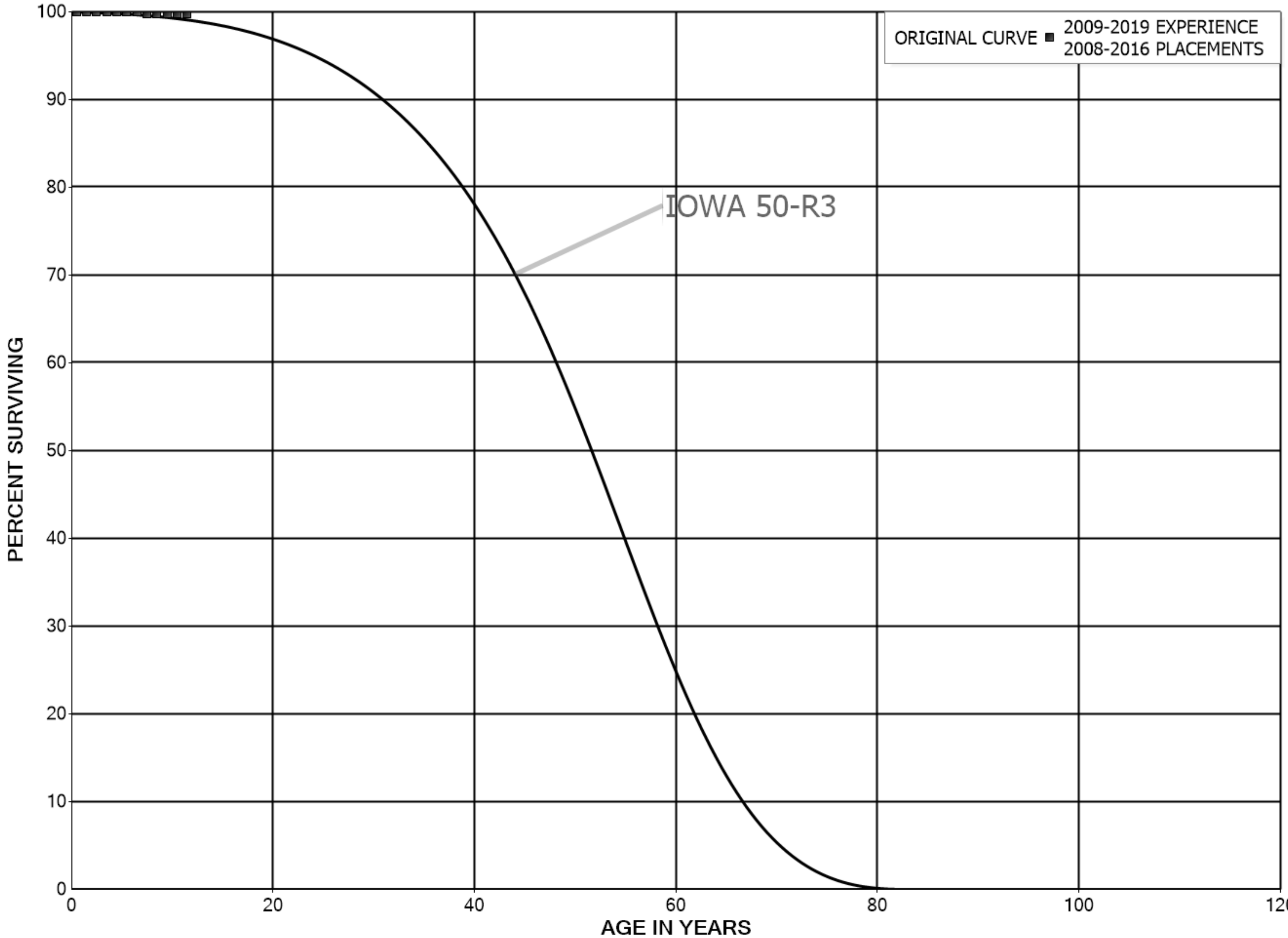
ACCOUNT 380.00 TREATMENT EQUIPMENT

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1939-2019 EXPERIENCE BAND 1999-2019

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	778,140	411	0.0005	0.9995	29.04
40.5	777,730	285,407	0.3670	0.6330	29.02
41.5	15,823,498		0.0000	1.0000	18.37
42.5	15,823,498		0.0000	1.0000	18.37
43.5	15,823,498	268,317	0.0170	0.9830	18.37
44.5	515,644		0.0000	1.0000	18.06
45.5	515,644		0.0000	1.0000	18.06
46.5	371,038	60,316	0.1626	0.8374	18.06
47.5	288,575		0.0000	1.0000	15.12
48.5	288,575		0.0000	1.0000	15.12
49.5	288,575		0.0000	1.0000	15.12
50.5	288,575	6,818	0.0236	0.9764	15.12
51.5	281,757	315	0.0011	0.9989	14.77
52.5	107,182		0.0000	1.0000	14.75
53.5	107,182	462	0.0043	0.9957	14.75
54.5	23,321		0.0000	1.0000	14.69
55.5	23,321		0.0000	1.0000	14.69
56.5	298,010		0.0000	1.0000	14.69
57.5	298,010		0.0000	1.0000	14.69
58.5	298,010		0.0000	1.0000	14.69
59.5	25,215		0.0000	1.0000	14.69
60.5	25,215		0.0000	1.0000	14.69
61.5	25,215	2,761	0.1095	0.8905	14.69
62.5	1,894		0.0000	1.0000	13.08
63.5	1,894		0.0000	1.0000	13.08
64.5	1,894		0.0000	1.0000	13.08
65.5	1,894		0.0000	1.0000	13.08
66.5	1,894		0.0000	1.0000	13.08
67.5	1,894		0.0000	1.0000	13.08
68.5	1,894		0.0000	1.0000	13.08
69.5	1,894		0.0000	1.0000	13.08
70.5	1,894		0.0000	1.0000	13.08
71.5	1,894		0.0000	1.0000	13.08
72.5	1,894		0.0000	1.0000	13.08
73.5	1,894		0.0000	1.0000	13.08
74.5	1,894		0.0000	1.0000	13.08
75.5	1,894		0.0000	1.0000	13.08
76.5	1,894		0.0000	1.0000	13.08
77.5	1,894	1,894	1.0000		13.08
78.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 381.00 PLANT SEWERS
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

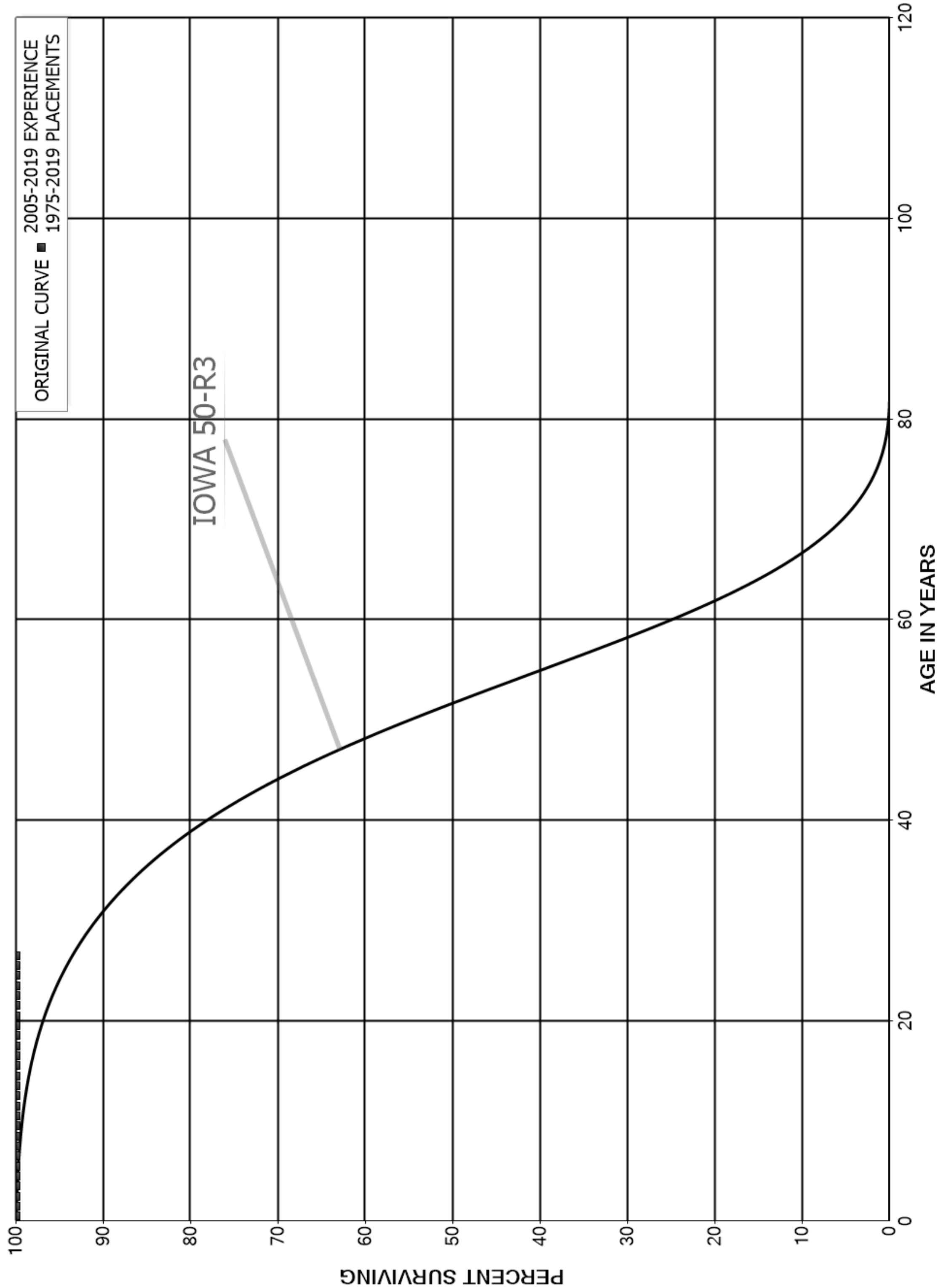
ACCOUNT 381.00 PLANT SEWERS

ORIGINAL LIFE TABLE

PLACEMENT BAND 2008-2016 EXPERIENCE BAND 2009-2019

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	5,524,134		0.0000	1.0000	100.00
0.5	6,227,961		0.0000	1.0000	100.00
1.5	6,227,961		0.0000	1.0000	100.00
2.5	6,227,961		0.0000	1.0000	100.00
3.5	6,182,721		0.0000	1.0000	100.00
4.5	6,175,263		0.0000	1.0000	100.00
5.5	5,940,945		0.0000	1.0000	100.00
6.5	5,940,945	13,300	0.0022	0.9978	100.00
7.5	5,925,961	2,120	0.0004	0.9996	99.78
8.5	5,917,243		0.0000	1.0000	99.74
9.5	4,729,279		0.0000	1.0000	99.74
10.5	294,412		0.0000	1.0000	99.74
11.5					99.74

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 382.00 OUTFALL SEWER LINES
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

ORIGINAL LIFE TABLE

PLACEMENT BAND 1975-2019 EXPERIENCE BAND 2005-2019

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	1,700,716		0.0000	1.0000	100.00
0.5	1,605,061		0.0000	1.0000	100.00
1.5	360,675		0.0000	1.0000	100.00
2.5	355,425		0.0000	1.0000	100.00
3.5	355,425		0.0000	1.0000	100.00
4.5	355,425		0.0000	1.0000	100.00
5.5	255,003		0.0000	1.0000	100.00
6.5	264,243		0.0000	1.0000	100.00
7.5	265,939		0.0000	1.0000	100.00
8.5	265,939		0.0000	1.0000	100.00
9.5	238,111		0.0000	1.0000	100.00
10.5	212,060		0.0000	1.0000	100.00
11.5	244,789	6	0.0000	1.0000	100.00
12.5	244,783		0.0000	1.0000	100.00
13.5	43,666		0.0000	1.0000	100.00
14.5	34,425		0.0000	1.0000	100.00
15.5	32,729		0.0000	1.0000	100.00
16.5	32,729		0.0000	1.0000	100.00
17.5	32,729		0.0000	1.0000	100.00
18.5	32,729		0.0000	1.0000	100.00
19.5	32,729		0.0000	1.0000	100.00
20.5	32,729		0.0000	1.0000	100.00
21.5	202,476		0.0000	1.0000	100.00
22.5	202,476		0.0000	1.0000	100.00
23.5	202,476		0.0000	1.0000	100.00
24.5	202,476		0.0000	1.0000	100.00
25.5	202,476		0.0000	1.0000	100.00
26.5					100.00
27.5					
28.5					
29.5					
30.5					
31.5					
32.5					
33.5					
34.5					
35.5					
36.5	4,984		0.0000		
37.5	4,984		0.0000		
38.5	4,984		0.0000		

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

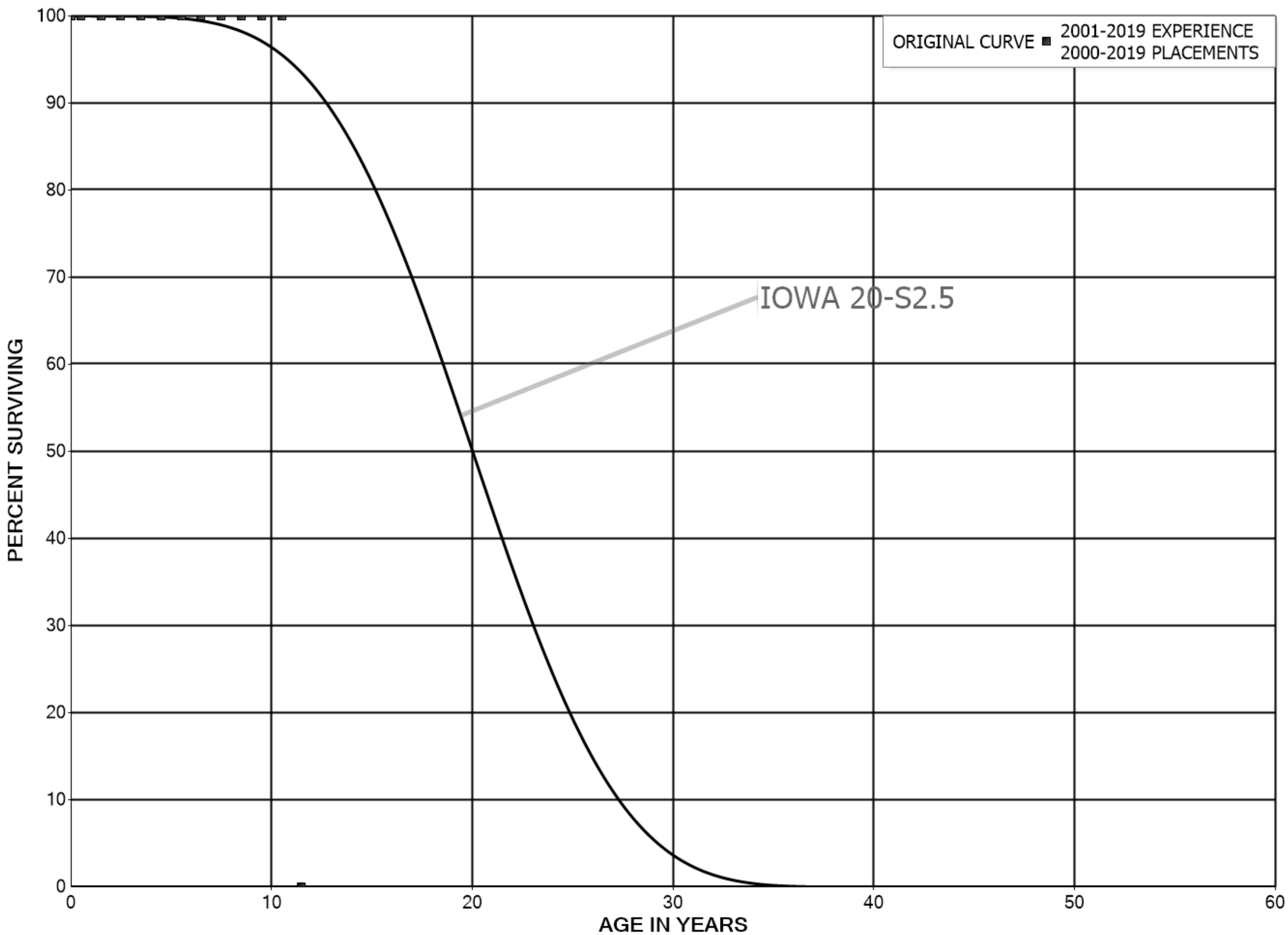
ACCOUNT 382.00 OUTFALL SEWER LINES

ORIGINAL LIFE TABLE, CONT.

PLACEMENT BAND 1975-2019 EXPERIENCE BAND 2005-2019

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	4,984		0.0000		
40.5	4,984		0.0000		
41.5	4,984		0.0000		
42.5	4,984		0.0000		
43.5	4,984		0.0000		
44.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

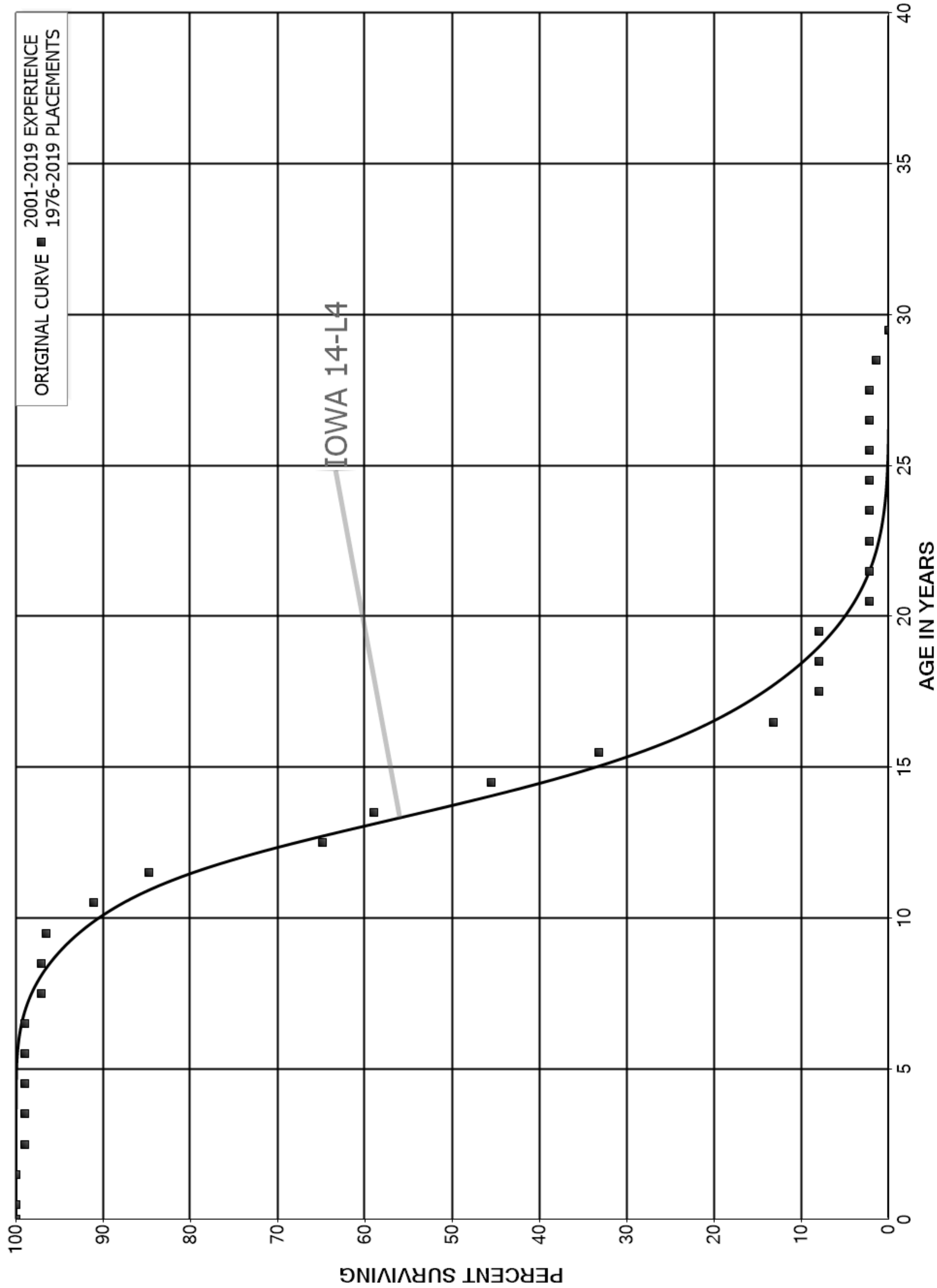
ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 2000-2019 EXPERIENCE BAND 2001-2019

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	737,756		0.0000	1.0000	100.00
0.5	437,340		0.0000	1.0000	100.00
1.5	405,165		0.0000	1.0000	100.00
2.5	4,547,918		0.0000	1.0000	100.00
3.5	4,547,918		0.0000	1.0000	100.00
4.5	4,547,918	2,997	0.0007	0.9993	100.00
5.5	4,544,921		0.0000	1.0000	99.93
6.5	393,353		0.0000	1.0000	99.93
7.5	393,353		0.0000	1.0000	99.93
8.5	281,642		0.0000	1.0000	99.93
9.5	8,492		0.0000	1.0000	99.93
10.5	8,492	8,492	1.0000		99.93
11.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 391.00 TRANSPORTATION EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

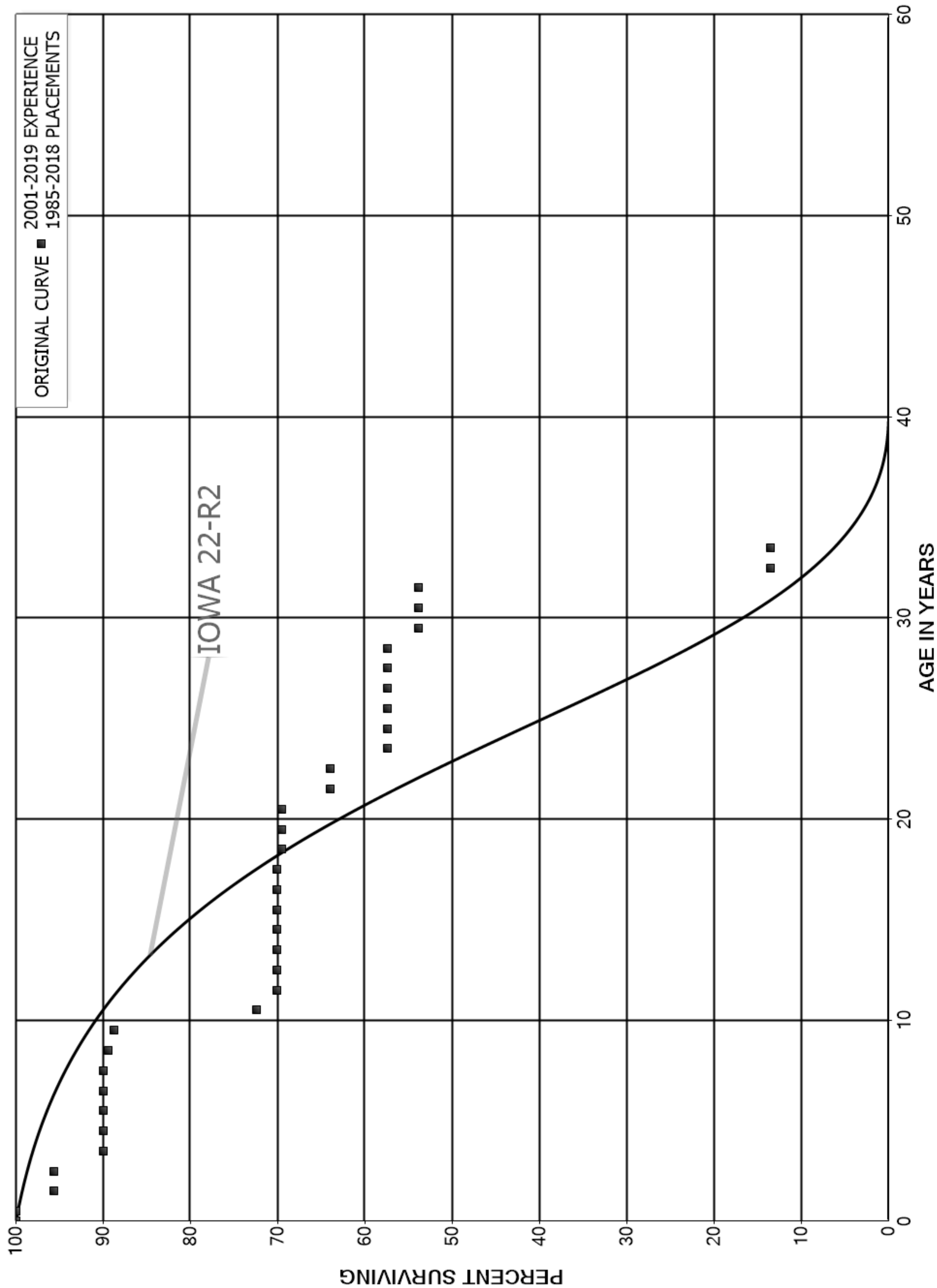
ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1976-2019 EXPERIENCE BAND 2001-2019

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	4,168,919		0.0000	1.0000	100.00
0.5	3,692,372		0.0000	1.0000	100.00
1.5	1,458,511	14,523	0.0100	0.9900	100.00
2.5	2,332,879		0.0000	1.0000	99.00
3.5	2,514,168		0.0000	1.0000	99.00
4.5	1,930,107		0.0000	1.0000	99.00
5.5	1,664,209		0.0000	1.0000	99.00
6.5	1,677,203	32,676	0.0195	0.9805	99.00
7.5	1,535,566		0.0000	1.0000	97.08
8.5	1,373,777	8,793	0.0064	0.9936	97.08
9.5	1,545,830	87,008	0.0563	0.9437	96.45
10.5	879,899	61,030	0.0694	0.9306	91.03
11.5	743,329	174,600	0.2349	0.7651	84.71
12.5	440,822	40,215	0.0912	0.9088	64.81
13.5	348,542	79,500	0.2281	0.7719	58.90
14.5	276,542	75,000	0.2712	0.7288	45.47
15.5	195,354	117,872	0.6034	0.3966	33.14
16.5	51,900	20,700	0.3988	0.6012	13.14
17.5	31,200		0.0000	1.0000	7.90
18.5	32,855		0.0000	1.0000	7.90
19.5	32,855	23,700	0.7214	0.2786	7.90
20.5	9,155		0.0000	1.0000	2.20
21.5	9,155		0.0000	1.0000	2.20
22.5	9,155		0.0000	1.0000	2.20
23.5	9,155		0.0000	1.0000	2.20
24.5	14,155		0.0000	1.0000	2.20
25.5	14,155		0.0000	1.0000	2.20
26.5	14,155		0.0000	1.0000	2.20
27.5	14,155	5,000	0.3532	0.6468	2.20
28.5	9,155	9,155	1.0000		1.42
29.5					

PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS
ACCOUNT 395.00 POWER OPERATED EQUIPMENT
ORIGINAL AND SMOOTH SURVIVOR CURVES



PENNSYLVANIA-AMERICAN WATER COMPANY
ALL WASTEWATER OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

ORIGINAL LIFE TABLE

PLACEMENT BAND 1985-2018 EXPERIENCE BAND 2001-2019

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	192,967		0.0000	1.0000	100.00
0.5	192,967	8,551	0.0443	0.9557	100.00
1.5	127,706		0.0000	1.0000	95.57
2.5	255,380	14,864	0.0582	0.9418	95.57
3.5	324,176		0.0000	1.0000	90.01
4.5	885,603		0.0000	1.0000	90.01
5.5	967,489		0.0000	1.0000	90.01
6.5	1,410,131		0.0000	1.0000	90.01
7.5	1,250,710	8,033	0.0064	0.9936	90.01
8.5	871,073	6,988	0.0080	0.9920	89.43
9.5	536,633	98,717	0.1840	0.8160	88.71
10.5	191,853	6,125	0.0319	0.9681	72.39
11.5	137,458		0.0000	1.0000	70.08
12.5	190,308		0.0000	1.0000	70.08
13.5	169,091		0.0000	1.0000	70.08
14.5	169,091		0.0000	1.0000	70.08
15.5	169,587		0.0000	1.0000	70.08
16.5	190,470		0.0000	1.0000	70.08
17.5	117,685	875	0.0074	0.9926	70.08
18.5	116,810		0.0000	1.0000	69.56
19.5	116,810		0.0000	1.0000	69.56
20.5	124,335	9,999	0.0804	0.9196	69.56
21.5	124,336		0.0000	1.0000	63.97
22.5	124,336	12,782	0.1028	0.8972	63.97
23.5	111,554		0.0000	1.0000	57.39
24.5	111,554		0.0000	1.0000	57.39
25.5	111,554		0.0000	1.0000	57.39
26.5	18,021		0.0000	1.0000	57.39
27.5	8,021		0.0000	1.0000	57.39
28.5	8,021	496	0.0618	0.9382	57.39
29.5	30,053		0.0000	1.0000	53.84
30.5	30,053		0.0000	1.0000	53.84
31.5	30,053	22,528	0.7496	0.2504	53.84
32.5	7,525		0.0000	1.0000	13.48
33.5					13.48

PART VII. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

			DEPRECIATED ORIGINAL COST		
YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
1918	3,348,832	3,074,671	274,161	274,161	0.1
1938	1,254,319	1,108,572	145,747	419,908	0.1
1945	270,658	226,756	43,902	463,810	0.1
1950	1,102,103	879,428	222,675	686,485	0.2
1952				686,485	0.2
1953				686,485	0.2
1955	20,875,312	15,582,388	5,292,924	5,979,409	1.3
1959	67,203,196	50,058,843	17,144,353	23,123,762	5.2
1960	14,339,309	12,062,426	2,276,883	25,400,645	5.7
1962	11,445,233	7,995,806	3,449,427	28,850,072	6.4
1963	28,687,374	20,018,880	8,668,494	37,518,566	8.4
1965	844,480	601,492	242,988	37,761,554	8.4
1967				37,761,554	8.4
1968	2,984,660	2,110,771	873,889	38,635,443	8.6
1969				38,635,443	8.6
1970	1,059,811	721,299	338,512	38,973,955	8.7
1971				38,973,955	8.7
1972	30,438,373	20,993,197	9,445,176	48,419,131	10.8
1973	937,790	649,679	288,111	48,707,242	10.8
1974	744,318	501,462	242,856	48,950,098	10.9
1975	35,142,243	26,424,099	8,718,144	57,668,242	12.8
1976	36,711,253	21,332,794	15,378,459	73,046,701	16.3
1977	558,457	366,259	192,198	73,238,899	16.3
1978	1,479,570	957,600	521,970	73,760,869	16.4
1979	1,547,265	984,830	562,435	74,323,304	16.6
1980	2,024,582	1,210,469	814,113	75,137,417	16.7
1981	1,206,988	748,262	458,726	75,596,143	16.8
1982	930,447	569,652	360,795	75,956,938	16.9
1983	667,443	400,312	267,131	76,224,069	17.0
1984	989,120	560,819	428,301	76,652,370	17.1
1985	3,595,020	2,103,772	1,491,248	78,143,618	17.4
1986	1,403,541	801,587	601,954	78,745,572	17.5
1987	2,583,335	1,629,218	954,117	79,699,689	17.8
1988	887,131	541,446	345,685	80,045,374	17.8
1989	26,671,923	12,119,287	14,552,636	94,598,010	21.1
1990	4,842,971	2,465,082	2,377,889	96,975,899	21.6
1991	2,018,262	1,022,857	995,405	97,971,304	21.8
1992	3,099,210	1,443,391	1,655,819	99,627,123	22.2
1993	480,826	211,432	269,394	99,896,517	22.2
1994	1,426,248	640,018	786,230	100,682,747	22.4
1995	17,995,869	9,731,050	8,264,819	108,947,566	24.3
1996	8,987,713	4,251,203	4,736,510	113,684,076	25.3
1997	430,860	187,444	243,416	113,927,492	25.4
1998	2,744,776	1,138,395	1,606,381	115,533,873	25.7
1999	13,217,890	4,597,261	8,620,629	124,154,502	27.7

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS 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)	DEPRECIATED ORIGINAL COST AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
2000	420,300	147,800	272,500	124,427,002	27.7
2001	2,528,261	1,196,238	1,332,023	125,759,025	28.0
2002	513,079	217,302	295,777	126,054,802	28.1
2003	3,228,939	1,380,389	1,848,550	127,903,352	28.5
2004	7,615,535	3,135,100	4,480,435	132,383,787	29.5
2005	2,544,434	780,876	1,763,558	134,147,345	29.9
2006	5,492,483	2,003,926	3,488,557	137,635,902	30.7
2007	5,878,717	1,534,668	4,344,049	141,979,951	31.6
2008	4,558,643	1,419,521	3,139,122	145,119,073	32.3
2009	10,711,341	2,811,723	7,899,618	153,018,691	34.1
2010	17,706,742	5,378,100	12,328,642	165,347,333	36.8
2011	4,833,867	1,025,230	3,808,637	169,155,970	37.7
2012	3,442,833	1,284,847	2,157,986	171,313,956	38.2
2013	6,227,388	2,478,203	3,749,185	175,063,141	39.0
2014	29,287,249	6,596,746	22,690,503	197,753,644	44.0
2015	24,820,271	6,059,245	18,761,026	216,514,670	48.2
2016	39,725,757	6,325,647	33,400,110	249,914,780	55.7
2017	15,877,893	2,081,838	13,796,055	263,710,835	58.7
2018	12,668,705	1,726,649	10,942,056	274,652,891	61.2
2019	49,381,805	3,286,629	46,095,176	320,748,067	71.4
2020	53,877,911	3,371,840	50,506,071	371,254,138	82.7
2021	29,069,253	1,128,763	27,940,490	399,194,628	88.9
2022	57,389,062	713,377	56,675,685	455,870,313	101.5
9999	11,602,599-	4,733,143-	6,869,456-	449,000,857	100.0
SUBTOTAL	733,376,580	284,375,723	449,000,857		
NONDEPRECIABLE	4,463,353		4,463,353		
TOTAL	737,839,933	284,375,723	453,464,210		

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

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 45-R3						
NET SALVAGE PERCENT.. 0						
2017	1,140,636.72	156,838	111,994	1,028,643	34.50	29,816
2018	1,967,560.96	223,121	159,325	1,808,236	35.18	51,400
2019	1,099,414.77	97,408	69,556	1,029,859	36.02	28,591
2020	173,565.66	11,073	7,907	165,659	36.71	4,513
2021	382,717.24	14,773	10,549	372,168	37.41	9,948
2022	847,837.97	11,107	7,931	839,907	37.67	22,296
	5,611,733.32	514,320	367,262	5,244,471		146,564

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 35.8   2.61

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

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-S0						
NET SALVAGE PERCENT.. 0						
1960	2,302,134.36	1,812,931	1,930,845	371,289	16.87	22,009
1968	669,909.00	492,919	524,979	144,930	19.57	7,406
1970	60,281.23	43,354	46,174	14,107	20.50	688
1972	432,345.46	305,668	325,549	106,796	20.93	5,103
1990	89,795.19	49,316	52,524	37,271	26.67	1,397
1995	131,765.61	65,224	69,466	62,300	28.06	2,220
1996	513,580.79	247,700	263,810	249,771	28.45	8,779
2000	104,957.34	45,342	48,291	56,666	29.58	1,916
2004	244,123.49	91,693	97,657	146,466	30.76	4,762
2005	52,678.27	18,991	20,226	32,452	31.04	1,045
2006	2,707,743.33	933,630	994,354	1,713,389	31.35	54,654
2011	7,141.22	1,872	1,994	5,147	32.36	159
2012	10,781.08	2,626	2,797	7,984	32.60	245
2013	148,235.25	33,234	35,396	112,839	32.87	3,433
2014	10,484,283.86	2,147,181	2,286,833	8,197,451	33.00	248,408
2015	40,933.63	7,552	8,043	32,891	33.15	992
2017	726,488.16	102,290	108,943	617,545	33.56	18,401
2018	1,524,168.77	179,699	191,387	1,332,782	33.67	39,584
2019	487,200.54	45,894	48,879	438,322	33.67	13,018
2021	179,663.71	7,690	8,190	171,474	33.59	5,105
2022	466,774.47	6,908	7,358	459,417	33.40	13,755
	21,384,984.76	6,641,714	7,073,695	14,311,290		453,079

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.6   2.12

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

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

SURVIVOR CURVE.. IOWA 55-S0
NET SALVAGE PERCENT.. 0

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
1960	10,507,485.92	8,274,645	8,967,691	1,539,795	16.87	91,274
1972	12,698,295.09	8,977,695	9,729,625	2,968,670	20.93	141,838
1975	17,860,118.04	12,216,321	13,239,504	4,620,614	21.94	210,602
1985	1,260,316.37	756,190	819,525	440,791	25.00	17,632
1993	12,676.84	6,544	7,092	5,585	27.65	202
1994	101,401.19	51,147	55,431	45,970	28.00	1,642
1995	8,758,971.83	4,335,691	4,698,828	4,060,144	28.06	144,695
1996	2,945,898.20	1,420,807	1,539,807	1,406,091	28.45	49,423
1999	75,588.58	33,576	36,388	39,201	29.41	1,333
2001	235,671.99	98,794	107,069	128,603	29.78	4,318
2003	2,461,945.55	960,159	1,040,577	1,421,369	30.50	46,602
2004	366,290.77	137,579	149,102	217,189	30.76	7,061
2006	130,744.23	45,081	48,857	81,887	31.35	2,612
2007	18,836.46	6,220	6,741	12,095	31.45	385
2008	403,713.42	126,443	137,033	266,680	31.80	8,386
2009	16,578.61	4,924	5,336	11,243	31.95	352
2010	12,095,915.32	3,386,856	3,670,524	8,425,391	32.14	262,147
2011	392,122.92	102,815	111,426	280,697	32.36	8,674
2012	281,662.81	68,613	74,360	207,303	32.60	6,359
2013	8,308.49	1,863	2,019	6,289	32.87	191
2014	16,783,983.09	3,437,360	3,725,257	13,058,726	33.00	395,719
2015	5,555,559.56	1,025,001	1,110,850	4,444,710	33.15	134,079
2016	19,788,806.81	3,229,533	3,500,024	16,288,783	33.34	488,566
2017	3,091,388.32	435,267	471,723	2,619,665	33.56	78,059
2018	101,572.33	11,975	12,978	88,594	33.67	2,631
2019	265,643.86	25,024	27,120	238,524	33.67	7,084
2020	1,059,336.93	73,094	79,216	980,121	33.73	29,058
2021	8,740,701.35	374,102	405,435	8,335,266	33.59	248,147
2022	7,329,468.90	108,476	117,562	7,211,907	33.40	215,925
9999	2,500,000.00-	932,362-	1,010,452-	1,489,548-		48,838-
	130,849,003.78	48,799,433	52,886,648	77,962,356		2,556,158

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 30.5 1.95

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 355.00 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 35-S0.5						
NET SALVAGE PERCENT.. 0						
1991	21,295.06	15,294	14,430	6,865	12.36	555
2002	19,740.16	11,047	10,423	9,317	16.13	578
2004	38,295.54	20,052	18,919	19,377	16.83	1,151
2012	403,177.35	138,854	131,011	272,166	19.99	13,615
2015	426,122.43	111,559	105,258	320,864	21.15	15,171
2020	22,037.01	2,142	2,021	20,016	23.21	862
2021	1,986.71	119	113	1,874	23.56	80
	932,654.26	299,067	282,175	650,480		32,012

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.3   3.43

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

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-R3						
NET SALVAGE PERCENT.. 0						
1989	3,065.86	1,417	2,239	827	38.96	21
1995	286,504.21	111,880	176,795	109,709	42.92	2,556
1996	156,368.83	58,842	92,983	63,386	43.92	1,443
2004	30,942.02	8,357	13,206	17,736	49.99	355
2015	1,448,362.42	163,955	259,085	1,189,277	58.73	20,250
2018	135,283.96	9,308	14,709	120,575	60.86	1,981
2019	37,025.67	1,985	3,137	33,889	61.86	548
2020	351,845.66	13,546	21,405	330,441	62.44	5,292
2021	1,918,611.83	44,896	70,945	1,847,667	62.60	29,515
2022	4,523,386.00	35,735	56,469	4,466,917	62.79	71,141
	8,891,396.46	449,921	710,973	8,180,423		133,102

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 61.5   1.50

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

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 80-R2.5						
NET SALVAGE PERCENT.. 0						
1918	3,146,854.91	2,861,120	2,872,693	274,162	10.44	26,261
1938	862,541.28	728,847	731,795	130,746	15.50	8,435
1945	208,641.85	168,165	168,845	39,797	18.65	2,134
1950	948,596.72	735,921	738,898	209,699	20.95	10,009
1955	20,745,771.70	15,403,735	15,466,043	5,279,729	23.41	225,533
1959	56,520,452.25	40,559,077	40,723,139	15,797,313	24.99	632,145
1960	1,047,565.23	739,791	742,783	304,782	26.00	11,722
1962	11,445,233.39	7,963,593	7,995,806	3,449,427	26.45	130,413
1963	26,879,022.82	18,390,627	18,465,017	8,414,006	27.46	306,410
1965	652,048.49	434,916	436,675	215,373	28.71	7,502
1968	1,804,844.42	1,160,695	1,165,390	639,454	30.25	21,139
1970	762,961.68	476,698	478,626	284,336	31.53	9,018
1972	15,332,891.50	9,291,732	9,329,317	6,003,574	32.83	182,869
1973	522,550.45	313,008	314,274	208,276	33.14	6,285
1974	461,151.18	272,863	273,967	187,184	33.47	5,593
1975	2,149,100.59	1,245,404	1,250,442	898,659	34.47	26,071
1976	35,498,255.15	20,305,002	20,387,136	15,111,119	34.80	434,228
1977	316,858.76	177,314	178,031	138,828	35.80	3,878
1978	835,304.92	460,921	462,785	372,520	36.15	10,305
1979	872,764.95	470,769	472,673	400,092	37.15	10,770
1980	1,416,228.18	752,300	755,343	660,885	37.50	17,624
1981	670,326.90	350,514	351,932	318,395	37.87	8,408
1982	500,670.76	255,492	256,525	244,146	38.87	6,281
1983	368,407.89	184,793	185,540	182,868	39.24	4,660
1984	639,243.40	312,590	313,854	325,389	40.24	8,086
1985	1,586,713.68	761,623	764,704	822,010	40.62	20,237
1986	747,441.13	351,895	353,318	394,123	41.02	9,608
1987	693,232.15	317,500	318,784	374,448	42.02	8,911
1988	277,623.88	124,514	125,018	152,606	42.42	3,598
1989	24,445,881.38	10,646,181	10,689,246	13,756,635	43.42	316,827
1990	2,869,163.88	1,221,690	1,226,632	1,642,532	43.83	37,475
1991	1,112,330.09	462,507	464,378	647,952	44.26	14,640
1992	2,122,419.61	854,486	857,942	1,264,478	45.26	27,938
1993	361,394.28	141,811	142,385	219,009	45.68	4,794
1994	941,195.20	356,713	358,156	583,039	46.69	12,487
1995	2,285,888.66	842,350	845,757	1,440,132	47.13	30,557
1996	3,463,009.70	1,239,065	1,244,077	2,218,933	47.57	46,646
1997	222,069.97	76,436	76,745	145,325	48.58	2,991
1998	1,457,962.24	485,793	487,758	970,204	49.03	19,788
1999	11,530,450.49	3,685,132	3,700,039	7,830,411	50.03	156,514
2000	303,281.63	93,471	93,849	209,433	50.50	4,147

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

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 80-R2.5						
NET SALVAGE PERCENT.. 0						
2001	542,636.02	161,000	161,651	380,985	50.96	7,476
2002	202,743.93	57,356	57,588	145,156	51.96	2,794
2003	33,580.32	9,100	9,137	24,443	52.45	466
2004	1,870,285.33	484,404	486,363	1,383,922	52.93	26,146
2005	1,349,358.45	330,593	331,930	1,017,428	53.93	18,866
2006	1,134,142.91	263,802	264,869	869,274	54.43	15,970
2007	4,882,744.98	1,074,692	1,079,039	3,803,706	54.92	69,259
2008	2,338,738.21	485,054	487,016	1,851,722	55.43	33,406
2009	9,126,501.26	1,761,415	1,768,540	7,357,961	56.43	130,391
2010	3,742,892.36	673,721	676,446	3,066,446	56.94	53,854
2011	3,664,234.05	611,194	613,667	3,050,567	57.46	53,090
2012	260,159.69	39,882	40,043	220,117	57.99	3,796
2013	436,004.91	60,866	61,112	374,893	58.53	6,405
2014	1,124,452.31	141,456	142,028	982,424	59.07	16,632
2015	16,164.79	1,807	1,814	14,351	59.61	241
2016	12,891,849.41	1,256,955	1,262,040	11,629,809	60.17	193,283
2017	6,744,027.54	563,801	566,082	6,177,946	60.29	102,470
2018	3,922,945.99	271,860	272,960	3,649,986	60.44	60,390
2019	39,911,380.46	2,163,197	2,171,948	37,739,432	61.02	618,476
2020	23,503,405.77	928,385	932,141	22,571,265	60.79	371,299
2021	11,227,131.97	272,819	273,923	10,953,209	60.23	181,856
2022	25,360,743.81	218,102	218,984	25,141,760	57.98	433,628
9999	8,145,082.47-	3,261,817-	3,275,011-	4,870,071-		108,372-
	385,169,389.34	154,246,698	154,870,627	230,298,763		5,124,759

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 44.9   1.33

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

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 50-S2.5						
NET SALVAGE PERCENT.. 0						
1918	185,252.73	185,253	185,253			
1938	257,938.84	250,665	242,938	15,001	2.45	6,123
1945	40,082.56	38,207	37,029	3,054	3.80	804
1950	99,192.88	92,765	89,906	9,287	5.02	1,850
1955	82,138.21	75,403	73,079	9,059	6.03	1,502
1959	10,682,743.43	9,632,630	9,335,704	1,347,039	6.92	194,659
1960	123,862.42	111,476	108,040	15,822	6.94	2,280
1963	1,808,350.73	1,603,284	1,553,863	254,488	7.61	33,441
1965	115,148.01	100,639	97,537	17,611	8.29	2,124
1968	62,943.26	54,200	52,529	10,414	8.79	1,185
1970	130,912.44	110,647	107,236	23,676	9.61	2,464
1972	1,400,908.79	1,167,237	1,131,257	269,652	10.11	26,672
1973	299,430.62	247,509	239,880	59,551	10.38	5,737
1974	144,643.24	118,550	114,896	29,747	10.67	2,788
1975	427,490.51	347,208	336,505	90,986	10.98	8,287
1976	1,212,997.59	975,735	945,658	267,340	11.31	23,637
1977	135,304.78	107,730	104,409	30,896	11.65	2,652
1978	364,323.21	285,338	276,542	87,781	12.32	7,125
1979	375,516.55	290,762	281,799	93,718	12.68	7,391
1980	343,900.87	263,084	254,974	88,927	13.06	6,809
1981	303,275.50	229,064	222,003	81,272	13.45	6,043
1982	240,753.71	179,410	173,880	66,874	13.85	4,828
1983	166,922.85	122,638	118,858	48,065	14.26	3,371
1984	192,858.89	139,591	135,288	57,571	14.69	3,919
1985	424,790.04	302,663	293,333	131,457	15.13	8,688
1986	361,903.60	253,622	245,804	116,100	15.58	7,452
1987	250,714.52	171,790	166,495	84,220	16.31	5,164
1988	96,303.71	64,793	62,796	33,508	16.78	1,997
1989	1,478,853.47	976,043	945,957	532,896	17.26	30,875
1990	1,028,666.79	665,342	644,833	383,834	17.75	21,624
1991	480,231.33	302,546	293,220	187,011	18.50	10,109
1992	446,402.80	275,029	266,551	179,852	19.00	9,466
1993	106,755.22	63,925	61,955	44,800	19.76	2,267
1994	172,774.90	100,935	97,824	74,951	20.28	3,696
1995	499,745.29	283,106	274,379	225,366	21.04	10,711
1996	766,578.60	422,538	409,513	357,066	21.58	16,546
1997	99,482.39	53,024	51,390	48,092	22.34	2,153
1998	667,387.50	343,371	332,786	334,602	23.12	14,472
1999	377,614.74	187,221	181,450	196,165	23.90	8,208
2001	40,631.30	18,609	18,035	22,596	25.45	888
2004	390,982.04	156,236	151,420	239,562	27.80	8,617

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

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 50-S2.5						
NET SALVAGE PERCENT.. 0						
2005	622,610.19	236,467	229,178	393,432	28.58	13,766
2006	485,338.12	173,751	168,395	316,943	29.59	10,711
2007	261,458.79	88,347	85,624	175,835	30.37	5,790
2008	302,641.39	96,119	93,156	209,485	31.16	6,723
2010	100,528.34	27,525	26,677	73,851	33.16	2,227
2011	258,376.00	65,369	63,354	195,022	33.95	5,744
2012	100,203.92	23,147	22,433	77,771	34.95	2,225
2013	16,187.77	3,383	3,279	12,909	35.95	359
2014	101,869.66	19,050	18,463	83,407	36.95	2,257
2016	19,978.84	2,869	2,781	17,198	38.75	444
2019	3,733,854.34	289,000	280,091	3,453,763	41.75	82,725
2020	8,051,975.43	444,469	430,768	7,621,207	42.75	178,274
2021	1,116,756.65	37,076	35,933	1,080,824	43.75	24,705
2022	2,027,445.05	22,302	21,615	2,005,830	44.75	44,823
	44,085,935.35	22,898,692	22,198,551	21,887,385		899,397

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 24.3 2.04

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 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 47-R3						
NET SALVAGE PERCENT.. 0						
1918	16,724.59	16,725	16,725			
1938	133,838.56	133,839	133,839			
1945	21,933.72	21,929	20,882	1,052	0.02	1,052
1950	54,313.00	53,162	50,624	3,689	1.57	2,350
1955	47,402.41	45,435	43,266	4,136	2.92	1,416
1960	74,662.70	69,996	66,654	8,009	4.17	1,921
1965	77,283.85	70,653	67,280	10,004	5.40	1,853
1970	105,655.87	93,738	89,263	16,393	6.67	2,458
1972	573,932.05	501,387	477,449	96,483	7.31	13,199
1973	115,809.14	100,314	95,525	20,284	7.65	2,652
1974	138,523.60	118,244	112,599	25,925	8.32	3,116
1975	330,238.82	279,217	265,886	64,353	8.68	7,414
1977	106,293.27	88,021	83,819	22,474	9.45	2,378
1978	279,942.03	229,217	218,273	61,669	9.85	6,261
1979	298,983.98	241,908	230,358	68,626	10.26	6,689
1980	264,452.46	210,187	200,152	64,300	10.97	5,861
1981	233,385.11	183,067	174,327	59,058	11.41	5,176
1982	189,022.91	146,228	139,247	49,776	11.85	4,201
1983	132,112.63	100,723	95,914	36,199	12.31	2,941
1984	157,017.42	117,276	111,677	45,340	13.05	3,474
1985	323,199.42	237,552	226,210	96,989	13.52	7,174
1986	294,196.64	212,616	202,465	91,732	14.01	6,548
1987	204,214.44	144,257	137,370	66,844	14.75	4,532
1988	70,241.21	48,705	46,380	23,861	15.25	1,565
1989	744,122.67	506,003	481,845	262,278	15.76	16,642
1990	829,823.38	550,173	523,906	305,917	16.52	18,518
1991	392,044.45	254,398	242,252	149,792	17.04	8,791
1992	530,388.05	334,887	318,898	211,490	17.81	11,875
1994	66,171.47	39,604	37,713	28,458	19.12	1,488
1995	100,022.88	58,313	55,529	44,494	19.67	2,262
1996	266,232.86	150,262	143,088	123,145	20.45	6,022
1997	86,944.73	47,663	45,387	41,558	21.01	1,978
1998	572,274.02	302,847	288,388	283,886	21.80	13,022
1999	165,046.97	84,554	80,517	84,530	22.37	3,779
2000	12,061.14	5,944	5,660	6,401	23.16	276
2004	188,041.16	77,924	74,204	113,837	26.14	4,355
2005	501,595.07	198,381	188,910	312,685	26.75	11,689
2006	405,587.72	151,933	144,679	260,909	27.55	9,470
2007	228,603.29	80,788	76,931	151,672	28.36	5,348
2008	64,896.43	21,546	20,517	44,379	29.17	1,521
2009	79,510.56	24,688	23,509	56,002	29.98	1,868

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 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 47-R3						
NET SALVAGE PERCENT.. 0						
2011	170,857.79	45,790	43,604	127,254	31.42	4,050
2012	79,878.22	19,626	18,689	61,189	32.24	1,898
2013	16,083.54	3,590	3,419	12,665	33.06	383
2014	63,290.53	12,696	12,090	51,201	33.87	1,512
2016	134,387.61	20,884	19,887	114,501	35.34	3,240
2017	252,231.33	33,295	31,705	220,526	36.17	6,097
2018	234,818.64	25,454	24,239	210,580	37.00	5,691
2019	393,277.84	33,429	31,833	361,445	37.65	9,600
2020	623,738.31	38,048	36,231	587,507	38.48	15,268
2021	1,097,545.53	40,499	38,565	1,058,981	39.15	27,049
2022	996,740.00	12,559	11,960	984,780	39.34	25,033
9999	957,516.15-	469,591-	447,680-	509,836-		22,132-
	12,582,079.87	6,170,583	5,882,659	6,699,421		290,824

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.0 2.31

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

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 15-L2.5						
NET SALVAGE PERCENT.. 0						
1960	34,668.83	34,669	34,669			
1996	10,667.26	9,752	7,222	3,445	2.49	1,384
1998	11,518.92	10,329	7,649	3,870	2.82	1,372
2008	91,182.72	69,809	51,695	39,488	4.44	8,894
2010	110,716.42	80,402	59,539	51,177	4.71	10,866
2011	38,771.91	27,156	20,110	18,662	4.92	3,793
2013	175,978.36	110,673	81,956	94,022	5.61	16,760
2015	40,642.36	21,614	16,006	24,636	6.60	3,733
2016	442,654.44	209,464	155,112	287,542	7.24	39,716
2017	160,544.63	65,871	48,779	111,766	7.90	14,148
2018	43,907.33	15,034	11,133	32,774	8.64	3,793
2019	799,101.52	216,477	160,305	638,797	9.42	67,813
2020	63,248.90	12,409	9,189	54,060	10.24	5,279
	2,023,603.60	883,659	663,364	1,360,240		177,551

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.7   8.77

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

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

SURVIVOR CURVE.. IOWA 30-S0.5
NET SALVAGE PERCENT.. 0

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
1991	12,360.88	9,578	8,577	3,784	9.15	414
1996	817,790.95	582,921	522,024	295,767	10.68	27,694
1997	20,437.67	14,280	12,788	7,650	11.00	695
1998	35,632.93	24,359	21,814	13,819	11.34	1,219
2001	69,416.30	44,024	39,425	29,991	12.40	2,419
2002	65,991.42	40,717	36,463	29,528	12.72	2,321
2004	378,941.52	219,407	196,486	182,456	13.45	13,566
2005	8,455.37	4,720	4,227	4,228	13.85	305
2006	415,421.04	223,455	200,111	215,310	14.17	15,195
2007	12,591.70	6,480	5,803	6,789	14.62	464
2008	18,737.49	9,211	8,249	10,488	15.00	699
2009	455,725.56	213,462	191,162	264,564	15.32	17,269
2010	694,855.04	307,473	275,351	419,504	15.75	26,635
2011	126,149.99	52,516	47,030	79,120	16.12	4,908
2012	1,546,575.72	600,845	538,075	1,008,501	16.53	61,010
2013	407,479.38	146,693	131,368	276,111	16.89	16,348
2014	91,492.46	30,174	27,022	64,470	17.27	3,733
2015	3,905,278.36	1,162,992	1,041,494	2,863,784	17.69	161,887
2016	1,227,013.92	323,809	289,981	937,033	18.13	51,684
2017	145,059.33	33,190	29,723	115,336	18.54	6,221
2018	1,386,535.74	266,492	238,652	1,147,884	18.92	60,670
2019	580,943.17	89,059	79,755	501,188	19.33	25,928
2020	1,316,705.63	148,129	132,654	1,184,052	19.72	60,043
2021	251,079.06	17,425	15,604	235,475	20.10	11,715
2022	2,769,381.41	66,465	59,521	2,709,860	20.38	132,967
	16,760,052.04	4,637,876	4,153,359	12,606,693		706,009

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.9 4.21

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

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

SURVIVOR CURVE.. IOWA 35-S1.5
NET SALVAGE PERCENT.. 0

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
1960	248,930.02	241,163	211,744	37,186	2.01	18,500
1968	446,963.11	418,983	367,873	79,090	3.64	21,728
1975	14,375,294.63	12,906,140	11,331,762	3,043,533	5.41	562,575
1987	1,435,173.94	1,146,417	1,006,569	428,605	8.94	47,942
1988	442,962.40	349,940	307,252	135,710	9.17	14,799
1990	25,522.04	19,575	17,187	8,335	9.87	844
1994	144,705.38	103,522	90,894	53,811	11.34	4,745
1995	5,047,065.55	3,539,002	3,107,291	1,939,775	11.72	165,510
1996	47,585.32	32,663	28,679	18,906	12.11	1,561
1997	1,925.21	1,291	1,134	791	12.52	63
1999	1,051,896.45	672,372	590,352	461,544	13.26	34,807
2001	1,632,769.04	982,927	863,023	769,746	14.21	54,169
2002	197,547.22	115,012	100,982	96,565	14.71	6,565
2003	90,541.22	50,848	44,645	45,896	15.22	3,016
2004	4,050,897.59	2,188,295	1,921,352	2,129,546	15.75	135,209
2006	15,898.49	7,870	6,910	8,988	16.83	534
2007	293,612.53	138,350	121,473	172,140	17.39	9,899
2008	1,124,078.61	502,014	440,775	683,304	17.97	38,025
2009	55,185.44	23,244	20,409	34,776	18.55	1,875
2010	110,806.99	43,769	38,430	72,377	19.15	3,779
2012	120,424.07	40,848	35,865	84,559	20.46	4,133
2013	57,876.84	17,924	15,738	42,139	21.17	1,991
2014	33,831.85	9,459	8,305	25,527	21.90	1,166
2015	11,559,755.99	2,878,379	2,527,254	9,032,502	22.62	399,315
2016	4,257,319.25	924,264	811,516	3,445,803	23.44	147,005
2017	2,514,311.18	466,153	409,288	2,105,023	24.17	87,092
2018	1,100,429.85	167,926	147,441	952,989	25.00	38,120
2019	196,779.38	23,495	20,629	176,150	25.82	6,822
2020	9,916,121.02	847,828	744,404	9,171,717	26.74	342,996
2021	2,216,076.37	113,906	100,011	2,116,065	27.66	76,503
2022	12,258,734.75	210,850	185,130	12,073,605	28.57	422,597
	75,071,021.73	29,184,429	25,624,317	49,446,705		2,653,885

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.6 3.54

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

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 50-R3						
NET SALVAGE PERCENT.. 0						
1995	874,635.54	483,499	491,735	382,901	22.25	17,209
1999	17,293.00	8,372	8,515	8,778	25.04	351
2002	27,056.54	11,648	11,846	15,211	27.12	561
2003	603,123.96	248,125	252,351	350,773	27.90	12,573
2004	48,787.57	19,134	19,460	29,328	28.67	1,023
2016	5,448.80	797	811	4,638	37.95	122
	1,576,345.41	771,575	784,718	791,628		31,839

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 24.9   2.02

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

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 50-R3						
NET SALVAGE PERCENT.. 0						
2017	12,867.84	1,599	2,928	9,940	38.75	257
2018	176,024.64	17,990	32,938	143,087	39.55	3,618
2019	97,378.78	7,771	14,227	83,151	40.36	2,060
	286,271.26	27,360	50,093	236,178		5,935

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 39.8 2.07

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES

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-S2.5						
NET SALVAGE PERCENT.. 0						
2003	732.57	601	464	269	4.25	63
2013	4,140,223.53	2,076,736	1,602,548	2,537,676	9.44	268,822
2019	38.03	7	5	33	14.65	2
2020	6,201,677.71	855,832	660,418	5,541,260	15.62	354,754
	10,342,671.84	2,933,176	2,263,435	8,079,237		623,641

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.0   6.03

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND 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						
NET SALVAGE PERCENT.. 0						
2003	9,926.25	9,678	7,276	2,650	0.50	2,650
2004	147.61	137	103	45	1.50	30
2005	9,737.15	8,520	6,405	3,332	2.50	1,333
2008	12,008.00	8,706	6,545	5,463	5.50	993
2009	35,815.06	24,175	18,174	17,641	6.50	2,714
2010	61,541.56	38,463	28,915	32,627	7.50	4,350
2011	17,379.55	9,993	7,512	9,868	8.50	1,161
2012	39,909.19	20,952	15,751	24,158	9.50	2,543
2013	34,906.68	16,581	12,465	22,442	10.50	2,137
2014	23,508.40	9,991	7,511	15,997	11.50	1,391
2015	19,770.58	7,414	5,574	14,197	12.50	1,136
2016	717,221.40	233,097	175,235	541,986	13.50	40,147
2017	200,445.74	55,123	41,440	159,006	14.50	10,966
2018	57,523.48	12,943	9,730	47,793	15.50	3,083
2019	218,312.76	38,205	28,721	189,592	16.50	11,490
2020	417,202.09	52,150	39,204	377,998	17.50	21,600
2021	308,488.72	23,137	17,394	291,095	18.50	15,735
	2,183,844.22	569,265	427,955	1,755,889		123,459

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.2 5.65

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 391.00 TRANSPORTATION 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 14-L4						
NET SALVAGE PERCENT.. 0						
1995	11,269.87	11,157	11,270			
2001	7,136.50	6,751	7,035	102	1.23	83
2003	24,859.08	22,977	23,942	917	1.60	573
2004	6,638.05	6,054	6,308	330	1.78	185
2006	98,166.68	86,976	90,630	7,537	2.12	3,555
2007	153,184.26	133,669	139,285	13,899	2.26	6,150
2008	149,398.13	128,453	133,850	15,548	2.36	6,588
2009	668,614.45	563,241	586,905	81,709	2.53	32,296
2010	252,727.90	206,934	215,628	37,100	2.77	13,394
2011	91,513.96	71,674	74,685	16,829	3.18	5,292
2012	283,290.40	208,813	217,586	65,704	3.75	17,521
2013	589,990.91	402,433	419,341	170,650	4.43	38,521
2014	555,882.95	345,870	360,402	195,481	5.16	37,884
2015	697,806.07	388,818	405,154	292,652	5.96	49,103
2016	185,576.10	90,598	94,405	91,171	6.81	13,388
2017	177,747.52	73,801	76,902	100,846	7.75	13,012
2018	1,449,339.70	493,645	514,386	934,954	8.71	107,343
2019	845,104.39	224,206	233,626	611,478	9.69	63,104
2021	89,577.43	10,185	10,613	78,964	11.69	6,755
2022	164,500.00	6,235	6,497	158,003	12.69	12,451
	6,502,324.35	3,482,490	3,628,450	2,873,875		427,198

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.7 6.57

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 392.00 STORES 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						
NET SALVAGE PERCENT.. 0						
2017	6,402.78	1,409	1,149	5,254	19.50	269
2020	100,441.50	10,044	8,190	92,251	22.50	4,100
	106,844.28	11,453	9,339	97,505		4,369

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 22.3 4.09

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE 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						
NET SALVAGE PERCENT.. 0						
2003	4,229.58	4,124	1,997	2,233	0.50	2,233
2004	1,162.57	1,075	520	643	1.50	429
2006	5,970.32	4,926	2,385	3,585	3.50	1,024
2007	7,829.70	6,068	2,938	4,892	4.50	1,087
2008	5,161.15	3,742	1,812	3,349	5.50	609
2009	28,227.61	19,054	9,225	19,003	6.50	2,924
2010	23,867.97	14,917	7,222	16,646	7.50	2,219
2011	11,907.00	6,847	3,315	8,592	8.50	1,011
2012	34,047.65	17,875	8,654	25,394	9.50	2,673
2013	19,113.82	9,079	4,396	14,718	10.50	1,402
2014	13,575.00	5,769	2,793	10,782	11.50	938
2015	28,072.98	10,527	5,097	22,976	12.50	1,838
2016	36,897.99	11,992	5,806	31,092	13.50	2,303
2017	332,504.39	91,439	44,271	288,233	14.50	19,878
2018	392,093.18	88,221	42,713	349,380	15.50	22,541
2019	298,121.90	52,171	25,259	272,863	16.50	16,537
2020	356,281.91	44,535	21,562	334,720	17.50	19,127
2021	246,283.29	18,471	8,943	237,340	18.50	12,829
	1,845,348.01	410,832	198,908	1,646,440		111,602

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.8 6.05

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 394.00 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.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2010	63,682.43	53,068	51,369	12,313	2.50	4,925
2011	7,356.65	5,640	5,459	1,898	3.50	542
2012	727.50	509	493	234	4.50	52
2013	4,573.96	2,897	2,804	1,770	5.50	322
2014	8,402.05	4,761	4,609	3,793	6.50	584
2015	18,226.62	9,113	8,821	9,406	7.50	1,254
2017	9,868.23	3,618	3,502	6,366	9.50	670
2018	16,270.55	4,881	4,725	11,546	10.50	1,100
2019	99,574.04	23,234	22,490	77,084	11.50	6,703
2020	15,147.63	2,525	2,444	12,704	12.50	1,016
2021	12,792.01	1,279	1,238	11,554	13.50	856
	256,621.67	111,525	107,954	148,667		18,024

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.2 7.02

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 395.00 POWER OPERATED 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 22-R2						
NET SALVAGE PERCENT.. 0						
2006	93,469.98	62,924	82,736	10,734	8.01	1,340
2007	19,855.18	12,803	16,834	3,021	8.54	354
2008	48,087.39	29,564	38,873	9,214	9.08	1,015
2009	245,182.13	143,333	188,463	56,719	9.59	5,914
2010	438,734.46	242,401	318,724	120,010	10.12	11,859
2011	45,755.38	23,729	31,200	14,555	10.67	1,364
2012	281,995.71	136,204	179,090	102,906	11.24	9,155
2013	157,071.96	69,991	92,029	65,043	11.82	5,503
2014	2,676.63	1,090	1,433	1,244	12.38	100
2015	7,795.93	2,865	3,767	4,029	12.91	312
2016	15,956.54	5,195	6,831	9,126	13.46	678
2017	29,779.71	8,404	11,050	18,730	13.99	1,339
2018	44,795.61	10,603	13,942	30,854	14.51	2,126
2020	9,674.66	1,356	1,783	7,892	15.33	515
2021	342,455.95	30,205	39,715	302,741	15.51	19,519
2022	70,500.00	2,284	3,003	67,497	14.93	4,521
	1,853,787.22	782,951	1,029,473	824,314		65,614

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.6   3.54

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 396.00 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						
NET SALVAGE PERCENT.. 0						
2010	10,472.81	8,727	9,275	1,198	2.50	479
2011	2,300.20	1,763	1,874	426	3.50	122
2013	15,352.54	9,723	10,333	5,020	5.50	913
2015	1,055,779.23	527,890	561,028	494,751	7.50	65,967
2016	2,645.52	1,146	1,218	1,428	8.50	168
2017	232,168.62	85,129	90,473	141,696	9.50	14,915
2018	92,490.12	27,747	29,489	63,001	10.50	6,000
2019	110,546.56	25,794	27,413	83,134	11.50	7,229
2021	546,323.06	54,632	58,061	488,262	13.50	36,168
2022	139,567.36	4,652	4,944	134,623	14.50	9,284
	2,207,646.02	747,203	794,108	1,413,538		141,245

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.0   6.40

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 397.00 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.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2017	101,420.98	37,188	31,886	69,535	9.50	7,319
2018	22,944.61	6,883	5,902	17,043	10.50	1,623
2019	208,107.21	48,558	41,635	166,472	11.50	14,476
2020	1,695,505.55	282,590	242,303	1,453,203	12.50	116,256
2021	391,062.13	39,106	33,531	357,531	13.50	26,484
2022	433,982.30	14,465	12,403	421,579	14.50	29,074
	2,853,022.78	428,790	367,660	2,485,363		195,232

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.7 6.84

PART VIII. EXPERIENCED AND ESTIMATED NET SALVAGE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2018 TRANSACTION YEAR				
354.20		12,897.00		12,897.00-
354.30	5,732.53	2,921.63		2,921.63-
354.40	202,178.63	2,403.28		2,403.28-
355.00	3,187.39			
360.10		2,819.19		2,819.19-
361.10	229,297.81	26,538.94		26,538.94-
363.00	4,745.21	27,682.42		27,682.42-
371.00	65,154.40	522.61		522.61-
380.00	1,806,025.87	58,050.21		58,050.21-
382.00		1,045.59		1,045.59-
389.10		3,678.20		3,678.20-
390.00	64,677.45	13,128.96		13,128.96-
391.00	423,853.34	42,449.74		42,449.74-
393.00	225,336.27	4,038.83		4,038.83-
394.00	11,316.17			
395.00	8,551.14			
	3,050,056.21	198,176.60		198,176.60-
2019 TRANSACTION YEAR				
354.30	796,005.52	85,934.54		85,934.54-
354.40	1,080,902.70	67,526.93		67,526.93-
360.10	3,403.50	2,367.85		2,367.85-
361.10	6,619.40	1,430,976.01		1,430,976.01-
361.20		90,279.20		90,279.20-
363.00	3,929.16	52,929.84		52,929.84-
364.00	59,781.23			
371.00	185,795.47	66,936.02		66,936.02-
380.00	1,622,269.11	92,448.13		92,448.13-
382.00		3,306.40		3,306.40-
390.00	130,250.08	9,975.61		9,975.61-
391.00	83,792.82	48,014.34		48,014.34-
393.00	7,573.30	28,436.64		28,436.64-
394.00	19,315.01	5,445.26		5,445.26-
395.00	52,412.61	5,217.77		5,217.77-
396.00		39,091.19		39,091.19-
397.00		4,026.89		4,026.89-
	4,052,049.91	2,032,912.62		2,032,912.62-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

EXPERIENCED AND 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				
354.20	5,414.90	27,261.65		27,261.65-
354.30	15,012.08			
354.40	5,402.39	3,035.88		3,035.88-
360.10	2,601.63	22,982.08		22,982.08-
361.10	1,935,411.80	1,344,641.09	3,491.13	1,341,149.96-
361.20	855,928.79	81,137.04		81,137.04-
363.00		75,298.32		75,298.32-
364.00		8,901.01		8,901.01-
371.00	208,080.94	24,730.31		24,730.31-
380.00	702,130.50	399,155.43		399,155.43-
390.00	724.38	1,886.85		1,886.85-
391.00	20,099.66			
393.00	68,342.45	7,289.38		7,289.38-
394.00	8,232.73	1,548.07		1,548.07-
395.00		510.16		510.16-
396.00		1,822.13		1,822.13-
397.00		3,318.49		3,318.49-
	3,827,382.25	2,003,517.89	3,491.13	2,000,026.76-
2021 TRANSACTION YEAR				
354.30	1,942.90	7,613.98		7,613.98-
354.40	45,344.71	76,589.11		76,589.11-
360.10	2,808.79	164,970.27		164,970.27-
361.10	1,848,146.44	1,074,276.48		1,074,276.48-
361.20	512,911.70	219,777.95		219,777.95-
363.00	130,642.17	129,688.68		129,688.68-
371.00	60,139.27	51,352.70		51,352.70-
380.00	230,130.31	104,870.48		104,870.48-
390.00		1,482.56		1,482.56-
393.00	33.43	953.49		953.49-
394.00	633.03	1,919.19		1,919.19-
396.00		9,833.75		9,833.75-
397.00		6,698.53		6,698.53-
	2,832,732.75	1,850,027.17		1,850,027.17-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2022 TRANSACTION YEAR				
354.20	11,963.98	1,196.40		1,196.40-
354.30	17,945.97	2,153.52		2,153.52-
354.40	486,922.76	53,561.50		53,561.50-
360.10	342,836.06	51,425.41		51,425.41-
361.10	1,853,547.50	1,482,838.00		1,482,838.00-
361.20	139,536.32	40,465.53		40,465.53-
363.00	58,491.65	11,698.33		11,698.33-
371.00	221,550.51	62,034.14		62,034.14-
380.00	917,459.10	137,618.86		137,618.86-
390.00	17,839.44	1,783.94		1,783.94-
391.00	12,467.77	2,119.52		2,119.52-
393.00	27,924.86	3,071.73		3,071.73-
394.00	14,725.20	1,472.52		1,472.52-
395.00	5,343.33	480.90		480.90-
396.00	7,104.30			
397.00	5,273.39			
	4,140,932.14	1,851,920.30		1,851,920.30-
TOTAL	17,903,153.26	7,936,554.58	3,491.13	7,933,063.45-

EXHIBIT NO. 11-P - DEPRECIATION STUDY

WASTEWATER CSS OPERATIONS

AS OF DECEMBER 31, 2023

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

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER CSS OPERATIONS

2023 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS
RELATED TO WASTEWATER PLANT
AS OF DECEMBER 31, 2023

Prepared by:

GANNETT FLEMING

Excellence Delivered As Promised

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

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER CSS OPERATIONS

2023 DEPRECIATION STUDY

CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2023

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

Gannett Fleming
Valuation and Rate Consultants, LLC

Corporate Headquarters
207 Senate Avenue
Camp Hill, PA 17011
P 717.763.7211 | F 717.763.8150

gannettfleming.com

April 20, 2022

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

Attention: Ms. Stacey Gress
Director, Rates and Regulatory

Ladies and Gentlemen:

Pursuant to your request, we have determined the annual depreciation accruals applicable to wastewater plant as of December 31, 2023. The results of our study as of December 31, 2022 are presented in our report titled "2022 Depreciation Study - Calculated Annual Depreciation Accruals Related to Wastewater Plant as of December 31, 2. 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

070800.100

TABLE OF CONTENTS

PART I. RESULTS OF STUDY

PENNSYLVANIA-AMERICAN WATER COMPANY

WASTEWATER CSS OPERATIONS

DEPRECIATION STUDY

PART I. 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, 2023. Table 1 sets forth the development of the net original cost by account as of December 31, 2023. Table 2 sets forth, by depreciable group, the estimated survivor curve, original cost, book depreciation reserve as of December 31, 2023, 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, 2023. Table 4 sets forth the calculation of the depreciation accruals for the twelve months ended December 31, 2023. Table 5 presents the annual amortization of experienced and estimated net salvage based on the period 2019 through 2023.

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-2. 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 2019 through 2023, beginning on pages III-2 and III-3.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

TABLE 1. DEVELOPMENT OF NET ORIGINAL COST AS OF DECEMBER 31, 2023

DEPRCIABLE GROUP (1)	ORIGINAL COST AS OF DECEMBER 31, 2023 (2)	-	CUSTOMER ADVANCES (3)	-	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	-	EXCLUDED PROPERTY (5)	=	NET ORIGINAL COST AS OF DECMEBER 31, 2023 (6)
DEPRECIABLE PLANT									
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	7,938,447.40								7,938,447.40
354.30 STRUCTURES AND IMPROVEMENTS - SPP	24,562,228.04								24,562,228.04
354.40 STRUCTURES AND IMPROVEMENTS - TDP	159,728,776.58				2,500,000.00				157,228,776.58
355.00 POWER GENERATION EQUIPMENT	932,654.26								932,654.26
360.10 COLLECTION SEWERS - FORCE MAINS	8,891,396.46								8,891,396.46
361.10 COLLECTION SEWERS - GRAVITY MAINS	420,752,385.46				8,177,082.47				412,575,302.99
361.20 MANHOLES	45,771,378.54								45,771,378.54
363.00 SERVICES	17,795,216.18				957,516.15				16,837,700.03
364.00 FLOW MEASURING DEVICES	2,023,603.60								2,023,603.60
371.00 PUMPING EQUIPMENT	20,274,014.67								20,274,014.67
380.00 TREATMENT EQUIPMENT	78,215,066.28								78,215,066.28
381.00 PLANT SEWERS	1,576,345.41								1,576,345.41
382.00 OUTFALL SEWER LINES	286,271.26								286,271.26
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	10,439,981.67								10,439,981.67
390.00 OFFICE FURNITURE AND EQUIPMENT	2,173,917.97								2,173,917.97
391.00 TRANSPORTATION EQUIPMENT	6,668,453.06								6,668,453.06
392.00 STORES EQUIPMENT	106,844.28								106,844.28
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	1,841,118.43								1,841,118.43
394.00 LABORATORY EQUIPMENT	256,621.67								256,621.67
395.00 POWER OPERATED EQUIPMENT	1,924,985.24								1,924,985.24
396.00 COMMUNICATION EQUIPMENT	2,434,980.88								2,434,980.88
397.00 MISCELLANEOUS EQUIPMENT	3,579,394.47								3,579,394.47
TOTAL DEPRECIABLE PLANT	**818,174,081.81**		**0.00**		**11,634,598.62**		**0.00**		**806,539,483.19**
NONDEPRECIABLE PLANT									
353.20 LAND AND LAND RIGHTS - COLLECTION	3,586,743.45								3,586,743.45
353.30 LAND AND LAND RIGHTS - SPP	1,153,570.00								1,153,570.00
353.40 LAND AND LAND RIGHTS - TDP	148,041.59								148,041.59
TOTAL NONDEPRECIABLE PLANT	**4,888,355.04**		**0.00**		**0.00**		**0.00**		**4,888,355.04**
TOTAL PLANT	**823,062,436.85**		**0.00**		**11,634,598.62**		**0.00**		**811,427,838.23**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK DEPRECIATION RESERVE, AND CALCULATED ANNUAL DEPRECIATION ACCRUALS RELATED TO WASTEWATER PLANT AS OF DECEMBER 31, 2023

	DEPRECIABLE GROUP	SURVIVOR CURVE	ORIGINAL COST AS OF DECEMBER 31, 2023	BOOK DEPRECIATION RESERVE	FUTURE ACCRUALS	CALCULATED ANNUAL ACCRUAL AMOUNT	CALCULATED ANNUAL ACCRUAL RATE	COMPOSITE REMAINING LIFE
	(1)	(2)	(3)	(4)	(5)	(6)	(7)=(6)/(3)	(8)
	DEPRECIABLE PLANT							
354.20	STRUCTURES AND IMPROVEMENTS - COLLECTION	45-R3	7,938,447.40	424,700	7,513,747	209,378	2.64	35.9
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	24,562,228.04	7,303,620	17,258,608	543,482	2.21	31.8
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	157,228,776.58	53,234,680	103,994,097	3,353,419	2.13	31.0
355.00	POWER GENERATION EQUIPMENT	35-S0.5	932,654.26	314,165	618,490	31,058	3.33	19.9
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	8,891,396.46	893,257	7,998,139	130,788	1.47	61.2
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	412,575,302.99	157,302,695	255,272,608	5,580,978	1.35	45.7
361.20	MANHOLES	50-S2.5	45,771,378.54	23,048,402	22,722,976	902,033	1.97	25.2
363.00	SERVICES	47-R3	16,837,700.03	5,869,869	10,967,831	409,909	2.43	26.8
364.00	FLOW MEASURING DEVICES	15-L2.5	2,023,603.60	842,614	1,180,990	165,216	8.16	7.1
371.00	PUMPING EQUIPMENT	30-S0.5	20,274,014.67	4,569,216	15,704,799	867,645	4.28	18.1
380.00	TREATMENT EQUIPMENT	35-S1.5	78,215,066.28	28,178,927	50,036,139	2,632,347	3.37	19.0
381.00	PLANT SEWERS	50-R3	1,576,345.41	816,560	759,785	31,519	2.00	24.1
382.00	OUTFALL SEWER LINES	50-R3	286,271.26	56,889	229,382	5,883	2.06	39.0
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	10,439,981.67	2,883,322	7,556,659	618,820	5.93	12.2
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	2,173,917.97	545,772	1,628,146	120,504	5.54	13.5
391.00	TRANSPORTATION EQUIPMENT	14-L4	6,668,453.06	4,061,418	2,607,035	410,483	6.16	6.4
392.00	STORES EQUIPMENT	25-SQ	106,844.28	13,709	93,135	4,370	4.09	21.3
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	1,841,118.43	314,476	1,526,642	108,494	5.89	14.1
394.00	LABORATORY EQUIPMENT	15-SQ	256,621.67	128,046	128,576	17,330	6.75	7.4
395.00	POWER OPERATED EQUIPMENT	22-R2	1,924,985.24	1,090,809	834,177	67,493	3.51	12.4
396.00	COMMUNICATION EQUIPMENT	15-SQ	2,434,980.88	953,384	1,481,597	154,974	6.36	9.6
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	3,579,394.47	584,985	2,994,410	243,740	6.81	12.3
	TOTAL DEPRECIABLE PLANT		**806,539,483.19**	**293,431,513**	**513,107,968**	**16,609,863**	**2.06**	
	NONDEPRECIABLE PLANT							
353.20	LAND AND LAND RIGHTS - COLLECTION		3,586,743.45					
353.30	LAND AND LAND RIGHTS - SPP		1,153,570.00					
353.40	LAND AND LAND RIGHTS - TDP		148,041.59					
	TOTAL NONDEPRECIABLE PLANT		**4,888,355.04**					
	AMORTIZATION OF NET SALVAGE					**1,990,565**		
	TOTAL UTILITY PLANT		**811,427,838.23**	**293,431,513**	**513,107,968**	**18,600,428**		

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

TABLE 3. BRINGFORWARD TO DECEMBER 31, 2023, OF BOOK RESERVE AS OF DECEMBER 31, 2022

ACCOUNT (1)	BOOK RESERVE BALANCE AS OF 12/31/2022 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2023 (8)
354.20	367,262		166,787		99,408		9,941		0		0		424,700
354.30	7,073,695		479,612		222,935		26,752		0		0		7,303,620
354.40	52,886,648		2,662,084		2,084,732		229,320		0		0		53,234,680
355.00	282,175		31,990		0		0		0		0		314,165
360.10	710,973		182,284		0		0		0		0		893,257
361.10	154,870,627		6,335,105		2,168,354		1,734,683		0		0		157,302,695
361.20	22,198,551		1,002,313		118,187		34,274		0		0		23,048,402
363.00	5,882,659		369,671		318,717		63,743		0		0		5,869,869
364.00	663,364		179,250		0		0		0		0		842,614
371.00	4,153,359		771,313		277,700		77,756		0		0		4,569,216
380.00	25,624,317		2,840,347		248,466		37,270		0		0		28,178,927
381.00	784,718		31,842		0		0		0		0		816,560
382.00	50,093		6,796		0		0		0		0		56,889
389.10	2,263,435		627,577		7,690		0		0		0		2,883,322
390.00	427,955		128,735		9,926		993		0		0		545,772
391.00	3,628,450		448,329		13,129		2,232		0		0		4,061,418
392.00	9,339		4,370		0		0		0		0		13,709
393.00	198,908		120,263		4,230		465		0		0		314,476
394.00	107,954		20,092		0		0		0		0		128,046
395.00	1,029,473		67,469		5,627		506		0		0		1,090,809
396.00	794,108		159,276		0		0		0		0		953,384
397.00	367,660		217,325		0		0		0		0		584,985
TOTAL	**284,375,722**		**16,852,829**		**5,579,101**		**2,217,937**		**0**		**0**		**293,431,513**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

TABLE 4. CALCULATION OF DEPRECIATION ACCRUALS FOR THE TWELVE MONTHS ENDED DECEMBER 31, 2023

ACCOUNT	NET ORIGINALCOST AS OF 12/31/2022	NET ORIGINALCOST AS OF 12/31/2023	ACCRUAL RATE	DEPRECIATION ACCRUALS	AMORTIZATION OF NET SALVAGE	PROJECTED DEPRECIATION ACCRUALS
(1)	(2)	(3)	(4)	(5)*	(6)	(7)=(5)+(6)
354.20	5,611,733.32	7,938,447.40	2.61	158,516	8,271	166,787
354.30	21,384,984.76	24,562,228.04	2.12	459,900	19,712	479,612
354.40	130,849,003.78	157,228,776.58	1.95	2,621,448	40,636	2,662,084
355.00	932,654.26	932,654.26	3.43	31,990	0	31,990
360.10	8,891,396.46	8,891,396.46	1.50	133,371	48,913	182,284
361.10	385,169,389.34	412,575,302.99	1.33	5,263,949	1,071,156	6,335,105
361.20	44,085,935.35	45,771,378.54	2.04	915,981	86,332	1,002,313
363.00	12,582,079.87	16,837,700.03	2.31	310,211	59,460	369,671
364.00	2,023,603.60	2,023,603.60	8.77	177,470	1,780	179,250
371.00	16,760,052.04	20,274,014.67	4.21	730,198	41,115	771,313
380.00	75,071,021.73	78,215,066.28	3.54	2,681,918	158,429	2,840,347
381.00	1,576,345.41	1,576,345.41	2.02	31,842	0	31,842
382.00	286,271.26	286,271.26	2.07	5,926	870	6,796
389.10	10,342,671.84	10,439,981.67	6.03	626,841	736	627,577
390.00	2,183,844.22	2,173,917.97	5.65	123,083	5,652	128,735
391.00	6,502,324.35	6,668,453.06	6.57	429,812	18,517	448,329
392.00	106,844.28	106,844.28	4.09	4,370	0	4,370
393.00	1,845,348.01	1,841,118.43	6.05	111,505	8,758	120,263
394.00	256,621.67	256,621.67	7.02	18,015	2,077	20,092
395.00	1,853,787.22	1,924,985.24	3.54	66,227	1,242	67,469
396.00	2,207,646.02	2,434,980.88	6.40	149,127	10,149	159,276
397.00	2,853,022.78	3,579,394.47	6.84	214,516	2,809	217,325
TOTAL	**733,376,581.57**	**806,539,483.19**		**15,266,215**	**1,586,614**	**16,852,829**

* Total accruals shown are based on average monthly balances.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT	2019 GROSS SALVAGE	2019 COST OF REMOVAL	2020 GROSS SALVAGE	2020 COST OF REMOVAL	2021 GROSS SALVAGE	2021 COST OF REMOVAL	PROJECTED 2022 GROSS SALVAGE	PROJECTED 2022 COST OF REMOVAL	PROJECTED 2023 GROSS SALVAGE	PROJECTED 2023 COST OF REMOVAL	NET SALVAGE	SALVAGE ACCRUAL
(1)	(2) -	(3) +	(4) -	(5) +	(6) -	(7) +	(8) -	(9) +	(10) -	(11) =	(12)*	(13)=(12)/5
354.20				27,262		0		1,196		9,941	(38,399)	(7,680)
354.30		85,935				7,614		2,154		26,752	(122,454)	(24,491)
354.40		67,527		3,036		76,589		53,562		229,320	(430,034)	(86,007)
360.10		2,368		22,982		164,970		51,425			(241,746)	(48,349)
361.10		1,430,976	3,491	1,344,641		1,074,276		1,482,838		1,734,683	(7,063,924)	(1,412,785)
361.20		90,279		81,137		219,778		40,466		34,274	(465,934)	(93,187)
363.00		52,930		75,298		129,689		11,698		63,743	(333,359)	(66,672)
364.00				8,901							(8,901)	(1,780)
371.00		66,936		24,730		51,353		62,034		77,756	(282,809)	(56,562)
380.00		92,448		399,155		104,870		137,619		37,270	(771,363)	(154,273)
382.00		3,306									(3,306)	(661)
389.10											0	0
390.00		9,976		1,887		1,483		1,784		993	(16,122)	(3,224)
391.00		48,014						2,120		2,232	(52,366)	(10,473)
393.00		28,437		7,289		953		3,072		465	(40,216)	(8,043)
394.00		5,445		1,548		1,919		1,473			(10,385)	(2,077)
395.00		5,218		510				481		506	(6,715)	(1,343)
396.00		39,091		1,822		9,834					(50,747)	(10,149)
397.00		4,027		3,318		6,699					(14,044)	(2,809)
TOTAL	**0**	**2,032,913**	**3,491**	**2,003,518**	**0**	**1,850,027**	**0**	**1,851,920**	**0**	**2,217,937**	**(9,952,824)**	**(1,990,565)**

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

PART II. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

			DEPRECIATED ORIGINAL COST		
YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
1918	3,149,965	2,900,026	249,939	249,939	0.0
1938	1,116,997	976,048	140,949	390,888	0.1
1945	259,314	218,818	40,496	431,384	0.1
1950	1,074,643	862,909	211,734	643,118	0.1
1952				643,118	0.1
1953				643,118	0.1
1955	20,590,468	15,500,854	5,089,614	5,732,732	1.1
1959	66,492,767	49,768,352	16,724,415	22,457,147	4.4
1960	13,746,166	11,443,587	2,302,579	24,759,726	4.8
1962	11,331,538	7,927,692	3,403,846	28,163,572	5.5
1963	28,421,961	20,057,617	8,364,344	36,527,916	7.1
1965	831,937	598,027	233,910	36,761,826	7.2
1967				36,761,826	7.2
1968	2,944,540	2,100,465	844,075	37,605,901	7.3
1969				37,605,901	7.3
1970	1,046,327	718,974	327,353	37,933,254	7.4
1971				37,933,254	7.4
1972	29,894,125	20,636,938	9,257,187	47,190,441	9.2
1973	928,405	648,665	279,740	47,470,181	9.3
1974	735,411	498,507	236,904	47,707,085	9.3
1975	34,423,622	26,312,707	8,110,915	55,818,000	10.9
1976	36,511,452	21,379,836	15,131,616	70,949,616	13.8
1977	553,021	366,961	186,060	71,135,676	13.9
1978	1,466,190	958,442	507,748	71,643,424	14.0
1979	1,534,063	988,899	545,164	72,188,588	14.1
1980	2,010,639	1,214,589	796,050	72,984,638	14.2
1981	1,198,033	750,441	447,592	73,432,230	14.3
1982	923,863	573,962	349,901	73,782,131	14.4
1983	663,072	402,397	260,675	74,042,806	14.4
1984	983,484	567,458	416,026	74,458,832	14.5
1985	3,555,628	2,089,096	1,466,532	75,925,364	14.8
1986	1,395,878	808,531	587,347	76,512,711	14.9
1987	2,567,904	1,688,768	879,136	77,391,847	15.1
1988	882,312	558,355	323,957	77,715,804	15.1
1989	26,583,756	12,360,891	14,222,865	91,938,669	17.9
1990	4,822,590	2,500,635	2,321,955	94,260,624	18.4
1991	2,009,337	1,039,183	970,154	95,230,778	18.6
1992	3,087,942	1,472,498	1,615,444	96,846,222	18.9
1993	479,582	216,381	263,201	97,109,423	18.9
1994	1,420,881	657,495	763,386	97,872,809	19.1
1995	17,823,228	9,860,350	7,962,878	105,835,687	20.6
1996	8,869,770	4,248,518	4,621,252	110,456,939	21.5
1997	428,491	191,793	236,698	110,693,637	21.6
1998	2,736,049	1,169,772	1,566,277	112,259,914	21.9
1999	13,189,103	4,770,243	8,418,860	120,678,774	23.5

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST BY YEAR INSTALLED
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	DEPRECIATED ORIGINAL COST AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
2000	418,439	150,748	267,691	120,946,465	23.6
2001	2,516,212	1,261,554	1,254,658	122,201,123	23.8
2002	509,219	227,215	282,004	122,483,127	23.9
2003	3,183,716	1,387,228	1,796,488	124,279,615	24.2
2004	7,581,904	3,320,267	4,261,637	128,541,252	25.1
2005	2,539,974	818,245	1,721,729	130,262,981	25.4
2006	5,447,181	2,058,356	3,388,825	133,651,806	26.0
2007	5,868,546	1,611,667	4,256,879	137,908,685	26.9
2008	4,548,054	1,512,580	3,035,474	140,944,159	27.5
2009	10,681,910	2,961,984	7,719,926	148,664,085	29.0
2010	17,575,399	5,576,606	11,998,793	160,662,878	31.3
2011	4,822,762	1,095,346	3,727,416	164,390,294	32.0
2012	3,406,432	1,364,660	2,041,772	166,432,066	32.4
2013	6,209,883	2,842,428	3,367,455	169,799,521	33.1
2014	29,111,684	7,067,237	22,044,447	191,843,968	37.4
2015	24,723,675	6,829,549	17,894,126	209,738,094	40.9
2016	39,586,178	7,141,846	32,444,332	242,182,426	47.2
2017	15,814,911	2,438,078	13,376,833	255,559,259	49.8
2018	12,604,124	2,080,173	10,523,951	266,083,210	51.9
2019	49,328,134	4,217,358	45,110,776	311,193,986	60.6
2020	53,847,185	4,828,228	49,018,957	360,212,943	70.2
2021	29,037,334	1,830,360	27,206,974	387,419,917	75.5
2022	57,352,769	2,078,558	55,274,211	442,694,128	86.3
2023	78,774,003	1,023,497	77,750,506	520,444,634	101.4
9999	11,634,599-	4,297,935-	7,336,664-	513,107,970	100.0
SUBTOTAL	806,539,483	293,431,513	513,107,970		
NONDEPRECIABLE	4,888,355		4,888,355		
TOTAL	811,427,838	293,431,513	517,996,325		

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 45-R3						
NET SALVAGE PERCENT.. 0						
2017	1,104,431.08	178,697	113,216	991,215	33.66	29,448
2018	1,925,378.76	264,740	167,730	1,757,649	34.50	50,946
2019	1,084,093.04	122,936	77,888	1,006,205	35.18	28,602
2020	172,071.98	15,246	9,659	162,413	36.02	4,509
2021	380,803.22	24,295	15,393	365,410	36.71	9,954
2022	845,546.87	32,638	20,678	824,869	37.41	22,049
2023	2,426,122.44	31,782	20,136	2,405,986	37.67	63,870
	7,938,447.39	670,334	424,700	7,513,747		209,378

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 35.9 2.64

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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-S0						
NET SALVAGE PERCENT.. 0						
1960	2,221,683.94	1,763,573	1,855,128	366,556	16.50	22,216
1968	651,155.41	484,264	509,404	141,751	19.13	7,410
1970	58,680.54	42,696	44,913	13,768	20.03	687
1972	421,449.35	301,673	317,334	104,115	20.45	5,091
1990	88,382.95	49,441	52,008	36,375	26.38	1,379
1995	129,974.02	65,559	68,962	61,012	28.00	2,179
1996	506,809.48	250,871	263,895	242,914	28.06	8,657
2000	103,743.77	46,083	48,475	55,269	29.41	1,879
2004	241,694.50	94,261	99,155	142,540	30.50	4,673
2005	52,175.36	19,597	20,614	31,561	30.76	1,026
2006	2,682,989.38	967,218	1,017,431	1,665,558	31.04	53,658
2011	7,090.80	1,985	2,088	5,003	32.14	156
2012	10,709.68	2,808	2,954	7,756	32.36	240
2013	147,320.53	35,887	37,750	109,571	32.60	3,361
2014	10,424,367.26	2,337,143	2,458,474	7,965,893	32.87	242,345
2015	40,718.90	8,339	8,772	31,947	33.00	968
2017	723,395.79	118,058	124,187	599,209	33.34	17,973
2018	1,518,486.62	213,803	224,903	1,293,584	33.56	38,545
2019	485,656.84	57,259	60,231	425,426	33.67	12,635
2021	179,321.39	12,373	13,015	166,306	33.73	4,931
2022	466,243.61	19,955	20,991	445,253	33.59	13,256
2023	3,400,177.92	50,323	52,936	3,347,242	33.40	100,217
	24,562,228.04	6,943,169	7,303,620	17,258,608		543,482

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.8   2.21

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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-S0						
NET SALVAGE PERCENT.. 0						
1960	10,020,503.04	7,954,275	8,426,263	1,594,240	16.50	96,621
1972	12,297,788.59	8,802,757	9,325,092	2,972,697	20.45	145,364
1975	17,343,849.22	12,029,694	12,743,507	4,600,342	21.43	214,668
1985	1,232,868.77	749,954	794,454	438,415	24.79	17,685
1993	12,458.43	6,573	6,963	5,495	27.31	201
1994	99,707.23	51,469	54,523	45,184	27.65	1,634
1995	8,617,172.05	4,346,502	4,604,413	4,012,759	28.00	143,313
1996	2,899,708.22	1,435,356	1,520,527	1,379,181	28.06	49,151
1999	74,516.53	34,143	36,169	38,348	28.97	1,324
2001	232,560.00	100,466	106,427	126,133	29.58	4,264
2003	2,431,839.39	981,977	1,040,245	1,391,594	30.26	45,988
2004	361,988.61	141,176	149,553	212,436	30.50	6,965
2006	129,335.19	46,625	49,392	79,943	31.04	2,575
2007	18,642.62	6,428	6,809	11,834	31.35	377
2008	399,756.54	132,000	139,833	259,924	31.45	8,265
2009	16,424.30	5,144	5,449	10,975	31.80	345
2010	11,989,364.96	3,560,841	3,772,133	8,217,232	31.95	257,190
2011	388,867.00	108,883	115,344	273,523	32.14	8,510
2012	279,469.08	73,277	77,625	201,844	32.36	6,237
2013	8,248.21	2,009	2,128	6,120	32.60	188
2014	16,671,224.45	3,737,689	3,959,475	12,711,749	32.87	386,728
2015	5,521,302.63	1,130,763	1,197,860	4,323,443	33.00	131,013
2016	19,678,066.87	3,630,603	3,846,034	15,832,033	33.15	477,588
2017	3,075,920.92	501,990	531,777	2,544,144	33.34	76,309
2018	101,127.19	14,239	15,084	86,043	33.56	2,564
2019	264,654.25	31,203	33,055	231,599	33.67	6,878
2020	1,056,138.58	99,488	105,391	950,748	33.67	28,237
2021	8,721,110.73	601,757	637,464	8,083,647	33.73	239,657
2022	7,319,658.54	313,281	331,870	6,987,789	33.59	208,032
2023	28,464,504.42	421,275	446,273	28,018,231	33.40	838,869
9999	2,500,000.00-	799,039-	846,452-	1,653,548-		53,321-
	157,228,776.56	50,252,798	53,234,680	103,994,097		3,353,419

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.0 2.13

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 35-S0.5						
NET SALVAGE PERCENT.. 0						
1991	21,295.06	15,571	15,098	6,197	11.95	519
2002	19,740.16	11,374	11,029	8,711	15.81	551
2004	38,295.54	20,760	20,130	18,166	16.47	1,103
2012	403,177.35	149,297	144,765	258,412	19.56	13,211
2015	426,122.43	123,874	120,113	306,009	20.74	14,755
2020	22,037.01	2,931	2,842	19,195	22.82	841
2021	1,986.71	193	188	1,799	23.21	78
	932,654.26	324,000	314,165	618,490		31,058

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.9   3.33

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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-R3						
NET SALVAGE PERCENT.. 0						
1989	3,065.86	1,460	2,235	831	37.96	22
1995	286,504.21	115,117	176,233	110,271	42.43	2,599
1996	156,368.83	61,062	93,480	62,889	42.92	1,465
2004	30,942.02	8,750	13,395	17,547	49.46	355
2015	1,448,362.42	184,666	282,705	1,165,657	58.17	20,039
2018	135,283.96	11,310	17,314	117,970	60.29	1,957
2019	37,025.67	2,547	3,899	33,127	60.86	544
2020	351,845.66	18,859	28,871	322,975	61.86	5,221
2021	1,918,611.83	73,867	113,083	1,805,529	62.44	28,916
2022	4,523,386.00	105,847	162,042	4,361,344	62.60	69,670
	8,891,396.46	583,485	893,257	7,998,139		130,788

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 61.2 1.47

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 80-R2.5						
NET SALVAGE PERCENT.. 0						
1918	2,970,278.48	2,726,122	2,720,340	249,938	9.45	26,448
1938	838,665.50	709,846	708,341	130,324	15.52	8,397
1945	204,342.86	166,826	166,472	37,871	17.65	2,146
1950	932,857.65	733,599	732,043	200,815	19.96	10,061
1955	20,468,538.64	15,423,044	15,390,335	5,078,204	22.41	226,604
1959	55,884,565.05	40,371,010	40,285,391	15,599,174	24.79	629,253
1960	1,036,260.02	743,620	742,043	294,217	24.99	11,773
1962	11,331,538.20	7,944,541	7,927,692	3,403,846	26.22	129,819
1963	26,623,857.07	18,524,880	18,485,593	8,138,264	26.45	307,685
1965	646,346.59	438,611	437,681	208,666	27.71	7,530
1968	1,790,923.07	1,163,025	1,160,558	630,365	29.97	21,033
1970	757,542.47	482,252	481,229	276,313	30.54	9,048
1972	15,232,463.49	9,413,662	9,393,698	5,838,765	31.83	183,436
1973	519,270.71	314,678	314,011	205,260	32.83	6,252
1974	458,379.03	274,569	273,987	184,392	33.14	5,564
1975	2,136,695.04	1,264,282	1,261,601	875,094	33.47	26,146
1976	35,301,502.83	20,457,221	20,413,835	14,887,668	34.47	431,902
1977	315,172.62	180,279	179,897	135,276	34.80	3,887
1978	831,041.67	465,051	464,065	366,977	35.80	10,251
1979	868,506.12	479,242	478,226	390,280	36.15	10,796
1980	1,409,595.01	760,336	758,723	650,872	37.15	17,520
1981	667,313.84	354,477	353,725	313,589	37.50	8,362
1982	498,511.35	260,672	260,119	238,392	37.87	6,295
1983	366,883.48	187,221	186,824	180,059	38.87	4,632
1984	636,718.33	319,378	318,701	318,017	39.24	8,104
1985	1,580,704.57	772,965	771,326	809,379	40.24	20,114
1986	744,726.71	357,469	356,711	388,016	40.62	9,552
1987	690,818.58	325,237	324,547	366,272	41.02	8,929
1988	276,697.40	126,727	126,458	150,239	42.02	3,575
1989	24,367,985.68	10,929,042	10,905,863	13,462,123	42.42	317,353
1990	2,860,419.74	1,245,713	1,243,071	1,617,349	43.42	37,249
1991	1,109,082.51	472,247	471,245	637,838	43.83	14,553
1992	2,116,485.04	880,034	878,168	1,238,317	44.26	27,978
1993	360,426.69	145,108	144,800	215,627	45.26	4,764
1994	938,788.57	368,381	367,600	571,189	45.68	12,504
1995	2,280,312.58	864,238	862,405	1,417,908	46.69	30,369
1996	3,454,926.10	1,273,140	1,270,440	2,184,486	47.13	46,350
1997	221,574.05	79,279	79,111	142,463	47.57	2,995
1998	1,454,848.00	500,759	499,697	955,151	48.58	19,661
1999	11,506,920.77	3,834,106	3,825,975	7,680,946	49.03	156,658
2000	302,692.83	96,741	96,536	206,157	50.03	4,121

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

SURVIVOR CURVE.. IOWA 80-R2.5
NET SALVAGE PERCENT.. 0

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
2001	541,628.95	166,930	166,576	375,053	50.50	7,427
2002	202,384.31	60,047	59,920	142,464	50.96	2,796
2003	33,523.41	9,484	9,464	24,059	51.96	463
2004	1,867,257.32	506,027	504,954	1,362,303	52.45	25,973
2005	1,347,283.27	348,946	348,206	999,077	52.93	18,875
2006	1,132,478.15	277,457	276,869	855,609	53.93	15,865
2007	4,875,901.55	1,134,135	1,131,730	3,744,172	54.43	68,789
2008	2,335,608.97	514,068	512,978	1,822,631	54.92	33,187
2009	9,114,846.72	1,890,419	1,886,409	7,228,438	55.43	130,407
2010	3,738,349.62	721,501	719,971	3,018,379	56.43	53,489
2011	3,659,999.79	658,800	657,403	3,002,597	56.94	52,733
2012	259,872.88	43,347	43,255	216,618	57.46	3,770
2013	435,546.40	66,769	66,627	368,919	57.99	6,362
2014	1,123,324.58	156,816	156,483	966,842	58.53	16,519
2015	16,149.37	2,032	2,028	14,121	59.07	239
2016	12,880,167.73	1,440,003	1,436,949	11,443,219	59.61	191,968
2017	6,738,201.66	656,975	655,582	6,082,620	60.17	101,091
2018	3,919,715.53	327,688	326,993	3,592,723	60.29	59,591
2019	39,880,049.69	2,763,687	2,757,825	37,122,225	60.44	614,200
2020	23,485,838.66	1,272,932	1,270,232	22,215,607	61.02	364,071
2021	11,219,180.69	443,158	442,218	10,776,963	60.79	177,282
2022	25,343,629.58	615,850	614,544	24,729,086	60.23	410,578
2023	29,606,267.66	254,614	254,074	29,352,194	57.98	506,247
9999	8,177,082.51-	3,124,304-	3,117,678-	5,059,404-		110,613-
	412,575,302.92	157,637,011	157,302,695	255,272,608		5,580,978

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 45.7 1.35

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 50-S2.5						
NET SALVAGE PERCENT.. 0						
1918	179,686.05	179,686	179,686			
1938	253,663.65	247,246	243,039	10,625	2.22	4,786
1945	39,566.46	37,580	36,941	2,625	4.15	633
1950	98,147.69	92,337	90,766	7,382	4.62	1,598
1955	81,443.69	75,319	74,037	7,407	5.57	1,330
1959	10,608,202.27	9,647,099	9,482,961	1,125,241	6.43	174,999
1960	123,040.68	110,946	109,058	13,983	6.92	2,021
1963	1,798,103.97	1,599,234	1,572,024	226,080	7.52	30,064
1965	114,563.90	101,206	99,484	15,080	7.72	1,953
1968	62,675.23	54,264	53,341	9,334	8.60	1,085
1970	130,419.52	111,639	109,740	20,680	9.00	2,298
1972	1,396,270.43	1,172,029	1,152,088	244,182	9.85	24,790
1973	298,502.93	248,713	244,481	54,022	10.11	5,343
1974	144,224.69	119,216	117,188	27,037	10.38	2,605
1975	426,336.90	349,426	343,481	82,856	10.67	7,765
1976	1,209,948.91	982,721	966,001	243,948	10.98	22,217
1977	134,988.56	108,585	106,737	28,252	11.31	2,498
1978	363,532.83	289,445	284,520	79,013	11.65	6,782
1979	374,761.71	293,513	288,519	86,243	12.32	7,000
1980	343,261.51	265,787	261,265	81,997	12.68	6,467
1981	302,755.01	231,608	227,667	75,088	13.06	5,749
1982	240,373.07	181,554	178,465	61,908	13.45	4,603
1983	166,680.21	124,210	122,097	44,583	13.85	3,219
1984	192,601.71	141,504	139,096	53,506	14.26	3,752
1985	424,271.60	307,088	301,863	122,409	14.69	8,333
1986	361,500.33	257,569	253,187	108,313	15.13	7,159
1987	250,460.03	175,522	172,536	77,924	15.58	5,002
1988	96,214.92	65,926	64,804	31,411	16.31	1,926
1989	1,477,618.20	994,142	977,227	500,391	16.78	29,821
1990	1,027,890.72	678,408	666,865	361,026	17.26	20,917
1991	479,905.11	310,403	305,122	174,783	17.75	9,847
1992	446,130.66	281,062	276,280	169,851	18.50	9,181
1993	106,697.02	65,736	64,618	42,079	19.00	2,215
1994	172,690.99	103,407	101,648	71,043	19.76	3,595
1995	499,529.90	291,825	286,860	212,670	20.28	10,487
1996	766,286.75	434,101	426,715	339,572	21.04	16,139
1997	99,448.99	54,816	53,883	45,566	21.58	2,111
1998	667,192.40	355,614	349,563	317,629	22.34	14,218
1999	377,518.62	194,233	190,928	186,591	23.12	8,071
2001	40,623.60	19,377	19,047	21,577	24.67	875
2004	390,937.18	163,881	161,093	229,844	27.01	8,510

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 361.20 MANHOLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 50-S2.5						
NET SALVAGE PERCENT.. 0						
2005	622,550.84	248,771	244,538	378,013	27.80	13,598
2006	485,300.08	184,317	181,181	304,119	28.58	10,641
2007	261,442.16	93,596	92,004	169,438	29.59	5,726
2008	302,625.99	102,257	100,517	202,109	30.37	6,655
2010	100,525.22	29,715	29,209	71,316	32.16	2,218
2011	258,369.92	70,742	69,538	188,832	33.16	5,695
2012	100,202.18	25,351	24,920	75,282	33.95	2,217
2013	16,187.57	3,739	3,675	12,513	34.95	358
2014	101,868.78	21,291	20,929	80,940	35.95	2,251
2016	19,978.77	3,312	3,256	16,723	37.75	443
2019	3,733,852.36	371,145	364,830	3,369,022	40.75	82,675
2020	8,051,973.90	623,223	612,620	7,439,354	41.75	178,188
2021	1,116,756.65	61,645	60,596	1,056,161	42.75	24,706
2022	2,027,445.05	67,311	66,166	1,961,279	43.75	44,829
2023	1,803,630.47	19,840	19,502	1,784,128	44.75	39,869
	45,771,378.54	23,444,232	23,048,402	22,722,976		902,033

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 25.2 1.97

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

SURVIVOR CURVE.. IOWA 47-R3
NET SALVAGE PERCENT.. 0

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
1938	24,668.26	24,668	24,668			
1945	15,404.56	15,405	15,405			
1950	43,637.65	42,979	40,100	3,538	1.13	3,131
1955	40,485.62	39,101	36,482	4,004	2.43	1,648
1960	66,401.69	62,829	58,620	7,782	3.61	2,156
1965	71,026.27	65,231	60,862	10,164	5.20	1,955
1970	99,684.76	89,058	83,092	16,593	6.38	2,601
1972	546,152.76	480,942	448,726	97,427	6.98	13,958
1973	110,631.02	96,647	90,173	20,458	7.31	2,799
1974	132,807.53	115,038	107,332	25,476	7.65	3,330
1975	317,672.89	271,166	253,002	64,671	8.32	7,773
1977	102,859.89	86,094	80,327	22,533	9.06	2,487
1978	271,615.00	224,924	209,857	61,758	9.45	6,535
1979	290,795.09	238,103	222,154	68,641	9.85	6,969
1980	257,782.95	208,572	194,601	63,182	10.26	6,158
1981	227,964.47	181,186	169,049	58,915	10.97	5,371
1982	184,978.66	145,097	135,378	49,601	11.41	4,347
1983	129,507.97	100,187	93,476	36,032	11.85	3,041
1984	154,163.81	117,534	109,661	44,503	12.31	3,615
1985	317,782.85	237,352	221,453	96,330	13.05	7,382
1986	289,651.33	212,894	198,633	91,018	13.52	6,732
1987	201,303.65	145,482	135,737	65,567	14.01	4,680
1988	69,317.12	48,966	45,686	23,631	14.75	1,602
1989	735,086.12	509,709	475,566	259,520	15.25	17,018
1990	820,521.46	557,955	520,581	299,940	15.76	19,032
1991	387,988.72	257,237	240,006	147,983	16.52	8,958
1992	525,326.04	340,884	318,050	207,276	17.04	12,164
1994	65,634.88	40,470	37,759	27,876	18.34	1,520
1995	99,276.13	59,417	55,437	43,839	19.12	2,293
1996	264,404.80	154,148	143,822	120,583	19.67	6,130
1997	86,396.34	48,762	45,496	40,900	20.45	2,000
1998	568,962.85	311,905	291,012	277,951	21.01	13,229
1999	164,172.30	86,880	81,060	83,112	21.80	3,812
2000	12,002.69	6,149	5,737	6,266	22.37	280
2004	187,416.64	81,489	76,031	111,386	25.35	4,394
2005	500,089.40	207,237	193,355	306,734	26.14	11,734
2006	404,488.72	159,975	149,259	255,230	26.75	9,541
2007	228,045.58	85,426	79,704	148,342	27.55	5,384
2008	64,754.26	22,884	21,351	43,403	28.36	1,530
2009	79,354.59	26,346	24,581	54,774	29.17	1,878
2011	170,591.44	49,472	46,158	124,433	30.60	4,066

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 363.00 SERVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 47-R3						
NET SALVAGE PERCENT.. 0						
2012	79,767.73	21,378	19,946	59,822	31.42	1,904
2013	16,063.86	3,947	3,683	12,381	32.24	384
2014	63,222.29	14,111	13,166	50,056	33.06	1,514
2016	134,276.28	23,874	22,275	112,001	34.69	3,229
2017	252,049.18	39,168	36,544	215,505	35.34	6,098
2018	234,671.43	30,977	28,902	205,769	36.17	5,689
2019	393,064.72	42,608	39,754	353,311	37.00	9,549
2020	623,447.39	52,993	49,443	574,004	37.65	15,246
2021	1,097,106.80	66,924	62,441	1,034,666	38.48	26,888
2022	996,400.34	36,767	34,304	962,096	39.15	24,575
2023	4,574,337.37	57,637	53,777	4,520,560	39.34	114,910
9999	957,516.15-	357,615-	333,805-	623,711-		23,310-
	16,837,700.00	6,288,569	5,869,869	10,967,831		409,909

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 26.8 2.43

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 364.00 FLOW MEASURING DEVICES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 15-L2.5						
NET SALVAGE PERCENT.. 0						
1960	34,668.83	34,669	34,669			
1996	10,667.26	9,827	8,238	2,429	2.35	1,034
1998	11,518.92	10,427	8,741	2,778	2.67	1,040
2008	91,182.72	71,232	59,711	31,472	4.34	7,252
2010	110,716.42	82,805	69,412	41,304	4.55	9,078
2011	38,771.91	28,156	23,602	15,170	4.71	3,221
2013	175,978.36	117,518	98,511	77,467	5.22	14,840
2015	40,642.36	23,735	19,896	20,746	6.06	3,423
2016	442,654.44	235,404	197,329	245,325	6.60	37,170
2017	160,544.63	75,970	63,683	96,862	7.24	13,379
2018	43,907.33	18,015	15,101	28,806	7.90	3,646
2019	799,101.52	273,612	229,358	569,744	8.64	65,943
2020	63,248.90	17,134	14,363	48,886	9.42	5,190
	2,023,603.60	998,504	842,614	1,180,990		165,216

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.1 8.16

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 371.00 PUMPING EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

SURVIVOR CURVE.. IOWA 30-S0.5
NET SALVAGE PERCENT.. 0

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
1991	11,065.61	8,703	7,712	3,354	8.82	380
1996	763,196.93	554,081	491,012	272,185	10.38	26,222
1997	19,153.63	13,653	12,099	7,055	10.68	661
1998	33,526.54	23,425	20,759	12,768	11.00	1,161
2001	66,010.99	42,920	38,035	27,976	12.10	2,312
2002	62,955.33	39,926	35,381	27,574	12.40	2,224
2004	363,678.26	217,007	192,306	171,372	13.18	13,002
2005	8,137.65	4,712	4,176	3,962	13.45	295
2006	400,893.80	223,779	198,307	202,587	13.85	14,627
2007	12,183.09	6,553	5,807	6,376	14.17	450
2008	18,175.15	9,353	8,288	9,887	14.62	676
2009	443,126.24	217,841	193,045	250,081	15.00	16,672
2010	677,241.40	317,220	281,112	396,129	15.32	25,857
2011	123,234.55	54,531	48,324	74,911	15.75	4,756
2012	1,514,189.46	630,357	558,606	955,583	16.12	59,279
2013	399,807.10	155,325	137,645	262,162	16.53	15,860
2014	89,957.82	32,385	28,699	61,259	16.89	3,627
2015	3,847,584.81	1,268,933	1,124,494	2,723,091	17.27	157,678
2016	1,211,274.24	360,717	319,658	891,616	17.69	50,402
2017	143,472.88	37,862	33,552	109,921	18.13	6,063
2018	1,373,919.11	314,353	278,571	1,095,348	18.54	59,080
2019	576,693.53	110,840	98,223	478,471	18.92	25,289
2020	1,309,359.31	200,725	177,877	1,131,482	19.33	58,535
2021	250,105.51	28,137	24,934	225,172	19.72	11,418
2022	2,763,408.88	191,781	169,952	2,593,457	20.10	129,028
2023	3,791,662.86	91,000	80,642	3,711,021	20.38	182,091
	20,274,014.68	5,156,119	4,569,216	15,704,799		867,645

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.1 4.28

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 380.00 TREATMENT EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 35-S1.5						
NET SALVAGE PERCENT.. 0						
1960	243,607.39	238,224	217,806	25,801	1.44	17,917
1968	439,785.96	412,519	377,162	62,624	3.67	17,064
1975	14,199,068.29	12,808,980	11,711,116	2,487,952	5.26	472,995
1987	1,425,321.60	1,154,938	1,055,948	369,374	8.55	43,202
1988	440,082.75	351,538	321,407	118,676	8.94	13,275
1990	25,375.06	19,808	18,110	7,265	9.42	771
1994	144,058.92	104,961	95,965	48,094	10.99	4,376
1995	5,026,159.63	3,595,715	3,287,525	1,738,635	11.34	153,319
1996	47,401.71	33,238	30,389	17,013	11.72	1,452
1997	1,918.29	1,317	1,204	714	12.11	59
1999	1,048,682.05	686,048	627,246	421,436	12.95	32,543
2001	1,628,588.47	1,011,353	924,669	703,919	13.73	51,269
2002	197,082.74	118,644	108,475	88,608	14.21	6,236
2003	90,348.95	52,601	48,093	42,256	14.71	2,873
2004	4,043,104.81	2,270,608	2,075,993	1,967,112	15.22	129,245
2006	15,874.01	8,223	7,518	8,356	16.28	513
2007	293,206.96	145,137	132,697	160,510	16.83	9,537
2008	1,122,704.63	529,018	483,676	639,029	17.39	36,747
2009	55,126.80	24,620	22,510	32,617	17.97	1,815
2010	110,703.64	46,628	42,631	68,073	18.55	3,670
2012	120,342.65	44,142	40,359	79,984	19.85	4,029
2013	57,843.64	19,621	17,939	39,905	20.46	1,950
2014	33,816.22	10,473	9,575	24,241	21.17	1,145
2015	11,555,402.53	3,230,891	2,953,970	8,601,433	21.90	392,759
2016	4,256,054.12	1,059,757	968,925	3,287,129	22.62	145,320
2017	2,513,759.33	545,737	498,962	2,014,797	23.44	85,956
2018	1,100,252.04	203,987	186,503	913,749	24.17	37,805
2019	196,758.36	30,025	27,452	169,306	25.00	6,772
2020	9,915,495.58	1,183,910	1,082,436	8,833,060	25.82	342,101
2021	2,216,004.32	189,468	173,229	2,042,775	26.74	76,394
2022	12,258,623.81	630,093	576,087	11,682,537	27.66	422,362
2023	3,392,511.02	58,351	53,350	3,339,161	28.57	116,876
	78,215,066.28	30,820,573	28,178,927	50,036,139		2,632,347

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.0 3.37

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 381.00 PLANT SEWERS

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 50-R3						
NET SALVAGE PERCENT.. 0						
1995	874,635.54	498,542	508,851	365,785	21.50	17,013
1999	17,293.00	8,685	8,865	8,428	24.28	347
2002	27,056.54	12,159	12,410	14,647	26.34	556
2003	603,123.96	259,645	265,014	338,110	27.12	12,467
2004	48,787.57	20,071	20,486	28,302	27.90	1,014
2016	5,448.80	915	934	4,515	37.14	122
	1,576,345.41	800,017	816,560	759,785		31,519

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 24.1 2.00

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 382.00 OUTFALL SEWER LINES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 50-R3						
NET SALVAGE PERCENT.. 0						
2017	12,867.84	1,881	3,174	9,694	37.95	255
2018	176,024.64	21,880	36,922	139,103	38.75	3,590
2019	97,378.78	9,952	16,793	80,586	39.55	2,038
	286,271.26	33,713	56,889	229,382		5,883

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 39.0 2.06

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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-S2.5						
NET SALVAGE PERCENT.. 0						
2003	716.78	601	501	216	3.95	55
2013	4,132,732.72	2,256,472	1,882,765	2,249,968	8.73	257,728
2019	38.03	9	8	30	13.72	2
2020	6,201,494.14	1,195,648	997,630	5,203,864	14.65	355,213
2023	105,000.00	2,898	2,418	102,582	17.62	5,822
	10,439,981.67	3,455,628	2,883,322	7,556,659		618,820

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.2   5.93

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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						
NET SALVAGE PERCENT.. 0						
2004	147.61	144	118	30	0.50	30
2005	9,737.15	9,007	7,356	2,381	1.50	1,587
2008	12,008.00	9,306	7,600	4,408	4.50	980
2009	35,815.06	25,966	21,206	14,609	5.50	2,656
2010	61,541.56	41,541	33,926	27,616	6.50	4,249
2011	17,379.55	10,862	8,871	8,509	7.50	1,135
2012	39,909.19	22,948	18,741	21,168	8.50	2,490
2013	34,906.68	18,326	14,966	19,941	9.50	2,099
2014	23,508.40	11,166	9,119	14,389	10.50	1,370
2015	19,770.58	8,402	6,862	12,909	11.50	1,123
2016	717,221.40	268,958	219,652	497,569	12.50	39,806
2017	200,445.74	65,145	53,203	147,243	13.50	10,907
2018	57,523.48	15,819	12,919	44,604	14.50	3,076
2019	218,312.76	49,120	40,115	178,198	15.50	11,497
2020	417,202.09	73,010	59,626	357,576	16.50	21,671
2021	308,488.72	38,561	31,492	276,997	17.50	15,828
	2,173,917.97	668,281	545,772	1,628,146		120,504

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.5 5.54

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 14-L4						
NET SALVAGE PERCENT.. 0						
1995	9,664.41	9,664	9,664			
2001	6,800.41	6,503	6,800			
2003	24,163.61	22,636	23,911	253	1.38	183
2004	6,491.06	6,000	6,338	153	1.60	96
2006	96,787.20	87,060	91,965	4,822	1.96	2,460
2007	151,520.56	134,247	141,810	9,711	2.12	4,581
2008	148,176.55	129,299	136,584	11,593	2.26	5,130
2009	664,711.01	571,519	603,718	60,993	2.36	25,844
2010	251,731.83	212,059	224,006	27,726	2.53	10,959
2011	91,288.92	74,747	78,958	12,331	2.77	4,452
2012	282,902.76	221,569	234,052	48,851	3.18	15,362
2013	589,600.86	434,595	459,080	130,521	3.75	34,806
2014	555,747.91	379,076	400,433	155,315	4.43	35,060
2015	697,764.33	434,149	458,609	239,155	5.16	46,348
2016	185,575.12	103,402	109,228	76,347	5.96	12,810
2017	177,747.52	86,776	91,665	86,083	6.81	12,641
2018	1,449,339.70	601,766	635,670	813,670	7.75	104,990
2019	845,104.39	287,843	304,061	541,043	8.71	62,117
2021	89,577.43	16,975	17,931	71,646	10.69	6,702
2022	164,500.00	18,704	19,758	144,742	11.69	12,382
2023	179,257.54	6,794	7,177	172,081	12.69	13,560
	6,668,453.12	3,845,383	4,061,418	2,607,035		410,483

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.4 6.16

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 392.00 STORES EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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						
NET SALVAGE PERCENT.. 0						
2017	6,402.78	1,665	1,451	4,952	18.50	268
2020	100,441.50	14,062	12,258	88,183	21.50	4,102
	106,844.28	15,727	13,709	93,135		4,370

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 21.3 4.09

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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						
NET SALVAGE PERCENT.. 0						
2004	1,162.57	1,134	715	448	0.50	448
2006	5,970.32	5,224	3,294	2,676	2.50	1,070
2007	7,829.70	6,460	4,073	3,757	3.50	1,073
2008	5,161.15	4,000	2,522	2,639	4.50	586
2009	28,227.61	20,465	12,903	15,325	5.50	2,786
2010	23,867.97	16,111	10,158	13,710	6.50	2,109
2011	11,907.00	7,442	4,692	7,215	7.50	962
2012	34,047.65	19,577	12,344	21,704	8.50	2,553
2013	19,113.82	10,035	6,327	12,787	9.50	1,346
2014	13,575.00	6,448	4,066	9,509	10.50	906
2015	28,072.98	11,931	7,523	20,550	11.50	1,787
2016	36,897.99	13,837	8,724	28,174	12.50	2,254
2017	332,504.39	108,064	68,135	264,369	13.50	19,583
2018	392,093.18	107,826	67,985	324,108	14.50	22,352
2019	298,121.90	67,077	42,293	255,829	15.50	16,505
2020	356,281.91	62,349	39,312	316,970	16.50	19,210
2021	246,283.29	30,785	19,410	226,873	17.50	12,964
	1,841,118.43	498,765	314,476	1,526,642		108,494

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.1 5.89

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 394.00 LABORATORY EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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						
NET SALVAGE PERCENT.. 0						
2010	63,682.43	57,314	57,052	6,630	1.50	4,420
2011	7,356.65	6,131	6,103	1,254	2.50	502
2012	727.50	558	555	172	3.50	49
2013	4,573.96	3,202	3,187	1,387	4.50	308
2014	8,402.05	5,321	5,297	3,105	5.50	565
2015	18,226.62	10,328	10,281	7,946	6.50	1,222
2017	9,868.23	4,276	4,256	5,612	8.50	660
2018	16,270.55	5,966	5,939	10,332	9.50	1,088
2019	99,574.04	29,872	29,736	69,838	10.50	6,651
2020	15,147.63	3,534	3,518	11,630	11.50	1,011
2021	12,792.01	2,132	2,122	10,670	12.50	854
	256,621.67	128,634	128,046	128,576		17,330

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.4   6.75

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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 22-R2						
NET SALVAGE PERCENT.. 0						
2006	93,063.81	64,977	83,140	9,924	7.56	1,313
2007	19,773.70	13,312	17,033	2,741	8.01	342
2008	47,900.22	30,886	39,520	8,380	8.54	981
2009	244,277.27	150,182	192,163	52,114	9.08	5,739
2010	437,201.04	255,588	327,033	110,168	9.59	11,488
2011	45,604.34	25,196	32,239	13,365	10.12	1,321
2012	281,114.11	145,786	186,538	94,576	10.67	8,864
2013	156,607.12	75,641	96,785	59,822	11.24	5,322
2014	2,669.14	1,189	1,521	1,148	11.82	97
2015	7,775.37	3,166	4,051	3,724	12.38	301
2016	15,916.76	5,849	7,484	8,433	12.91	653
2017	29,709.58	9,673	12,377	17,333	13.46	1,288
2018	44,696.00	12,613	16,139	28,557	13.99	2,041
2020	9,655.60	1,829	2,340	7,316	14.98	488
2021	341,819.89	47,923	61,319	280,501	15.33	18,298
2022	70,376.66	6,207	7,942	62,435	15.51	4,025
2023	76,824.60	2,489	3,185	73,640	14.93	4,932
	1,924,985.21	852,506	1,090,809	834,176		67,493

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.4   3.51

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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						
NET SALVAGE PERCENT.. 0						
2010	10,472.81	9,426	9,963	510	1.50	340
2011	2,300.20	1,917	2,026	274	2.50	110
2013	15,352.54	10,747	11,360	3,993	4.50	887
2015	1,055,779.23	598,278	632,385	423,394	6.50	65,138
2016	2,645.52	1,323	1,398	1,248	7.50	166
2017	232,168.62	100,606	106,342	125,827	8.50	14,803
2018	92,490.12	33,913	35,846	56,644	9.50	5,963
2019	110,546.56	33,164	35,055	75,492	10.50	7,190
2021	546,323.06	91,056	96,247	450,076	12.50	36,006
2022	139,567.36	13,957	14,753	124,814	13.50	9,245
2023	227,334.86	7,577	8,009	219,326	14.50	15,126
	2,434,980.88	901,964	953,384	1,481,597		154,974

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.6 6.36

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

ACCOUNT 397.00 MISCELLANEOUS EQUIPMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2023

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						
NET SALVAGE PERCENT.. 0						
2017	101,420.98	43,949	39,972	61,449	8.50	7,229
2018	22,944.61	8,413	7,652	15,293	9.50	1,610
2019	208,107.21	62,432	56,782	151,325	10.50	14,412
2020	1,695,505.55	395,612	359,810	1,335,696	11.50	116,147
2021	391,062.13	65,178	59,279	331,783	12.50	26,543
2022	433,982.30	43,398	39,471	394,511	13.50	29,223
2023	726,371.69	24,210	22,019	704,353	14.50	48,576
	3,579,394.47	643,192	584,985	2,994,410		243,740

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.3 6.81

PART III. EXPERIENCED AND ESTIMATED NET SALVAGE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2019 TRANSACTION YEAR				
354.30	796,005.52	85,934.54		85,934.54-
354.40	1,080,902.70	67,526.93		67,526.93-
360.10	3,403.50	2,367.85		2,367.85-
361.10	6,619.40	1,430,976.01		1,430,976.01-
361.20		90,279.20		90,279.20-
363.00	3,929.16	52,929.84		52,929.84-
364.00	59,781.23			
371.00	185,795.47	66,936.02		66,936.02-
380.00	1,622,269.11	92,448.13		92,448.13-
382.00		3,306.40		3,306.40-
390.00	130,250.08	9,975.61		9,975.61-
391.00	83,792.82	48,014.34		48,014.34-
393.00	7,573.30	28,436.64		28,436.64-
394.00	19,315.01	5,445.26		5,445.26-
395.00	52,412.61	5,217.77		5,217.77-
396.00		39,091.19		39,091.19-
397.00		4,026.89		4,026.89-
	4,052,049.91	2,032,912.62		2,032,912.62-
2020 TRANSACTION YEAR				
354.20	5,414.90	27,261.65		27,261.65-
354.30	15,012.08			
354.40	5,402.39	3,035.88		3,035.88-
360.10	2,601.63	22,982.08		22,982.08-
361.10	1,935,411.80	1,344,641.09	3,491.13	1,341,149.96-
361.20	855,928.79	81,137.04		81,137.04-
363.00		75,298.32		75,298.32-
364.00		8,901.01		8,901.01-
371.00	208,080.94	24,730.31		24,730.31-
380.00	702,130.50	399,155.43		399,155.43-
390.00	724.38	1,886.85		1,886.85-
391.00	20,099.66			
393.00	68,342.45	7,289.38		7,289.38-
394.00	8,232.73	1,548.07		1,548.07-
395.00		510.16		510.16-
396.00		1,822.13		1,822.13-
397.00		3,318.49		3,318.49-
	3,827,382.25	2,003,517.89	3,491.13	2,000,026.76-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2021 TRANSACTION YEAR				
354.30	1,942.90	7,613.98		7,613.98-
354.40	45,344.71	76,589.11		76,589.11-
360.10	2,808.79	164,970.27		164,970.27-
361.10	1,848,146.44	1,074,276.48		1,074,276.48-
361.20	512,911.70	219,777.95		219,777.95-
363.00	130,642.17	129,688.68		129,688.68-
371.00	60,139.27	51,352.70		51,352.70-
380.00	230,130.31	104,870.48		104,870.48-
390.00		1,482.56		1,482.56-
393.00	33.43	953.49		953.49-
394.00	633.03	1,919.19		1,919.19-
396.00		9,833.75		9,833.75-
397.00		6,698.53		6,698.53-
	2,832,732.75	1,850,027.17		1,850,027.17-
2022 TRANSACTION YEAR				
354.20	11,963.98	1,196.40		1,196.40-
354.30	17,945.97	2,153.52		2,153.52-
354.40	486,922.76	53,561.50		53,561.50-
360.10	342,836.06	51,425.41		51,425.41-
361.10	1,853,547.50	1,482,838.00		1,482,838.00-
361.20	139,536.32	40,465.53		40,465.53-
363.00	58,491.65	11,698.33		11,698.33-
371.00	221,550.51	62,034.14		62,034.14-
380.00	917,459.10	137,618.86		137,618.86-
390.00	17,839.44	1,783.94		1,783.94-
391.00	12,467.77	2,119.52		2,119.52-
393.00	27,924.86	3,071.73		3,071.73-
394.00	14,725.20	1,472.52		1,472.52-
395.00	5,343.33	480.90		480.90-
396.00	7,104.30			
397.00	5,273.39			
	4,140,932.14	1,851,920.30		1,851,920.30-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER CSS OPERATIONS

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

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2023 TRANSACTION YEAR				
354.20	99,408.38	9,940.84		9,940.84-
354.30	222,934.63	26,752.16		26,752.16-
354.40	2,084,731.63	229,320.48		229,320.48-
361.10	2,168,354.02	1,734,683.22		1,734,683.22-
361.20	118,187.28	34,274.31		34,274.31-
363.00	318,717.23	63,743.45		63,743.45-
371.00	277,700.23	77,756.07		77,756.07-
380.00	248,466.47	37,269.97		37,269.97-
389.10	7,690.17			
390.00	9,926.25	992.63		992.63-
391.00	13,128.76	2,231.89		2,231.89-
393.00	4,229.58	465.25		465.25-
395.00	5,626.61	506.40		506.40-
	5,579,101.24	2,217,936.67		2,217,936.67-
TOTAL	20,432,198.29	9,956,314.65	3,491.13	9,952,823.52-