VOLUME 13

PENNSYLVANIA-AMERICAN WATER COMPANY

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

EXHIBITS NO. 11-I, 11-J, 11-K, 11-L
DEPRECIATION STUDY

WASTEWATER SSS OPERATIONS
EXCLUDING SADSBURY AND EXETER
AS OF DECEMBER 31, 2019, 2020, 2021, 2022

EXHIBIT NO. 11-I - DEPRECIATION STUDY

WASTEWATER SSS OPERATIONS

EXCLUDING SADSBURY AND EXETER

AS OF DECEMBER 31, 2019

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

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

2019 DEPRECIATION STUDY

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

Prepared by:

Gannett Fleming

Excellence Delivered ***As Promised***

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

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

2019 DEPRECIATION STUDY

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

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

Gannett Fleming

Excellence Delivered ***As Promised***

April 22, 2020

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

Attention Ashley E. Everette
Director, Rates & Regulatory

Ladies and Gentlemen:

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

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

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

John J. Spanos

JOHN J. SPANOS
President

JJS:mle

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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, 2019, and the annual amortization of net negative salvage. Table 3 presents the calculation of the amortization of experienced net salvage, by account, based on the five-year period, 2015-2019.

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-7. 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 2015 through 2019, on pages III-2 through III-5.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

DEPRCIABLE GROUP (1)	ORIGINAL COST AS OF DECEMBER 31, 2019 (2)	- CUSTOMER ADVANCES (3)	- CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	- EXCLUDED PROPERTY (5)	= NET ORIGINAL COST AS OF DECMEBER 31, 2019 (6)
DEPRECIABLE PLANT					
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	1,176,150.20				1,176,150.20
354.30 STRUCTURES AND IMPROVEMENTS - SPP	15,412,447.30		2,734,528.70		12,677,918.60
354.40 STRUCTURES AND IMPROVEMENTS - TDP	47,160,949.63		1,853,012.73		45,307,936.90
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	2,702,224.54				2,702,224.54
355.00 POWER GENERATION EQUIPMENT	4,180,589.06		144,517.16		4,036,071.90
360.10 COLLECTION SEWERS - FORCE MAINS	48,065,035.02	157,753.14	11,251,126.61		36,656,155.27
361.10 COLLECTION SEWERS - GRAVITY MAINS	98,816,819.27	133,423.53	12,206,537.46		86,476,858.28
361.20 MANHOLES	16,275,766.72		4,387,312.76		11,888,453.96
363.00 SERVICES	18,040,610.47	70,197.45	3,753,803.46		14,216,609.56
364.00 FLOW MEASURING DEVICES	371,151.65		14,726.81		356,424.84
365.00 FLOW MEASURING INSTALLATIONS	14,938.00				14,938.00
370.00 RECEIVING WELLS	143,419.77				143,419.77
371.00 PUMPING EQUIPMENT	10,892,030.07		66,626.22		10,825,403.85
380.00 TREATMENT EQUIPMENT	57,484,702.63		2,200,080.47		55,284,622.16
381.00 PLANT SEWERS	6,212,540.44		30,192.33		6,182,348.11
382.00 OUTFALL SEWER LINES	604,388.91				604,388.91
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	582,205.16				582,205.16
390.00 OFFICE FURNITURE AND EQUIPMENT	168,706.08				168,706.08
391.00 TRANSPORTATION EQUIPMENT	1,573,741.92				1,573,741.92
392.00 STORES EQUIPMENT	107,351.44				107,351.44
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	540,738.45				540,738.45
394.00 LABORATORY EQUIPMENT	418,834.02				418,834.02
395.00 POWER OPERATED EQUIPMENT	552,370.71		10,000.00		542,370.71
396.00 COMMUNICATION EQUIPMENT	1,490,959.33				1,490,959.33
397.00 MISCELLANEOUS EQUIPMENT	266,462.01		29,000.00		237,462.01
398.00 OTHER TANGIBLE PLANT	14,231.50				14,231.50
TOTAL DEPRECIABLE PLANT	**333,269,364.30**	**361,374.12**	**38,681,464.71**	**0.00**	**294,226,525.47**
NONDEPRECIABLE PLANT					
352.10 FRANCHISES	221,139.78				221,139.78
353.20 LAND AND LAND RIGHTS - COLLECTION	1,093,483.20				1,093,483.20
353.30 LAND AND LAND RIGHTS - SPP	85,560.07				85,560.07
353.40 LAND AND LAND RIGHTS - TDP	1,717,020.09		125,000.00		1,592,020.09
TOTAL NONDEPRECIABLE PLANT	**3,117,203.14**	**0.00**	**125,000.00**	**0.00**	**2,992,203.14**
TOTAL UTILITY PLANT	**336,386,567.44**	**361,374.12**	**38,806,464.71**	**0.00**	**297,218,728.61**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

	DEPRECIABLE GROUP	SURVIVOR CURVE	ORIGINAL COST AS OF DECEMBER 31, 2019	BOOK 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	1,176,150.20	66,495	1,109,655	31,894	2.71	34.8
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	12,677,918.60	4,740,555	7,937,364	240,763	1.90	33.0
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	45,307,936.90	10,346,772	34,961,165	1,095,652	2.42	31.9
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	2,702,224.54	1,580,965	1,121,259	45,630	1.69	24.6
355.00	POWER GENERATION EQUIPMENT	35-S0.5	4,036,071.90	2,592,730	1,443,342	70,048	1.74	20.6
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	36,656,155.27	1,615,043	35,041,113	652,842	1.78	53.7
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	86,476,858.28	10,310,371	76,166,488	1,403,965	1.62	54.3
361.20	MANHOLES	50-S2.5	11,888,453.96	1,348,750	10,539,704	312,735	2.63	33.7
363.00	SERVICES	47-R3	14,216,609.56	3,956,756	10,259,854	352,811	2.48	29.1
364.00	FLOW MEASURING DEVICES	15-L2.5	356,424.84	22,552	333,873	56,043	15.72	6.0
365.00	FLOW MEASURING INSTALLATIONS	25-S2	14,938.00	(1,190)	16,128	1,270	8.50	12.7
370.00	RECEIVING WELLS	50-R3	143,419.77	25,128	118,292	3,285	2.29	36.0
371.00	PUMPING EQUIPMENT	30-S0.5	10,825,403.85	552,226	10,273,178	550,652	5.09	18.7
380.00	TREATMENT EQUIPMENT	35-S1.5	55,284,622.16	12,402,341	42,882,281	2,118,998	3.83	20.2
381.00	PLANT SEWERS	50-R3	6,182,348.11	1,163,478	5,018,870	143,133	2.32	35.1
382.00	OUTFALL SEWER LINES	50-R3	604,388.91	204,636	399,753	13,241	2.19	30.2
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	582,205.16	132,491	449,714	33,280	5.72	13.5
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	168,706.08	(2,596)	171,302	13,300	7.88	12.9
391.00	TRANSPORTATION EQUIPMENT	14-L4	1,573,741.92	267,174	1,306,568	129,861	8.25	10.1
392.00	STORES EQUIPMENT	25-SQ	107,351.44	20,930	86,422	4,273	3.98	20.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	540,738.45	214,292	326,447	22,110	4.09	14.8
394.00	LABORATORY EQUIPMENT	15-SQ	418,834.02	178,876	239,958	24,187	5.77	9.9
395.00	POWER OPERATED EQUIPMENT	22-R2	542,370.71	350,579	191,792	15,609	2.88	12.3
396.00	COMMUNICATION EQUIPMENT	15-SQ	1,490,959.33	1,032,529	458,430	59,569	4.00	7.7
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	237,462.01	187,635	49,827	3,436	1.45	14.5
398.00	OTHER TANGIBLE PLANT	25-SQ	14,231.50	0	14,232	581	4.08	24.5
	TOTAL DEPRECIABLE PLANT		**294,226,525.47**	**53,309,515**	**240,917,011**	**7,399,168**	**2.51**	**32.6**
	NONDEPRECIABLE PLANT							
352.10	FRANCHISES		221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION		1,093,483.20					
353.30	LAND AND LAND RIGHTS - SPP		85,560.07					
353.40	LAND AND LAND RIGHTS - TDP		1,592,020.09					
	TOTAL NONDEPRECIABLE PLANT		**2,992,203.14**					
	AMORTIZATION OF NET SALVAGE					**520,041**		
	TOTAL UTILITY PLANT		**297,218,728.61**	**53,309,515**	**240,917,011**	**7,919,209**		

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

TABLE 3. AMORTIZATION OF EXPERIENCED NET SALVAGE

	2015		2016		2017		2018		2019			
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		1,398		42		304		2,367		27,531	(31,642)	(6,328)
354.30		4,141				36,849		87		61,135	(102,212)	(20,442)
354.40		1,027		4,581		35,585		(18,539)		1,986	(24,640)	(4,928)
354.70		480				2,146		36,100		18,075	(56,801)	(11,360)
355.00		1,666		4,934		930		4,539		9,730	(21,798)	(4,360)
360.10		3,256		12,703		1,809		85,350		245,202	(348,321)	(69,664)
361.10		65,334	107	7,077		53,984		345,943		1,038,559	(1,510,791)	(302,158)
361.20		7,497	437	53,437						109,567	(170,064)	(34,013)
363.00		27,377		11,694		69,276		48,455		150,830	(307,633)	(61,527)
364.00										240	(240)	(48)
371.00		4,902		11,515		5,054		(18,885)		141,438	(144,024)	(28,805)
380.00		1,623		23,917		6,892		12,304		214,843	(259,579)	(51,916)
381.00				2,110							(2,110)	(422)
382.00						604		981			(1,585)	(317)
389.10								(3,678)		5,682	(2,003)	(401)
390.00				276		763		94			(1,134)	(227)
391.00								9,708		6,029	(15,737)	(3,147)
393.00			176,516	4,964		328				1,931	169,292	33,858
394.00				566		60		118		5,593	(6,338)	(1,268)
395.00			44,129	(831)						2,048	42,912	8,582
396.00		4,190	132,387	911		5,474				1,898	119,914	23,983
397.00			88,258	1,142				6,019		5,513	75,584	15,117
398.00										1,251	(1,251)	(250)
TOTAL	**0**	**122,889**	**441,833**	**139,038**	**0**	**220,061**	**0**	**510,964**	**0**	**2,049,082**	**(2,600,200)**	**(520,041)**

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

PART II. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	DEPRECIATED ORIGINAL COST: AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
1895					0.0
1915	87,962	51,659	36,303	36,303	0.0
1920	130,030	75,215	54,815	91,118	0.0
1922				91,118	0.0
1929	19,217	11,099	8,118	99,236	0.0
1930	227,025	127,317	99,708	198,944	0.1
1932	602	457	145	199,089	0.1
1935	15,635	8,534	7,101	206,190	0.1
1939	110,054	60,967	49,087	255,277	0.1
1940				255,277	0.1
1941				255,277	0.1
1942				255,277	0.1
1943				255,277	0.1
1944				255,277	0.1
1945	46,353	23,645	22,708	277,985	0.1
1946	102,100	51,750	50,350	328,335	0.1
1947				328,335	0.1
1948				328,335	0.1
1949				328,335	0.1
1950				328,335	0.1
1951				328,335	0.1
1952				328,335	0.1
1953				328,335	0.1
1954				328,335	0.1
1955	49,638	23,829	25,809	354,144	0.1
1956				354,144	0.1
1957	1,804,868	920,934	883,934	1,238,078	0.5
1958				1,238,078	0.5
1959				1,238,078	0.5
1961	358,315	223,140	135,175	1,373,253	0.6
1962	33,707	15,650	18,057	1,391,310	0.6
1965	855,704	431,148	424,556	1,815,866	0.8
1966				1,815,866	0.8
1967	198,677	124,347	74,330	1,890,196	0.8
1968	82,615	38,518	44,097	1,934,293	0.8
1969	503,748	205,593	298,155	2,232,448	0.9
1970	492	376	116	2,232,564	0.9
1971	554	417	137	2,232,701	0.9
1972	1,048	896	152	2,232,853	0.9
1973	167,592	44,499	123,093	2,355,946	1.0
1974	1,648,485	299,579	1,348,906	3,704,852	1.5
1975	2,881,091	1,005,073	1,876,018	5,580,870	2.3
1976	1,321,036	314,039	1,006,997	6,587,867	2.7
1977	734,694	186,870	547,824	7,135,691	3.0
1978	394,511	101,375	293,136	7,428,827	3.1

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	DEPRECIATED ORIGINAL COST AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
1979	148,571	50,311	98,260	7,527,087	3.1
1980	443,365	259,552	183,813	7,710,900	3.2
1981	237,764	72,799	164,965	7,875,865	3.3
1982	188,405	89,419	98,986	7,974,851	3.3
1983	885,028	354,705	530,323	8,505,174	3.5
1984	4,267,954	1,648,786	2,619,168	11,124,342	4.6
1985	2,212,849	890,723	1,322,126	12,446,468	5.2
1986	1,985,000	867,637	1,117,363	13,563,831	5.6
1987	716,625	297,637	418,988	13,982,819	5.8
1988	2,623,675	954,627	1,669,048	15,651,867	6.5
1989	3,815,697	1,381,534	2,434,163	18,086,030	7.5
1990	631,443	191,472	439,971	18,526,001	7.7
1991	440,057	287,956	152,101	18,678,102	7.8
1992	3,288,056	1,359,652	1,928,404	20,606,506	8.6
1993	11,916,668	4,260,020	7,656,648	28,263,154	11.7
1994	890,420	268,354	622,066	28,885,220	12.0
1995	851,736	208,349	643,387	29,528,607	12.3
1996	1,209,901	374,112	835,789	30,364,396	12.6
1997	6,452,877	1,373,930	5,078,947	35,443,343	14.7
1998	3,757,916	977,582	2,780,334	38,223,677	15.9
1999	514,710	118,720	395,990	38,619,667	16.0
2000	8,615,929	2,526,077	6,089,852	44,709,519	18.6
2001	2,635,601	584,795	2,050,806	46,760,325	19.4
2002	2,815,474	656,209	2,159,265	48,919,590	20.3
2003	1,521,486	388,841	1,132,645	50,052,235	20.8
2004	4,069,384	654,307	3,415,077	53,467,312	22.2
2005	6,599,427	1,516,689	5,082,738	58,550,050	24.3
2006	6,578,510	1,380,017	5,198,493	63,748,543	26.5
2007	6,381,373	969,122	5,412,251	69,160,794	28.7
2008	9,144,529	1,568,996	7,575,533	76,736,327	31.9
2009	55,930,954	13,129,453	42,801,501	119,537,828	49.6
2010	22,752,128	4,503,166	18,248,962	137,786,790	57.2
2011	1,336,031	382,814	953,217	138,740,007	57.6
2012	2,722,973	409,432	2,313,541	141,053,548	58.5
2013	10,037,062	1,166,393	8,870,669	149,924,217	62.2
2014	45,218,945	4,918,440	40,300,505	190,224,722	79.0
2015	17,417,200	1,628,089	15,789,111	206,013,833	85.5
2016	12,213,696	570,991	11,642,705	217,656,538	90.3
2017	24,230,963	638,540	23,592,423	241,248,961	100.1

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

			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)
2018	12,697,563	479,008	12,218,555	253,467,516	105.2
2019	21,095,667	210,740	20,884,927	274,352,443	113.9
9999	39,042,839-	5,607,407-	33,435,432-	240,917,011	100.0
SUBTOTAL	294,226,526	53,309,515	240,917,011		
NONDEPRECIABLE	2,992,204		2,992,204		
TOTAL	297,218,730	53,309,515	243,909,215		

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2007	17,582.79	5,296	2,626	14,957	29.00	516
2008	113,755.87	31,783	15,758	97,998	29.65	3,305
2009	177,106.77	45,375	22,497	154,610	30.48	5,073
2011	8,586.64	1,795	890	7,697	32.15	239
2013	101,201.33	16,374	8,118	93,083	33.66	2,765
2014	14,766.25	2,030	1,007	13,759	34.50	399
2015	41,897.14	4,751	2,356	39,541	35.18	1,124
2016	36,654.91	3,248	1,610	35,045	36.02	973
2017	197,636.56	12,609	6,252	191,385	36.71	5,213
2018	185,763.69	7,170	3,555	182,209	37.41	4,871
2019	281,198.25	3,684	1,826	279,372	37.67	7,416
	1,176,150.20	134,115	66,495	1,109,655		31,894

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 34.8 2.71

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1965	48,230.07	35,488	48,230			
1976	26,258.22	17,133	26,258			
1978	11,146.44	7,078	11,146			
1980	3,250.10	2,003	3,250			
1982	29,509.52	17,706	29,271	239	25.00	10
1983	86,589.73	50,880	84,112	2,478	25.61	97
1984	30,555.49	17,679	29,226	1,329	25.85	51
1985	143,067.68	81,434	134,623	8,445	26.11	323
1986	68,084.13	38,086	62,962	5,122	26.38	194
1987	29,681.60	16,301	26,948	2,734	26.67	103
1988	78,030.38	42,027	69,477	8,553	26.98	317
1989	90,435.83	47,714	78,878	11,558	27.31	423
1991	285,470.50	143,991	238,039	47,432	28.00	1,694
1992	76,688.69	37,961	62,755	13,934	28.06	497
1993	487,292.90	235,021	388,525	98,768	28.45	3,472
1994	49,085.00	23,031	38,074	11,011	28.85	382
1996	24,175.73	10,739	17,753	6,423	29.41	218
1997	104,486.00	45,138	74,620	29,866	29.58	1,010
1998	224,083.37	93,936	155,290	68,793	29.78	2,310
1999	11,157.00	4,505	7,447	3,710	30.26	123
2000	7,035.93	2,744	4,536	2,500	30.50	82
2001	179,000.00	67,232	111,145	67,855	30.76	2,206
2002	9,723.14	3,505	5,794	3,929	31.04	127
2003	271,071.10	93,465	154,512	116,559	31.35	3,718
2004	101,407.82	33,485	55,356	46,052	31.45	1,464
2005	9,114.78	2,855	4,720	4,395	31.80	138
2006	928,740.33	275,836	455,999	472,741	31.95	14,796
2007	516,608.48	144,650	239,128	277,480	32.14	8,633
2008	50,243.32	13,174	21,779	28,464	32.36	880
2009	2,933,040.76	714,489	1,181,159	1,751,882	32.60	53,739
2010	1,290,300.82	289,285	478,232	812,069	32.87	24,705
2011	14,574.94	2,985	4,935	9,640	33.00	292
2013	181,693.78	29,652	49,019	132,675	33.34	3,979
2014	4,042,798.93	569,226	941,017	3,101,782	33.56	92,425
2015	1,552,991.78	183,098	302,689	1,250,303	33.67	37,134
2016	544,942.14	51,334	84,863	460,079	33.67	13,664
2017	463,399.48	31,975	52,859	410,540	33.73	12,171

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2018	398,259.75	17,046	28,180	370,080	33.59	11,018
2019	10,221.64	151	249	9,973	33.40	299
9999	2,734,528.70-	619,924-	1,022,500-	1,712,028-		51,931-
	12,677,918.60	2,874,114	4,740,555	7,937,364		240,763

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 33.0   1.90

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

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

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)
1932	602.40	553	457	145	7.73	19
1946	500.00	426	352	148	12.71	12
1957	137,083.79	107,953	89,163	47,921	16.87	2,841
1961	346,385.67	263,426	217,574	128,812	18.42	6,993
1965	53,961.55	39,705	32,794	21,168	19.57	1,082
1967	24,417.18	17,561	14,504	9,913	20.50	484
1973	38,481.00	26,125	21,578	16,903	21.99	769
1975	419,410.21	276,224	228,144	191,266	23.07	8,291
1976	17,438.45	11,379	9,398	8,040	23.17	347
1984	693,417.71	401,211	331,376	362,042	25.85	14,005
1985	133,860.33	76,193	62,931	70,929	26.11	2,717
1986	171,481.12	95,927	79,230	92,251	26.38	3,497
1988	1,122,692.96	604,682	499,430	623,263	26.98	23,101
1989	99,798.07	52,653	43,488	56,310	27.31	2,062
1992	1,452,853.32	719,162	593,984	858,869	28.06	30,608
1993	243,904.93	117,635	97,159	146,746	28.45	5,158
1994	16,680.06	7,826	6,464	10,216	28.85	354
1996	598,358.32	265,791	219,527	378,831	29.41	12,881
1997	69,732.72	30,125	24,881	44,852	29.58	1,516
1998	599,628.40	251,364	207,611	392,017	29.78	13,164
2000	6,483,934.82	2,528,735	2,088,581	4,395,354	30.50	144,110
2001	407,381.75	153,013	126,379	281,003	30.76	9,135
2002	162,693.43	58,651	48,442	114,251	31.04	3,681
2003	12,839.78	4,427	3,656	9,184	31.35	293
2004	15,555.13	5,136	4,242	11,313	31.45	360
2005	533,626.71	167,132	138,041	395,586	31.80	12,440
2006	441,648.57	131,170	108,338	333,311	31.95	10,432
2007	3,283.45	919	759	2,524	32.14	79
2009	16,283,229.18	3,966,595	3,276,167	13,007,062	32.60	398,990
2010	5,022,247.56	1,125,988	929,998	4,092,250	32.87	124,498
2011	87,404.92	17,901	14,785	72,620	33.00	2,201
2012	9,700.00	1,790	1,478	8,222	33.15	248
2013	162,285.83	26,485	21,875	140,411	33.34	4,211
2014	10,028,358.40	1,411,993	1,166,221	8,862,137	33.56	264,068
2015	44,549.99	5,252	4,338	40,212	33.67	1,194
2016	18,625.77	1,755	1,450	17,176	33.67	510
2017	803,395.10	55,434	45,785	757,610	33.73	22,461

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2018	193,422.01	8,278	6,837	186,585	33.59	5,555
2019	206,079.04	3,050	2,519	203,560	33.40	6,095
9999	1,853,012.73-	512,343-	423,164-	1,429,849-		44,810-
	45,307,936.90	12,527,282	10,346,772	34,961,165		1,095,652

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.9   2.42

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1						
NET SALVAGE PERCENT.. 0						
1939	3,519.17	3,519	3,519			
1972	450.26	398	450			
1984	11,260.27	8,794	11,260			
1992	14,967.00	10,249	14,967			
1993	16,986.00	11,387	16,986			
1994	29,220.00	19,151	29,220			
1997	5,855.00	3,557	5,855			
2002	1,066.29	547	1,066			
2003	42,889.48	21,089	42,889			
2007	1,139.15	453	1,139			
2008	362,525.29	134,642	362,525			
2009	80,918.35	27,868	80,918			
2010	38,934.54	12,280	38,935			
2011	7,105.08	2,035	6,765	340	21.18	16
2012	28,465.52	7,301	24,273	4,193	21.74	193
2013	25,257.86	5,680	18,883	6,375	22.40	285
2014	413,665.01	79,631	264,738	148,927	23.07	6,455
2015	1,021,769.08	162,768	541,132	480,637	23.75	20,237
2016	9,177.69	1,147	3,813	5,365	24.51	219
2017	131,543.68	11,839	39,359	92,185	25.28	3,647
2018	372,536.26	20,229	67,253	305,283	26.12	11,688
2019	82,973.56	1,510	5,020	77,953	26.97	2,890
	2,702,224.54	546,074	1,580,965	1,121,259		45,630

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 24.6 1.69

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

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

SURVIVOR CURVE.. IOWA 35-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)
1983	18,550.00	14,354	18,550			
1987	19,246.40	14,073	19,246			
1989	49,338.78	34,912	49,339			
1992	62,034.60	41,452	62,035			
1993	201,611.77	131,975	201,612			
1994	20,325.00	13,008	20,325			
1997	30,447.00	18,086	30,447			
1998	12,580.62	7,249	12,581			
2001	38,477.83	20,147	37,956	522	16.83	31
2002	62,407.82	31,454	59,257	3,151	17.22	183
2005	68,295.28	30,105	56,716	11,579	18.39	630
2007	12,208.69	4,822	9,084	3,125	19.15	163
2008	183,720.69	68,032	128,168	55,553	19.56	2,840
2009	2,574,089.51	886,516	1,670,139	903,951	19.99	45,220
2010	20,681.36	6,581	12,398	8,283	20.35	407
2011	14,376.97	4,179	7,873	6,504	20.74	314
2012	27,649.83	7,239	13,638	14,012	21.15	663
2013	26,762.41	6,193	11,667	15,095	21.59	699
2014	609,803.14	122,083	229,997	379,806	21.97	17,287
2015	90,933.42	15,222	28,677	62,256	22.38	2,782
2016	10,498.31	1,396	2,630	7,868	22.82	345
2017	13,046.73	1,268	2,389	10,658	23.21	459
2018	4,307.88	258	486	3,822	23.56	162
2019	9,195.02	189	356	8,839	23.83	371
9999	144,517.16-	51,189-	92,836-	51,681-		2,508-
	4,036,071.90	1,429,604	2,592,730	1,443,342		70,048

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.6 1.74

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1957	11,376.37	8,603	2,306	9,070	20.15	450
1965	13,337.78	9,159	2,455	10,883	24.87	438
1973	125,694.50	76,573	20,525	105,170	29.83	3,526
1974	1,503,776.46	903,168	242,091	1,261,685	30.26	41,695
1975	849,779.52	499,160	133,798	715,982	31.26	22,904
1976	971,420.09	562,064	150,659	820,761	31.68	25,908
1977	458,850.00	261,315	70,045	388,805	32.13	12,101
1978	270,355.19	150,345	40,299	230,056	33.13	6,944
1979	73,749.33	40,326	10,809	62,940	33.57	1,875
1980	75,105.93	40,046	10,734	64,372	34.58	1,862
1981	160,944.25	84,270	22,588	138,356	35.03	3,950
1982	53,478.41	27,274	7,311	46,167	36.03	1,281
1983	192,381.70	96,191	25,784	166,598	36.50	4,564
1985	309,939.29	147,562	39,554	270,385	37.96	7,123
1986	32,925.71	15,222	4,080	28,846	38.96	740
1987	225,949.78	102,084	27,363	198,587	39.44	5,035
1988	403,513.14	177,949	47,699	355,814	39.93	8,911
1989	92,110.83	39,331	10,543	81,568	40.93	1,993
1991	75,459.60	30,320	8,127	67,333	42.43	1,587
1992	34,682.29	13,543	3,630	31,052	42.92	723
1993	603,954.58	227,268	60,918	543,037	43.92	12,364
1994	308,924.32	112,634	30,191	278,733	44.43	6,274
1996	132,298.94	44,770	12,000	120,299	45.94	2,619
1997	1,385,627.69	448,943	120,338	1,265,290	46.94	26,955
1998	465,547.49	144,134	38,635	426,912	47.94	8,905
1999	210,238.89	62,483	16,748	193,491	48.47	3,992
2000	489,230.36	138,354	37,085	452,145	49.46	9,142
2001	874,316.29	236,153	63,300	811,016	49.99	16,224
2002	556,204.52	142,110	38,092	518,113	50.99	10,161
2003	385,945.70	93,630	25,097	360,849	51.52	7,004
2004	2,042,605.33	465,305	124,724	1,917,881	52.53	36,510
2005	178,604.39	38,329	10,274	168,330	53.07	3,172
2006	1,981,527.29	395,909	106,122	1,875,405	54.07	34,685
2007	1,150,768.29	214,273	57,435	1,093,333	54.62	20,017
2008	2,644,897.62	453,335	121,515	2,523,383	55.61	45,376
2009	535,945.98	83,822	22,468	513,478	56.62	9,069
2010	368,735.75	52,545	14,085	354,651	57.17	6,203
2013	306,727.66	30,121	8,074	298,654	59.72	5,001
2014	4,417,806.16	369,329	98,998	4,318,808	60.29	71,634
2015	2,391,247.96	164,518	44,099	2,347,149	60.86	38,566
2016	3,144,679.67	168,555	45,181	3,099,499	61.86	50,105

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2017	12,181,943.42	469,005	125,715	12,056,228	62.44	193,085
2018	1,164,710.52	27,254	7,305	1,157,406	62.60	18,489
2019	4,207,716.03	33,241	8,910	4,198,806	62.79	66,871
9999	11,408,879.75-	1,875,295-	502,666-	10,906,213-		203,191-
	36,656,155.27	6,025,230	1,615,043	35,041,113		652,842

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 53.7 1.78

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1915	87,961.89	79,975	51,659	36,303	10.44	3,477
1920	130,029.95	116,442	75,215	54,815	11.61	4,721
1929	18,500.01	16,073	10,382	8,118	13.67	594
1930	227,024.64	197,103	127,317	99,708	13.59	7,337
1935	15,634.56	13,211	8,534	7,101	15.50	458
1939	57,816.57	47,473	30,665	27,152	17.54	1,548
1945	46,352.51	36,605	23,645	22,708	19.84	1,145
1946	95,232.90	74,891	48,375	46,858	19.96	2,348
1955	41,097.76	29,689	19,177	21,921	24.79	884
1957	1,450,263.61	1,024,176	661,559	788,705	26.00	30,335
1961	11,023.25	7,480	4,832	6,191	27.71	223
1962	30,703.85	20,479	13,228	17,476	28.71	609
1965	549,801.47	353,577	228,390	321,411	30.25	10,625
1968	34,858.47	21,543	13,916	20,942	31.83	658
1969	403,468.38	244,502	157,934	245,534	32.83	7,479
1974	114,645.58	64,156	41,441	73,205	35.80	2,045
1975	1,425,030.10	786,332	507,925	917,105	36.15	25,369
1976	248,103.94	133,827	86,445	161,659	37.15	4,352
1977	176,284.55	93,642	60,487	115,798	37.50	3,088
1978	79,828.73	41,742	26,963	52,866	37.87	1,396
1979	32,791.52	16,734	10,809	21,983	38.87	566
1982	45,891.00	22,028	14,229	31,662	40.62	779
1983	444,855.74	209,438	135,285	309,571	41.02	7,547
1984	2,604,467.47	1,192,846	770,510	1,833,957	42.02	43,645
1985	807,537.09	362,180	233,947	573,590	42.42	13,522
1986	628,794.11	273,840	176,885	451,909	43.42	10,408
1987	70,622.50	30,071	19,424	51,198	43.83	1,168
1988	808,218.51	336,057	217,073	591,146	44.26	13,356
1989	2,347,848.24	945,244	610,573	1,737,275	45.26	38,384
1990	504,978.76	198,154	127,996	376,983	45.68	8,253
1992	496,916.56	183,114	118,281	378,636	47.13	8,034
1993	5,940,075.80	2,125,359	1,372,859	4,567,217	47.57	96,010
1994	240,774.66	82,875	53,532	187,243	48.58	3,854
1995	735,183.21	244,963	158,232	576,951	49.03	11,767
1996	238,455.39	76,210	49,227	189,228	50.03	3,782
1997	3,329,945.99	1,026,289	662,923	2,667,023	50.50	52,812
1998	1,843,197.53	546,877	353,251	1,489,947	50.96	29,238
1999	46,555.52	13,171	8,508	38,048	51.96	732
2000	960,003.60	260,161	168,049	791,955	52.45	15,099
2001	647,094.06	167,597	108,258	538,836	52.93	10,180
2002	1,109,880.61	271,921	175,645	934,236	53.93	17,323

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

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

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)
2003	366,791.91	85,316	55,109	311,683	54.43	5,726
2004	413,002.06	90,902	58,717	354,285	54.92	6,451
2005	2,863,885.33	593,970	383,670	2,480,215	55.43	44,745
2006	1,646,906.63	317,853	205,315	1,441,592	56.43	25,547
2007	2,566,141.97	461,906	298,365	2,267,777	56.94	39,827
2008	3,023,220.48	504,273	325,731	2,697,489	57.46	46,946
2009	6,564,979.45	1,006,411	650,084	5,914,895	57.99	101,999
2010	3,595,732.66	501,964	324,240	3,271,493	58.53	55,894
2011	420,686.63	52,922	34,185	386,502	59.07	6,543
2012	1,422,605.70	159,047	102,735	1,319,871	59.61	22,142
2013	4,241,778.27	413,573	267,144	3,974,634	60.17	66,057
2014	11,174,323.68	934,173	603,422	10,570,902	60.29	175,334
2015	4,612,434.06	319,642	206,470	4,405,964	60.44	72,898
2016	5,955,206.64	322,772	208,492	5,746,715	61.02	94,178
2017	7,647,013.59	302,057	195,111	7,451,903	60.79	122,584
2018	4,542,381.85	110,380	71,299	4,471,083	60.23	74,233
2019	8,631,977.77	74,235	47,952	8,584,026	57.98	148,052
9999	12,339,960.99-	2,277,689-	1,471,255-	10,868,706-		200,341-
	86,476,858.28	15,961,754	10,310,371	76,166,488		1,403,965

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 54.3 1.62

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 361.20 MANHOLES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1939	42,462.65	40,679	20,528	21,935	3.53	6,214
1946	6,367.14	5,990	3,023	3,344	4.62	724
1955	6,600.80	6,003	3,029	3,572	6.43	556
1965	52,751.24	45,424	22,922	29,829	8.79	3,394
1968	35,388.05	29,705	14,990	20,398	9.85	2,071
1969	84,594.90	70,484	35,568	49,027	10.11	4,849
1974	17,998.20	14,330	7,231	10,767	11.65	924
1977	42,780.69	32,727	16,515	26,266	13.06	2,011
1984	95,924.37	65,727	33,167	62,757	16.31	3,848
1985	168,519.53	113,380	57,214	111,306	16.78	6,633
1986	107,241.42	70,779	35,717	71,524	17.26	4,144
1990	22,050.23	13,204	6,663	15,387	19.76	779
1992	116,735.92	66,131	33,371	83,365	21.04	3,962
1993	107,373.12	59,184	29,866	77,507	21.58	3,592
1994	55,144.27	29,392	14,832	40,312	22.34	1,804
1995	20,065.49	10,324	5,210	14,855	23.12	643
1996	39,652.87	19,660	9,921	29,732	23.90	1,244
1997	1,036,369.93	494,348	249,459	786,911	24.67	31,897
1998	249,037.55	114,059	57,557	191,481	25.45	7,524
1999	33,102.34	14,522	7,328	25,774	26.23	983
2000	193,027.44	80,917	40,833	152,194	27.01	5,635
2001	232,025.60	92,717	46,787	185,239	27.80	6,663
2002	199,963.03	75,946	38,324	161,639	28.58	5,656
2003	115,563.29	41,372	20,877	94,686	29.59	3,200
2004	241,065.00	81,456	41,105	199,960	30.37	6,584
2005	876,000.07	278,218	140,395	735,605	31.16	23,607
2006	19,880.10	5,877	2,966	16,914	32.16	526
2007	1,566,281.98	428,848	216,407	1,349,875	33.16	40,708
2008	677,760.00	171,473	86,529	591,231	33.95	17,415
2009	121,512.79	28,069	14,164	107,349	34.95	3,072
2010	212,804.58	44,476	22,444	190,361	35.95	5,295
2011	37,447.34	7,003	3,534	33,913	36.95	918
2012	21,649.82	3,590	1,812	19,838	37.75	526
2013	1,023,299.44	146,946	74,152	949,147	38.75	24,494
2014	2,194,357.17	266,834	134,650	2,059,707	39.75	51,817
2015	5,489,251.44	545,632	275,339	5,213,912	40.75	127,949
2016	289,273.43	22,390	11,298	277,975	41.75	6,658
2017	372,836.52	20,581	10,386	362,451	42.75	8,478

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 361.20 MANHOLES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2018	8,283.55	275	139	8,145	43.75	186
2019	43,323.42	477	240	43,083	44.75	963
9999	4,387,312.76-	986,364-	497,742-	3,889,571-		115,411-
	11,888,453.96	2,672,785	1,348,750	10,539,704		312,735

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 33.7 2.63

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 363.00 SERVICES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1929	717.00	717	717			
1939	6,255.19	6,255	6,255			
1955	1,939.83	1,839	1,623	317	3.52	90
1957	173,445.10	162,605	143,489	29,956	4.17	7,184
1961	905.88	832	734	172	5.20	33
1962	3,003.00	2,745	2,422	581	5.40	108
1965	54,222.80	48,757	43,025	11,198	6.11	1,833
1968	12,368.97	10,892	9,612	2,757	6.98	395
1969	15,685.09	13,702	12,091	3,594	7.31	492
1970	491.96	426	376	116	7.65	15
1971	554.24	473	417	137	8.32	16
1972	597.84	505	446	152	8.68	18
1973	2,464.62	2,063	1,820	645	9.06	71
1974	12,064.87	9,991	8,816	3,249	9.45	344
1975	181,886.69	148,929	131,421	50,466	9.85	5,123
1976	57,815.01	46,778	41,279	16,536	10.26	1,612
1977	56,778.47	45,128	39,823	16,955	10.97	1,546
1978	33,180.60	26,027	22,967	10,214	11.41	895
1979	42,030.26	32,515	28,693	13,337	11.85	1,125
1980	365,008.54	278,283	245,568	119,441	12.31	9,703
1981	72,360.52	54,046	47,692	24,669	13.05	1,890
1982	59,525.72	43,751	38,608	20,918	13.52	1,547
1983	142,651.31	103,094	90,974	51,677	14.01	3,689
1984	250,999.93	177,306	156,462	94,538	14.75	6,409
1985	169,092.97	117,249	103,465	65,628	15.25	4,303
1986	175,607.24	119,413	105,375	70,232	15.76	4,456
1987	169,355.46	112,283	99,083	70,272	16.52	4,254
1988	211,219.98	137,061	120,948	90,272	17.04	5,298
1989	309,308.81	195,298	172,339	136,970	17.81	7,691
1990	104,413.82	64,382	56,813	47,601	18.34	2,595
1991	79,126.91	47,357	41,790	37,337	19.12	1,953
1992	87,924.09	51,260	45,234	42,690	19.67	2,170
1993	587,608.94	331,646	292,657	294,952	20.45	14,423
1994	92,616.32	50,772	44,803	47,813	21.01	2,276
1995	89,151.44	47,179	41,633	47,518	21.80	2,180
1996	94,520.19	48,423	42,730	51,790	22.37	2,315
1997	437,673.46	215,685	190,329	247,344	23.16	10,680
1998	358,768.83	169,698	149,748	209,021	23.95	8,727
1999	151,713.07	69,045	60,928	90,785	24.55	3,698
2000	479,791.03	208,613	184,088	295,703	25.35	11,665
2001	171,775.29	71,184	62,816	108,959	26.14	4,168

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 363.00 SERVICES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
2002	285,859.32	113,057	99,766	186,093	26.75	6,957
2003	197,099.36	73,833	65,153	131,946	27.55	4,789
2004	736,372.63	260,234	229,641	506,732	28.36	17,868
2005	323,714.27	107,473	94,838	228,876	29.17	7,846
2006	862,910.96	267,934	236,435	626,476	29.98	20,896
2007	485,211.48	140,711	124,169	361,042	30.60	11,799
2008	508,138.73	136,181	120,171	387,968	31.42	12,348
2009	2,535,512.28	622,975	549,737	1,985,775	32.24	61,594
2010	474,849.72	105,986	93,526	381,324	33.06	11,534
2011	172,262.57	34,556	30,494	141,769	33.87	4,186
2012	216,720.64	38,533	34,003	182,718	34.69	5,267
2013	570,437.46	88,646	78,225	492,212	35.34	13,928
2014	990,175.55	130,703	115,337	874,839	36.17	24,187
2015	1,176,249.77	127,505	112,516	1,063,734	37.00	28,750
2016	681,869.76	57,959	51,145	630,725	37.65	16,752
2017	1,201,637.47	73,300	64,683	1,136,954	38.48	29,547
2018	773,742.50	28,551	25,194	748,548	39.15	19,120
2019	531,224.71	6,693	5,907	525,318	39.34	13,353
9999	3,824,000.91-	1,205,884-	1,064,293-	2,759,707-		94,900-
	14,216,609.56	4,483,153	3,956,756	10,259,854		352,811

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 29.1   2.48

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 364.00 FLOW MEASURING DEVICES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2.5						
NET SALVAGE PERCENT.. 0						
1989	5,317.10	4,995	577	4,740	1.97	2,406
1992	7,284.72	6,711	775	6,510	2.35	2,770
2005	8,722.16	6,678	772	7,950	4.44	1,791
2006	6,468.54	4,838	559	5,910	4.55	1,299
2007	9,030.61	6,558	758	8,273	4.71	1,756
2008	29,418.95	20,605	2,381	27,038	4.92	5,496
2009	92,082.61	61,493	7,104	84,979	5.22	16,280
2010	19,205.24	12,078	1,395	17,810	5.61	3,175
2013	26,874.75	12,717	1,469	25,406	7.24	3,509
2014	152,434.49	62,544	7,227	145,207	7.90	18,381
2015	4,972.70	1,703	197	4,776	8.64	553
2016	8,070.58	2,186	252	7,819	9.42	830
2018	1,269.20	151	17	1,252	11.09	113
9999	14,726.81-	8,065-	931-	13,796-		2,316-
	356,424.84	195,192	22,552	333,873		56,043

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.0   15.72

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S2						
NET SALVAGE PERCENT.. 0						
2009	14,938.00	6,761	1,190-	16,128	12.70	1,270
	14,938.00	6,761	1,190-	16,128		1,270

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.7   8.50

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 370.00 RECEIVING WELLS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2007	6,261.10	1,714	1,528	4,733	33.16	143
2009	92,112.20	21,370	19,053	73,059	34.75	2,102
2013	33,467.05	4,893	4,362	29,105	37.95	767
2017	1,547.02	89	79	1,468	40.98	36
2019	10,032.40	118	106	9,927	41.87	237
	143,419.77	28,184	25,128	118,292		3,285

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 36.0   2.29

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 371.00 PUMPING EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S0.5						
NET SALVAGE PERCENT.. 0						
1985	508.69	412	128	381	8.05	47
1986	93,193.22	74,303	23,023	70,170	8.52	8,236
1989	4,752.26	3,638	1,127	3,625	9.34	388
1992	115,530.12	83,875	25,989	89,541	10.38	8,626
1993	24,770.06	17,656	5,471	19,299	10.68	1,807
1994	19,130.99	13,367	4,142	14,989	11.00	1,363
1996	56,678.77	37,827	11,721	44,958	11.71	3,839
1997	32,695.30	21,258	6,587	26,108	12.10	2,158
1999	41,804.10	25,793	7,992	33,812	12.72	2,658
2001	19,569.75	11,331	3,511	16,059	13.45	1,194
2003	129,284.98	69,542	21,548	107,737	14.17	7,603
2004	163,146.82	83,955	26,013	137,134	14.62	9,380
2005	76,833.59	37,771	11,703	65,131	15.00	4,342
2006	54,708.58	25,625	7,940	46,769	15.32	3,053
2007	6,031.45	2,669	827	5,204	15.75	330
2008	360,343.07	150,011	46,481	313,862	16.12	19,470
2009	624,200.33	242,502	75,139	549,061	16.53	33,216
2010	290,710.75	104,656	32,428	258,283	16.89	15,292
2011	39,056.90	12,881	3,991	35,066	17.27	2,030
2012	19,617.06	5,842	1,810	17,807	17.69	1,007
2013	37,716.44	9,953	3,084	34,632	18.13	1,910
2014	1,827,592.67	418,153	129,565	1,698,028	18.54	91,587
2015	228,119.18	43,845	13,585	214,534	18.92	11,339
2016	650,202.61	99,676	30,885	619,318	19.33	32,039
2017	399,729.09	44,970	13,934	385,795	19.72	19,564
2018	393,360.60	27,299	8,459	384,902	20.10	19,149
2019	5,182,742.69	124,386	38,541	5,144,202	20.38	252,414
9999	66,626.22-	10,969-	3,398-	63,228-		3,389-
	10,825,403.85	1,782,227	552,226	10,273,178		550,652

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.7   5.09

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 380.00 TREATMENT EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
1957	20,559.82	19,918	13,588	6,972	2.01	3,469
1965	83,399.24	78,178	53,332	30,067	3.64	8,260
1967	174,259.77	161,016	109,843	64,417	4.32	14,911
1973	951.59	845	576	376	5.85	64
1981	4,459.50	3,692	2,519	1,940	8.01	242
1984	581,328.63	464,365	316,785	264,544	8.94	29,591
1985	480,323.84	379,456	258,861	221,463	9.17	24,151
1986	700,147.70	546,535	372,840	327,308	9.42	34,746
1987	201,769.29	154,757	105,573	96,196	9.87	9,746
1989	816,786.93	607,853	414,670	402,117	10.48	38,370
1992	812,438.87	569,682	388,631	423,808	11.72	36,161
1993	3,407,080.96	2,338,620	1,595,380	1,811,701	12.11	149,604
1994	58,519.34	39,243	26,771	31,748	12.52	2,536
1995	7,336.00	4,799	3,274	4,062	12.95	314
1996	25,760.46	16,466	11,233	14,527	13.26	1,096
1997	20,044.11	12,447	8,491	11,553	13.73	841
1998	3,671.26	2,210	1,508	2,163	14.21	152
1999	17,201.00	10,014	6,831	10,370	14.71	705
2001	65,430.51	35,346	24,113	41,318	15.75	2,623
2002	354,890.81	183,833	125,409	229,482	16.28	14,096
2004	354,533.11	167,056	113,964	240,569	17.39	13,834
2005	1,406,552.96	628,167	428,528	978,025	17.97	54,425
2006	282,730.88	119,086	81,239	201,492	18.55	10,862
2007	30,819.11	12,174	8,305	22,514	19.15	1,176
2008	811,464.19	297,645	203,050	608,414	19.85	30,651
2009	18,217,731.08	6,179,454	4,215,554	14,002,177	20.46	684,368
2010	9,680,221.79	2,997,965	2,045,178	7,635,044	21.17	360,654
2011	18,164.37	5,079	3,465	14,699	21.90	671
2012	746,760.06	185,943	126,848	619,912	22.62	27,405
2013	2,907,579.81	631,236	430,622	2,476,958	23.44	105,672
2014	8,846,915.58	1,640,218	1,118,938	7,727,978	24.17	319,734
2015	675,780.96	103,124	70,350	605,431	25.00	24,217
2016	454,332.47	54,247	37,007	417,325	25.82	16,163
2017	662,038.45	56,604	38,614	623,424	26.74	23,314
2018	3,454,172.81	177,544	121,118	3,333,055	27.66	120,501
2019	1,098,545.37	18,895	12,890	1,085,655	28.57	38,000
9999	2,200,080.47-	723,491-	493,557-	1,706,523-		84,327-
	55,284,622.16	18,180,221	12,402,341	42,882,281		2,118,998

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.2 3.83

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 381.00 PLANT SEWERS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2008	294,411.86	74,486	62,699	231,713	33.95	6,825
2009	4,434,866.70	1,028,889	866,076	3,568,791	34.75	102,699
2010	1,187,964.50	250,542	210,896	977,068	35.55	27,484
2011	6,597.06	1,251	1,053	5,544	36.34	153
2012	1,684.33	283	238	1,446	37.14	39
2014	234,318.33	29,126	24,517	209,801	38.75	5,414
2015	7,458.23	762	642	6,816	39.55	172
2016	45,239.43	3,610	3,039	42,200	40.36	1,046
9999	30,192.33-	6,750-	5,682-	24,510-		699-
	6,182,348.11	1,382,199	1,163,478	5,018,870		143,133

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 35.1 2.32

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 382.00 OUTFALL SEWER LINES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1957	12,139.53	11,229	10,829	1,311	5.07	259
1975	4,984.00	3,925	3,785	1,199	12.00	100
1993	202,475.94	108,932	105,054	97,422	22.76	4,280
2004	1,695.94	565	545	1,151	31.01	37
2005	9,240.93	2,894	2,791	6,450	31.80	203
2006	201,117.58	59,189	57,082	144,036	32.37	4,450
2009	26,051.26	6,044	5,829	20,222	34.75	582
2010	27,827.93	5,869	5,660	22,168	35.55	624
2014	100,422.48	12,483	12,038	88,384	38.75	2,281
2017	18,433.32	1,060	1,023	17,411	40.98	425
	604,388.91	212,190	204,636	399,753		13,241

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 30.2 2.19

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-S2.5						
NET SALVAGE PERCENT.. 0						
2010	273,149.74	137,012	120,865	152,285	9.44	16,132
2013	8,814.50	3,117	2,750	6,064	11.88	510
2018	32,175.41	2,664	2,350	29,825	16.62	1,795
2019	268,065.51	7,399	6,526	261,539	17.62	14,843
	582,205.16	150,192	132,491	449,714		33,280

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.5 5.72

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2008	3,529.23	2,029	105-	3,634	8.50	428
2009	52,251.63	27,432	1,415-	53,667	9.50	5,649
2010	7,240.80	3,439	177-	7,418	10.50	706
2012	7,908.11	2,966	153-	8,061	12.50	645
2013	18,309.85	5,951	307-	18,617	13.50	1,379
2015	2,488.32	560	29-	2,517	15.50	162
2016	17,826.99	3,120	161-	17,988	16.50	1,090
2017	28,119.56	3,515	182-	28,302	17.50	1,617
2018	10,405.16	780	40-	10,445	18.50	565
2019	20,626.43	516	27-	20,653	19.50	1,059
	168,706.08	50,308	2,596-	171,302		13,300

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.9   7.88

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
2006	73,113.90	61,591	49,525	23,589	2.53	9,324
2011	128,391.92	79,885	64,235	64,157	5.16	12,434
2012	73,865.31	41,158	33,095	40,770	5.96	6,841
2013	62,726.96	30,623	24,624	38,103	6.81	5,595
2016	2,423.80	643	517	1,907	9.69	197
2017	8,526.46	1,616	1,299	7,227	10.69	676
2018	927,895.26	105,502	84,834	843,061	11.69	72,118
2019	296,798.31	11,249	9,045	287,753	12.69	22,676
	1,573,741.92	332,267	267,174	1,306,568		129,861

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.1 8.25

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 392.00 STORES EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2012	58,391.33	17,517	17,847	40,544	17.50	2,317
2017	2,199.71	220	224	1,976	22.50	88
2018	46,760.40	2,806	2,859	43,902	23.50	1,868
	107,351.44	20,543	20,930	86,422		4,273

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.2   3.98

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	8,276.87	6,001	7,682	595	5.50	108
2006	75,500.00	50,962	65,241	10,259	6.50	1,578
2007	6,695.14	4,184	5,356	1,339	7.50	179
2008	2,776.47	1,596	2,043	733	8.50	86
2009	378.54	199	255	124	9.50	13
2010	61,467.53	29,197	37,378	24,090	10.50	2,294
2012	53,547.52	20,080	25,707	27,841	12.50	2,227
2013	16,093.74	5,230	6,695	9,399	13.50	696
2014	36,416.31	10,014	12,820	23,596	14.50	1,627
2015	56,943.11	12,812	16,402	40,541	15.50	2,616
2016	107,176.04	18,756	24,012	83,164	16.50	5,040
2017	7,458.66	932	1,193	6,266	17.50	358
2018	94,551.82	7,091	9,078	85,474	18.50	4,620
2019	13,456.70	336	430	13,027	19.50	668
	540,738.45	167,390	214,292	326,447		22,110

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.8   4.09

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 394.00 LABORATORY EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
1998	1,401.00	1,401	1,401			
1999	2,938.00	2,938	2,938			
2000	2,905.46	2,905	2,905			
2001	529.90	530	530			
2005	2,348.43	2,270	2,348			
2007	858.64	716	794	65	2.50	26
2008	48,521.14	37,200	41,279	7,242	3.50	2,069
2009	41,773.44	29,241	32,447	9,326	4.50	2,072
2010	31,269.93	19,804	21,975	9,295	5.50	1,690
2011	16,488.52	9,344	10,368	6,121	6.50	942
2012	15,638.71	7,819	8,676	6,963	7.50	928
2013	5,917.50	2,564	2,845	3,072	8.50	361
2014	36,775.07	13,484	14,963	21,812	9.50	2,296
2015	12,751.71	3,826	4,245	8,507	10.50	810
2016	65,493.26	15,282	16,958	48,535	11.50	4,220
2017	48,566.17	8,095	8,983	39,583	12.50	3,167
2018	28,248.23	2,825	3,135	25,113	13.50	1,860
2019	56,408.91	1,880	2,086	54,323	14.50	3,746
	418,834.02	162,124	178,876	239,958		24,187

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.9   5.77

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 22-R2						
NET SALVAGE PERCENT.. 0						
1986	7,525.00	7,109	7,525			
1992	10,000.00	8,828	10,000			
1993	93,533.45	81,542	93,533			
2002	72,784.90	50,818	64,414	8,371	7.56	1,107
2011	345,636.00	140,743	178,398	167,238	12.38	13,509
2015	3,257.24	771	977	2,280	14.51	157
2018	19,634.12	1,732	2,196	17,438	15.51	1,124
9999	10,000.00-	5,278-	6,464-	3,536-		288-
	542,370.71	286,265	350,579	191,792		15,609

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.3 2.88

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	234,211.01	226,405	234,211			
2006	3,256.29	2,931	3,256			
2007	2,450.35	2,042	2,442	8	2.50	3
2008	9,753.43	7,478	8,944	809	3.50	231
2009	521,963.46	365,374	436,998	84,965	4.50	18,881
2010	144,621.29	91,593	109,548	35,073	5.50	6,377
2011	4,370.98	2,477	2,963	1,408	6.50	217
2012	3,344.78	1,672	2,000	1,345	7.50	179
2013	263,689.84	114,265	136,664	127,026	8.50	14,944
2014	98,016.16	35,940	42,985	55,031	9.50	5,793
2016	172,002.57	40,133	48,000	124,003	11.50	10,783
2017	13,811.63	2,302	2,753	11,059	12.50	885
2018	12,412.19	1,241	1,484	10,928	13.50	809
2019	7,055.35	235	281	6,774	14.50	467
	1,490,959.33	894,088	1,032,529	458,430		59,569

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.7 4.00

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 397.00 MISCELLANEOUS EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2008	20,048.36	15,370	20,048			
2009	6,270.00	4,389	6,270			
2010	4,161.94	2,636	4,162			
2011	14,880.36	8,432	14,880			
2012	15,424.61	7,712	15,425			
2013	16,427.62	7,119	16,428			
2015	4,104.14	1,231	4,104			
2017	28,080.87	4,680	28,081			
2018	33,269.93	3,327	33,270			
2019	123,794.18	4,126	67,883	55,911	14.50	3,856
9999	29,000.00-	6,424-	22,916-	6,084-		420-
	237,462.01	52,598	187,635	49,827		3,436

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 14.5   1.45

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 398.00 OTHER TANGIBLE PLANT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	14,231.50	285		14,232	24.50	581
	14,231.50	285		14,232		581

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 24.5 4.08

PART III. EXPERIENCED NET SALVAGE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

ACCT	REGULAR RETIREMENTS	COST OF REMOVAL	GROSS SALVAGE	NET SALVAGE
2015 TRANSACTION YEAR				
354.20		1,397.69		1,397.69-
354.30	43,759.87	4,140.75		4,140.75-
354.40	62,674.33	1,026.52		1,026.52-
354.70	2,111.56	480.36		480.36-
355.00		1,665.75		1,665.75-
360.10	19.02	3,255.59		3,255.59-
361.10	41,514.63	65,334.39		65,334.39-
361.20	12,188.26	7,496.94		7,496.94-
363.00	182,967.14	27,377.40		27,377.40-
371.00	19,187.25	4,901.57		4,901.57-
380.00	17,199.80	1,622.52		1,622.52-
390.00	5,416.12			
395.00	55,927.14			
396.00	22,514.95	4,189.54		4,189.54-
397.00	1,573.00			
	467,053.07	122,889.02		122,889.02-
2016 TRANSACTION YEAR				
354.20	.01	41.70		41.70-
354.30	571.02			
354.40	34,034.72	4,580.92		4,580.92-
355.00	57,572.55	4,933.68		4,933.68-
360.10	1,368.17	12,703.29		12,703.29-
361.10	245,871.29	7,077.34	106.90	6,970.44-
361.20		53,436.99	437.10	52,999.89-
363.00	34,819.43	11,693.51		11,693.51-
371.00	54,772.73	11,514.65		11,514.65-
380.00	147,475.80	23,916.89		23,916.89-
381.00	13,300.05	2,109.73		2,109.73-
390.00	3,416.69	276.48		276.48-
393.00	15,451.56	4,963.98	176,515.74	171,551.76
394.00	1,377.94	566.37		566.37-
395.00		830.86-	44,128.93	44,959.79
396.00	6,233.38	911.22	132,386.80	131,475.58
397.00	25,065.55	1,142.09	88,257.87	87,115.78
	641,330.89	139,037.98	441,833.34	302,795.36

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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				
354.20	1,407.63	304.32		304.32-
354.30	166,438.60	36,849.10		36,849.10-
354.40	572,137.15	35,585.29		35,585.29-
354.70	12,302.62	2,146.21		2,146.21-
355.00	9,831.57	930.05		930.05-
360.10	1,620.35	1,809.34		1,809.34-
361.10	115,058.32	53,983.89		53,983.89-
361.20	.06			
363.00	25,016.92	69,276.31		69,276.31-
364.00	31,435.54			
365.00	5,980.30			
371.00	369,649.35	5,054.34		5,054.34-
380.00	888,989.12	6,892.29		6,892.29-
381.00	30,192.33			
382.00		604.43		604.43-
390.00	16,791.12	763.18		763.18-
391.00	20,700.00			
392.00	5,858.64			
393.00	33,251.29	328.18		328.18-
394.00	8,779.18	60.05		60.05-
396.00	13,448.85	5,474.39		5,474.39-
397.00	190,794.50			
	2,519,683.44	220,061.37		220,061.37-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

EXPERIENCED 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	416.47	2,367.05		2,367.05-
354.30	573,594.97	87.11		87.11-
354.40	744,885.32	18,538.55-		18,538.55
354.70		36,099.53		36,099.53-
355.00	422,792.78	4,538.63		4,538.63-
360.10	276,235.14	85,350.18		85,350.18-
361.10	2,339,080.10	345,943.14		345,943.14-
361.20	13,749.21			
363.00	56,288.53	48,455.35		48,455.35-
364.00	31,450.72			
371.00	113,724.18	18,884.54-		18,884.54
380.00	1,203,983.11	12,304.03		12,304.03-
382.00	5.76	980.65		980.65-
389.10		3,678.20-		3,678.20
390.00	5,925.73	93.95		93.95-
391.00	79,247.81	9,708.42		9,708.42-
393.00	17,334.55			
394.00	28,673.47	117.59		117.59-
396.00	3,064.59			
397.00		6,019.17		6,019.17-
	5,910,452.44	510,963.51		510,963.51-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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				
354.20	3,076.09	27,531.06		27,531.06-
354.30		61,135.00		61,135.00-
354.40	913,340.30	1,985.51		1,985.51-
354.70	3,125.06	18,075.18		18,075.18-
355.00		9,730.05		9,730.05-
360.10	55,943.69	245,202.29		245,202.29-
361.10	352,132.81	1,038,558.77		1,038,558.77-
361.20	1,170.55	109,567.01		109,567.01-
363.00	5,384.61	150,830.30		150,830.30-
364.00	3,202.68	239.58		239.58-
370.00	1,108.89			
371.00	5,188.39	141,438.05		141,438.05-
380.00	36,603.24	214,843.19		214,843.19-
381.00	2,120.40			
389.10		5,681.56		5,681.56-
390.00	67,403.59			
391.00		6,028.96		6,028.96-
393.00	60,983.28	1,931.40		1,931.40-
394.00	26,823.05	5,593.49		5,593.49-
395.00		2,048.24		2,048.24-
396.00	48,155.78	1,897.96		1,897.96-
397.00	141,002.08	5,512.61		5,512.61-
398.00		1,251.49		1,251.49-
	1,726,764.49	2,049,081.70		2,049,081.70-
TOTAL	11,265,284.33	3,042,033.58	441,833.34	2,600,200.24-

EXHIBIT NO. 11-J - DEPRECIATION STUDY

WASTEWATER SSS OPERATIONS

EXCLUDING SADSBURY AND EXETER

AS OF DECEMBER 31, 2020

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

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

2020 DEPRECIATION STUDY

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

Prepared by:

Gannett Fleming

Excellence Delivered ***As Promised***

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

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

2020 DEPRECIATION STUDY

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

GANNETT FLEMING VALUATION AND RATE CONSULTANTS, LLC

Camp Hill, Pennsylvania

Gannett Fleming

Excellence Delivered ***As Promised***

April 22, 2020

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

Attention Ashley E. Everette
Director, Rates & Regulatory

Ladies and Gentlemen:

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

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

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

John J. Spanos

JOHN J. SPANOS
President

JJS:mle

066548.100

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PART I. INTRODUCTION

PENNSYLVANIA-AMERICAN WATER COMPANY

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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, 2020. 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, 2020.

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 2016-2020.

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, 2020. 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. These curve types have also been presented in subsequent

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

Retirement Rate Method of Analysis

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

The average rate of retirement used in the calculation of the percent surviving for the survivor curve (life table) requires two sets of data: first, the property retired during a period of observation, identified by the property's age at retirement; and second, the property exposed to retirement at the beginning of the age intervals during the same period. The period of observation is referred to as the experience band, and the band of years which represent the installation dates of the property exposed to retirement during the experience band is referred to as the placement band. An example of the calculations used in the development of a life table follows. The example includes schedules of annual aged property transactions, a schedule of plant exposed to retirement, a life table and illustrations of smoothing the stub survivor curve.

---

[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.

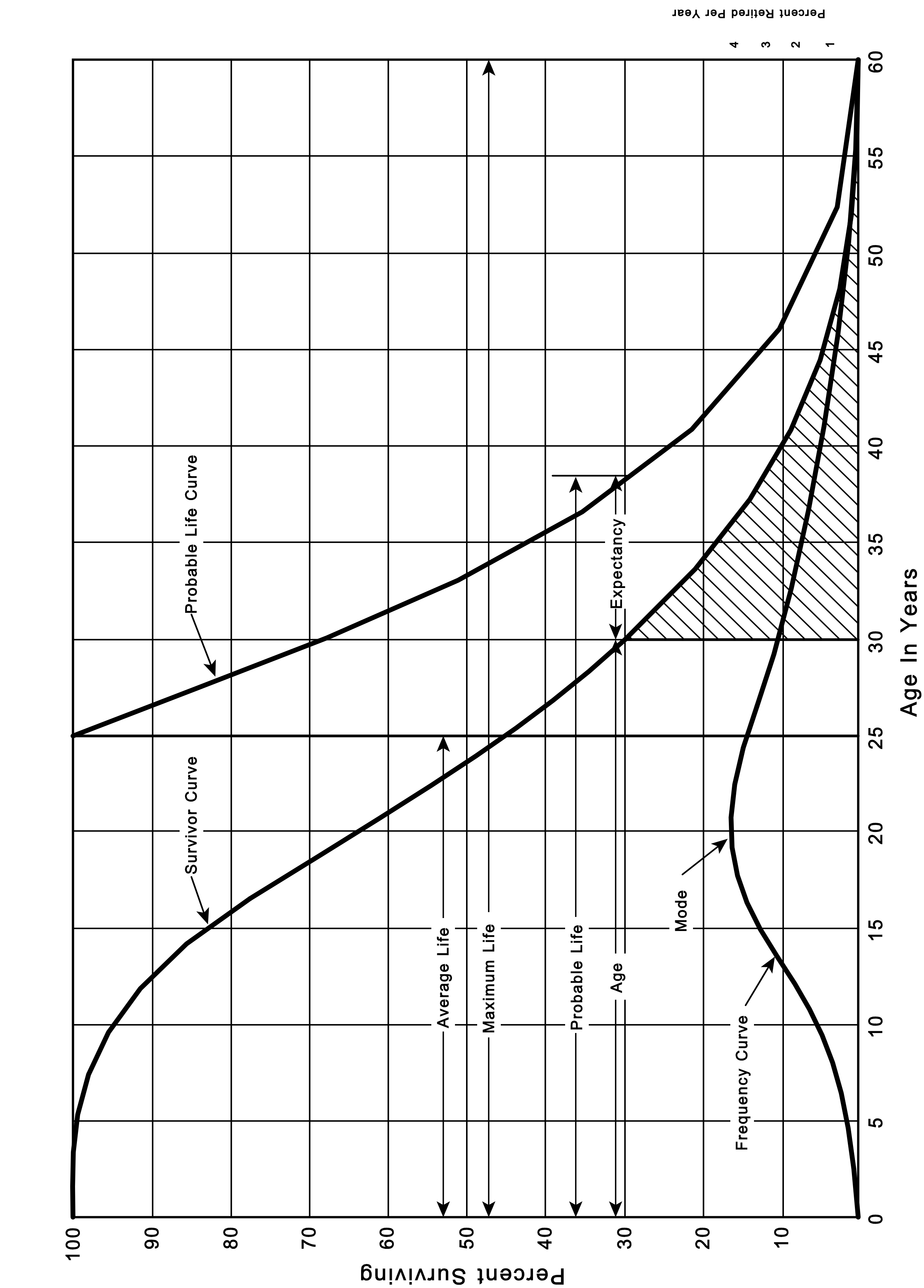


Figure 1. A Typical Survivor Curve and Derived Curves

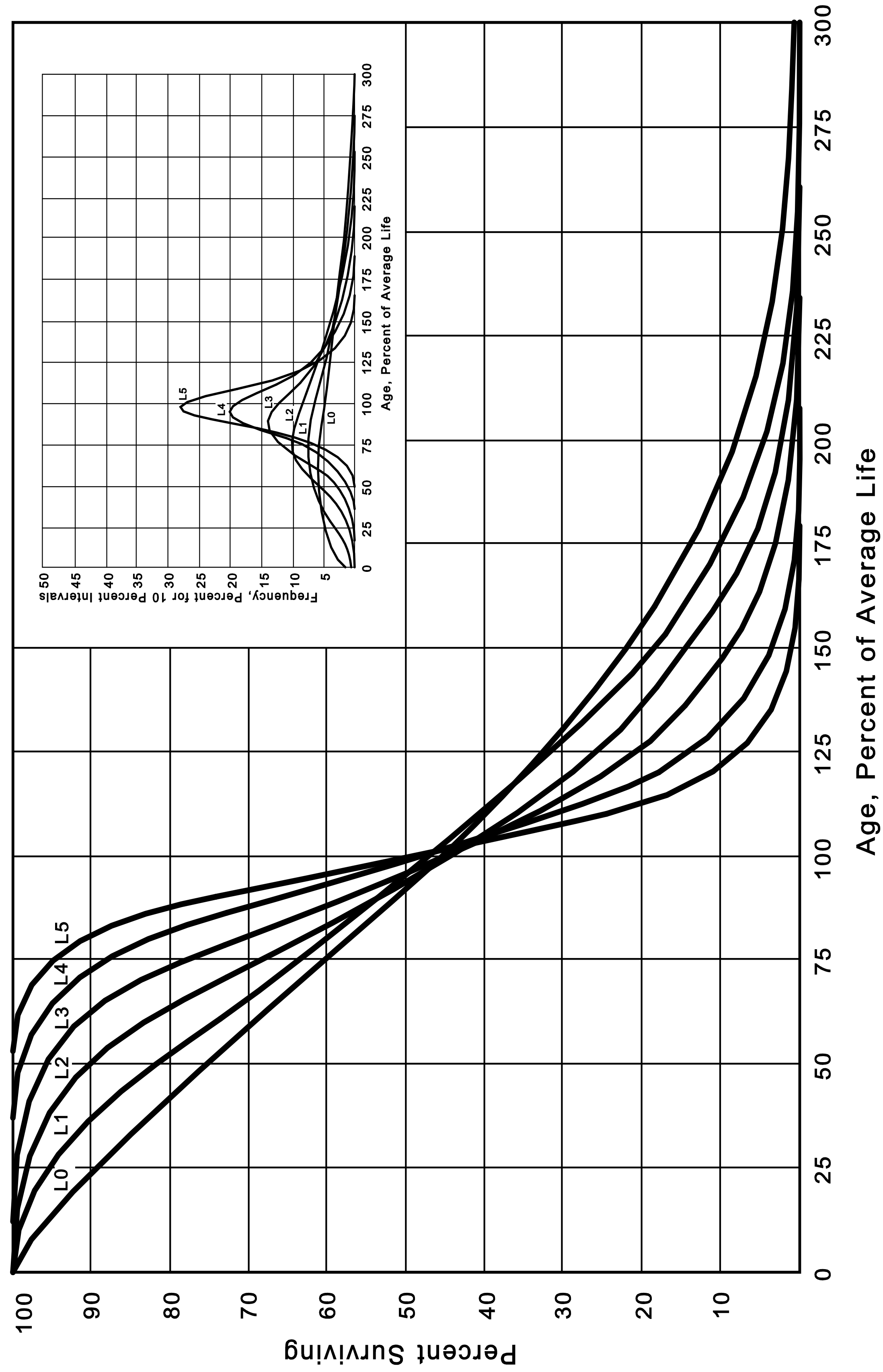


Figure 2. Left Modal or "L" Iowa Type Survivor Curves

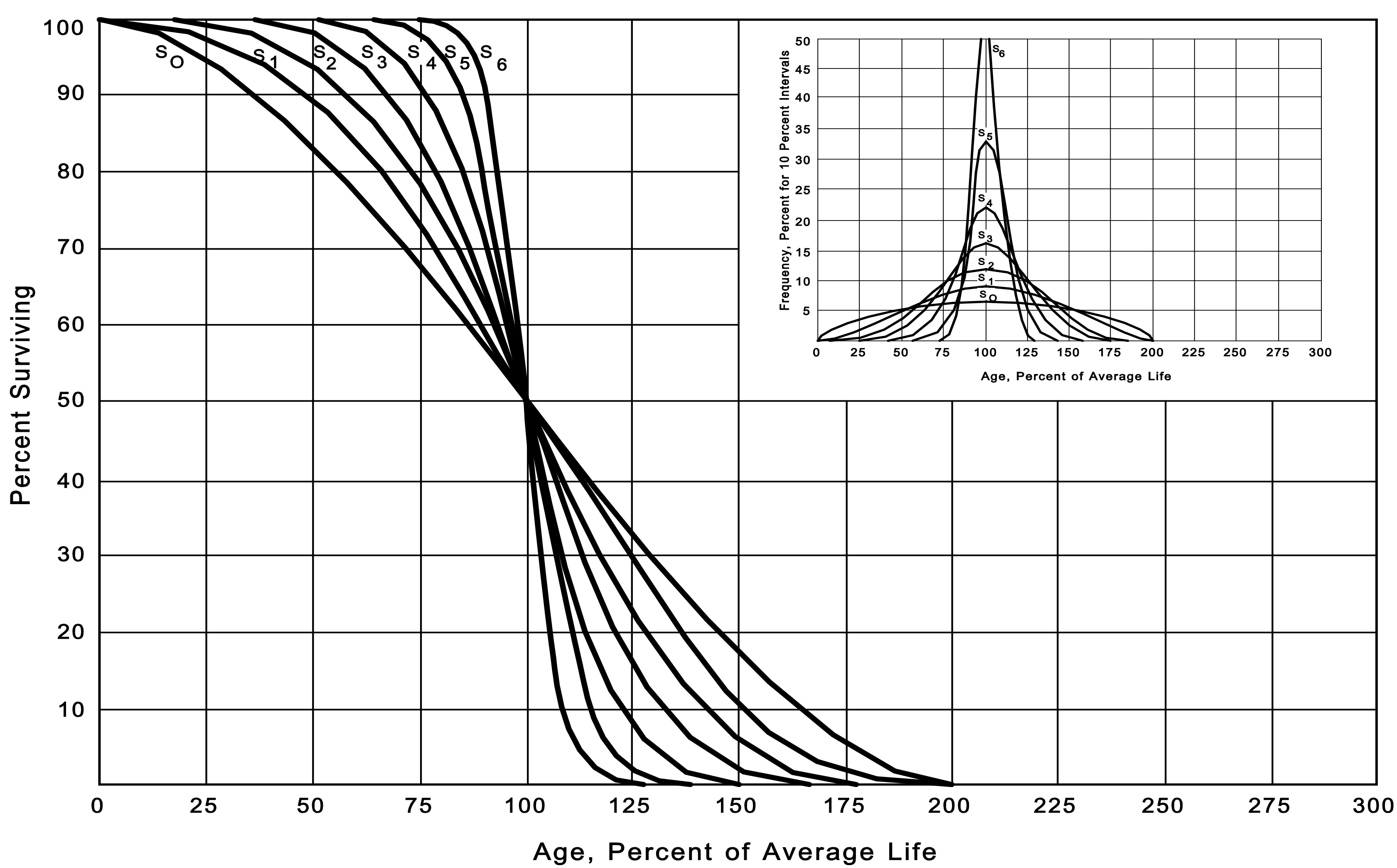


Figure 3. Symmetrical or "S" Iowa Type Survivor Curves

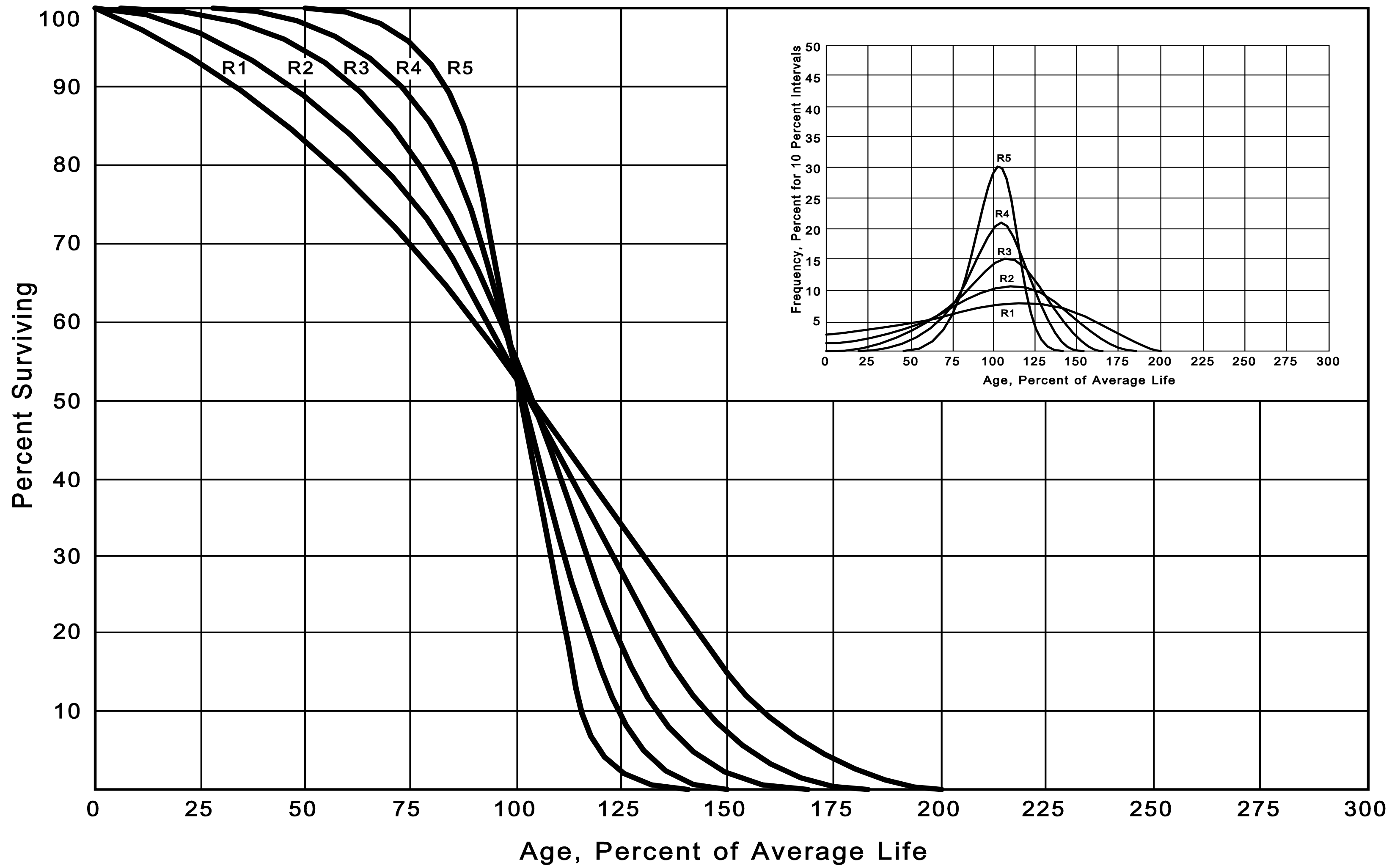


Figure 4. Right Modal or "R" Iowa Type Survivor Curves

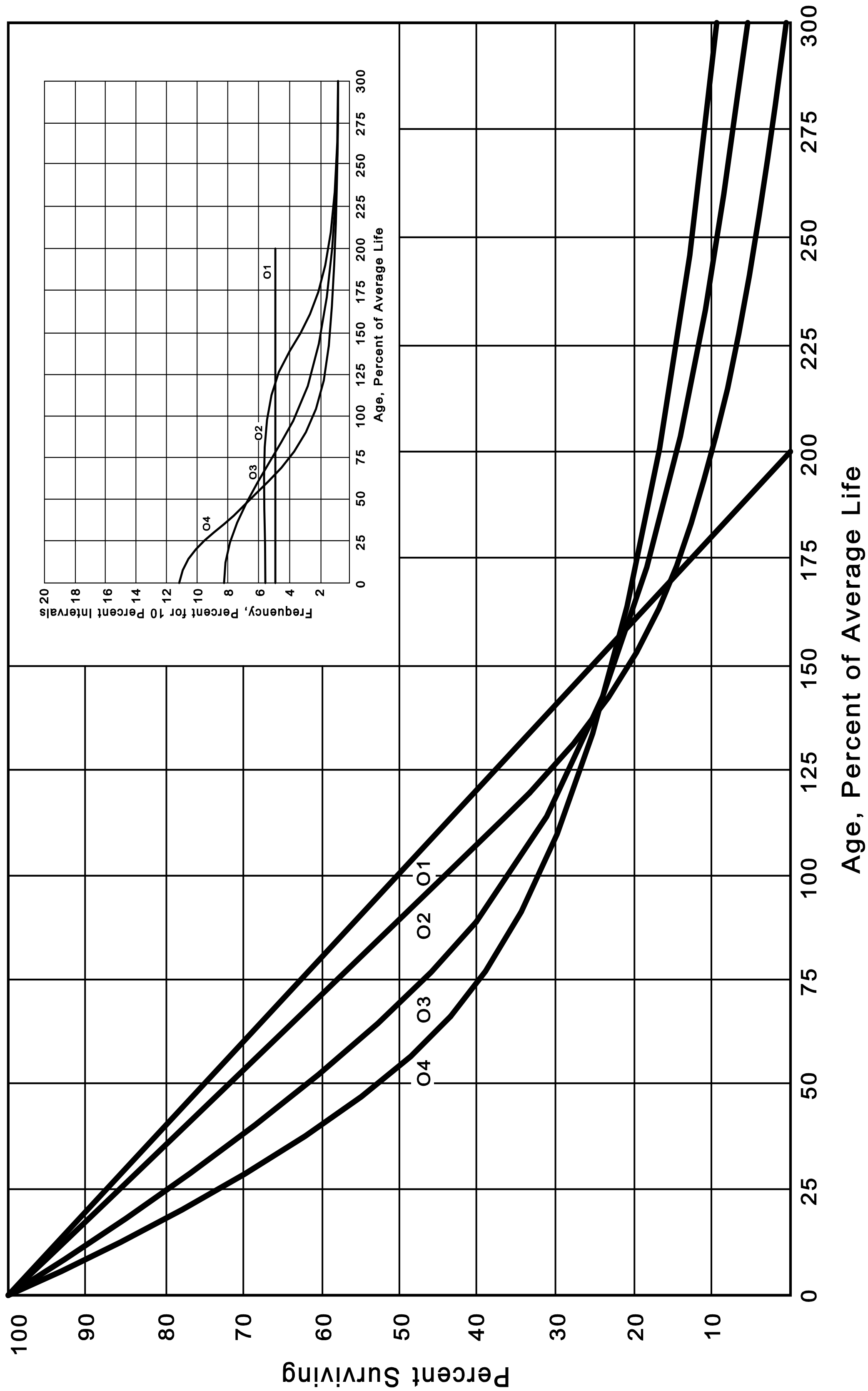


Figure 5. Origin Modal or "O" Iowa Type Survivor Curves

Schedules of Annual Transactions in Plant Records

A hypothetical property group is used to illustrate the retirement rate method. This property group is observed for the experience band 2010-2019 during which there were placements (or installations) during the years 2005-2019. In order to illustrate the summation of the aged data by age interval, the data were compiled in the manner presented in Schedules 1 and 2 on pages II-11 and II-12. In Schedule 1, year placed and the year of retirement are shown. The age interval during which a retirement occurred is determined from this information. In the example which follows, $10,000 of the dollars invested in 2005 were retired in 2010. The $10,000 retirement occurred during the age interval between 4½ and 5½ years on the basis that approximately one-half of the amount of property was installed prior to and subsequent to July 1 of each year. That is, on the average, property installed during a year is placed in service at the midpoint of the year for the purpose of the analysis. All retirements also are stated as occurring at the midpoint of a one-year age interval of time, except the first age interval which encompasses only one-half year.

The total retirements occurring in each age interval in a band are determined by summing the amounts for each transaction year-installation year combination for that age interval. For example, the total of $143,000 retired for age interval 4½-5½ is the sum of the retirements entered on Schedule 1 immediately above the stair step line drawn on the table beginning with the 2010 retirements of 2005 installations and ending with the 2019 retirements of the 2014 installations. Thus, the total amount of 143 for age interval 4½-5½ equals the sum of:

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

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

Experience Band 2010-2019

Placement Band 2005-2019

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

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

Experience Band 2010-2019 | Placement Band 2005-2019

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

[a] Transfer Affecting Exposures at Beginning of Year
[b] Transfer Affecting Exposures at End of Year
[c] Sale with Continued Use
Parentheses Denote Credit Amount.

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

Schedule of Plant Exposed to Retirement

The development of the amount of plant exposed to retirement at the beginning of each age interval is illustrated in Schedule 3 on page II-14. The surviving plant at the beginning of each year from 2010 through 2019 is recorded by year in the portion of the table headed "Annual Survivors at the Beginning of the Year." The last amount entered in each column is the amount of new plant added to the group during the year. The amounts entered in Schedule 3 for each successive year following the beginning balance or addition are obtained by adding or subtracting the net entries shown on Schedules 1 and 2. For the purpose of determining the plant exposed to retirement, transfers-in are considered as being <u>exposed</u> to retirement in this group <u>at the beginning of the year</u> in which they occurred, and the sales and transfers-out are considered to be removed from the plant exposed to retirement at the <u>beginning of the following year</u>. Thus, the amounts of plant shown at the beginning of each year are the amounts of plant from each placement year considered to be exposed to retirement at the beginning of each successive transaction year. For example, the exposures for the installation year 2015 are calculated in the following manner:

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

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

Experience Band 2010-2019

Placement Band 2005-2019

Year Placed	Exposures, Thousands of Dollars – Annual Survivors at the Beginning of the Year 2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total at Beginning of Age Interval	Age Interval
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2005	255	245	234	222	209	195	239	216	192	167	167	13½-14½
2006	279	268	256	243	228	212	194	174	153	131	323	12½-13½
2007	307	296	284	271	257	241	224	205	184	162	531	11½-12½
2008	338	330	321	311	300	289	276	262	242	226	823	10½-11½
2009	376	367	357	346	334	321	307	297	280	261	1,097	9½-10½
2010	420[a]	416	407	397	386	374	361	347	332	316	1,503	8½-9½
2011		460[a]	455	444	432	419	405	390	374	356	1,952	7½-8½
2012			510[a]	504	492	479	464	448	431	412	2,463	6½-7½
2013				580[a]	574	561	546	530	501	482	3,057	5½-6½
2014					660[a]	653	639	623	628	609	3,789	4½-5½
2015						750[a]	742	724	685	663	4,332	3½-4½
2016							850[a]	841	821	799	4,955	2½-3½
2017								960[a]	949	926	5,719	1½-2½
2018									1,080[a]	1,069	6,579	½-1½
2019										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 2010-2019, the total exposures at the beginning of an age interval are obtained by summing diagonally in a manner similar to the summing of the retirements during an age interval (Schedule 1). For example, the figure of 3,789, shown as the total exposures at the beginning of age interval 4½-5½, is obtained by summing:

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

Original Life Table

The original life table, illustrated in Schedule 4 on page II-16**,** is developed from the totals shown on the schedules of retirements and exposures, Schedules 1 and 3, respectively. The exposures at the beginning of the age interval are obtained from the corresponding age interval of the exposure schedule, and the retirements during the age interval are obtained from the corresponding age interval of the retirement schedule. The retirement ratio is the result of dividing the retirements during the age interval by the exposures at the beginning of the age interval. The percent surviving at the beginning of each age interval is derived from survivor ratios, each of which equals one minus the retirement ratio. The percent surviving is developed by starting with 100% at age zero and successively multiplying the percent surviving at the beginning of each interval by the survivor ratio, i.e. one minus the retirement ratio for that age interval. The calculations necessary to determine the percent surviving at age 5½ are as follows:

Percent surviving at age 4½	=	88.15				
Exposures at age 4½	=	3,789,000				
Retirements from age 4½ to 5½	=	143,000				
Retirement Ratio	=	143,000	÷	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 2010-2019 Placement Band 2005-2019

(Exposure and Retirement Amounts are in Thousands of Dollars)

Age at Beginning of Interval	Exposures at Beginning of Age Interval	Retirements During Age Interval	Retirement Ratio	Survivor Ratio	Percent Surviving at Beginning of Age Interval
(1)	(2)	(3)	(4)	(5)	(6)
0.0	7,490	80	0.0107	0.9893	100.00
0.5	6,579	153	0.0233	0.9767	98.93
1.5	5,719	151	0.0264	0.9736	96.62
2.5	4,955	150	0.0303	0.9697	94.07
3.5	4,332	146	0.0337	0.9663	91.22
4.5	3,789	143	0.0377	0.9623	88.15
5.5	3,057	131	0.0429	0.9571	84.83
6.5	2,463	124	0.0503	0.9497	81.19
7.5	1,952	113	0.0579	0.9421	77.11
8.5	1,503	105	0.0699	0.9301	72.65
9.5	1,097	93	0.0848	0.9152	67.57
10.5	823	83	0.1009	0.8991	61.84
11.5	531	64	0.1205	0.8795	55.60
12.5	323	44	0.1362	0.8638	48.90
13.5	167	26	0.1557	0.8443	42.24
14.5					35.66
Total	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

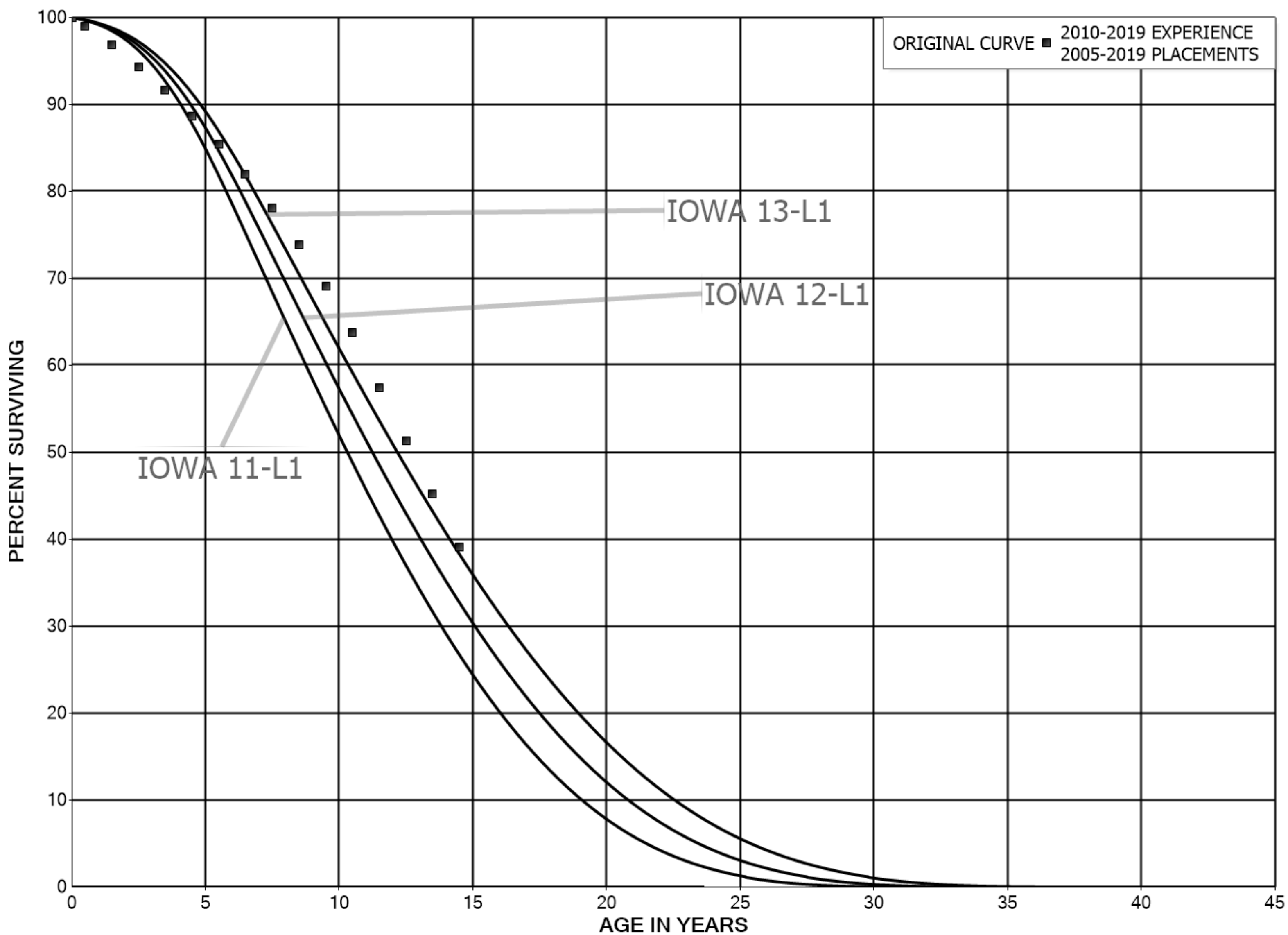


FIGURE 7. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN S0 IOWA TYPE CURVE

ORIGINAL AND SMOOTH SURVIVOR CURVES

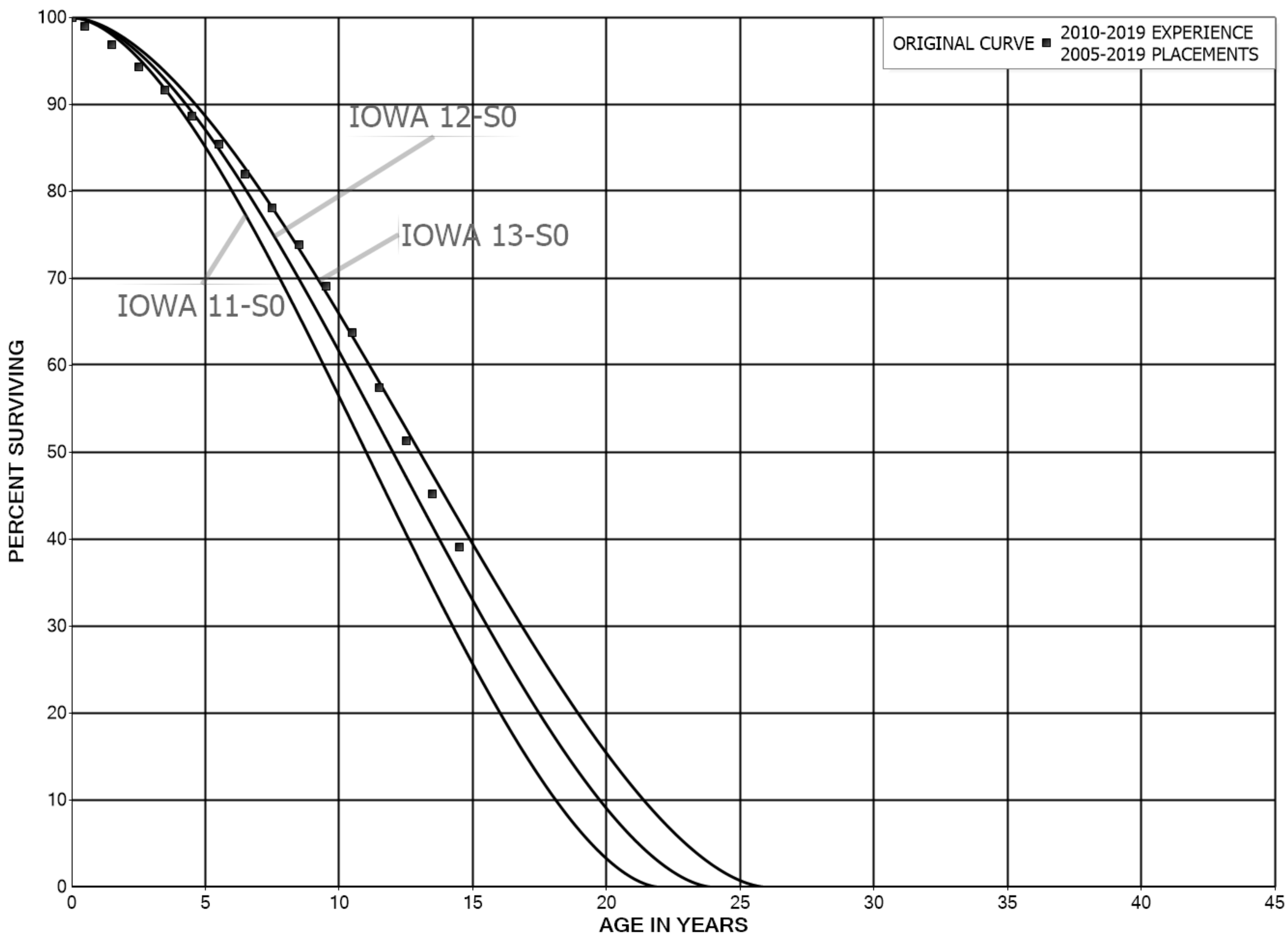


FIGURE 8. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN R1 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES

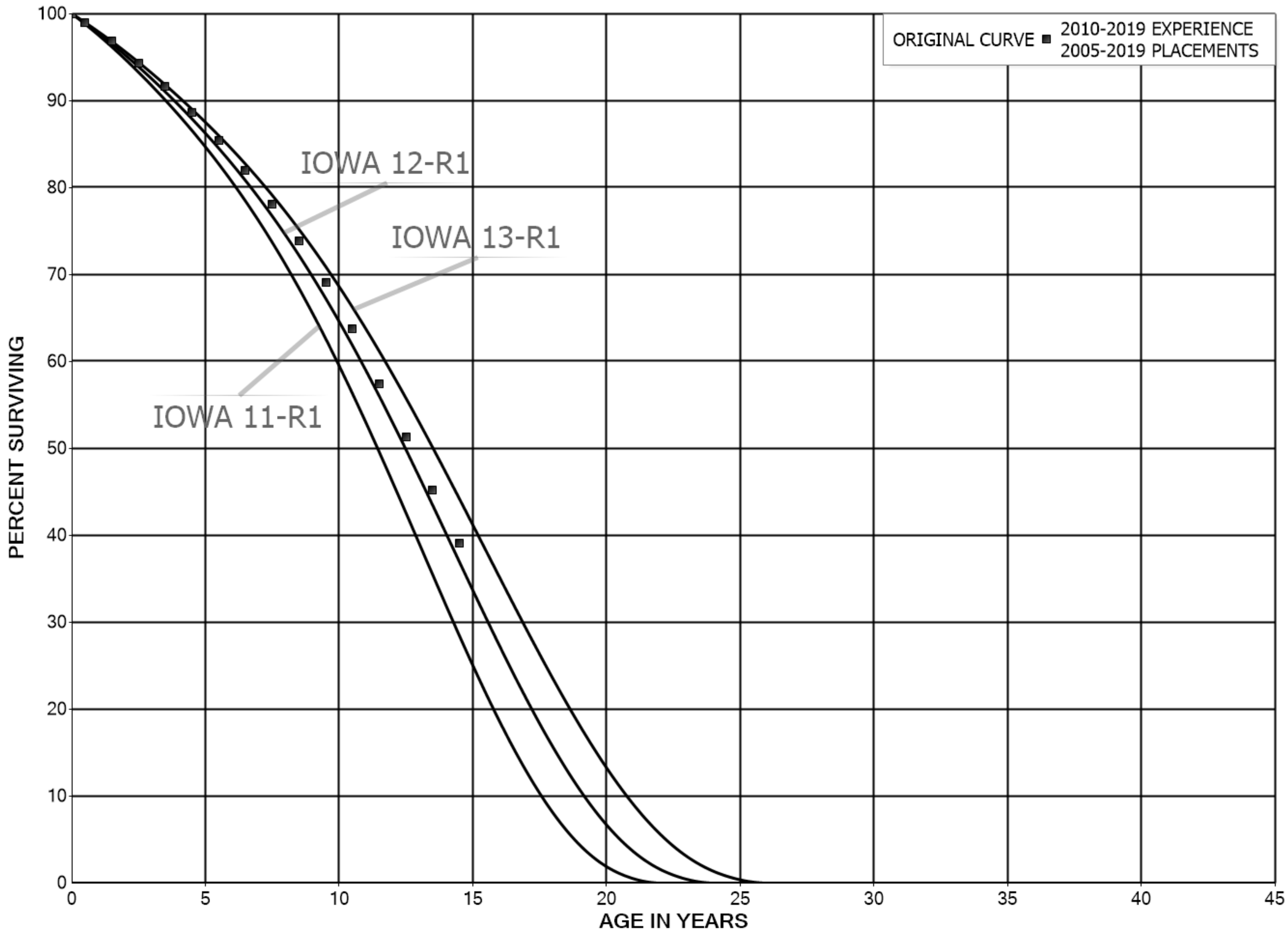
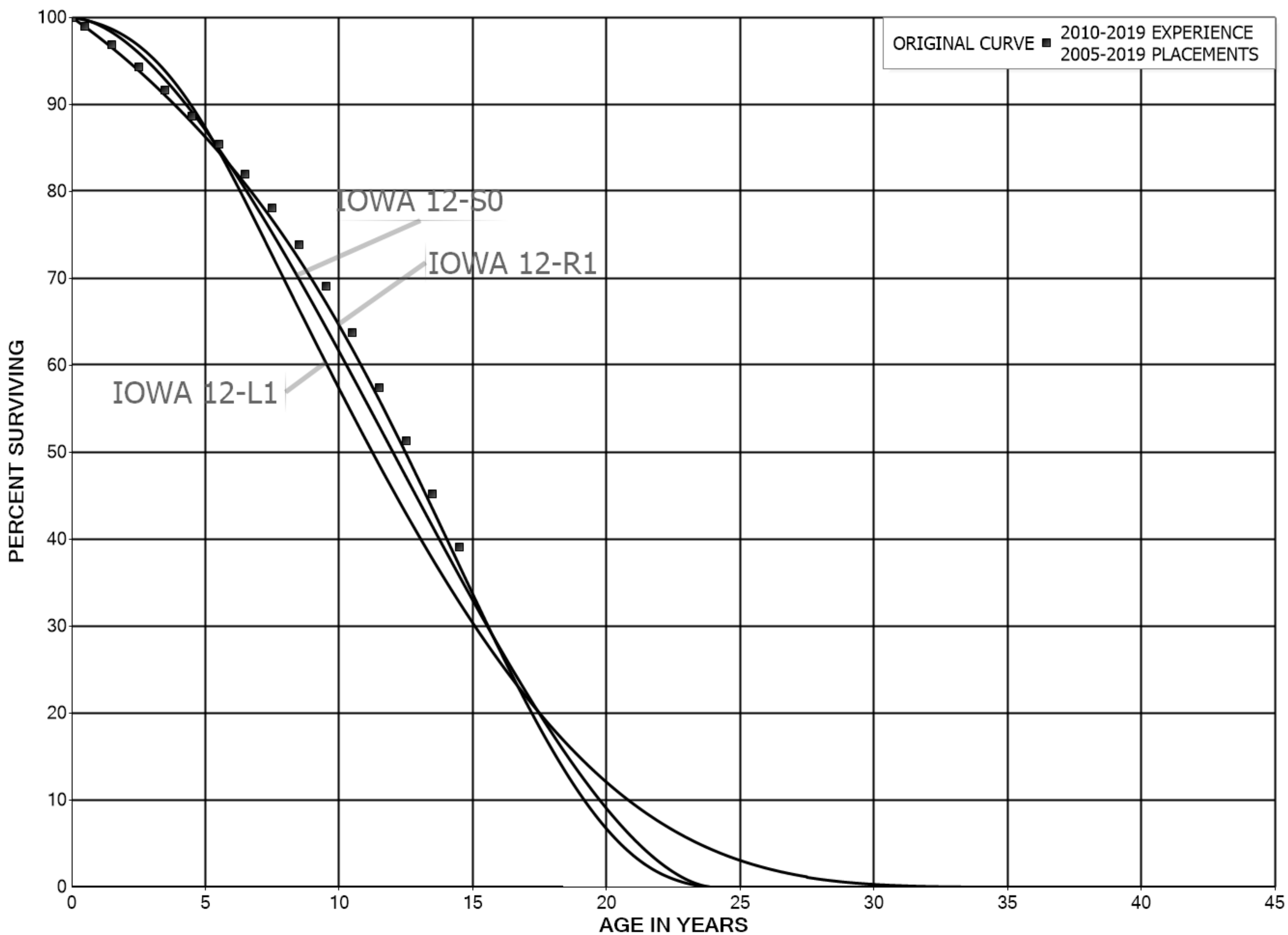


FIGURE 9. ILLUSTRATION OF THE MATCHING OF AN ORIGINAL SURVIVOR CURVE WITH AN L1, S0 AND R1 IOWA TYPE CURVE
ORIGINAL AND SMOOTH SURVIVOR CURVES



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 are conducted for each study. 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 trips.

<u>September 14, 2016</u>
Blue Mountain Lake Wastewater Plant
Winona Lake Lift Station
Saw Creek Wastewater Plant
Marcel Lake Wastewater Plant
Pocono Wastewater Plant

<u>September 6, 2016</u>
Clarion Wastewater Plant
Paint Elk Wastewater Plant
Shippensville Wastewater Plant

<u>September 1, 2016</u>
Franklin Wastewater Plant
Hamilton Ban Pump Station
Franklin Sand Mound Facility
Fairview North Wastewater Plant
South Fairview Wastewater Plant

<u>March 16, 2010</u>
Coatesville Wastewater Plant
Lehman Pike Wastewater Plant
Winona Lake Lift Station

<u>July 28, 2008</u>
Claysville Treatment Plant

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 the predecessor wastewater systems, as well as other wastewater companies. 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.

Account 363, Services, is used to illustrate the manner in which the study was conducted for the accounts in the preceding list. Aged plant accounting data have been compiled for the years through 2019. These data have been coded according to account or property group, type of transaction, year in which the transaction took place, and year in which the utility plant was placed in service. The retirements, other plant transactions and plant additions were analyzed by the retirement rate method.

The survivor curve estimate for this account is the 47-R3 and is based on the statistical indication for the period 1999-2019. The 47-R3 is a good fit of the significant portion of the original survivor curve as set forth on page VI-26, is consistent with management outlook for a continuation of the historical experience and is within the typical service life range of 40 to 55 years for services.

The amortization periods selected for general plant Accounts 390, 392, 393, 394, 396, 397 and 398 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, 2019, is the result of a bringforward of the book reserves established by the Commission for all Wastewater Operations excluding the Sadsbury and Exeter systems. The projected book reserve as of December 31, 2020, is a bringforward of the December 31, 2019 book reserve based on projected accruals, retirements, cost of removal, salvage and other credits.

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:

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

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, 2020, 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, 2020, 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, 397 and 398; 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
398	Other Tangible Plant	25

NET SALVAGE

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

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

PART V. RESULTS OF STUDY

PART V. RESULTS OF STUDY

DESCRIPTION OF SUMMARY TABULATIONS

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

DESCRIPTION OF DETAILED TABULATIONS

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

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

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

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

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

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

DEPRCIABLE GROUP (1)	ORIGINAL COST AS OF DECEMBER 31, 2020 (2)	-	CUSTOMER ADVANCES (3)	-	CONTRIBUTIONS IN AID OF CONSTRUCTION (4)	-	EXCLUDED PROPERTY (5)	=	NET ORIGINAL COST AS OF DECMEBER 31, 2020 (6)
DEPRECIABLE PLANT									
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	1,224,684.59								1,224,684.59
354.30 STRUCTURES AND IMPROVEMENTS - SPP	16,048,449.25				2,734,528.70				13,313,920.55
354.40 STRUCTURES AND IMPROVEMENTS - TDP	49,107,068.61				1,853,012.73				47,254,055.88
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	2,813,733.12								2,813,733.12
355.00 POWER GENERATION EQUIPMENT	4,180,589.06				144,517.16				4,036,071.90
360.10 COLLECTION SEWERS - FORCE MAINS	48,713,941.62		157,753.14		11,251,126.61				37,305,061.87
361.10 COLLECTION SEWERS - GRAVITY MAINS	104,656,978.69		133,423.53		12,569,537.01				91,954,018.15
361.20 MANHOLES	16,741,105.77				4,387,312.76				12,353,793.01
363.00 SERVICES	20,316,941.78		70,197.45		3,753,803.46				16,492,940.87
364.00 FLOW MEASURING DEVICES	371,151.65				14,726.81				356,424.84
365.00 FLOW MEASURING INSTALLATIONS	14,938.00								14,938.00
370.00 RECEIVING WELLS	143,419.77								143,419.77
371.00 PUMPING EQUIPMENT	13,221,499.56				66,626.22				13,154,873.34
380.00 TREATMENT EQUIPMENT	58,982,274.39				2,200,080.47				56,782,193.92
381.00 PLANT SEWERS	6,212,540.44				30,192.33				6,182,348.11
382.00 OUTFALL SEWER LINES	604,388.91								604,388.91
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	582,205.16								582,205.16
389.60 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	57,500.00								57,500.00
390.00 OFFICE FURNITURE AND EQUIPMENT	168,706.08								168,706.08
391.00 TRANSPORTATION EQUIPMENT	2,079,337.33								2,079,337.33
392.00 STORES EQUIPMENT	107,351.44								107,351.44
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	894,130.77								894,130.77
394.00 LABORATORY EQUIPMENT	526,508.67								526,508.67
395.00 POWER OPERATED EQUIPMENT	678,769.56				10,000.00				668,769.56
396.00 COMMUNICATION EQUIPMENT	1,595,992.40								1,595,992.40
397.00 MISCELLANEOUS EQUIPMENT	389,962.01				29,000.00				360,962.01
398.00 OTHER TANGIBLE PLANT	14,231.50								14,231.50
TOTAL DEPRECIABLE PLANT	**350,448,400.13**		**361,374.12**		**39,044,464.26**		**0.00**		**311,042,561.75**
NONDEPRECIABLE PLANT									
352.10 FRANCHISES	221,139.78								221,139.78
353.20 LAND AND LAND RIGHTS - COLLECTION	1,093,483.20								1,093,483.20
353.30 LAND AND LAND RIGHTS - SPP	85,560.07								85,560.07
353.40 LAND AND LAND RIGHTS - TDP	1,717,020.09				125,000.00				1,592,020.09
TOTAL NONDEPRECIABLE PLANT	**3,117,203.14**		**0.00**		**125,000.00**		**0.00**		**2,992,203.14**
TOTAL UTILITY PLANT	**353,565,603.27**		**361,374.12**		**39,169,464.26**		**0.00**		**314,034,764.89**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

	DEPRECIABLE GROUP	SURVIVOR CURVE	ORIGINAL COST AS OF DECEMBER 31, 2020	BOOK 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	1,224,684.59	73,171	1,151,514	33,597	2.74	34.3
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	13,313,920.55	4,963,381	8,350,540	254,656	1.91	32.8
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	47,254,055.88	11,349,890	35,904,166	1,129,895	2.39	31.8
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	2,813,733.12	1,609,842	1,203,891	50,097	1.78	24.0
355.00	POWER GENERATION EQUIPMENT	35-S0.5	4,036,071.90	2,667,318	1,368,754	67,838	1.68	20.2
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	37,305,061.87	2,261,328	35,043,734	657,440	1.76	53.3
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	91,954,018.15	11,525,790	80,428,228	1,477,286	1.61	54.4
361.20	MANHOLES	50-S2.5	12,353,793.01	1,547,622	10,806,171	325,449	2.63	33.2
363.00	SERVICES	47-R3	16,492,940.87	4,140,322	12,352,619	418,939	2.54	29.5
364.00	FLOW MEASURING DEVICES	15-L2.5	356,424.84	78,630	277,795	49,217	13.81	5.6
365.00	FLOW MEASURING INSTALLATIONS	25-S2	14,938.00	80	14,858	1,235	8.27	12.0
370.00	RECEIVING WELLS	50-R3	143,419.77	28,412	115,008	3,264	2.28	35.2
371.00	PUMPING EQUIPMENT	30-S0.5	13,154,873.34	1,009,434	12,145,440	645,880	4.91	18.8
380.00	TREATMENT EQUIPMENT	35-S1.5	56,782,193.92	14,505,582	42,276,611	2,121,396	3.74	19.9
381.00	PLANT SEWERS	50-R3	6,182,348.11	1,307,330	4,875,018	142,273	2.30	34.3
382.00	OUTFALL SEWER LINES	50-R3	604,388.91	218,189	386,200	13,010	2.15	29.7
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	582,205.16	166,194	416,011	32,646	5.61	12.7
389.60	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	5-SQ	57,500.00	5,750	51,750	11,500	20.00	4.5
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	168,706.08	10,925	157,781	13,184	7.81	12.0
391.00	TRANSPORTATION EQUIPMENT	14-L4	2,079,337.33	384,666	1,694,672	165,150	7.94	10.3
392.00	STORES EQUIPMENT	25-SQ	107,351.44	25,203	82,149	4,273	3.98	19.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	894,130.77	209,777	684,354	43,970	4.92	15.6
394.00	LABORATORY EQUIPMENT	15-SQ	526,508.67	196,281	330,227	32,210	6.12	10.3
395.00	POWER OPERATED EQUIPMENT	22-R2	668,769.56	351,447	317,322	24,868	3.72	12.8
396.00	COMMUNICATION EQUIPMENT	15-SQ	1,595,992.40	814,995	780,997	94,444	5.92	8.3
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	360,962.01	176,857	184,105	13,229	3.66	13.9
398.00	OTHER TANGIBLE PLANT	25-SQ	14,231.50	831	13,400	570	4.01	23.5
	TOTAL DEPRECIABLE PLANT		**311,042,561.75**	**59,629,245**	**251,413,315**	**7,827,516**	**2.52**	**32.1**
	NONDEPRECIABLE PLANT							
352.10	FRANCHISES		221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION		1,093,483.20					
353.30	LAND AND LAND RIGHTS - SPP		85,560.07					
353.40	LAND AND LAND RIGHTS - TDP		1,592,020.09					
	TOTAL NONDEPRECIABLE PLANT		**2,992,203.14**					
	AMORTIZATION OF NET SALVAGE					**616,864**		
	TOTAL UTILITY PLANT		**314,034,764.89**	**59,629,245**	**251,413,315**	**8,444,380**		

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

ACCOUNT	BOOK RESERVE BALANCE AS OF 12/31/2019	+	PROJECTED DEPRECIATION ACCRUALS	-	PROJECTED RETIREMENTS	-	PROJECTED COST OF REMOVAL	+	PROJECTED SALVAGE	+	ACQUISITIONS	=	PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2020
(1)	(2)		(3)		(4)		(5)		(6)		(7)		(8)
354.20	66,495		38,859		3,008		29,175						73,171
354.30	4,740,555		267,364		39,414		5,124						4,963,381
354.40	10,346,772		1,124,928		120,604		1,206						11,349,890
354.70	1,580,965		57,970		6,910		22,182						1,609,842
355.00	2,592,730		74,588										2,667,318
360.10	1,615,043		727,919		40,214		41,420						2,261,328
361.10	10,310,371		1,747,448		361,924		170,104						11,525,790
361.20	1,348,750		352,799		22,021		132,346		440				1,547,622
363.00	3,956,756		442,325		128,736		130,023						4,140,322
364.00	22,552		56,078										78,630
365.00	(1,190)		1,270										80
370.00	25,128		3,284										28,412
371.00	552,226		639,103		144,361		37,534						1,009,434
380.00	12,402,341		2,197,996		92,274		11,073				8,593		14,505,582
381.00	1,163,478		143,852										1,307,330
382.00	204,636		13,553										218,189
389.10	132,491		33,703										166,194
389.60	0		5,750										5,750
390.00	(2,596)		13,521										10,925
391.00	267,174		153,837		31,333		5,013						384,666
392.00	20,930		4,273										25,203
393.00	214,292		(4,515)										209,777
394.00	178,876		28,541		10,123		1,012						196,281
395.00	350,579		8,858		7,833		157						351,447
396.00	1,032,529		37,756		234,211		21,079						814,995
397.00	187,635		(10,778)										176,857
398.00	0		831										831
TOTAL	**53,309,515**		**8,161,113**		**1,242,966**		**607,449**		**440**		**8,593**		**59,629,245**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

ACCOUNT (1)	NET ORIGINAL COST AS OF 12/31/2019 (2)	NET ORIGINAL COST AS OF 12/31/2020 (3)	ACCRUAL RATE (4)	AVERAGE ACCRUALS (5)=([(2)+(3)]/2)*(4)	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
354.20	1,176,150.20	1,224,684.59	2.71	32,531	6,328	38,859
354.30	12,677,918.60	13,313,920.55	1.90	246,922	20,442	267,364
354.40	45,307,936.90	47,254,055.88	2.42	1,120,000	4,928	1,124,928
354.70	2,702,224.54	2,813,733.12	1.69	46,610	11,360	57,970
355.00	4,036,071.90	4,036,071.90	1.74	70,228	4,360	74,588
360.10	36,656,155.27	37,305,061.87	1.78	658,255	69,664	727,919
361.10	86,476,858.28	91,954,018.15	1.62	1,445,290	302,158	1,747,448
361.20	11,888,453.96	12,353,793.01	2.63	318,786	34,013	352,799
363.00	14,216,609.56	16,492,940.87	2.48	380,798	61,527	442,325
364.00	356,424.84	356,424.84	15.72	56,030	48	56,078
365.00	14,938.00	14,938.00	8.50	1,270		1,270
370.00	143,419.77	143,419.77	2.29	3,284		3,284
371.00	10,825,403.85	13,154,873.34	5.09	610,298	28,805	639,103
380.00	55,284,622.16	56,782,193.92	3.83	2,146,080	51,916	2,197,996
381.00	6,182,348.11	6,182,348.11	2.32	143,430	422	143,852
382.00	604,388.91	604,388.91	2.19	13,236	317	13,553
389.10	582,205.16	582,205.16	5.72	33,302	401	33,703
389.60	0.00	57,500.00	20.00	5,750		5,750
390.00	168,706.08	168,706.08	7.88	13,294	227	13,521
391.00	1,573,741.92	2,079,337.33	8.25	150,690	3,147	153,837
392.00	107,351.44	107,351.44	3.98	4,273	0	4,273
393.00	540,738.45	894,130.77	4.09	29,343	(33,858)	(4,515)
394.00	418,834.02	526,508.67	5.77	27,273	1,268	28,541
395.00	542,370.71	668,769.56	2.88	17,440	(8,582)	8,858
396.00	1,490,959.33	1,595,992.40	4.00	61,739	(23,983)	37,756
397.00	237,462.01	360,962.01	1.45	4,339	(15,117)	(10,778)
398.00	14,231.50	14,231.50	4.08	581	250	831
TOTAL	**294,226,525.47**	**311,042,561.75**		**7,641,072**	**520,041**	**8,161,113**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

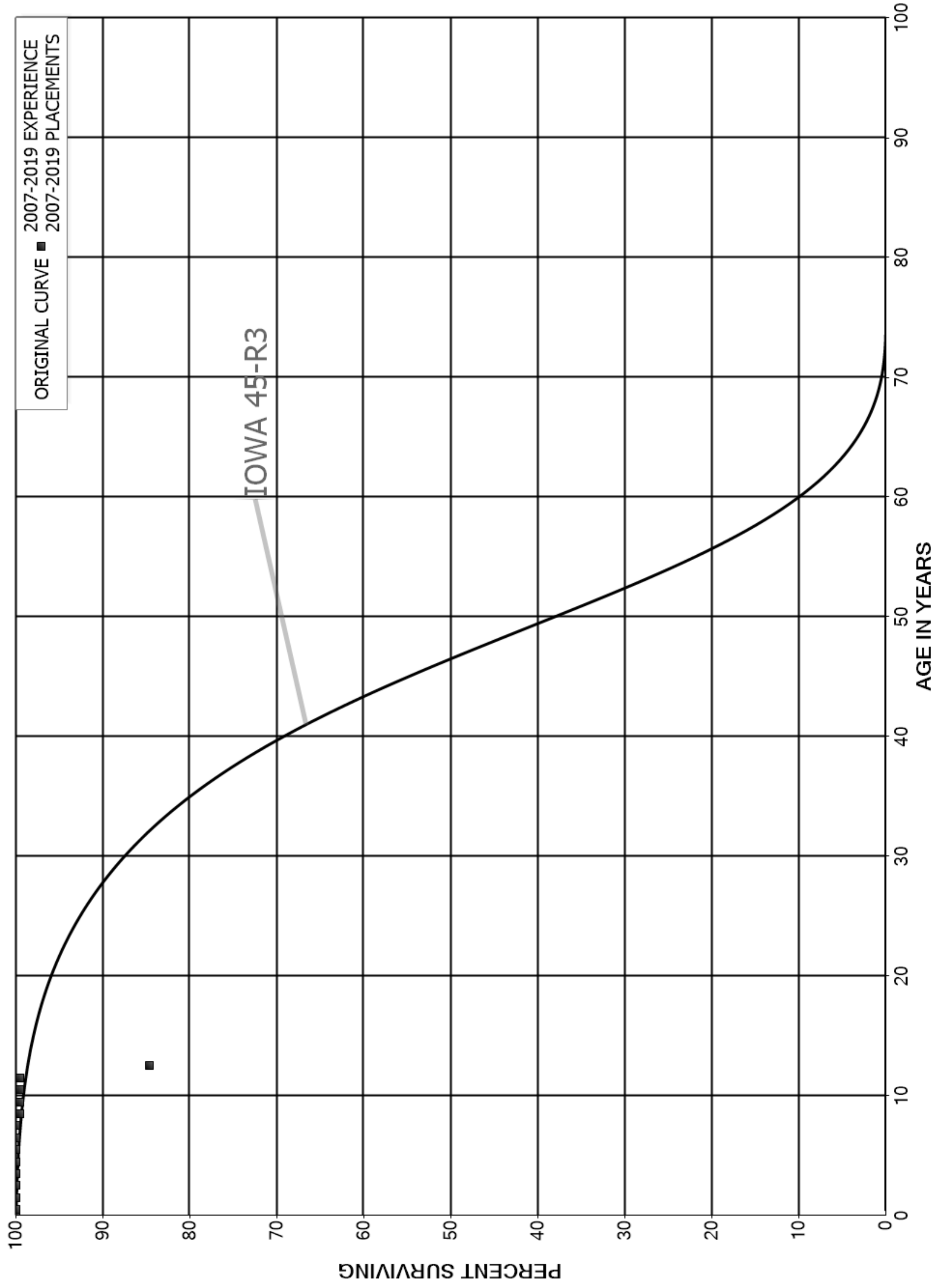
TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

	2016		2017		2018		2019		PROJECTED 2020			
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		42		304		2,367		27,531		29,175	(59,419)	(11,884)
354.30				36,849		87		61,135		5,124	(103,195)	(20,639)
354.40		4,581		35,585		(18,539)		1,986		1,206	(24,819)	(4,964)
354.70				2,146		36,100		18,075		22,182	(78,503)	(15,701)
355.00		4,934		930		4,539		9,730			(20,132)	(4,026)
360.10		12,703		1,809		85,350		245,202		41,420	(386,485)	(77,297)
361.10	107	7,077		53,984		345,943		1,038,559		170,104	(1,615,561)	(323,112)
361.20	437	53,437						109,567	440	132,346	(294,472)	(58,894)
363.00		11,694		69,276		48,455		150,830		130,023	(410,279)	(82,056)
364.00								240			(240)	(48)
371.00		11,515		5,054		(18,885)		141,438		37,534	(176,656)	(35,331)
380.00		23,917		6,892		12,304		214,843		11,073	(269,029)	(53,806)
381.00		2,110									(2,110)	(422)
382.00				604		981					(1,585)	(317)
389.10						(3,678)		5,682			(2,003)	(401)
390.00		276		763		94					(1,134)	(227)
391.00						9,708		6,029		5,013	(20,751)	(4,150)
393.00	176,516	4,964		328				1,931			169,292	33,858
394.00		566		60		118		5,593		1,012	(7,350)	(1,470)
395.00	44,129	(831)						2,048		157	42,755	8,551
396.00	132,387	911		5,474				1,898		21,079	103,024	20,605
397.00	88,258	1,142				6,019		5,513			75,584	15,117
398.00								1,251			(1,251)	(250)
TOTAL	**441,833**	**139,038**	**0**	**220,061**	**0**	**510,964**	**0**	**2,049,082**	**440**	**607,449**	**(3,084,320)**	**(616,864)**

* 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

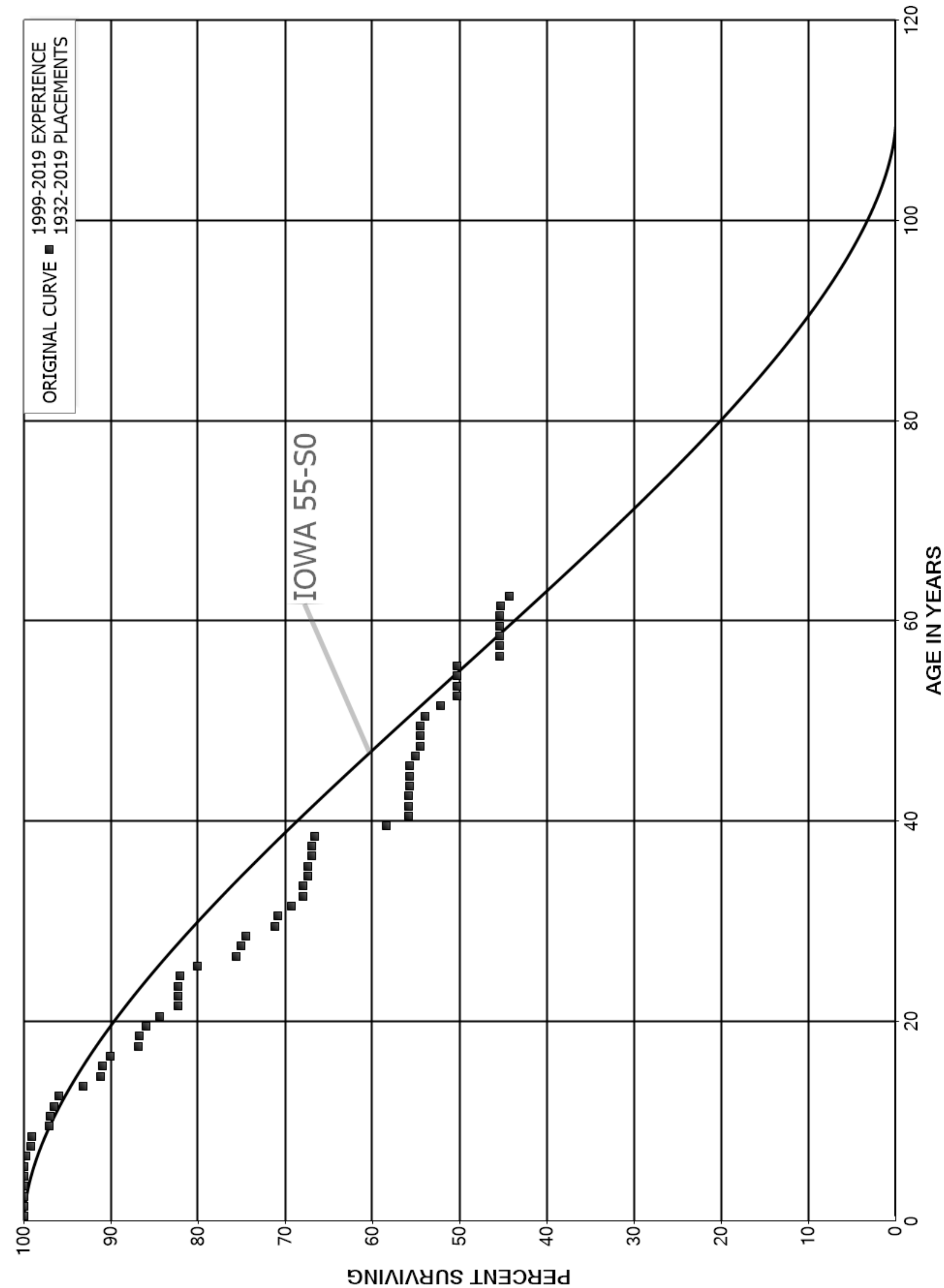
ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

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

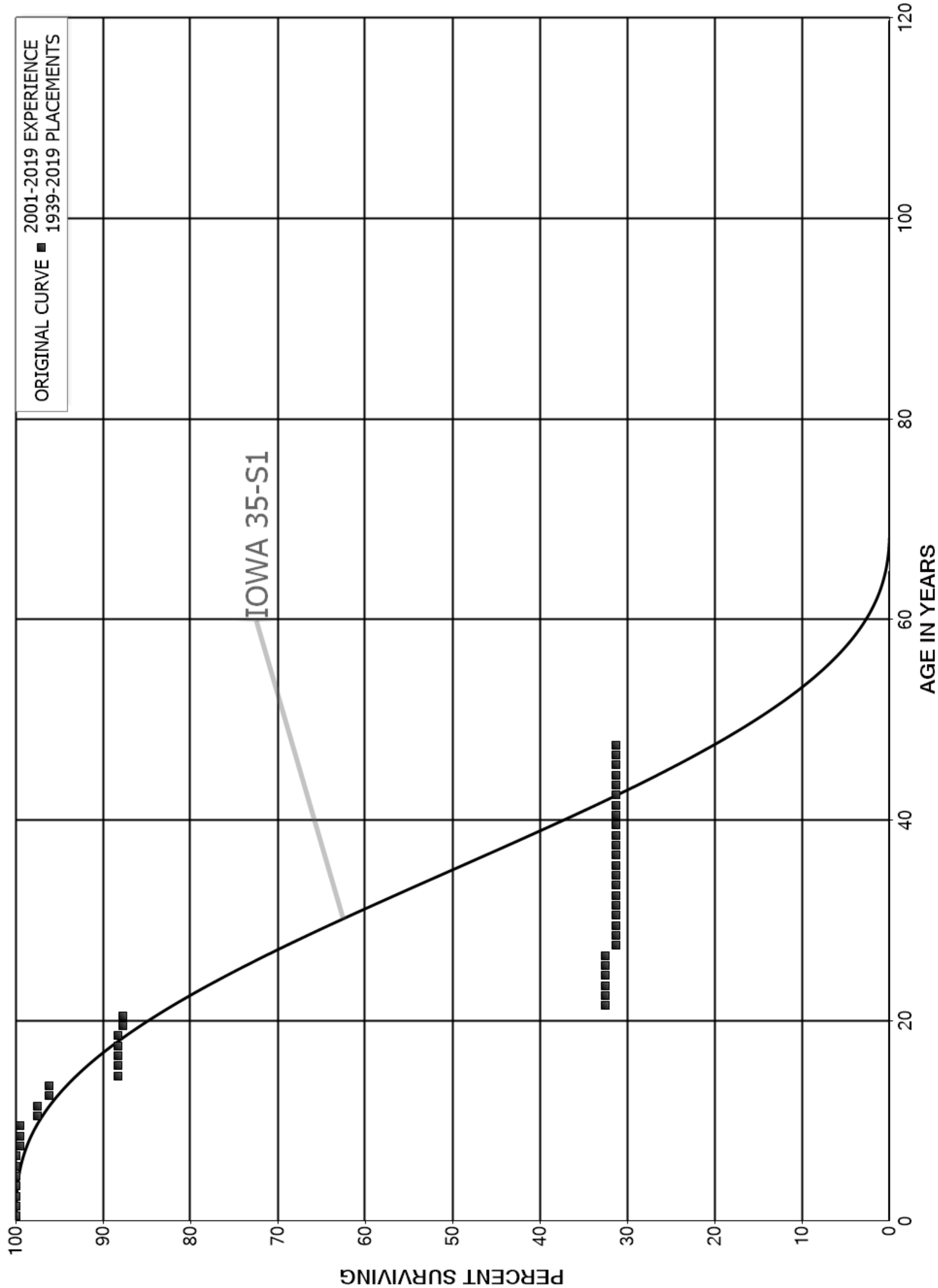
ACCOUNTS 354.30 AND 354.40 STRUCTURES AND IMPROVEMENTS - SPP AND TDP

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

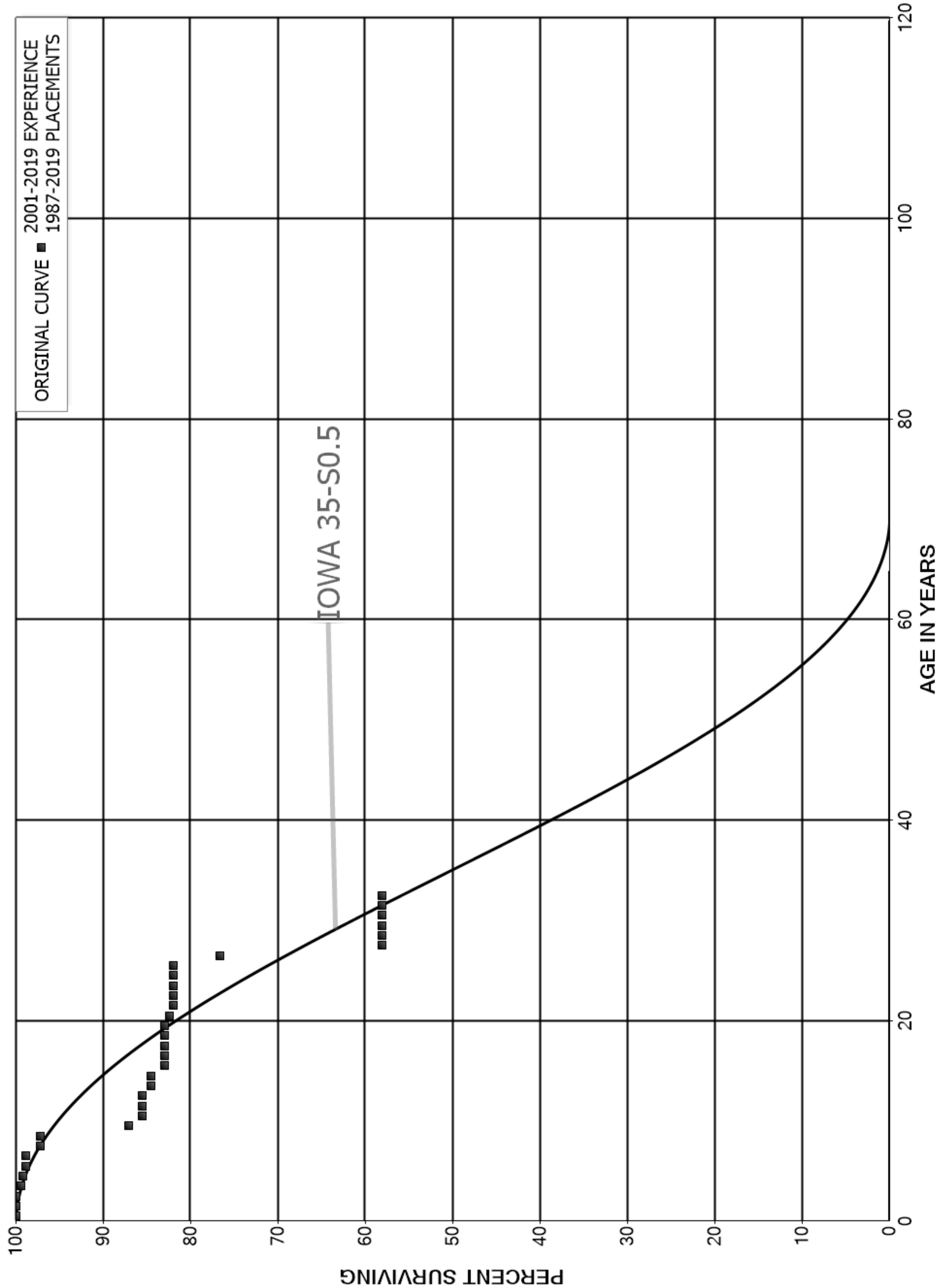
ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

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

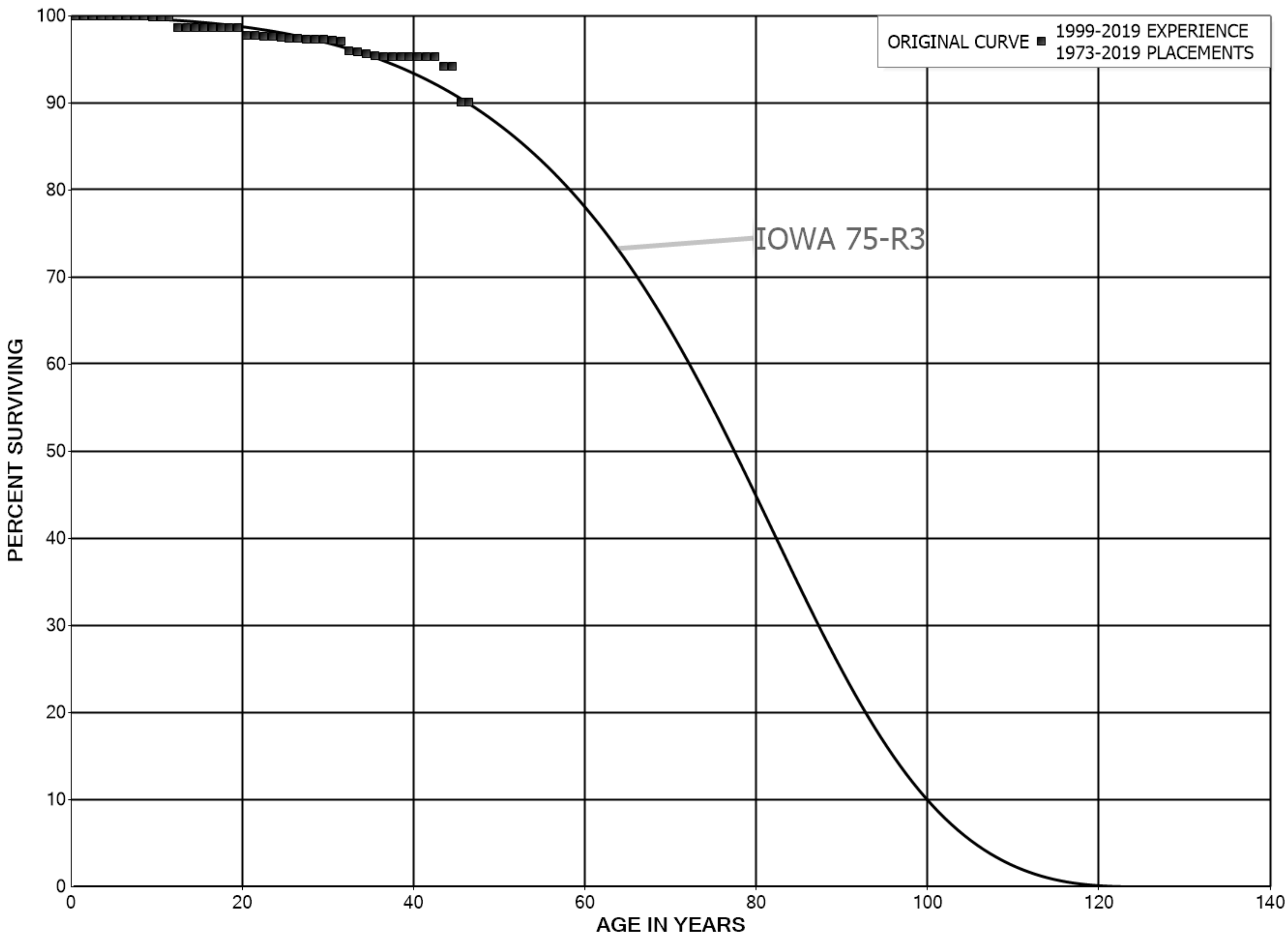
ACCOUNT 355.00 POWER GENERATION EQUIPMENT

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

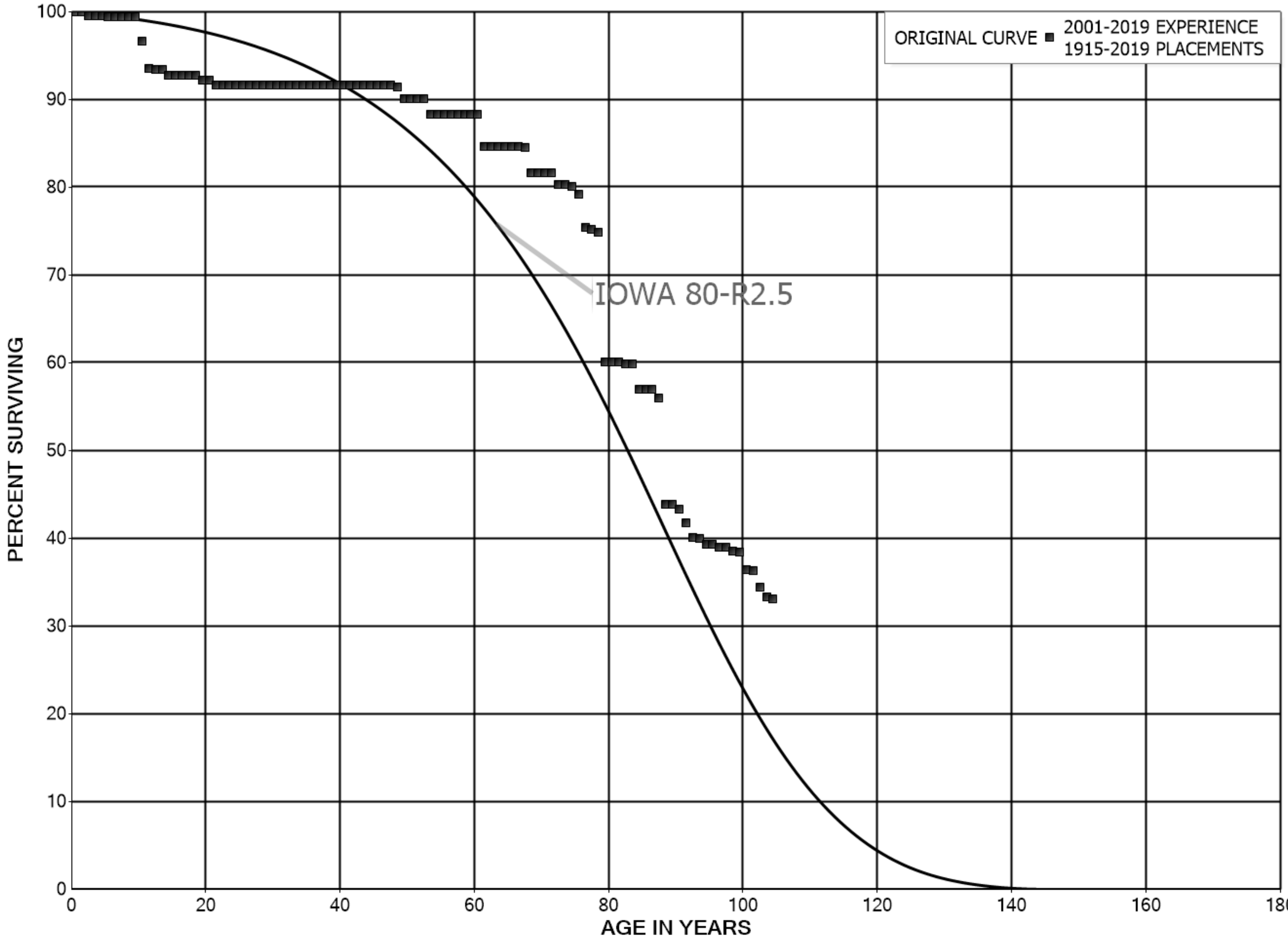
ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

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

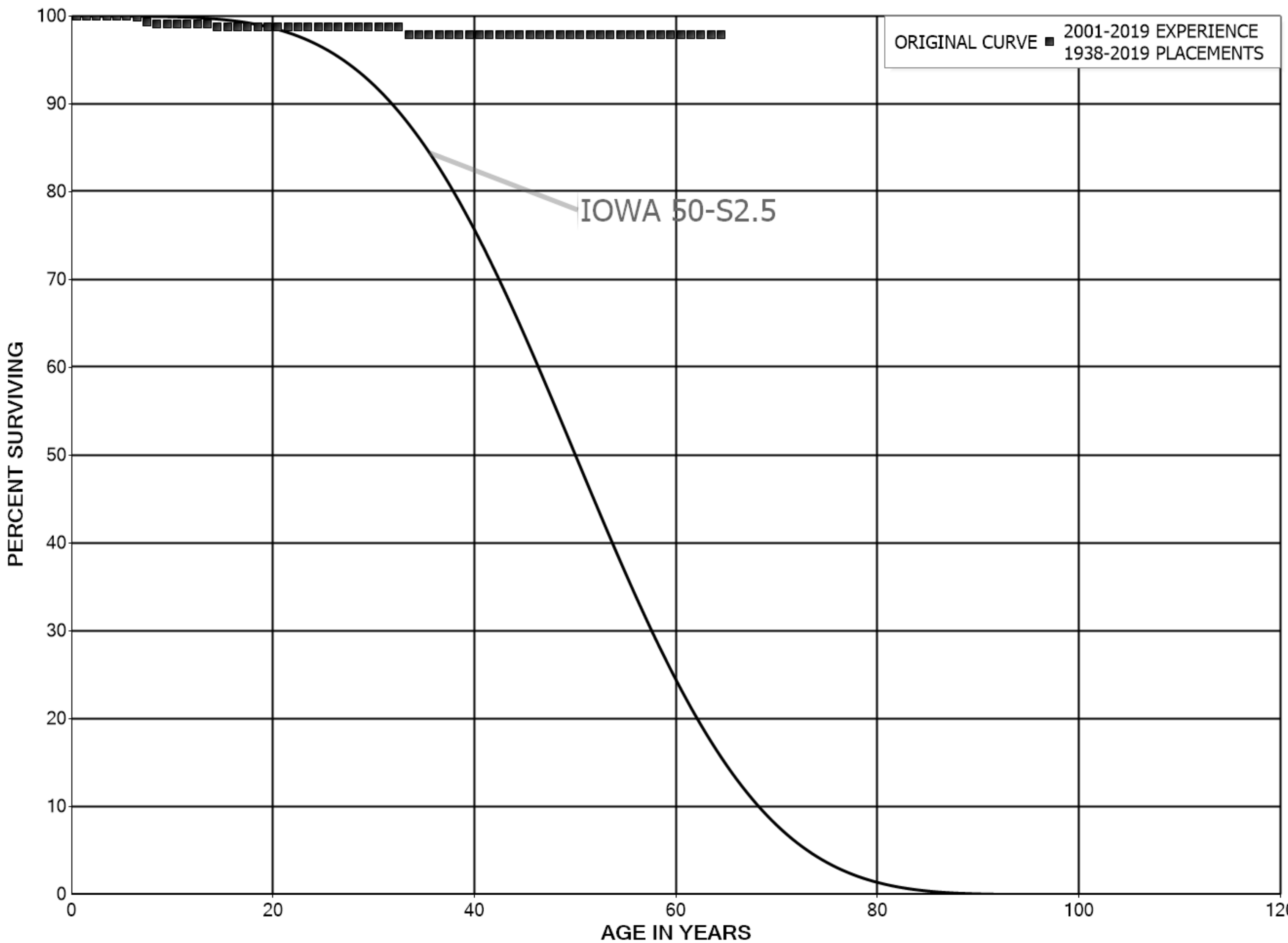
ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

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

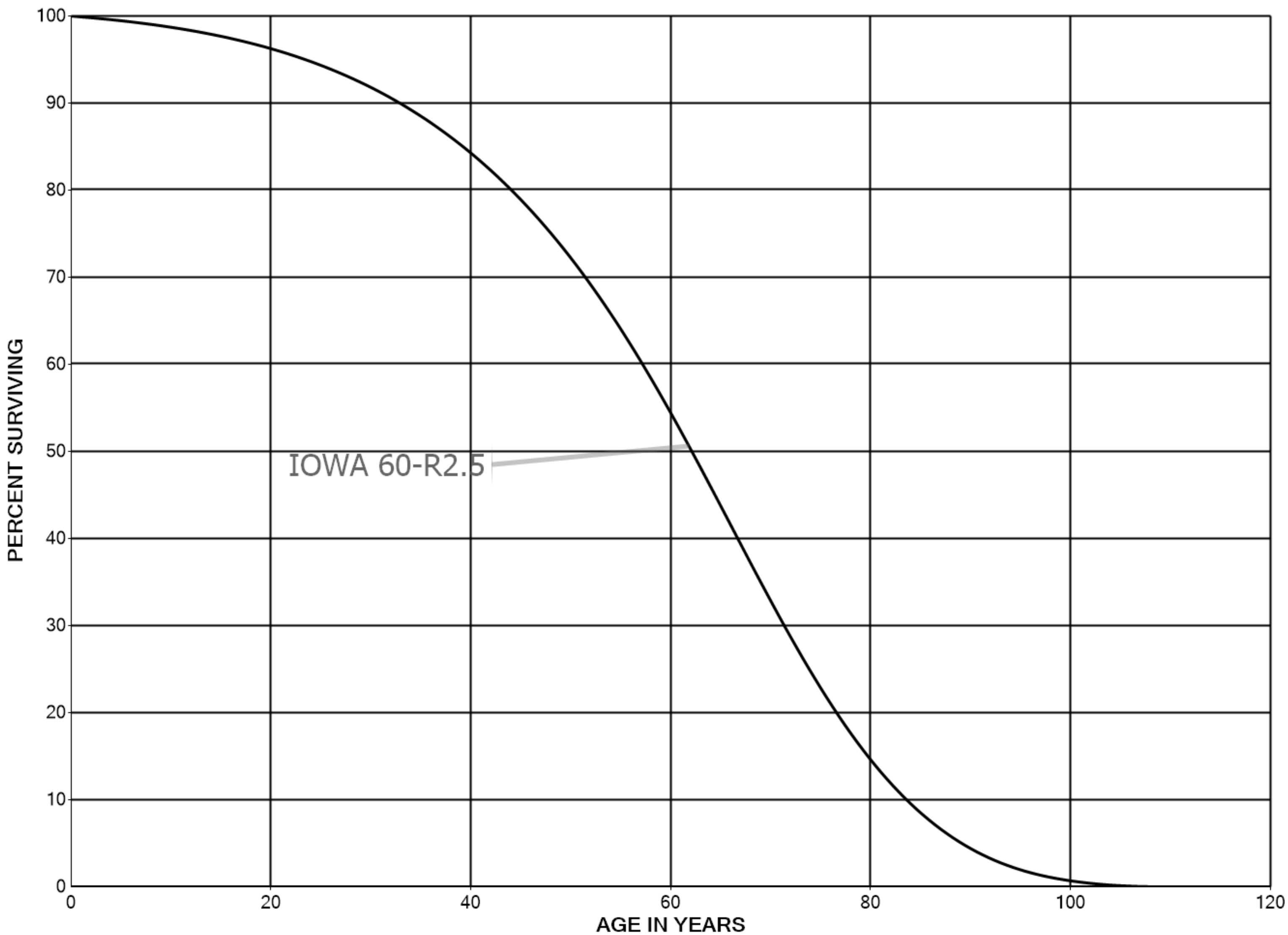
ACCOUNT 361.20 MANHOLES

ORIGINAL LIFE TABLE, CONT.

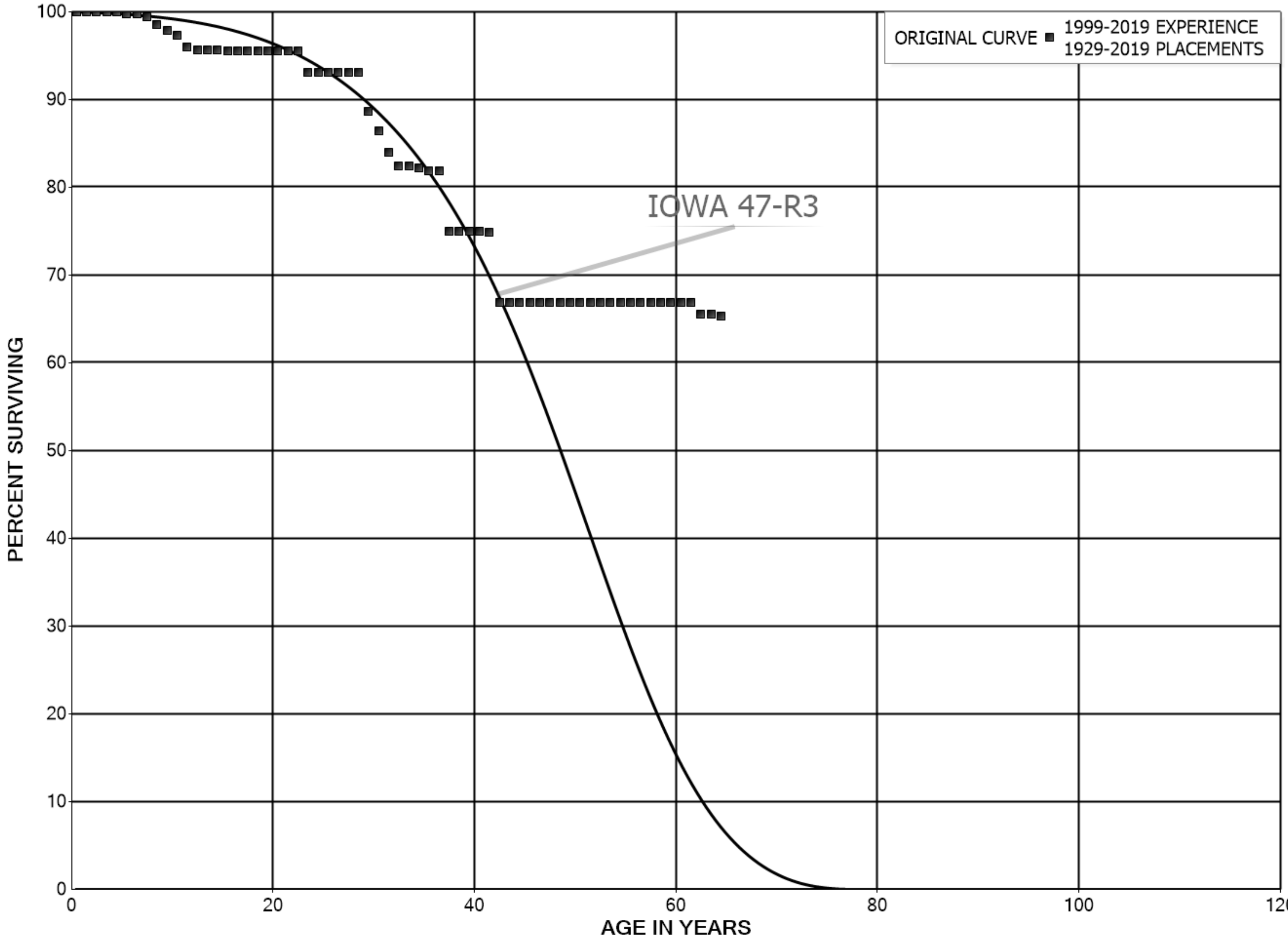
PLACEMENT BAND 1938-2019 EXPERIENCE BAND 2001-2019

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

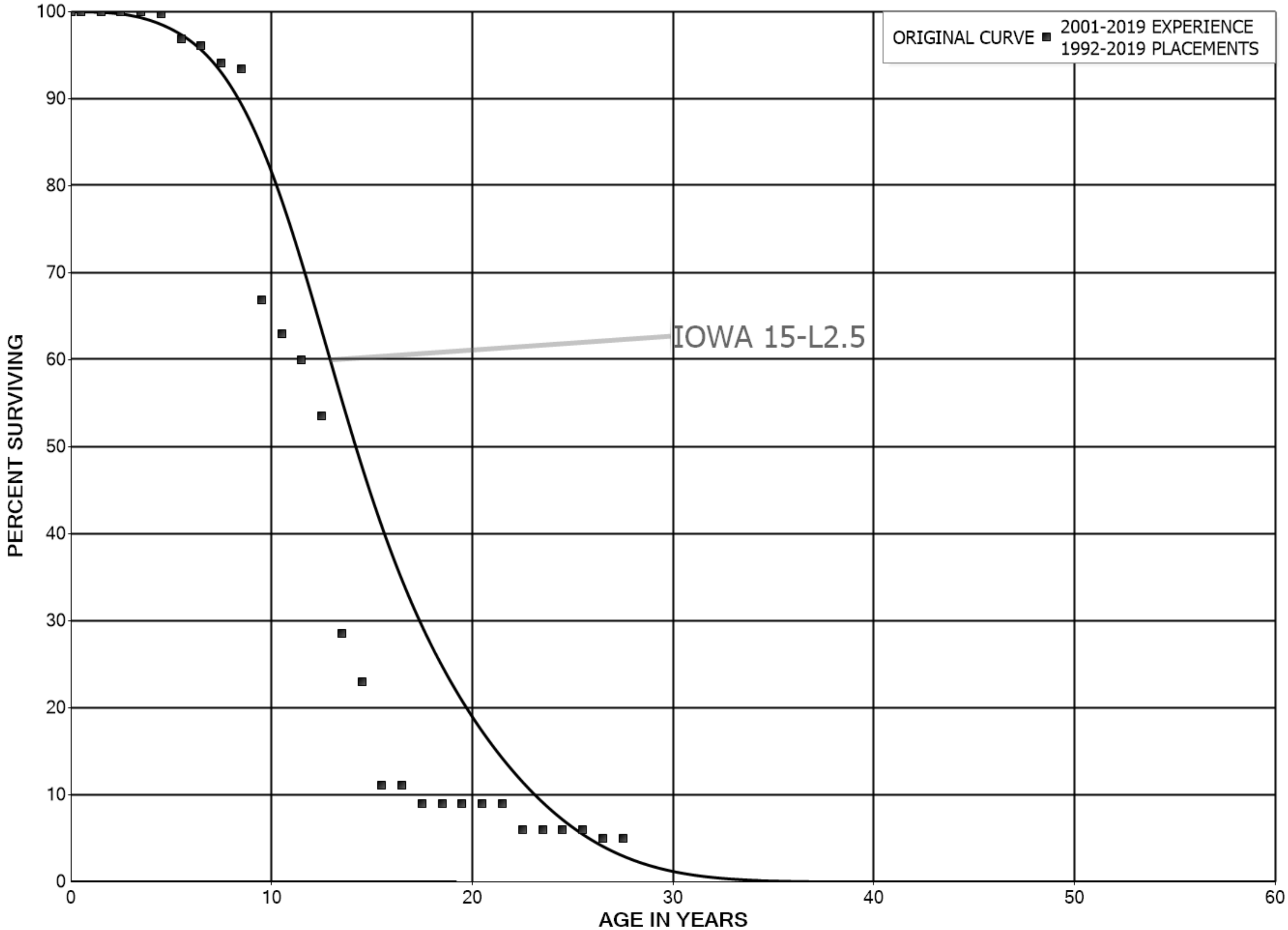
ACCOUNT 363.00 SERVICES

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

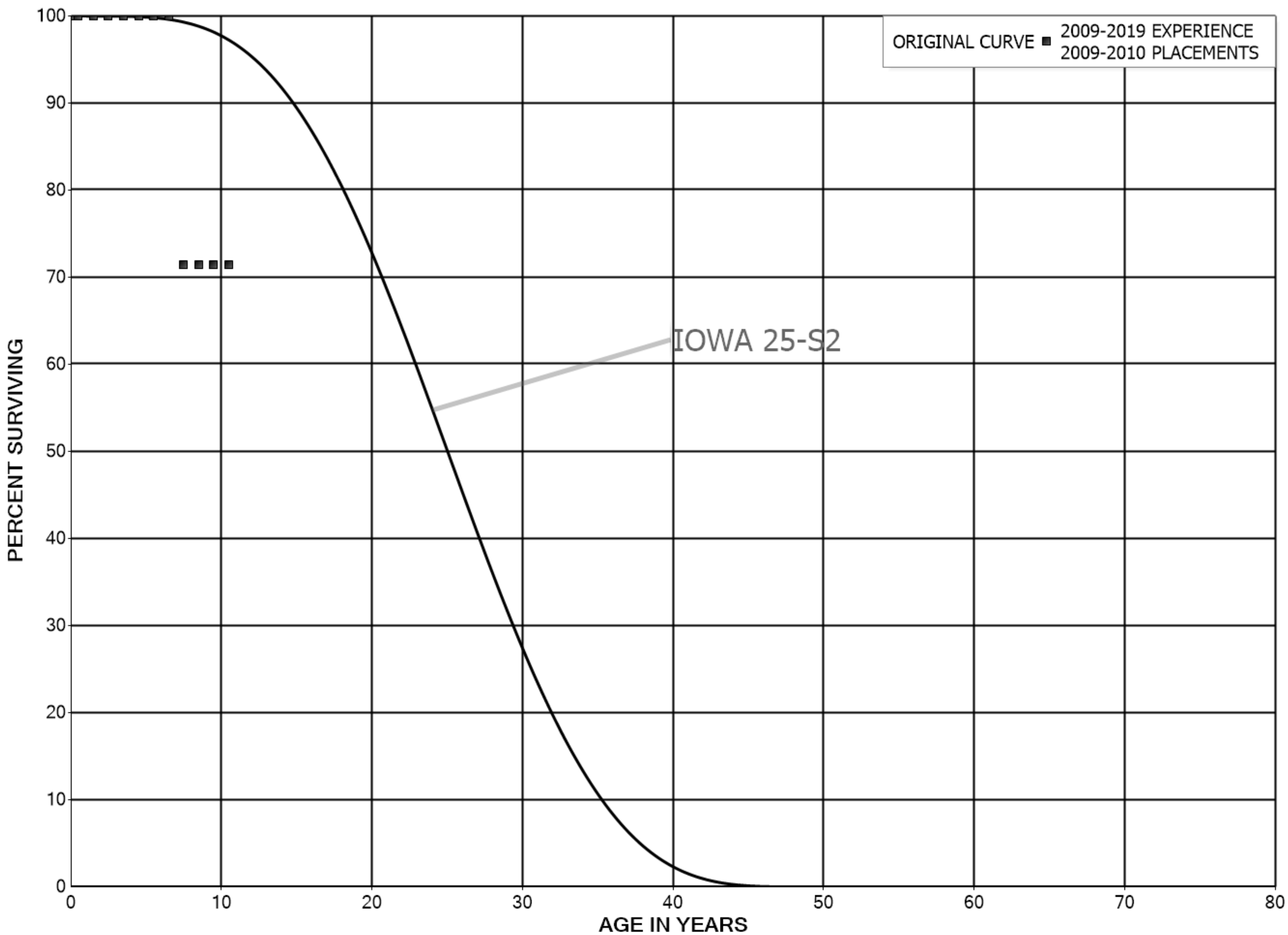
ACCOUNT 364.00 FLOW MEASURING DEVICES

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

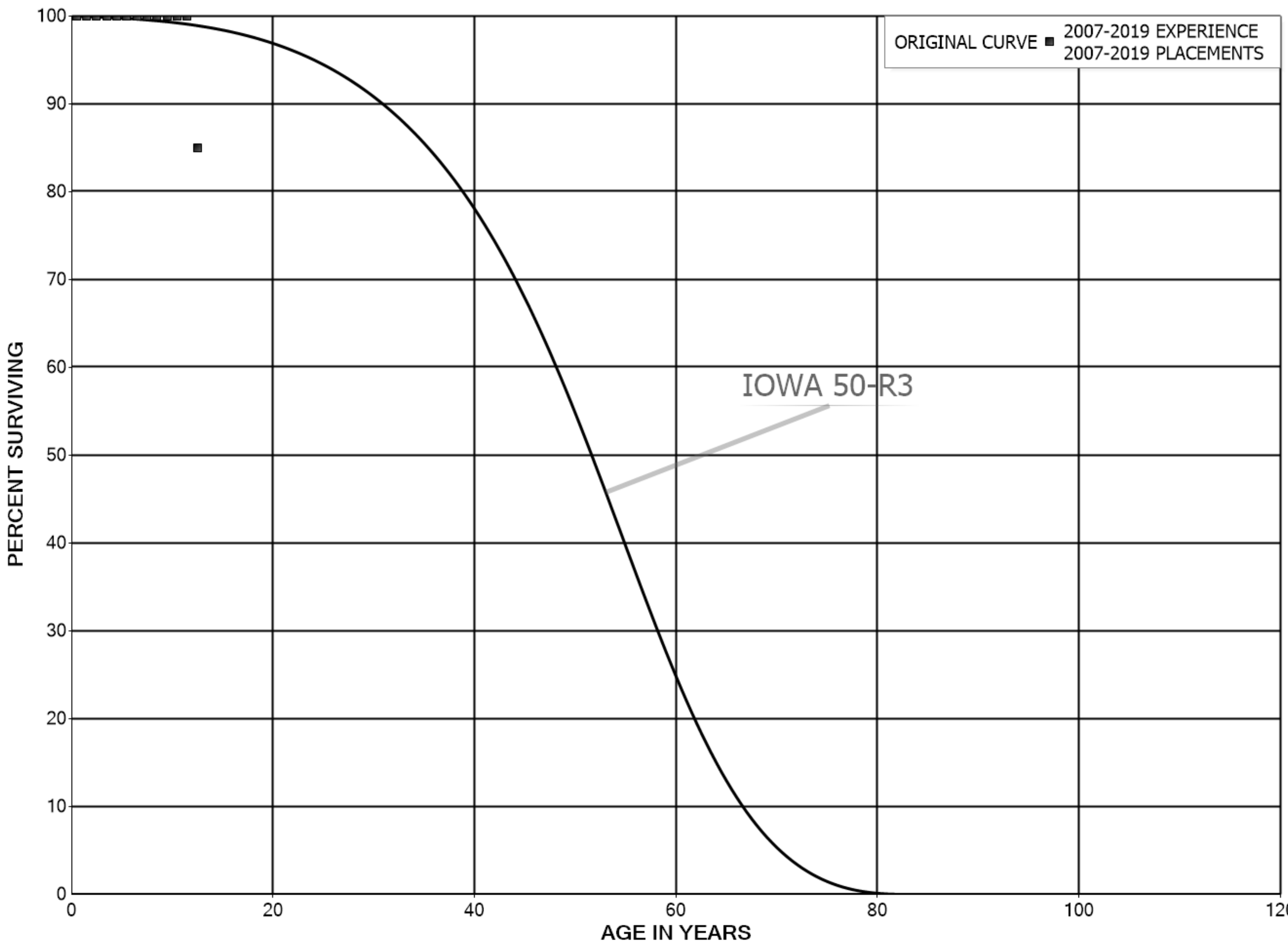
ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

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

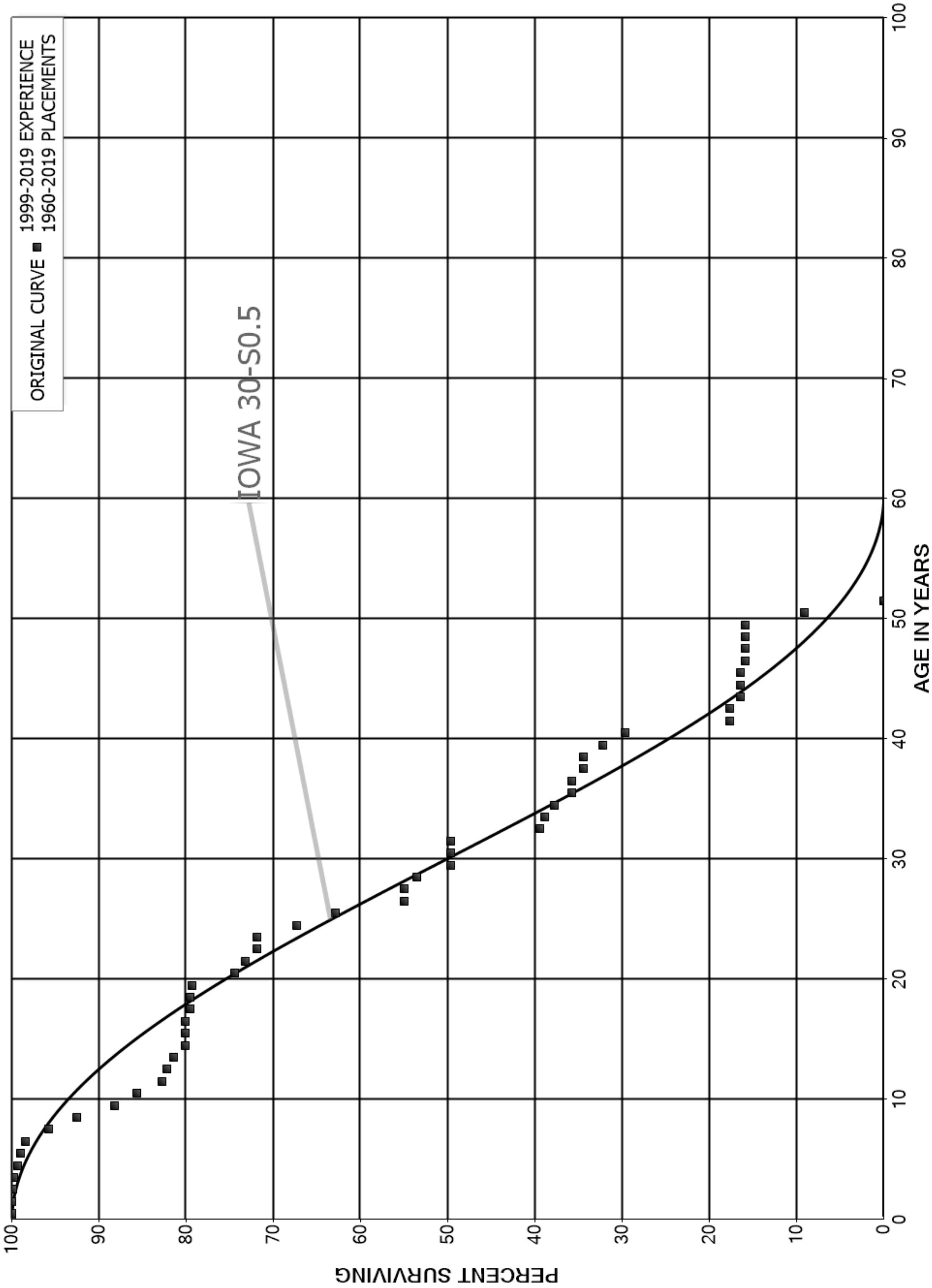
ACCOUNT 370.00 RECEIVING WELLS

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

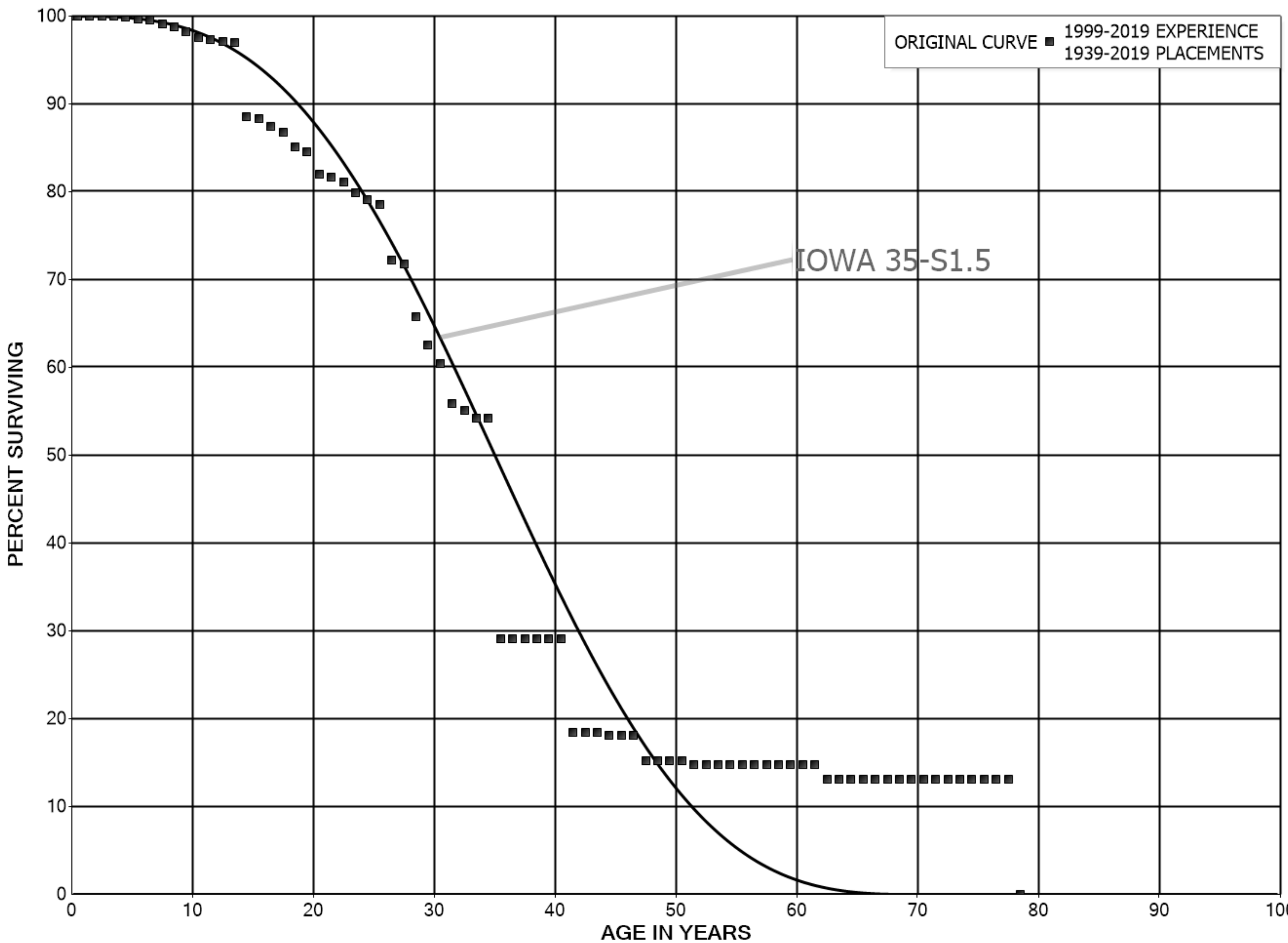
ACCOUNT 371.00 PUMPING EQUIPMENT

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

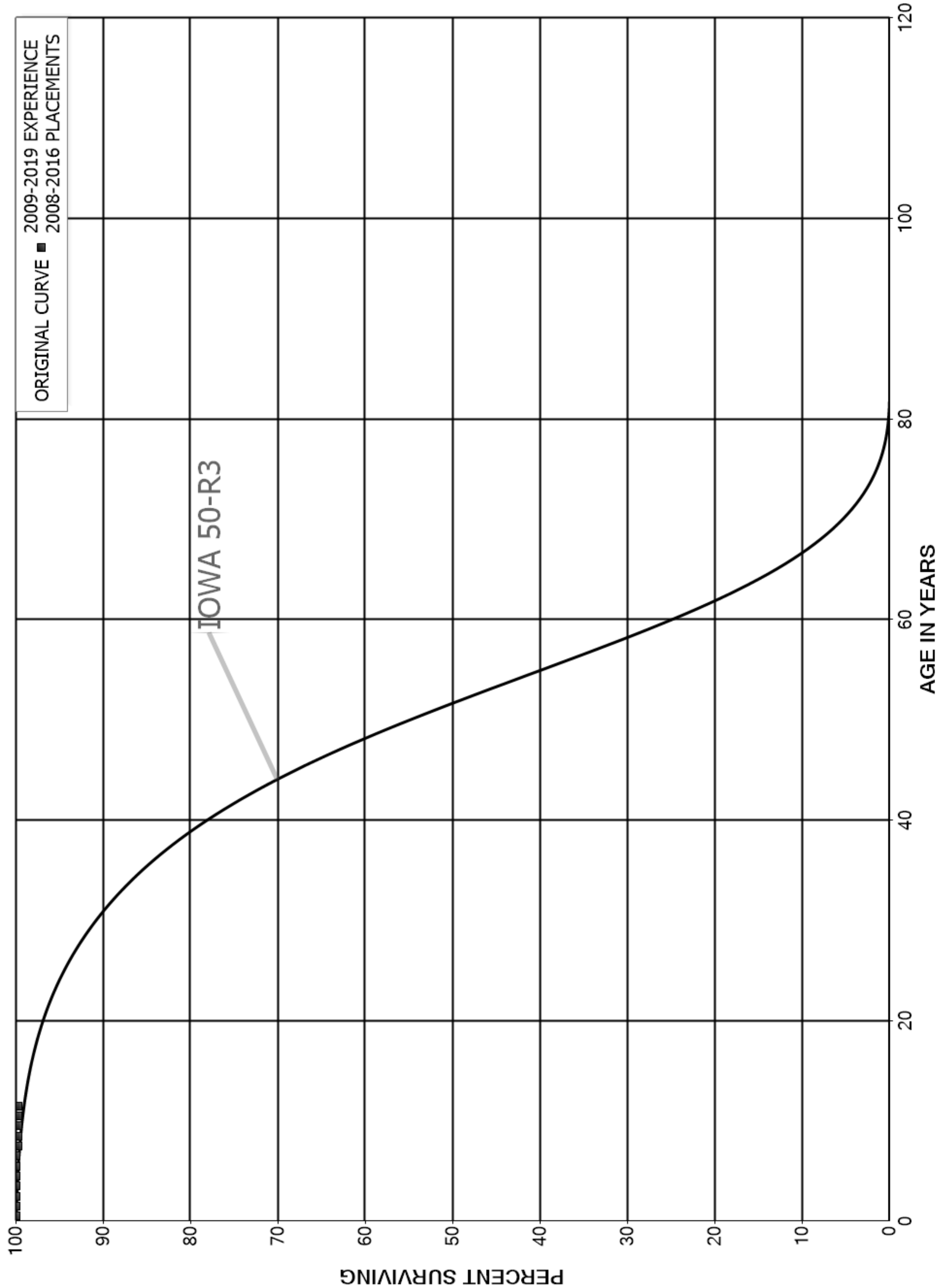
ACCOUNT 380.00 TREATMENT EQUIPMENT

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

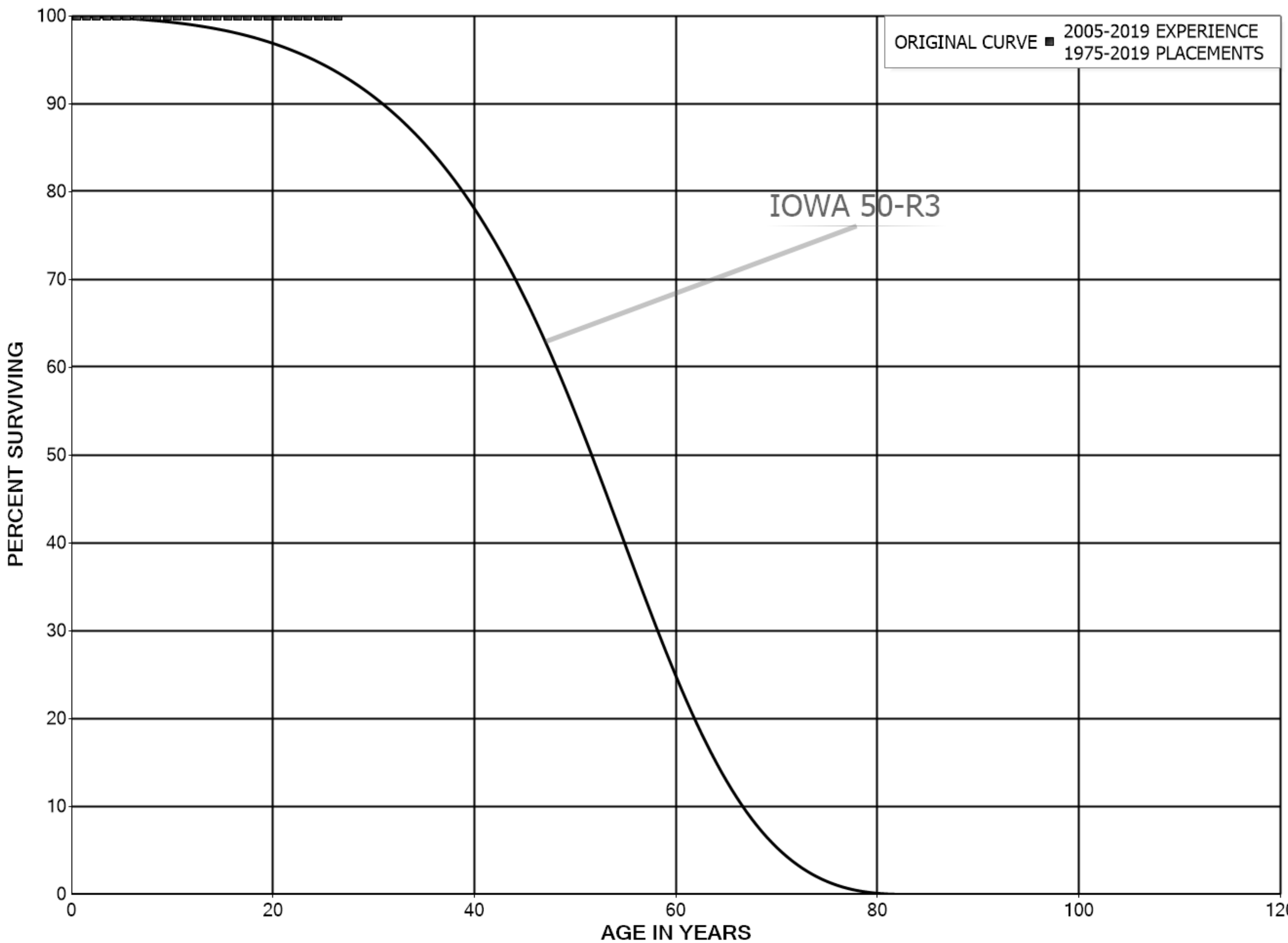
ACCOUNT 381.00 PLANT SEWERS

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

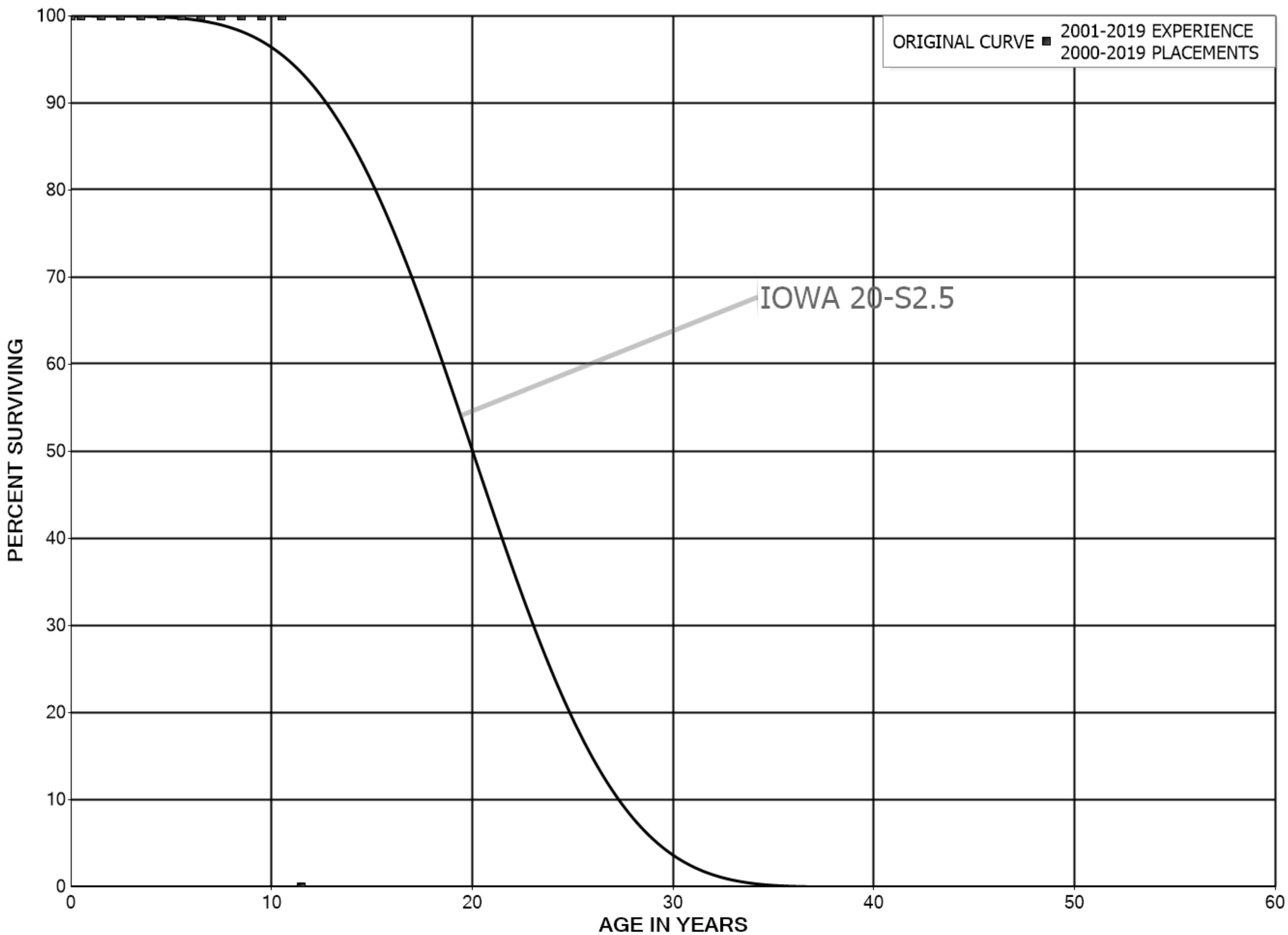
ACCOUNT 382.00 OUTFALL SEWER LINES

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

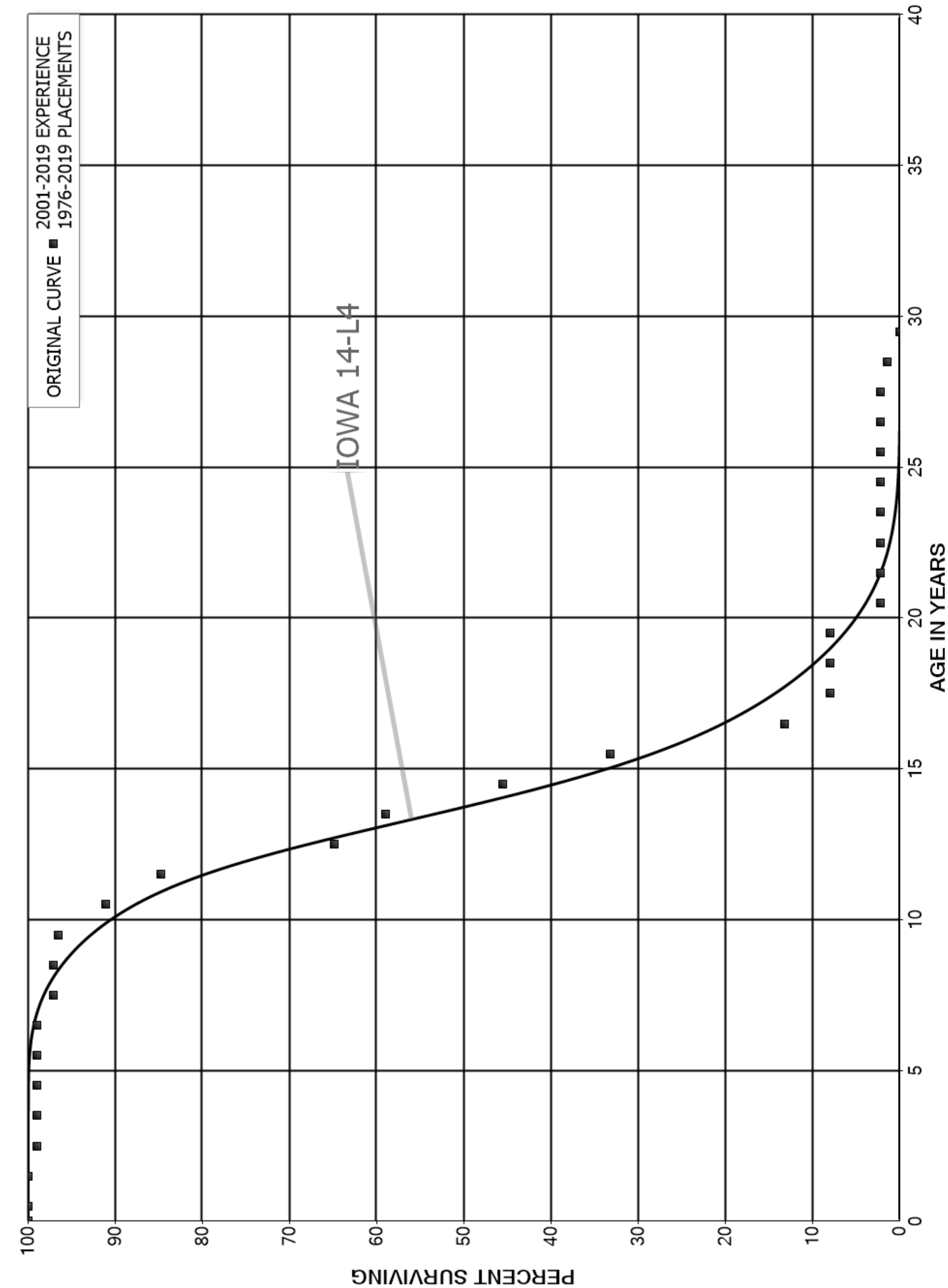
ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT

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

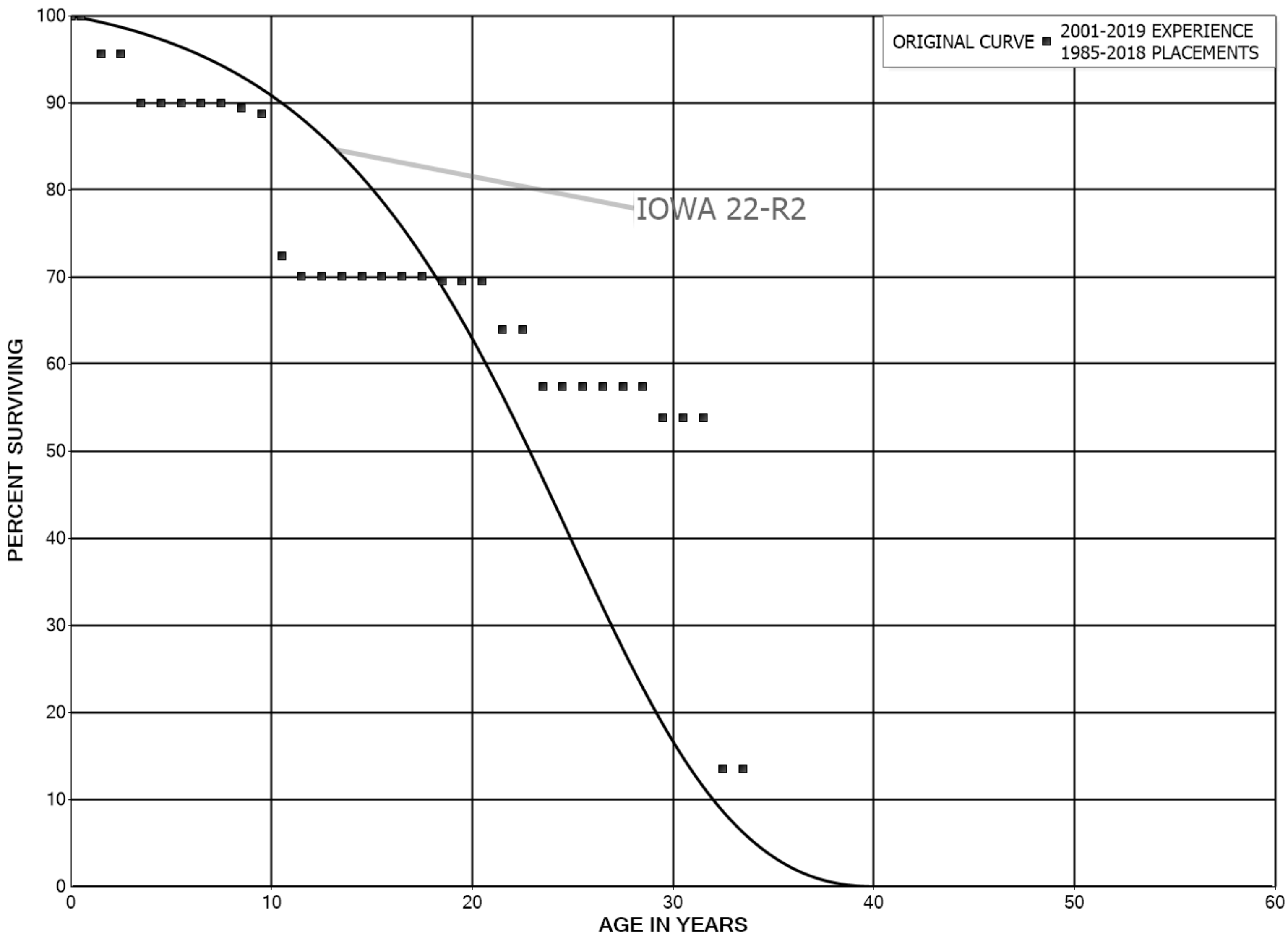
ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

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 SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

			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)
1895					0.0
1915	72,744	45,060	27,684	27,684	0.0
1920	111,774	68,233	43,541	71,225	0.0
1922				71,225	0.0
1929	16,617	9,748	6,869	78,094	0.0
1930	204,619	119,980	84,639	162,733	0.1
1932	592	463	129	162,862	0.1
1935	14,328	8,185	6,143	169,005	0.1
1939	94,448	52,065	42,383	211,388	0.1
1940				211,388	0.1
1941				211,388	0.1
1942				211,388	0.1
1943				211,388	0.1
1944				211,388	0.1
1945	43,709	23,387	20,322	231,710	0.1
1946	96,385	51,259	45,126	276,836	0.1
1947				276,836	0.1
1948				276,836	0.1
1949				276,836	0.1
1950				276,836	0.1
1951				276,836	0.1
1952				276,836	0.1
1953				276,836	0.1
1954				276,836	0.1
1955	47,455	23,883	23,572	300,408	0.1
1956				300,408	0.1
1957	1,730,719	918,401	812,318	1,112,726	0.4
1958				1,112,726	0.4
1959				1,112,726	0.4
1961	355,148	229,896	125,252	1,237,978	0.5
1962	32,634	15,804	16,830	1,254,808	0.5
1965	834,764	438,156	396,608	1,651,416	0.7
1966				1,651,416	0.7
1967	194,687	131,849	62,838	1,714,254	0.7
1968	79,992	38,309	41,683	1,755,937	0.7
1969	493,679	212,728	280,951	2,036,888	0.8
1970	460	342	118	2,037,006	0.8
1971	521	384	137	2,037,143	0.8
1972	996	841	155	2,037,298	0.8
1973	166,604	51,345	115,259	2,152,557	0.9
1974	1,639,398	373,434	1,265,964	3,418,521	1.4
1975	2,850,644	1,070,561	1,780,083	5,198,604	2.1
1976	1,311,833	361,549	950,284	6,148,888	2.4
1977	728,324	209,358	518,966	6,667,854	2.7
1978	391,579	113,925	277,654	6,945,508	2.8

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

			DEPRECIATED ORIGINAL COST		
					PCT OF
YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT (2) - (3) (4)	CUMULATIVE AMOUNT (5)	COL 4 TOTAL (6)
1979	146,764	52,733	94,031	7,039,539	2.8
1980	433,180	250,804	182,376	7,221,915	2.9
1981	235,411	77,908	157,503	7,379,418	2.9
1982	186,330	89,747	96,583	7,476,001	3.0
1983	877,614	364,101	513,513	7,989,514	3.2
1984	4,233,570	1,735,107	2,498,463	10,487,977	4.2
1985	2,195,697	935,087	1,260,610	11,748,587	4.7
1986	1,955,052	917,577	1,037,475	12,786,062	5.1
1987	711,310	313,306	398,004	13,184,066	5.2
1988	2,609,413	1,000,147	1,609,266	14,793,332	5.9
1989	3,791,294	1,463,817	2,327,477	17,120,809	6.8
1990	636,141	203,723	432,418	17,553,227	7.0
1991	437,549	283,417	154,132	17,707,359	7.0
1992	3,260,869	1,442,279	1,818,590	19,525,949	7.8
1993	11,855,742	4,528,914	7,326,828	26,852,777	10.7
1994	885,369	286,158	599,211	27,451,988	10.9
1995	848,139	220,574	627,565	28,079,553	11.2
1996	1,201,405	400,822	800,583	28,880,136	11.5
1997	6,431,594	1,490,215	4,941,379	33,821,515	13.5
1998	3,744,311	1,031,843	2,712,468	36,533,983	14.5
1999	508,000	126,746	381,254	36,915,237	14.7
2000	8,584,958	2,685,462	5,899,496	42,814,733	17.0
2001	2,628,293	631,513	1,996,780	44,811,513	17.8
2002	2,808,285	706,507	2,101,778	46,913,291	18.7
2003	1,512,394	415,500	1,096,894	48,010,185	19.1
2004	4,056,774	742,149	3,314,625	51,324,810	20.4
2005	6,348,367	1,418,938	4,929,429	56,254,239	22.4
2006	6,543,723	1,464,840	5,078,883	61,333,122	24.4
2007	6,372,375	1,062,096	5,310,279	66,643,401	26.5
2008	9,122,510	1,746,097	7,376,413	74,019,814	29.4
2009	55,835,849	14,541,298	41,294,551	115,314,365	45.9
2010	22,716,982	5,123,715	17,593,267	132,907,632	52.9
2011	1,325,343	406,552	918,791	133,826,423	53.2
2012	2,717,668	465,356	2,252,312	136,078,735	54.1
2013	10,026,971	1,373,922	8,653,049	144,731,784	57.6
2014	45,153,387	5,900,124	39,253,263	183,985,047	73.2
2015	17,403,942	1,884,177	15,519,765	199,504,812	79.4
2016	12,199,328	758,438	11,440,890	210,945,702	83.9
2017	24,215,459	928,822	23,286,637	234,232,339	93.2
2018	12,689,916	775,012	11,914,904	246,147,243	97.9

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

			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)
2019	21,073,059	532,493	20,540,566	266,687,809	106.1
2020	18,413,409	231,691	18,181,718	284,869,527	113.3
9999	39,405,838-	5,949,626-	33,456,212-	251,413,315	100.0
SUBTOTAL	311,042,561	59,629,246	251,413,315		
NONDEPRECIABLE	2,992,204		2,992,204		
TOTAL	314,034,765	59,629,246	254,405,519		

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 45-R3						
NET SALVAGE PERCENT.. 0						
2007	17,438.44	5,650	2,540	14,898	28.17	529
2008	112,971.16	34,027	15,296	97,675	29.00	3,368
2009	176,075.37	49,195	22,114	153,961	29.65	5,193
2011	8,551.63	1,991	895	7,657	31.31	245
2013	100,921.24	18,771	8,438	92,483	32.82	2,818
2014	14,733.22	2,384	1,072	13,661	33.66	406
2015	41,821.65	5,750	2,585	39,237	34.50	1,137
2016	36,602.45	4,151	1,866	34,736	35.18	987
2017	197,414.75	17,491	7,863	189,552	36.02	5,262
2018	185,601.49	11,841	5,323	180,278	36.71	4,911
2019	281,011.04	10,847	4,875	276,136	37.41	7,381
2020	51,542.15	675	304	51,238	37.67	1,360
	1,224,684.59	162,773	73,171	1,151,514		33,597

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 34.3   2.74

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1965	47,787.31	35,539	47,787			
1976	26,060.07	17,163	26,060			
1978	11,065.52	7,102	11,066			
1980	3,227.42	2,026	3,201	26	24.01	1
1982	29,311.82	17,830	28,174	1,138	24.79	46
1983	86,021.68	51,613	81,556	4,466	25.00	179
1984	30,359.44	17,839	28,188	2,171	25.61	85
1985	142,170.34	82,260	129,982	12,188	25.85	471
1986	67,666.58	38,516	60,861	6,806	26.11	261
1987	29,503.70	16,504	26,079	3,425	26.38	130
1988	77,573.59	42,603	67,319	10,255	26.67	385
1989	89,919.05	48,430	76,526	13,393	26.98	496
1991	283,919.20	146,559	231,584	52,335	27.65	1,893
1992	76,283.19	38,477	60,799	15,484	28.00	553
1993	484,787.99	239,970	379,186	105,602	28.06	3,763
1994	48,839.67	23,555	37,220	11,620	28.45	408
1996	24,061.84	11,025	17,421	6,641	28.97	229
1997	104,008.90	46,201	73,004	31,005	29.41	1,054
1998	223,092.88	96,376	152,287	70,806	29.58	2,394
1999	11,109.33	4,657	7,359	3,750	29.78	126
2000	7,006.96	2,829	4,470	2,537	30.26	84
2001	178,291.10	69,534	109,873	68,418	30.50	2,243
2002	9,686.12	3,638	5,749	3,937	30.76	128
2003	270,080.72	97,364	153,849	116,232	31.04	3,745
2004	101,053.19	34,843	55,057	45,996	31.35	1,467
2005	9,084.35	3,000	4,740	4,344	31.45	138
2006	925,790.01	289,957	458,172	467,618	31.80	14,705
2007	515,052.32	152,971	241,715	273,337	31.95	8,555
2008	50,100.82	14,028	22,166	27,935	32.14	869
2009	2,925,250.79	767,001	1,211,968	1,713,283	32.36	52,944
2010	1,287,101.87	313,538	495,434	791,668	32.60	24,284
2011	14,541.45	3,260	5,151	9,390	32.87	286
2013	181,345.53	33,458	52,868	128,478	33.15	3,876
2014	4,035,865.19	658,653	1,040,763	2,995,102	33.34	89,835
2015	1,550,655.93	218,332	344,995	1,205,661	33.56	35,926
2016	544,250.42	64,167	101,393	442,857	33.67	13,153
2017	462,928.56	43,608	68,907	394,022	33.67	11,702
2018	397,961.15	27,459	43,389	354,572	33.73	10,512

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2019	10,217.20	437	691	9,526	33.59	284
2020	675,416.05	9,996	15,794	659,622	33.40	19,749
9999	2,734,528.70-	646,181-	1,019,422-	1,715,107-		52,303-
	13,313,920.55	3,146,137	4,963,381	8,350,540		254,656

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 32.8 1.91

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1932	592.34	545	463	129	7.65	17
1946	495.01	424	361	134	12.45	11
1957	135,915.33	107,890	91,755	44,160	16.50	2,676
1961	343,605.32	263,751	224,306	119,299	18.02	6,620
1965	53,554.52	39,828	33,872	19,683	19.13	1,029
1967	24,238.81	17,636	14,998	9,241	20.03	461
1973	38,226.87	26,147	22,237	15,990	21.94	729
1975	416,737.13	278,714	237,032	179,705	22.53	7,976
1976	17,329.31	11,413	9,706	7,623	23.07	330
1984	689,712.60	405,275	344,665	345,048	25.61	13,473
1985	133,160.43	77,047	65,524	67,636	25.85	2,616
1986	170,604.26	97,108	82,585	88,019	26.11	3,371
1988	1,117,212.13	613,573	521,812	595,400	26.67	22,325
1989	99,322.44	53,495	45,495	53,827	26.98	1,995
1992	1,446,438.65	729,584	620,473	825,966	28.00	29,499
1993	242,856.86	120,214	102,236	140,621	28.06	5,011
1994	16,610.37	8,011	6,813	9,797	28.45	344
1996	596,002.07	273,088	232,247	363,755	28.97	12,556
1997	69,466.60	30,857	26,242	43,225	29.41	1,470
1998	597,413.70	258,083	219,486	377,928	29.58	12,776
2000	6,461,603.56	2,609,196	2,218,985	4,242,619	30.26	140,206
2001	406,030.34	158,352	134,670	271,360	30.50	8,897
2002	162,174.63	60,913	51,803	110,372	30.76	3,588
2003	12,800.51	4,615	3,925	8,876	31.04	286
2004	15,509.61	5,348	4,548	10,962	31.35	350
2005	532,136.80	175,712	149,434	382,703	31.45	12,169
2006	440,475.88	137,957	117,325	323,151	31.80	10,162
2007	3,275.19	973	827	2,448	31.95	77
2009	16,246,956.54	4,259,952	3,622,869	12,624,088	32.36	390,114
2010	5,011,810.76	1,220,877	1,038,292	3,973,519	32.60	121,887
2011	87,236.73	19,558	16,633	70,604	32.87	2,148
2012	9,682.87	1,983	1,686	7,997	33.00	242
2013	162,025.99	29,894	25,423	136,603	33.15	4,121
2014	10,014,019.35	1,634,288	1,389,878	8,624,141	33.34	258,672
2015	44,494.29	6,265	5,328	39,166	33.56	1,167
2016	18,606.03	2,194	1,866	16,740	33.67	497
2017	802,707.47	75,615	64,307	738,400	33.67	21,931
2018	193,299.98	13,338	11,343	181,957	33.73	5,395

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2019	206,004.12	8,817	7,498	198,506	33.59	5,910
2020	2,066,723.21	30,588	26,014	2,040,709	33.40	61,099
9999	1,853,012.73-	523,339-	445,072-	1,407,940-		44,308-
	47,254,055.88	13,345,779	11,349,890	35,904,166		1,129,895

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.8   2.39

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1						
NET SALVAGE PERCENT.. 0						
1939	2,714.36	2,714	2,714			
1972	431.03	385	431			
1984	10,964.48	8,684	10,964			
1992	14,699.56	10,263	14,700			
1993	16,698.60	11,435	16,699			
1994	28,753.40	19,276	28,753			
1997	5,777.23	3,611	5,777			
2002	1,056.54	563	1,057			
2003	42,530.07	21,809	42,530			
2007	1,132.89	479	1,133			
2008	360,769.91	143,406	360,770			
2009	80,577.47	29,926	80,577			
2010	38,794.76	13,361	36,929	1,866	19.99	93
2011	7,083.60	2,234	6,175	909	20.62	44
2012	28,394.66	8,132	22,476	5,919	21.18	279
2013	25,207.51	6,466	17,871	7,337	21.74	337
2014	413,028.67	92,890	256,739	156,290	22.40	6,977
2015	1,020,626.82	196,471	543,028	477,599	23.07	20,702
2016	9,170.72	1,461	4,038	5,133	23.75	216
2017	131,483.00	16,435	45,425	86,058	24.51	3,511
2018	372,451.19	33,521	92,649	279,802	25.28	11,068
2019	82,967.70	4,505	12,451	70,517	26.12	2,700
2020	118,418.95	2,155	5,956	112,463	26.97	4,170
	2,813,733.12	630,182	1,609,842	1,203,891		50,097

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 24.0 1.78

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 355.00 POWER GENERATION EQUIPMENT

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

SURVIVOR CURVE.. IOWA 35-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)
1983	18,550.00	14,539	18,550			
1987	19,246.40	14,250	19,246			
1989	49,338.78	35,435	49,339			
1992	62,034.60	42,258	62,035			
1993	201,611.77	134,717	201,612			
1994	20,325.00	13,305	20,325			
1997	30,447.00	18,530	30,447			
1998	12,580.62	7,473	12,581			
2001	38,477.83	20,859	37,496	982	16.47	60
2002	62,407.82	32,677	58,740	3,668	16.83	218
2005	68,295.28	31,648	56,891	11,404	17.95	635
2007	12,208.69	5,109	9,184	3,025	18.76	161
2008	183,720.69	72,570	130,452	53,269	19.15	2,782
2009	2,574,089.51	953,185	1,713,454	860,636	19.56	44,000
2010	20,681.36	7,123	12,804	7,877	19.99	394
2011	14,376.97	4,575	8,224	6,153	20.35	302
2012	27,649.83	8,038	14,449	13,201	20.74	636
2013	26,762.41	7,006	12,594	14,168	21.15	670
2014	609,803.14	141,108	253,658	356,145	21.59	16,496
2015	90,933.42	18,205	32,725	58,208	21.97	2,649
2016	10,498.31	1,757	3,158	7,340	22.38	328
2017	13,046.73	1,735	3,119	9,928	22.82	435
2018	4,307.88	419	753	3,555	23.21	153
2019	9,195.02	550	989	8,206	23.56	348
9999	144,517.16-	54,863-	95,507-	49,010-		2,429-
	4,036,071.90	1,532,208	2,667,318	1,368,754		67,838

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.2   1.68

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
1957	11,250.90	8,573	2,952	8,299	19.83	419
1965	13,244.29	9,262	3,190	10,054	23.87	421
1973	125,101.36	77,838	26,807	98,294	28.84	3,408
1974	1,497,033.84	911,993	314,081	1,182,953	29.83	39,656
1975	846,153.97	508,200	175,019	671,135	30.26	22,179
1976	967,478.21	568,297	195,716	771,762	31.26	24,688
1977	457,079.90	264,466	91,079	366,001	31.68	11,553
1978	269,365.10	153,403	52,830	216,535	32.13	6,739
1979	73,494.20	40,870	14,075	59,419	33.13	1,794
1980	74,859.30	40,933	14,097	60,762	33.57	1,810
1981	160,442.87	85,548	29,462	130,981	34.58	3,788
1982	53,320.47	27,919	9,615	43,705	35.03	1,248
1983	191,843.36	97,840	33,695	158,148	36.03	4,389
1985	309,167.72	150,379	51,789	257,379	37.49	6,865
1986	32,848.21	15,639	5,386	27,462	37.96	723
1987	225,447.35	104,224	35,894	189,553	38.96	4,865
1988	402,666.16	181,925	62,653	340,013	39.44	8,621
1989	91,928.54	40,540	13,962	77,967	39.93	1,953
1991	75,328.03	31,336	10,792	64,536	41.42	1,558
1992	34,625.40	13,912	4,791	29,834	42.43	703
1993	603,023.53	235,481	81,097	521,927	42.92	12,160
1994	308,477.18	116,080	39,977	268,500	43.92	6,113
1996	132,132.00	46,299	15,945	116,187	45.43	2,557
1997	1,383,990.79	468,342	161,292	1,222,699	45.94	26,615
1998	465,033.14	150,671	51,890	413,143	46.94	8,802
1999	210,021.91	65,023	22,393	187,629	47.94	3,914
2000	488,759.25	145,259	50,026	438,733	48.47	9,052
2001	873,538.23	247,037	85,077	788,461	49.46	15,941
2002	555,743.94	150,106	51,695	504,049	49.99	10,083
2003	385,648.49	98,533	33,934	351,714	50.99	6,898
2004	2,041,144.34	495,182	170,536	1,870,608	51.52	36,308
2005	178,485.90	40,659	14,003	164,483	52.53	3,131
2006	1,980,313.95	424,975	146,357	1,833,957	53.07	34,557
2007	1,150,120.49	229,794	79,139	1,070,981	54.07	19,807
2008	2,643,521.63	492,224	169,517	2,474,005	54.62	45,295
2009	535,688.72	91,817	31,621	504,068	55.61	9,064
2010	368,572.62	57,645	19,852	348,721	56.62	6,159
2013	306,623.59	34,710	11,954	294,670	58.73	5,017
2014	4,416,433.21	433,694	149,360	4,267,073	59.72	71,451
2015	2,390,568.29	199,852	68,827	2,321,741	60.29	38,510
2016	3,143,863.31	216,298	74,491	3,069,372	60.86	50,433

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 75-R3						
NET SALVAGE PERCENT.. 0						
2017	12,179,071.32	652,798	224,817	11,954,254	61.86	193,247
2018	1,164,462.95	44,832	15,440	1,149,023	62.44	18,402
2019	4,206,903.24	98,442	33,902	4,173,001	62.60	66,661
2020	689,120.42	5,444	1,875	687,245	62.79	10,945
9999	11,408,879.75-	2,008,113-	691,574-	10,717,305-		201,062-
	37,305,061.87	6,566,181	2,261,328	35,043,734		657,440

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 53.3   1.76

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
1915	72,744.09	66,765	45,060	27,684	9.45	2,930
1920	111,774.18	101,100	68,233	43,541	10.61	4,104
1929	16,617.32	14,444	9,748	6,869	13.77	499
1930	204,618.68	177,773	119,980	84,639	13.67	6,192
1935	14,327.62	12,127	8,185	6,143	15.52	396
1939	53,615.05	44,570	30,081	23,534	16.54	1,423
1945	43,708.67	34,652	23,387	20,322	19.73	1,030
1946	90,033.45	71,099	47,985	42,048	19.84	2,119
1955	39,662.67	29,097	19,638	20,025	23.79	842
1957	1,404,839.86	1,008,113	680,381	724,459	24.99	28,990
1961	10,746.84	7,353	4,963	5,784	27.46	211
1962	29,974.44	20,341	13,728	16,246	27.71	586
1965	538,774.31	349,880	236,136	302,638	29.97	10,098
1968	34,267.97	21,411	14,450	19,818	31.53	629
1969	396,985.68	245,337	165,579	231,407	31.83	7,270
1974	113,249.30	64,779	43,720	69,529	34.80	1,998
1975	1,408,571.50	788,237	531,985	876,586	35.80	24,486
1976	245,390.18	135,406	91,386	154,004	36.15	4,260
1977	174,458.40	94,103	63,511	110,947	37.15	2,986
1978	79,044.06	41,988	28,338	50,706	37.50	1,352
1979	32,486.71	16,987	11,465	21,022	37.87	555
1982	45,526.78	22,263	15,025	30,502	40.24	758
1983	441,522.92	211,931	143,033	298,490	40.62	7,348
1984	2,585,921.73	1,217,452	821,665	1,764,257	41.02	43,010
1985	802,101.22	367,362	247,935	554,166	42.02	13,188
1986	624,779.42	280,214	189,118	435,661	42.42	10,270
1987	70,195.65	30,570	20,632	49,564	43.42	1,142
1988	803,595.76	342,171	230,933	572,663	43.83	13,066
1989	2,335,118.47	970,942	655,294	1,679,824	44.26	37,954
1990	502,394.11	202,264	136,509	365,885	45.26	8,084
1992	494,643.54	187,470	126,524	368,120	46.69	7,884
1993	5,914,275.28	2,179,410	1,470,895	4,443,380	47.13	94,279
1994	239,790.74	85,797	57,905	181,886	47.57	3,824
1995	732,335.10	252,070	170,123	562,212	48.58	11,573
1996	237,585.24	79,163	53,428	184,157	49.03	3,756
1997	3,318,457.72	1,060,579	715,790	2,602,668	50.03	52,022
1998	1,837,200.20	566,225	382,148	1,455,052	50.50	28,813
1999	46,412.71	13,771	9,294	37,119	50.96	728
2000	957,222.53	270,798	182,763	774,460	51.96	14,905
2001	645,331.89	174,885	118,031	527,301	52.45	10,053
2002	1,107,022.07	286,719	193,508	913,514	52.93	17,259

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 361.10 COLLECTION SEWERS - GRAVITY MAINS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 80-R2.5						
NET SALVAGE PERCENT.. 0						
2003	365,906.54	89,647	60,503	305,404	53.93	5,663
2004	412,058.72	95,845	64,686	347,373	54.43	6,382
2005	2,857,759.52	628,993	424,511	2,433,249	54.92	44,305
2006	1,643,579.07	340,878	230,060	1,413,519	55.43	25,501
2007	2,561,278.93	494,327	333,624	2,227,655	56.43	39,476
2008	3,017,823.98	543,208	366,614	2,651,210	56.94	46,561
2009	6,553,970.45	1,093,202	737,808	5,816,162	57.46	101,221
2010	3,590,069.60	550,358	371,440	3,218,630	57.99	55,503
2011	420,063.10	58,641	39,577	380,486	58.53	6,501
2012	1,420,631.05	178,715	120,616	1,300,015	59.07	22,008
2013	4,236,227.25	473,610	319,642	3,916,585	59.61	65,703
2014	11,160,667.58	1,088,165	734,408	10,426,260	60.17	173,280
2015	4,607,115.45	385,155	259,943	4,347,172	60.29	72,104
2016	5,948,798.04	412,252	278,231	5,670,567	60.44	93,821
2017	7,639,259.09	414,048	279,444	7,359,815	61.02	120,613
2018	4,538,074.82	179,254	120,979	4,417,096	60.79	72,662
2019	8,624,287.63	209,570	141,440	8,482,848	60.23	140,841
2020	6,202,083.81	53,338	35,998	6,166,086	57.98	106,348
9999	12,702,960.54-	2,359,185-	1,592,226-	11,110,734-		204,079-
	91,954,018.15	17,077,639	11,525,790	80,428,228		1,477,286

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 54.4   1.61

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 361.20 MANHOLES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
1939	38,118.39	36,658	19,270	18,848	3.25	5,799
1946	5,856.79	5,542	2,913	2,944	4.24	694
1955	6,223.95	5,666	2,978	3,246	6.45	503
1965	50,830.95	44,009	23,134	27,697	8.60	3,221
1968	34,287.07	28,979	15,234	19,053	9.61	1,983
1969	82,101.93	68,916	36,227	45,875	9.85	4,657
1974	17,606.09	14,162	7,445	10,161	11.31	898
1977	42,020.46	32,536	17,103	24,917	12.68	1,965
1984	94,948.32	66,540	34,978	59,970	15.58	3,849
1985	166,949.84	114,394	60,134	106,816	16.31	6,549
1986	106,337.44	71,544	37,609	68,728	16.78	4,096
1990	21,927.30	13,509	7,101	14,826	19.00	780
1992	116,219.73	67,896	35,691	80,529	20.28	3,971
1993	106,953.55	60,589	31,850	75,104	21.04	3,570
1994	54,953.79	30,291	15,923	39,031	21.58	1,809
1995	20,004.98	10,663	5,605	14,400	22.34	645
1996	39,549.08	20,348	10,696	28,853	23.12	1,248
1997	1,034,010.67	512,662	269,493	764,518	23.90	31,988
1998	248,550.82	118,559	62,323	186,228	24.67	7,549
1999	33,047.43	15,136	7,957	25,090	25.45	986
2000	192,754.60	84,561	44,452	148,303	26.23	5,654
2001	231,749.91	97,150	51,069	180,681	27.01	6,689
2002	199,767.18	79,827	41,963	157,804	27.80	5,676
2003	115,469.44	43,855	23,053	92,416	28.58	3,234
2004	240,905.08	86,244	45,336	195,569	29.59	6,609
2005	875,539.63	295,845	155,518	720,022	30.37	23,708
2006	19,871.78	6,311	3,318	16,554	31.16	531
2007	1,565,768.07	462,841	243,304	1,322,464	32.16	41,121
2008	677,594.31	185,525	97,526	580,068	33.16	17,493
2009	121,490.47	30,737	16,158	105,332	33.95	3,103
2010	212,776.08	49,151	25,837	186,939	34.95	5,349
2011	37,443.93	7,826	4,114	33,330	35.95	927
2012	21,648.49	4,048	2,128	19,520	36.95	528
2013	1,023,259.30	169,656	89,184	934,075	37.75	24,744
2014	2,194,308.28	315,103	165,641	2,028,667	38.75	52,353
2015	5,489,186.06	667,485	350,880	5,138,306	39.75	129,266
2016	289,271.82	28,754	15,115	274,157	40.75	6,728
2017	372,835.79	28,857	15,169	357,667	41.75	8,567
2018	8,283.55	457	240	8,044	42.75	188

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 361.20 MANHOLES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-S2.5						
NET SALVAGE PERCENT.. 0						
2019	43,323.42	1,438	756	42,567	43.75	973
2020	487,360.00	5,361	2,819	484,541	44.75	10,828
9999	4,387,312.76-	1,045,556-	549,622-	3,837,691-		115,580-
	12,353,793.01	2,944,075	1,547,622	10,806,171		325,449

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 33.2 2.63

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 363.00 SERVICES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
1955	1,568.30	1,490	1,267	301	3.46	87
1957	146,678.92	138,788	117,976	28,703	3.61	7,951
1961	795.56	738	627	169	4.60	37
1962	2,659.38	2,442	2,076	583	5.20	112
1965	49,137.92	44,450	37,784	11,354	5.85	1,941
1968	11,437.25	10,147	8,625	2,812	6.67	422
1969	14,591.70	12,849	10,922	3,670	6.98	526
1970	460.29	402	342	118	7.31	16
1971	521.34	452	384	137	7.65	18
1972	565.17	482	410	155	8.32	19
1973	2,340.84	1,979	1,682	659	8.68	76
1974	11,508.66	9,633	8,188	3,321	9.06	367
1975	174,197.10	144,253	122,621	51,576	9.45	5,458
1976	55,575.43	45,505	38,681	16,894	9.85	1,715
1977	54,764.74	44,310	37,665	17,100	10.26	1,667
1978	32,104.50	25,517	21,691	10,414	10.97	949
1979	40,782.76	31,990	27,193	13,590	11.41	1,191
1980	355,093.29	274,700	233,506	121,587	11.85	10,261
1981	70,561.24	53,796	45,729	24,832	12.31	2,017
1982	58,170.44	43,448	36,933	21,237	13.05	1,627
1983	139,676.27	102,662	87,267	52,409	13.52	3,876
1984	246,203.00	177,931	151,249	94,954	14.01	6,778
1985	166,130.38	117,355	99,757	66,373	14.75	4,500
1986	172,785.53	119,809	101,843	70,943	15.25	4,652
1987	166,859.04	113,464	96,449	70,410	15.76	4,468
1988	208,365.29	138,146	117,430	90,935	16.52	5,505
1989	305,475.95	198,223	168,498	136,978	17.04	8,039
1990	103,226.71	65,177	55,403	47,824	17.81	2,685
1991	78,301.82	48,281	41,041	37,261	18.34	2,032
1992	87,083.67	52,120	44,304	42,780	19.12	2,237
1993	582,464.54	339,577	288,654	293,811	19.67	14,937
1994	91,874.38	51,854	44,078	47,796	20.45	2,337
1995	88,498.72	48,515	41,240	47,259	21.01	2,249
1996	93,888.63	49,686	42,235	51,654	21.80	2,369
1997	435,008.91	222,855	189,436	245,573	22.37	10,978
1998	356,782.35	175,822	149,456	207,326	23.16	8,952
1999	150,951.81	71,400	60,693	90,259	23.95	3,769
2000	477,611.29	217,361	184,766	292,845	24.55	11,929
2001	171,070.11	74,381	63,227	107,843	25.35	4,254
2002	284,801.54	118,022	100,324	184,478	26.14	7,057
2003	196,443.71	77,693	66,042	130,402	26.75	4,875

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 363.00 SERVICES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 47-R3						
NET SALVAGE PERCENT.. 0						
2004	734,176.75	275,023	233,781	500,396	27.55	18,163
2005	322,851.49	114,096	96,986	225,865	28.36	7,964
2006	860,861.71	285,806	242,947	617,915	29.17	21,183
2007	484,188.09	150,340	127,795	356,393	29.98	11,888
2008	507,190.12	147,085	125,028	382,162	30.60	12,489
2009	2,531,339.42	678,399	576,667	1,954,672	31.42	62,211
2010	474,164.53	116,502	99,032	375,133	32.24	11,636
2011	172,044.94	38,400	32,642	139,403	33.06	4,217
2012	216,481.90	43,426	36,914	179,568	33.87	5,302
2013	569,891.83	101,327	86,132	483,760	34.69	13,945
2014	989,356.72	153,746	130,690	858,667	35.34	24,297
2015	1,175,412.53	155,154	131,887	1,043,526	36.17	28,851
2016	681,454.07	73,870	62,793	618,661	37.00	16,721
2017	1,201,013.20	102,086	86,777	1,114,236	37.65	29,595
2018	773,401.59	47,177	40,103	733,299	38.48	19,057
2019	531,027.42	19,595	16,656	514,371	39.15	13,138
2020	2,405,066.99	30,304	25,760	2,379,307	39.34	60,481
9999	3,824,000.91-	1,129,312-	959,962-	2,864,039-		97,134-
	16,492,940.87	4,870,729	4,140,322	12,352,619		418,939

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 29.5   2.54

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 364.00 FLOW MEASURING DEVICES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 15-L2.5						
NET SALVAGE PERCENT.. 0						
1989	5,317.10	5,025	1,866	3,451	1.83	1,886
1992	7,284.72	6,768	2,513	4,772	2.17	2,199
2005	8,722.16	6,814	2,531	6,191	4.34	1,426
2006	6,468.54	4,952	1,839	4,630	4.44	1,043
2007	9,030.61	6,754	2,508	6,523	4.55	1,434
2008	29,418.95	21,364	7,934	21,485	4.71	4,562
2009	92,082.61	64,495	23,952	68,131	4.92	13,848
2010	19,205.24	12,825	4,763	14,442	5.22	2,767
2013	26,874.75	14,292	5,308	21,567	6.60	3,268
2014	152,434.49	72,132	26,788	125,646	7.24	17,354
2015	4,972.70	2,040	758	4,215	7.90	534
2016	8,070.58	2,763	1,026	7,045	8.64	815
2018	1,269.20	249	93	1,176	10.24	115
9999	14,726.81-	8,748-	3,249-	11,478-		2,034-
	356,424.84	211,725	78,630	277,795		49,217

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.6   13.81

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S2						
NET SALVAGE PERCENT.. 0						
2009	14,938.00	7,302	80	14,858	12.03	1,235
	14,938.00	7,302	80	14,858		1,235

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.0   8.27

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 370.00 RECEIVING WELLS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2007	6,261.10	1,843	1,676	4,585	32.37	142
2009	92,112.20	23,304	21,193	70,919	33.95	2,089
2013	33,467.05	5,622	5,113	28,354	37.14	763
2017	1,547.02	123	112	1,435	40.36	36
2019	10,032.40	349	318	9,715	41.60	234
	143,419.77	31,241	28,412	115,008		3,264

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 35.2 2.28

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 371.00 PUMPING EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 30-S0.5						
NET SALVAGE PERCENT.. 0						
1985	282.58	232	107	176	7.79	23
1986	79,157.23	64,181	29,475	49,682	8.05	6,172
1989	4,187.82	3,245	1,490	2,698	9.15	295
1992	104,463.97	77,115	35,415	69,049	10.11	6,830
1993	22,555.17	16,375	7,520	15,035	10.38	1,448
1994	17,532.78	12,497	5,739	11,794	10.68	1,104
1996	52,541.33	35,917	16,495	36,046	11.34	3,179
1997	30,464.34	20,332	9,338	21,126	11.71	1,804
1999	39,315.50	24,934	11,451	27,864	12.40	2,247
2001	18,557.48	11,073	5,085	13,472	13.18	1,022
2003	123,514.93	68,946	31,664	91,851	13.85	6,632
2004	156,410.02	84,133	38,638	117,772	14.17	8,311
2005	73,906.68	38,032	17,466	56,441	14.62	3,861
2006	52,792.51	25,953	11,919	40,874	15.00	2,725
2007	5,838.30	2,735	1,256	4,582	15.32	299
2008	349,836.66	154,803	71,094	278,743	15.75	17,698
2009	607,739.94	253,002	116,192	491,548	16.12	30,493
2010	283,834.80	110,270	50,642	233,193	16.53	14,107
2011	38,235.02	13,765	6,322	31,913	16.89	1,889
2012	19,254.40	6,350	2,916	16,338	17.27	946
2013	37,112.44	11,052	5,076	32,036	17.69	1,811
2014	1,802,676.29	475,726	218,479	1,584,197	18.13	87,380
2015	225,543.90	51,604	23,699	201,845	18.54	10,887
2016	644,316.90	123,838	56,873	587,444	18.92	31,049
2017	396,978.62	60,857	27,949	369,030	19.33	19,091
2018	391,495.93	44,043	20,227	371,269	19.72	18,827
2019	5,169,123.43	358,737	164,752	5,004,371	20.10	248,974
2020	2,473,830.59	59,372	27,267	2,446,564	20.38	120,047
9999	66,626.22-	11,132-	5,112-	61,514-		3,271-
	13,154,873.34	2,197,987	1,009,434	12,145,440		645,880

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.8   4.91

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 380.00 TREATMENT EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
1957	19,894.63	19,455	14,327	5,568	1.44	3,867
1965	81,434.37	76,385	56,253	25,181	3.67	6,861
1967	170,448.40	158,670	116,851	53,597	3.97	13,501
1973	935.23	840	619	316	5.41	58
1981	4,406.50	3,690	2,717	1,690	7.67	220
1984	575,460.87	466,296	343,398	232,063	8.55	27,142
1985	475,734.58	380,017	279,859	195,876	8.94	21,910
1986	693,838.46	548,132	403,665	290,173	9.17	31,644
1987	200,058.11	156,165	115,006	85,052	9.42	9,029
1989	810,685.65	612,878	451,347	359,339	10.17	35,333
1990	8,593.00	6,395	4,710	3,883	10.48	371
1992	807,475.31	577,668	425,417	382,058	11.34	33,691
1993	3,387,790.60	2,375,519	1,749,423	1,638,368	11.72	139,792
1994	58,211.68	39,956	29,425	28,787	12.11	2,377
1995	7,300.34	4,896	3,606	3,694	12.52	295
1996	25,645.30	16,777	12,355	13,290	12.95	1,026
1997	19,961.47	12,759	9,396	10,565	13.26	797
1998	3,657.49	2,271	1,672	1,985	13.73	145
1999	17,141.78	10,319	7,599	9,543	14.21	672
2001	65,246.07	36,642	26,985	38,261	15.22	2,514
2002	353,994.62	191,228	140,828	213,167	15.75	13,534
2004	353,819.95	175,141	128,981	224,839	16.83	13,359
2005	1,404,067.65	661,597	487,225	916,843	17.39	52,722
2006	282,289.92	126,071	92,844	189,446	17.97	10,542
2007	30,777.90	12,964	9,547	21,231	18.55	1,145
2008	810,521.24	320,156	235,775	574,746	19.15	30,013
2009	18,199,982.42	6,675,754	4,916,282	13,283,700	19.85	669,204
2010	9,672,266.35	3,280,833	2,416,132	7,256,134	20.46	354,650
2011	18,152.16	5,622	4,140	14,012	21.17	662
2012	746,356.36	208,681	153,681	592,675	21.90	27,063
2013	2,906,342.89	723,679	532,945	2,373,398	22.62	104,925
2014	8,844,112.53	1,920,057	1,414,003	7,430,110	23.44	316,984
2015	675,623.46	125,261	92,247	583,376	24.17	24,136
2016	454,264.39	69,321	51,051	403,213	25.00	16,129
2017	661,976.73	79,040	58,208	603,769	25.82	23,384
2018	3,454,022.97	295,319	217,484	3,236,539	26.74	121,037

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 380.00 TREATMENT EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 35-S1.5						
NET SALVAGE PERCENT.. 0						
2019	1,098,529.76	56,464	41,583	1,056,947	27.66	38,212
2020	1,581,253.25	27,198	20,029	1,561,224	28.57	54,646
9999	2,200,080.47-	763,177-	562,033-	1,638,048-		82,196-
	56,782,193.92	19,696,939	14,505,582	42,276,611		2,121,396

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.9 3.74

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 381.00 PLANT SEWERS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
2008	294,411.86	80,610	69,681	224,731	33.16	6,777
2009	4,434,866.70	1,122,021	969,903	3,464,964	33.95	102,061
2010	1,187,964.50	275,608	238,242	949,722	34.75	27,330
2011	6,597.06	1,391	1,202	5,395	35.55	152
2012	1,684.33	319	276	1,408	36.34	39
2014	234,318.33	34,257	29,613	204,705	37.95	5,394
2015	7,458.23	927	801	6,657	38.75	172
2016	45,239.43	4,623	3,996	41,243	39.55	1,043
9999	30,192.33-	7,386-	6,384-	23,808-		695-
	6,182,348.11	1,512,370	1,307,330	4,875,018		142,273

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 34.3 2.30

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 382.00 OUTFALL SEWER LINES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 50-R3						
NET SALVAGE PERCENT.. 0						
1957	12,139.53	11,255	11,010	1,130	4.99	226
1975	4,984.00	3,991	3,904	1,080	11.32	95
1993	202,475.94	111,929	109,493	92,983	22.25	4,179
2004	1,695.94	599	586	1,110	30.23	37
2005	9,240.93	3,079	3,012	6,229	31.01	201
2006	201,117.58	62,990	61,619	139,499	31.80	4,387
2009	26,051.26	6,591	6,448	19,603	33.95	577
2010	27,827.93	6,456	6,315	21,513	34.75	619
2014	100,422.48	14,682	14,363	86,059	37.95	2,268
2017	18,433.32	1,471	1,439	16,995	40.36	421
	604,388.91	223,043	218,189	386,200		13,010

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 29.7   2.15

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 20-S2.5						
NET SALVAGE PERCENT.. 0						
2010	273,149.74	149,140	138,203	134,947	8.73	15,458
2013	8,814.50	3,570	3,308	5,506	11.02	500
2018	32,175.41	4,440	4,115	28,060	15.62	1,796
2019	268,065.51	22,196	20,568	247,497	16.62	14,892
	582,205.16	179,346	166,194	416,011		32,646

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.7   5.61

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 389.60 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	57,500.00	5,750	5,750	51,750	4.50	11,500
	57,500.00	5,750	5,750	51,750		11,500

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.5   20.00

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 390.00 OFFICE FURNITURE AND EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2008	3,529.23	2,206	410	3,119	7.50	416
2009	52,251.63	30,045	5,588	46,664	8.50	5,490
2010	7,240.80	3,801	707	6,534	9.50	688
2012	7,908.11	3,361	625	7,283	11.50	633
2013	18,309.85	6,866	1,277	17,033	12.50	1,363
2015	2,488.32	684	127	2,361	14.50	163
2016	17,826.99	4,011	746	17,081	15.50	1,102
2017	28,119.56	4,921	915	27,205	16.50	1,649
2018	10,405.16	1,301	242	10,163	17.50	581
2019	20,626.43	1,547	288	20,338	18.50	1,099
	168,706.08	58,743	10,925	157,781		13,184

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.0   7.81

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 391.00 TRANSPORTATION EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 14-L4						
NET SALVAGE PERCENT.. 0						
2006	51,405.94	44,199	38,693	12,713	2.36	5,387
2011	122,075.36	83,268	72,894	49,181	4.43	11,102
2012	71,629.34	44,568	39,015	32,614	5.16	6,321
2013	61,655.74	34,355	30,075	31,581	5.96	5,299
2016	2,422.96	825	722	1,701	8.71	195
2017	8,526.42	2,262	1,980	6,546	9.69	676
2018	927,895.26	175,836	153,930	773,965	10.69	72,401
2019	296,798.31	33,746	29,542	267,256	11.69	22,862
2020	536,928.00	20,350	17,815	519,113	12.69	40,907
	2,079,337.33	439,409	384,666	1,694,672		165,150

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.3   7.94

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 392.00 STORES EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2012	58,391.33	19,853	20,145	38,246	16.50	2,318
2017	2,199.71	308	313	1,887	21.50	88
2018	46,760.40	4,676	4,745	42,016	22.50	1,867
	107,351.44	24,837	25,203	82,149		4,273

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.2 3.98

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 393.00 TOOLS, SHOP AND GARAGE EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 20-SQUARE						
NET SALVAGE PERCENT.. 0						
2005	8,276.87	6,415	6,621	1,656	4.50	368
2006	75,500.00	54,738	56,491	19,009	5.50	3,456
2007	6,695.14	4,519	4,664	2,031	6.50	312
2008	2,776.47	1,735	1,791	985	7.50	131
2009	378.54	218	225	154	8.50	18
2010	61,467.53	32,270	33,304	28,164	9.50	2,965
2012	53,547.52	22,758	23,487	30,061	11.50	2,614
2013	16,093.74	6,035	6,228	9,866	12.50	789
2014	36,416.31	11,835	12,214	24,202	13.50	1,793
2015	56,943.11	15,659	16,161	40,782	14.50	2,813
2016	107,176.04	24,115	24,887	82,289	15.50	5,309
2017	7,458.66	1,305	1,347	6,112	16.50	370
2018	94,551.82	11,819	12,198	82,354	17.50	4,706
2019	13,456.70	1,009	1,041	12,416	18.50	671
2020	353,392.32	8,835	9,118	344,275	19.50	17,655
	894,130.77	203,265	209,777	684,354		43,970

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.6   4.92

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 394.00 LABORATORY EQUIPMENT

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

SURVIVOR CURVE.. 15-SQUARE
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)
2007	858.64	773	828	31	1.50	21
2008	48,521.14	40,434	43,309	5,212	2.50	2,085
2009	41,773.44	32,026	34,303	7,470	3.50	2,134
2010	31,269.93	21,889	23,445	7,825	4.50	1,739
2011	16,488.52	10,443	11,185	5,304	5.50	964
2012	15,638.71	8,862	9,492	6,147	6.50	946
2013	5,917.50	2,959	3,169	2,748	7.50	366
2014	36,775.07	15,936	17,069	19,706	8.50	2,318
2015	12,751.71	4,676	5,008	7,744	9.50	815
2016	65,493.26	19,648	21,045	44,448	10.50	4,233
2017	48,566.17	11,332	12,138	36,428	11.50	3,168
2018	28,248.23	4,708	5,043	23,205	12.50	1,856
2019	56,408.91	5,641	6,042	50,367	13.50	3,731
2020	117,797.44	3,926	4,205	113,592	14.50	7,834
	526,508.67	183,253	196,281	330,227		32,210

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.3   6.12

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 395.00 POWER OPERATED EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 22-R2						
NET SALVAGE PERCENT.. 0						
1986	7,035.12	6,723	7,035			
1992	9,616.53	8,606	9,617			
1993	90,248.53	79,671	90,249			
2002	71,630.22	51,817	60,840	10,790	7.07	1,526
2011	343,200.94	152,930	179,560	163,641	11.82	13,844
2015	3,241.62	915	1,074	2,168	13.99	155
2018	19,564.60	2,743	3,221	16,344	15.33	1,066
2020	134,232.00	4,349	5,106	129,126	14.93	8,649
9999	10,000.00-	4,534-	5,255-	4,745-		372-
	668,769.56	303,220	351,447	317,322		24,868

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.8 3.72

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 396.00 COMMUNICATION EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2006	3,256.29	3,148	3,256			
2007	2,450.35	2,205	2,356	94	1.50	63
2008	9,753.43	8,128	8,686	1,067	2.50	427
2009	521,963.46	400,174	427,626	94,337	3.50	26,953
2010	144,621.29	101,235	108,180	36,441	4.50	8,098
2011	4,370.98	2,768	2,958	1,413	5.50	257
2012	3,344.78	1,895	2,025	1,320	6.50	203
2013	263,689.84	131,845	140,889	122,801	7.50	16,373
2014	98,016.16	42,473	45,386	52,630	8.50	6,192
2016	172,002.57	51,601	55,141	116,862	10.50	11,130
2017	13,811.63	3,223	3,444	10,368	11.50	902
2018	12,412.19	2,069	2,211	10,201	12.50	816
2019	7,055.35	706	754	6,301	13.50	467
2020	339,244.08	11,307	12,083	327,161	14.50	22,563
	1,595,992.40	762,777	814,995	780,997		94,444

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 8.3   5.92

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 397.00 MISCELLANEOUS EQUIPMENT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 15-SQUARE						
NET SALVAGE PERCENT.. 0						
2008	20,048.36	16,707	20,048			
2009	6,270.00	4,807	6,270			
2010	4,161.94	2,913	4,162			
2011	14,880.36	9,424	14,880			
2012	15,424.61	8,741	15,425			
2013	16,427.62	8,214	16,428			
2015	4,104.14	1,505	4,104			
2017	28,080.87	6,552	25,149	2,932	11.50	255
2018	33,269.93	5,545	21,284	11,986	12.50	959
2019	123,794.18	12,379	47,516	76,278	13.50	5,650
2020	123,500.00	4,116	15,798	107,702	14.50	7,428
9999	29,000.00-	6,016-	14,207-	14,793-		1,063-
	360,962.01	74,887	176,857	184,105		13,229

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.9   3.66

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 398.00 OTHER TANGIBLE PLANT

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. 25-SQUARE						
NET SALVAGE PERCENT.. 0						
2019	14,231.50	854	831	13,400	23.50	570
	14,231.50	854	831	13,400		570

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.5 4.01

PART VIII. EXPERIENCED AND ESTIMATED NET SALVAGE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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
2016 TRANSACTION YEAR				
354.20	.01	41.70		41.70-
354.30	571.02			
354.40	34,034.72	4,580.92		4,580.92-
355.00	57,572.55	4,933.68		4,933.68-
360.10	1,368.17	12,703.29		12,703.29-
361.10	245,871.29	7,077.34	106.90	6,970.44-
361.20		53,436.99	437.10	52,999.89-
363.00	34,819.43	11,693.51		11,693.51-
371.00	54,772.73	11,514.65		11,514.65-
380.00	147,475.80	23,916.89		23,916.89-
381.00	13,300.05	2,109.73		2,109.73-
390.00	3,416.69	276.48		276.48-
393.00	15,451.56	4,963.98	176,515.74	171,551.76
394.00	1,377.94	566.37		566.37-
395.00		830.86-	44,128.93	44,959.79
396.00	6,233.38	911.22	132,386.80	131,475.58
397.00	25,065.55	1,142.09	88,257.87	87,115.78
	641,330.89	139,037.98	441,833.34	302,795.36

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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
2017 TRANSACTION YEAR				
354.20	1,407.63	304.32		304.32-
354.30	166,438.60	36,849.10		36,849.10-
354.40	572,137.15	35,585.29		35,585.29-
354.70	12,302.62	2,146.21		2,146.21-
355.00	9,831.57	930.05		930.05-
360.10	1,620.35	1,809.34		1,809.34-
361.10	115,058.32	53,983.89		53,983.89-
361.20	.06			
363.00	25,016.92	69,276.31		69,276.31-
364.00	31,435.54			
365.00	5,980.30			
371.00	369,649.35	5,054.34		5,054.34-
380.00	888,989.12	6,892.29		6,892.29-
381.00	30,192.33			
382.00		604.43		604.43-
390.00	16,791.12	763.18		763.18-
391.00	20,700.00			
392.00	5,858.64			
393.00	33,251.29	328.18		328.18-
394.00	8,779.18	60.05		60.05-
396.00	13,448.85	5,474.39		5,474.39-
397.00	190,794.50			
	2,519,683.44	220,061.37		220,061.37-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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	416.47	2,367.05		2,367.05-
354.30	573,594.97	87.11		87.11-
354.40	744,885.32	18,538.55-		18,538.55
354.70		36,099.53		36,099.53-
355.00	422,792.78	4,538.63		4,538.63-
360.10	276,235.14	85,350.18		85,350.18-
361.10	2,339,080.10	345,943.14		345,943.14-
361.20	13,749.21			
363.00	56,288.53	48,455.35		48,455.35-
364.00	31,450.72			
371.00	113,724.18	18,884.54-		18,884.54
380.00	1,203,983.11	12,304.03		12,304.03-
382.00	5.76	980.65		980.65-
389.10		3,678.20-		3,678.20
390.00	5,925.73	93.95		93.95-
391.00	79,247.81	9,708.42		9,708.42-
393.00	17,334.55			
394.00	28,673.47	117.59		117.59-
396.00	3,064.59			
397.00		6,019.17		6,019.17-
	5,910,452.44	510,963.51		510,963.51-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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				
354.20	3,076.09	27,531.06		27,531.06-
354.30		61,135.00		61,135.00-
354.40	913,340.30	1,985.51		1,985.51-
354.70	3,125.06	18,075.18		18,075.18-
355.00		9,730.05		9,730.05-
360.10	55,943.69	245,202.29		245,202.29-
361.10	352,132.81	1,038,558.77		1,038,558.77-
361.20	1,170.55	109,567.01		109,567.01-
363.00	5,384.61	150,830.30		150,830.30-
364.00	3,202.68	239.58		239.58-
370.00	1,108.89			
371.00	5,188.39	141,438.05		141,438.05-
380.00	36,603.24	214,843.19		214,843.19-
381.00	2,120.40			
389.10		5,681.56		5,681.56-
390.00	67,403.59			
391.00		6,028.96		6,028.96-
393.00	60,983.28	1,931.40		1,931.40-
394.00	26,823.05	5,593.49		5,593.49-
395.00		2,048.24		2,048.24-
396.00	48,155.78	1,897.96		1,897.96-
397.00	141,002.08	5,512.61		5,512.61-
398.00		1,251.49		1,251.49-
	1,726,764.49	2,049,081.70		2,049,081.70-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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	3,007.76	29,175.27		29,175.27-
354.30	39,414.10	5,123.83		5,123.83-
354.40	120,604.23	1,206.04		1,206.04-
354.70	6,910.37	22,182.29		22,182.29-
360.10	40,213.82	41,420.24		41,420.24-
361.10	361,924.39	170,104.46		170,104.46-
361.20	22,020.95	132,345.92	440.42	131,905.50-
363.00	128,735.68	130,023.03		130,023.03-
371.00	144,361.10	37,533.89		37,533.89-
380.00	92,274.49	11,072.94		11,072.94-
391.00	31,332.59	5,013.21		5,013.21-
394.00	10,122.79	1,012.28		1,012.28-
395.00	7,833.15	156.66		156.66-
396.00	234,211.01	21,078.99		21,078.99-
	1,242,966.43	607,449.05	440.42	607,008.63-
TOTAL	12,041,197.69	3,526,593.61	442,273.76	3,084,319.85-

EXHIBIT NO. 11-K - DEPRECIATION STUDY

WASTEWATER SSS OPERATIONS

EXCLUDING SADSBURY AND EXETER

AS OF DECEMBER 31, 2021

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

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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-K
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

Excellence Delivered ***As Promised***

April 22, 2020

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

Attention Ashley E. Everette
Director, Rates & Regulatory

Ladies and Gentlemen:

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

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

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

John J. Spanos

JOHN J. SPANOS
President

JJS:mle

066548.100

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www.gfvrc.com

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PENNSYLVANIA-AMERICAN WATER COMPANY

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PART I. RESULTS OF STUDY

SUMMARY OF RESULTS

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

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-7. The original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual are shown for each vintage of each account or subaccount. The amounts of regular retirements, gross salvage and cost of removal are set forth by account for the years 2017 through 2021, beginning on pages III-2 through III-5.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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	1,350,155.77								1,350,155.77
354.30 STRUCTURES AND IMPROVEMENTS - SPP	17,692,642.35				2,734,528.70				14,958,113.65
354.40 STRUCTURES AND IMPROVEMENTS - TDP	54,138,177.98				1,853,012.73				52,285,165.25
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	3,102,005.24								3,102,005.24
355.00 POWER GENERATION EQUIPMENT	4,180,589.06				144,517.16				4,036,071.90
360.10 COLLECTION SEWERS - FORCE MAINS	49,570,121.89		157,753.14		11,251,126.61				38,161,242.14
361.10 COLLECTION SEWERS - GRAVITY MAINS	112,362,601.08		133,423.53		12,932,536.56				99,296,640.99
361.20 MANHOLES	17,199,314.16				4,387,312.76				12,812,001.40
363.00 SERVICES	22,487,547.02		70,197.45		3,753,803.46				18,663,546.11
364.00 FLOW MEASURING DEVICES	371,151.65				14,726.81				356,424.84
365.00 FLOW MEASURING INSTALLATIONS	14,938.00								14,938.00
370.00 RECEIVING WELLS	143,419.77								143,419.77
371.00 PUMPING EQUIPMENT	13,221,499.56				66,626.22				13,154,873.34
380.00 TREATMENT EQUIPMENT	66,781,700.59				2,200,080.47				64,581,620.12
381.00 PLANT SEWERS	6,212,540.44				30,192.33				6,182,348.11
382.00 OUTFALL SEWER LINES	604,388.91								604,388.91
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	582,205.16								582,205.16
389.60 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	1,655,000.00								1,655,000.00
390.00 OFFICE FURNITURE AND EQUIPMENT	168,706.08								168,706.08
391.00 TRANSPORTATION EQUIPMENT	2,554,774.18								2,554,774.18
392.00 STORES EQUIPMENT	107,351.44								107,351.44
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	1,199,614.28								1,199,614.28
394.00 LABORATORY EQUIPMENT	628,336.51								628,336.51
395.00 POWER OPERATED EQUIPMENT	797,628.77				10,000.00				787,628.77
396.00 COMMUNICATION EQUIPMENT	1,669,700.06								1,669,700.06
397.00 MISCELLANEOUS EQUIPMENT	525,492.71				29,000.00				496,492.71
398.00 OTHER TANGIBLE PLANT	14,231.50								14,231.50
TOTAL DEPRECIABLE PLANT	**379,335,834.16**		**361,374.12**		**39,407,463.81**		**0.00**		**339,566,996.23**
NONDEPRECIABLE PLANT									
352.10 FRANCHISES	221,139.78								221,139.78
353.20 LAND AND LAND RIGHTS - COLLECTION	1,093,483.20								1,093,483.20
353.30 LAND AND LAND RIGHTS - SPP	85,560.07								85,560.07
353.40 LAND AND LAND RIGHTS - TDP	1,717,020.09				125,000.00				1,592,020.09
TOTAL NONDEPRECIABLE PLANT	**3,117,203.14**		**0.00**		**125,000.00**		**0.00**		**2,992,203.14**
TOTAL UTILITY PLANT	**382,453,037.30**		**361,374.12**		**39,532,463.81**		**0.00**		**342,559,199.37**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK 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 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	1,350,155.77	49,219	1,300,936	38,409	2.84	33.9
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	14,958,113.65	5,144,884	9,813,230	300,228	2.01	32.7
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	52,285,165.25	12,232,042	40,053,124	1,260,722	2.41	31.8
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	3,102,005.24	1,613,097	1,488,909	62,452	2.01	23.8
355.00	POWER GENERATION EQUIPMENT	35-S0.5	4,036,071.90	2,739,150	1,296,922	65,659	1.63	19.8
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	38,161,242.14	2,894,314	35,266,928	667,003	1.75	52.9
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	99,296,640.99	12,678,919	86,617,722	1,585,213	1.60	54.6
361.20	MANHOLES	50-S2.5	12,812,001.40	1,778,786	11,033,216	337,298	2.63	32.7
363.00	SERVICES	47-R3	18,663,546.11	4,422,337	14,241,209	476,635	2.55	29.9
364.00	FLOW MEASURING DEVICES	15-L2.5	356,424.84	127,900	228,525	42,711	11.98	5.4
365.00	FLOW MEASURING INSTALLATIONS	25-S2	14,938.00	1,315	13,623	1,198	8.02	11.4
370.00	RECEIVING WELLS	50-R3	143,419.77	31,682	111,738	3,240	2.26	34.5
371.00	PUMPING EQUIPMENT	30-S0.5	13,154,873.34	1,690,669	11,464,204	619,057	4.71	18.5
380.00	TREATMENT EQUIPMENT	35-S1.5	64,581,620.12	16,084,154	48,497,466	2,370,324	3.67	20.5
381.00	PLANT SEWERS	50-R3	6,182,348.11	1,449,946	4,732,402	141,380	2.29	33.5
382.00	OUTFALL SEWER LINES	50-R3	604,388.91	231,500	372,889	12,867	2.13	29.0
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	582,205.16	199,257	382,948	31,933	5.48	12.0
389.60	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	5-SQ	1,655,000.00	106,944	1,548,056	347,002	20.97	4.5
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	168,706.08	24,328	144,378	13,097	7.76	11.0
391.00	TRANSPORTATION EQUIPMENT	14-L4	2,554,774.18	533,900	2,020,874	199,983	7.83	10.1
392.00	STORES EQUIPMENT	25-SQ	107,351.44	29,475	77,876	4,274	3.98	18.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	1,199,614.28	227,278	972,336	63,401	5.29	15.3
394.00	LABORATORY EQUIPMENT	15-SQ	628,336.51	233,029	395,308	38,562	6.14	10.3
395.00	POWER OPERATED EQUIPMENT	22-R2	787,628.77	361,954	425,675	32,835	4.17	13.0
396.00	COMMUNICATION EQUIPMENT	15-SQ	1,669,700.06	887,391	782,309	105,655	6.33	7.4
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	496,492.71	176,585	319,908	24,021	4.84	13.3
398.00	OTHER TANGIBLE PLANT	25-SQ	14,231.50	1,652	12,580	559	3.93	22.5
	TOTAL DEPRECIABLE PLANT		**339,566,996.23**	**65,951,706**	**273,615,291**	**8,845,718**	**2.60**	**30.9**
	NONDEPRECIABLE PLANT							
352.10	FRANCHISES		221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION		1,093,483.20					
353.30	LAND AND LAND RIGHTS - SPP		85,560.07					
353.40	LAND AND LAND RIGHTS - TDP		1,592,020.09					
	TOTAL NONDEPRECIABLE PLANT		**2,992,203.14**					
	AMORTIZATION OF NET SALVAGE					**823,357**		
	TOTAL UTILITY PLANT		**342,559,199.37**	**65,951,706**	**273,615,291**	**9,669,075**		

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

ACCOUNT (1)	PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2020 (2)	+	PROJECTED DEPRECIATION ACCRUALS (3)	-	PROJECTED RETIREMENTS (4)	-	PROJECTED COST OF REMOVAL (5)	+	PROJECTED SALVAGE (6)	+	ACQUISITIONS (7)	=	PROJECTED BOOK RESERVE BALANCE AS OF 12/31/2021 (8)
354.20	73,171		45,776		6,517		63,211						49,219
354.30	4,963,381		277,998		85,394		11,101						5,144,884
354.40	11,349,890		1,146,064		261,299		2,613						12,232,042
354.70	1,609,842		66,286		14,972		48,060						1,613,097
355.00	2,667,318		71,832										2,739,150
360.10	2,261,328		739,656		52,547		54,123						2,894,314
361.10	11,525,790		1,848,321		472,920		222,272						12,678,919
361.20	1,547,622		388,992		22,579		135,702		452				1,778,786
363.00	4,140,322		525,731		121,252		122,465						4,422,337
364.00	78,630		49,270										127,900
365.00	80		1,235										1,315
370.00	28,412		3,270										31,682
371.00	1,009,434		681,235										1,690,669
380.00	14,505,582		2,189,614		545,574		65,469						16,084,154
381.00	1,307,330		142,616										1,449,946
382.00	218,189		13,311										231,500
389.10	166,194		33,063										199,257
389.60	5,750		101,194										106,944
390.00	10,925		13,403										24,328
391.00	384,666		183,082		29,179		4,669						533,900
392.00	25,203		4,273										29,475
393.00	209,777		17,501										227,278
394.00	196,281		36,747										233,029
395.00	351,447		17,947		7,295		146						361,954
396.00	814,995		75,946		3,256		293						887,391
397.00	176,857		(272)										176,585
398.00	831		821										1,652
TOTAL	**59,629,245**		**8,674,914**		**1,622,783**		**730,122**		**452**		**0**		**65,951,706**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

ACCOUNT (1)	NET ORIGINAL COST AS OF 12/31/2020 (2)	NET ORIGINAL COST AS OF 12/31/2021 (3)	ACCRUAL RATE (4)	DEPRECIATION ACCRUALS (5)*	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
354.20	1,224,684.59	1,350,155.77	2.74	33,892	11,884	45,776
354.30	13,313,920.55	14,958,113.65	1.91	257,359	20,639	277,998
354.40	47,254,055.88	52,285,165.25	2.39	1,141,100	4,964	1,146,064
354.70	2,813,733.12	3,102,005.24	1.78	50,585	15,701	66,286
355.00	4,036,071.90	4,036,071.90	1.68	67,806	4,026	71,832
360.10	37,305,061.87	38,161,242.14	1.76	662,359	77,297	739,656
361.10	91,954,018.15	99,296,640.99	1.61	1,525,209	323,112	1,848,321
361.20	12,353,793.01	12,812,001.40	2.63	330,098	58,894	388,992
363.00	16,492,940.87	18,663,546.11	2.54	443,675	82,056	525,731
364.00	356,424.84	356,424.84	13.81	49,222	48	49,270
365.00	14,938.00	14,938.00	8.27	1,235		1,235
370.00	143,419.77	143,419.77	2.28	3,270		3,270
371.00	13,154,873.34	13,154,873.34	4.91	645,904	35,331	681,235
380.00	56,782,193.92	64,581,620.12	3.74	2,135,808	53,806	2,189,614
381.00	6,182,348.11	6,182,348.11	2.30	142,194	422	142,616
382.00	604,388.91	604,388.91	2.15	12,994	317	13,311
389.10	582,205.16	582,205.16	5.61	32,662	401	33,063
389.60	57,500.00	1,655,000.00	20.00	101,194		101,194
390.00	168,706.08	168,706.08	7.81	13,176	227	13,403
391.00	2,079,337.33	2,554,774.18	7.94	178,932	4,150	183,082
392.00	107,351.44	107,351.44	3.98	4,273		4,273
393.00	894,130.77	1,199,614.28	4.92	51,359	(33,858)	17,501
394.00	526,508.67	628,336.51	6.12	35,277	1,470	36,747
395.00	668,769.56	787,628.77	3.72	26,498	(8,551)	17,947
396.00	1,595,992.40	1,669,700.06	5.92	96,551	(20,605)	75,946
397.00	360,962.01	496,492.71	3.66	14,845	(15,117)	(272)
398.00	14,231.50	14,231.50	4.01	571	250	821
TOTAL	**311,042,561.75**	**339,566,996.23**		**8,058,050**	**616,864**	**8,674,914**

* Total accruals shown are based on average monthly balances.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

	2017		2018		2019		PROJECTED 2020		PROJECTED 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		304		2,367		27,531		29,175		63,211	(122,588)	(24,518)
354.30		36,849		87		61,135		5,124		11,101	(114,296)	(22,859)
354.40		35,585		(18,539)		1,986		1,206		2,613	(22,851)	(4,570)
354.70		2,146		36,100		18,075		22,182		48,060	(126,563)	(25,313)
355.00		930		4,539		9,730					(15,199)	(3,040)
360.10		1,809		85,350		245,202		41,420		54,123	(427,905)	(85,581)
361.10		53,984		345,943		1,038,559		170,104		222,272	(1,830,863)	(366,173)
361.20						109,567	440	132,346	452	135,702	(376,722)	(75,344)
363.00		69,276		48,455		150,830		130,023		122,465	(521,050)	(104,210)
364.00						240					(240)	(48)
371.00		5,054		(18,885)		141,438		37,534			(165,142)	(33,028)
380.00		6,892		12,304		214,843		11,073		65,469	(310,581)	(62,116)
382.00		604		981							(1,585)	(317)
389.10				(3,678)		5,682					(2,003)	(401)
390.00		763		94							(857)	(171)
391.00				9,708		6,029		5,013		4,669	(25,419)	(5,084)
393.00		328				1,931					(2,260)	(452)
394.00		60		118		5,593		1,012			(6,783)	(1,357)
395.00						2,048		157		146	(2,351)	(470)
396.00		5,474				1,898		21,079		293	(28,744)	(5,749)
397.00				6,019		5,513					(11,532)	(2,306)
398.00						1,251					(1,251)	(250)
TOTAL	**0**	**220,061**	**0**	**510,964**	**0**	**2,049,082**	**440**	**607,449**	**452**	**730,122**	**(4,116,786)**	**(823,357)**

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

PART II. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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)
1895					0.0
1915	46,154	29,357	16,797	16,797	0.0
1920	87,699	55,021	32,678	49,475	0.0
1922				49,475	0.0
1929	14,264	8,705	5,559	55,034	0.0
1930	176,820	106,735	70,085	125,119	0.0
1932	522	414	108	125,227	0.0
1935	12,712	7,484	5,228	130,455	0.0
1939	82,611	46,220	36,391	166,846	0.1
1940				166,846	0.1
1941				166,846	0.1
1942				166,846	0.1
1943				166,846	0.1
1944				166,846	0.1
1945	40,288	22,472	17,816	184,662	0.1
1946	89,122	48,998	40,124	224,786	0.1
1947				224,786	0.1
1948				224,786	0.1
1949				224,786	0.1
1950				224,786	0.1
1951				224,786	0.1
1952				224,786	0.1
1953				224,786	0.1
1954				224,786	0.1
1955	44,846	23,326	21,520	246,306	0.1
1956				246,306	0.1
1957	1,636,794	888,636	748,158	994,464	0.4
1958				994,464	0.4
1959				994,464	0.4
1961	348,251	230,072	118,179	1,112,643	0.4
1962	31,315	15,589	15,726	1,128,369	0.4
1965	798,415	431,665	366,750	1,495,119	0.5
1966				1,495,119	0.5
1967	170,974	119,930	51,044	1,546,163	0.6
1968	77,216	38,364	38,852	1,585,015	0.6
1969	481,345	215,615	265,730	1,850,745	0.7
1970	430	317	113	1,850,858	0.7
1971	490	358	132	1,850,990	0.7
1972	926	780	146	1,851,136	0.7
1973	165,033	56,487	108,546	1,959,682	0.7
1974	1,627,481	436,623	1,190,858	3,150,540	1.2
1975	2,810,491	1,119,768	1,690,723	4,841,263	1.8
1976	1,300,076	401,180	898,896	5,740,159	2.1
1977	720,761	228,483	492,278	6,232,437	2.3
1978	387,974	123,846	264,128	6,496,565	2.4

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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)
1979	144,769	55,072	89,697	6,586,262	2.4
1980	422,795	246,450	176,345	6,762,607	2.5
1981	232,628	82,675	149,953	6,912,560	2.5
1982	183,852	89,922	93,930	7,006,490	2.6
1983	868,347	369,846	498,501	7,504,991	2.7
1984	4,162,440	1,767,275	2,395,165	9,900,156	3.6
1985	2,154,141	951,726	1,202,415	11,102,571	4.1
1986	1,907,720	932,490	975,230	12,077,801	4.4
1987	697,614	318,869	378,745	12,456,546	4.6
1988	2,586,953	1,029,187	1,557,766	14,014,312	5.1
1989	3,734,536	1,495,815	2,238,721	16,253,033	5.9
1990	631,166	211,851	419,315	16,672,348	6.1
1991	433,290	274,142	159,148	16,831,496	6.2
1992	3,213,307	1,486,694	1,726,613	18,558,109	6.8
1993	11,695,680	4,645,394	7,050,286	25,608,395	9.4
1994	879,354	300,391	578,963	26,187,358	9.6
1995	843,630	232,344	611,286	26,798,644	9.8
1996	1,193,491	421,222	772,269	27,570,913	10.1
1997	6,407,603	1,601,704	4,805,899	32,376,812	11.8
1998	3,726,811	1,076,632	2,650,179	35,026,991	12.8
1999	506,232	139,124	367,108	35,394,099	12.9
2000	8,531,417	2,811,271	5,720,146	41,114,245	15.0
2001	2,618,667	671,540	1,947,127	43,061,372	15.7
2002	2,795,305	747,245	2,048,060	45,109,432	16.5
2003	1,507,331	441,617	1,065,714	46,175,146	16.9
2004	4,046,115	825,836	3,220,279	49,395,425	18.1
2005	6,321,144	1,531,001	4,790,143	54,185,568	19.8
2006	6,506,058	1,534,256	4,971,802	59,157,370	21.6
2007	6,360,086	1,153,358	5,206,728	64,364,098	23.5
2008	9,101,962	1,904,077	7,197,885	71,561,983	26.2
2009	55,611,683	15,679,088	39,932,595	111,494,578	40.7
2010	22,630,732	5,614,064	17,016,668	128,511,246	47.0
2011	1,312,433	426,943	885,490	129,396,736	47.3
2012	2,709,148	515,062	2,194,086	131,590,822	48.1
2013	10,008,048	1,563,446	8,444,602	140,035,424	51.2
2014	45,066,542	6,810,748	38,255,794	178,291,218	65.2
2015	17,386,498	2,127,287	15,259,211	193,550,429	70.7
2016	12,188,090	952,803	11,235,287	204,785,716	74.8
2017	24,198,274	1,227,133	22,971,141	227,756,857	83.2
2018	12,680,878	1,069,498	11,611,380	239,368,237	87.5
2019	21,062,133	945,679	20,116,454	259,484,691	94.8

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

YEAR INST (1)	ORIGINAL COST (2)	ACCRUED DEPRECIATION (3)	AMOUNT (2) - (3) (4)	DEPRECIATED ORIGINAL COST CUMULATIVE AMOUNT (5)	PCT OF COL 4 TOTAL (6)
2020	18,403,705	672,138	17,731,567	277,216,258	101.3
2021	30,510,217	447,132	30,063,085	307,279,343	112.3
9999	39,768,838-	6,104,787-	33,664,051-	273,615,292	100.0
SUBTOTAL	339,566,997	65,951,705	273,615,292		
NONDEPRECIABLE	2,992,204		2,992,204		
TOTAL	342,559,201	65,951,705	276,607,496		

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2007	17,109.45	5,930	1,518	15,591	27.34	570
2008	111,200.72	36,029	9,221	101,980	28.17	3,620
2009	173,773.73	52,341	13,395	160,379	29.00	5,530
2011	8,475.33	2,171	556	7,919	30.48	260
2013	100,328.98	20,979	5,369	94,960	32.15	2,954
2014	14,664.29	2,728	698	13,966	32.82	426
2015	41,667.86	6,742	1,725	39,943	33.66	1,187
2016	36,498.08	5,018	1,284	35,214	34.50	1,021
2017	196,984.41	22,338	5,717	191,267	35.18	5,437
2018	185,297.28	16,417	4,202	181,095	36.02	5,028
2019	280,670.92	17,907	4,583	276,088	36.71	7,521
2020	51,496.98	1,988	509	50,988	37.41	1,363
2021	131,987.74	1,729	442	131,545	37.67	3,492
	1,350,155.77	192,317	49,219	1,300,936		38,409

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 33.9 2.84

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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)
1965	46,750.15	35,128	46,750			
1976	25,629.50	17,141	25,483	146	22.53	6
1978	10,891.00	7,106	10,564	327	23.17	14
1980	3,178.83	2,019	3,002	177	23.86	7
1982	28,891.29	17,803	26,467	2,424	24.60	99
1983	84,816.68	51,594	76,703	8,114	24.79	327
1984	29,944.64	17,967	26,711	3,234	25.00	129
1985	140,275.73	82,426	122,539	17,737	25.61	693
1986	66,786.91	38,643	57,449	9,338	25.85	361
1987	29,129.97	16,581	24,650	4,480	26.11	172
1988	76,616.41	42,859	63,717	12,899	26.38	489
1989	88,837.98	48,790	72,534	16,304	26.67	611
1991	280,689.03	148,092	220,162	60,527	27.31	2,216
1992	75,438.89	38,942	57,893	17,546	27.65	635
1993	479,575.21	241,898	359,619	119,956	28.00	4,284
1994	48,330.16	23,923	35,565	12,765	28.06	455
1996	23,825.60	11,179	16,619	7,207	28.85	250
1997	103,021.18	47,204	70,176	32,845	28.97	1,134
1998	221,041.85	98,187	145,970	75,072	29.41	2,553
1999	11,010.61	4,757	7,072	3,939	29.58	133
2000	6,946.98	2,912	4,329	2,618	29.78	88
2001	176,819.09	71,400	106,147	70,672	30.26	2,335
2002	9,609.13	3,748	5,572	4,037	30.50	132
2003	268,024.20	100,670	149,662	118,362	30.76	3,848
2004	100,315.03	36,164	53,763	46,552	31.04	1,500
2005	9,020.82	3,110	4,624	4,397	31.35	140
2006	919,637.15	303,664	451,444	468,193	31.45	14,887
2007	511,794.29	160,294	238,302	273,492	31.80	8,600
2008	49,800.12	14,791	21,989	27,811	31.95	870
2009	2,908,748.89	814,450	1,210,807	1,697,942	32.14	52,830
2010	1,280,279.63	335,689	499,054	781,226	32.36	24,142
2011	14,469.36	3,525	5,240	9,229	32.60	283
2013	180,583.56	36,984	54,983	125,601	33.00	3,806
2014	4,020,421.81	741,768	1,102,754	2,917,668	33.15	88,014
2015	1,545,375.86	252,205	374,942	1,170,434	33.34	35,106
2016	542,628.64	76,402	113,584	429,045	33.56	12,784
2017	461,749.72	54,440	80,934	380,816	33.67	11,310
2018	397,145.77	37,411	55,617	341,529	33.67	10,143
2019	10,201.78	704	1,047	9,155	33.73	271

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.30 STRUCTURES AND IMPROVEMENTS - SPP

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2020	674,801.87	28,882	42,937	631,865	33.59	18,811
2021	1,729,587.03	25,598	38,056	1,691,531	33.40	50,645
9999	2,734,528.70-	633,229-	940,548-	1,793,980-		54,885-
	14,958,113.65	3,463,821	5,144,884	9,813,230		300,228

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 32.7   2.01

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
1932	522.02	481	414	108	7.59	14
1946	482.29	415	357	125	12.22	10
1957	133,158.60	106,500	91,572	41,587	16.15	2,575
1961	337,190.21	261,120	224,520	112,670	17.62	6,394
1965	52,633.74	39,549	34,006	18,628	18.69	997
1967	23,838.91	17,541	15,082	8,757	19.57	447
1973	37,670.34	26,128	22,466	15,204	21.43	709
1975	410,922.19	278,975	239,872	171,050	21.99	7,779
1976	17,092.56	11,432	9,830	7,263	22.53	322
1984	681,843.17	409,106	351,763	330,080	25.00	13,203
1985	131,675.97	77,373	66,528	65,148	25.61	2,544
1986	168,749.28	97,638	83,952	84,797	25.85	3,280
1988	1,105,656.03	618,504	531,811	573,845	26.38	21,753
1989	98,319.65	53,997	46,428	51,892	26.67	1,946
1992	1,432,983.13	739,706	636,024	796,959	27.65	28,823
1993	240,656.73	121,387	104,373	136,284	28.00	4,867
1994	16,464.38	8,150	7,008	9,456	28.06	337
1996	591,069.38	277,330	238,458	352,611	28.85	12,222
1997	68,909.02	31,574	27,148	41,761	28.97	1,442
1998	592,776.34	263,311	226,404	366,372	29.41	12,457
2000	6,414,786.56	2,689,079	2,312,162	4,102,625	29.78	137,764
2001	403,194.74	162,810	139,990	263,205	30.26	8,698
2002	161,084.37	62,823	54,017	107,067	30.50	3,510
2003	12,717.92	4,777	4,107	8,611	30.76	280
2004	15,413.58	5,557	4,778	10,636	31.04	343
2005	528,991.44	182,396	156,830	372,161	31.35	11,871
2006	437,987.54	144,623	124,352	313,636	31.45	9,973
2007	3,257.65	1,020	877	2,381	31.80	75
2009	16,169,289.71	4,527,401	3,892,814	12,276,476	32.14	381,969
2010	4,989,197.75	1,308,168	1,124,807	3,864,391	32.36	119,419
2011	86,872.00	21,162	18,196	68,676	32.60	2,107
2012	9,645.11	2,162	1,859	7,786	32.87	237
2013	161,450.23	33,065	28,430	133,020	33.00	4,031
2014	9,981,493.93	1,841,586	1,583,459	8,398,035	33.15	253,334
2015	44,366.09	7,241	6,226	38,140	33.34	1,144
2016	18,558.76	2,613	2,247	16,312	33.56	486
2017	800,988.81	94,437	81,200	719,789	33.67	21,378
2018	192,962.74	18,177	15,629	177,334	33.67	5,267
2019	205,740.08	14,196	12,206	193,534	33.73	5,738

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 55-S0						
NET SALVAGE PERCENT.. 0						
2020	2,065,156.55	88,389	76,000	1,989,157	33.59	59,219
2021	5,292,408.48	78,328	67,349	5,225,059	33.40	156,439
9999	1,853,012.73-	504,178-	433,509-	1,419,503-		44,681-
	52,285,165.25	14,226,049	12,232,042	40,053,124		1,260,722

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.8 2.41

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

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						
NET SALVAGE PERCENT.. 0						
1972	392.90	354	393			
1984	10,454.17	8,389	10,454			
1992	14,241.27	10,126	14,241			
1993	16,205.67	11,315	16,206			
1994	27,950.62	19,141	27,951			
1997	5,642.42	3,608	5,642			
2002	1,039.21	576	1,039			
2003	41,886.64	22,317	41,887			
2007	1,121.21	501	1,121			
2008	357,459.38	151,062	353,341	4,118	18.45	223
2009	79,923.90	31,770	74,311	5,613	18.95	296
2010	38,520.30	14,306	33,462	5,058	19.46	260
2011	7,040.67	2,425	5,672	1,369	19.99	68
2012	28,249.06	8,910	20,841	7,408	20.62	359
2013	25,100.68	7,189	16,815	8,286	21.18	391
2014	411,630.79	105,583	246,964	164,667	21.74	7,574
2015	1,017,946.16	228,936	535,492	482,454	22.40	21,538
2016	9,152.96	1,762	4,121	5,032	23.07	218
2017	131,310.92	20,918	48,928	82,383	23.75	3,469
2018	372,152.64	46,519	108,810	263,343	24.51	10,744
2019	82,934.56	7,464	17,459	65,476	25.28	2,590
2020	118,405.09	6,429	15,038	103,367	26.12	3,957
2021	303,244.02	5,519	12,909	290,335	26.97	10,765
	3,102,005.24	715,119	1,613,097	1,488,909		62,452

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.8   2.01

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1983	18,550.00	14,712	18,550			
1987	19,246.40	14,475	19,246			
1989	49,338.78	36,077	49,339			
1992	62,034.60	43,002	62,035			
1993	201,611.77	137,338	201,612			
1994	20,325.00	13,581	20,325			
1997	30,447.00	19,023	30,447			
1998	12,580.62	7,657	12,581			
2001	38,477.83	21,532	37,186	1,292	16.13	80
2002	62,407.82	33,831	58,427	3,981	16.47	242
2005	68,295.28	33,014	57,016	11,279	17.63	640
2007	12,208.69	5,382	9,295	2,914	18.39	158
2008	183,720.69	76,887	132,786	50,935	18.76	2,715
2009	2,574,089.51	1,016,765	1,755,987	818,103	19.15	42,721
2010	20,681.36	7,658	13,226	7,455	19.56	381
2011	14,376.97	4,951	8,551	5,826	19.99	291
2012	27,649.83	8,798	15,194	12,456	20.35	612
2013	26,762.41	7,780	13,436	13,326	20.74	643
2014	609,803.14	159,646	275,714	334,089	21.15	15,796
2015	90,933.42	21,042	36,340	54,593	21.59	2,529
2016	10,498.31	2,102	3,630	6,868	21.97	313
2017	13,046.73	2,184	3,772	9,275	22.38	414
2018	4,307.88	573	990	3,318	22.82	145
2019	9,195.02	894	1,544	7,651	23.21	330
9999	144,517.16-	58,383-	98,079-	46,438-		2,351-
	4,036,071.90	1,630,521	2,739,150	1,296,922		65,659

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.8 1.63

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1957	11,069.46	8,568	3,483	7,586	18.83	403
1965	13,115.47	9,262	3,765	9,350	23.50	398
1973	124,300.78	78,372	31,858	92,443	28.42	3,253
1974	1,487,927.88	925,789	376,328	1,111,600	28.84	38,544
1975	841,295.59	512,517	208,335	632,961	29.83	21,219
1976	962,206.93	577,901	234,913	727,294	30.26	24,035
1977	454,714.62	267,099	108,574	346,141	31.26	11,073
1978	268,043.26	155,090	63,043	205,000	31.68	6,471
1979	73,154.36	41,661	16,935	56,219	32.13	1,750
1980	74,530.92	41,447	16,848	57,683	33.13	1,741
1981	159,775.58	87,365	35,513	124,263	33.57	3,702
1982	53,111.11	28,319	11,512	41,599	34.58	1,203
1983	191,133.53	100,078	40,681	150,453	35.03	4,295
1985	308,143.61	154,072	62,629	245,515	36.50	6,726
1986	32,746.06	15,928	6,475	26,271	37.49	701
1987	224,786.85	107,021	43,503	181,284	37.96	4,776
1988	401,552.81	185,638	75,461	326,092	38.96	8,370
1989	91,688.90	41,425	16,839	74,850	39.44	1,898
1991	75,155.56	32,091	13,045	62,111	40.93	1,517
1992	34,550.84	14,373	5,843	28,708	41.42	693
1993	601,807.40	241,806	98,293	503,514	42.43	11,867
1994	307,897.51	120,234	48,874	259,024	42.92	6,035
1996	131,913.89	48,096	19,551	112,363	44.43	2,529
1997	1,381,867.70	484,206	196,827	1,185,041	45.43	26,085
1998	464,369.36	157,143	63,878	400,491	45.94	8,718
1999	209,742.02	67,956	27,624	182,118	46.94	3,880
2000	488,151.81	151,132	61,434	426,718	47.94	8,901
2001	872,538.01	259,318	105,411	767,127	48.47	15,827
2002	555,152.73	156,997	63,818	491,335	49.46	9,934
2003	385,267.30	104,061	42,300	342,967	49.99	6,861
2004	2,039,276.73	521,035	211,798	1,827,479	50.99	35,840
2005	178,336.18	43,264	17,587	160,749	51.52	3,120
2006	1,978,776.48	450,765	183,234	1,795,542	52.53	34,181
2007	1,149,295.38	246,639	100,257	1,049,038	53.07	19,767
2008	2,641,782.98	527,828	214,559	2,427,224	54.07	44,890
2009	535,366.50	99,685	40,521	494,846	54.62	9,060
2010	368,368.64	63,138	25,665	342,704	55.61	6,163
2013	306,494.62	39,078	15,885	290,610	58.17	4,996
2014	4,414,735.12	499,748	203,145	4,211,590	58.73	71,711
2015	2,389,730.35	234,672	95,393	2,294,337	59.72	38,418
2016	3,142,874.87	262,744	106,804	3,036,071	60.29	50,358

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2017	12,175,587.75	837,680	340,513	11,835,075	60.86	194,464
2018	1,164,160.68	62,399	25,365	1,138,796	61.86	18,409
2019	4,205,920.37	161,928	65,823	4,140,097	62.44	66,305
2020	688,976.48	16,122	6,553	682,423	62.60	10,901
2021	908,726.91	7,179	2,918	905,809	62.79	14,426
9999	11,408,879.75-	2,128,686-	865,299-	10,543,581-		199,411-
	38,161,242.14	7,120,183	2,894,314	35,266,928		667,003

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 52.9   1.75

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1915	46,153.92	42,272	29,357	16,797	9.78	1,717
1920	87,698.76	79,227	55,021	32,678	10.85	3,012
1929	14,264.20	12,535	8,705	5,559	12.76	436
1930	176,819.99	153,692	106,735	70,085	13.77	5,090
1935	12,711.58	10,776	7,484	5,228	15.54	336
1939	48,390.10	40,319	28,001	20,389	16.51	1,235
1945	40,287.67	32,359	22,472	17,816	18.74	951
1946	83,252.73	66,003	45,837	37,416	19.73	1,896
1955	37,688.87	27,822	19,322	18,367	23.59	779
1957	1,341,952.19	969,426	673,241	668,711	24.79	26,975
1961	10,363.00	7,211	5,008	5,355	26.45	202
1962	28,963.29	19,817	13,762	15,201	27.46	554
1965	523,549.06	346,066	240,334	283,215	28.97	9,776
1968	33,458.74	21,300	14,792	18,667	30.54	611
1969	388,161.44	242,523	168,426	219,735	31.53	6,969
1974	111,379.74	64,545	44,825	66,555	34.47	1,931
1975	1,386,690.08	793,187	550,848	835,842	34.80	24,018
1976	241,795.31	135,309	93,969	147,826	35.80	4,129
1977	172,043.25	94,933	65,929	106,114	36.15	2,935
1978	78,014.29	42,081	29,224	48,790	37.15	1,313
1979	32,087.03	17,045	11,837	20,250	37.50	540
1982	45,055.57	22,600	15,695	29,361	39.24	748
1983	437,199.79	213,791	148,472	288,728	40.24	7,175
1984	2,562,108.53	1,229,812	854,073	1,708,036	40.62	42,049
1985	795,112.05	374,339	259,969	535,143	41.02	13,046
1986	619,632.83	283,792	197,086	422,547	42.02	10,056
1987	69,651.60	31,239	21,695	47,957	42.42	1,131
1988	797,703.88	347,400	241,260	556,444	43.42	12,815
1989	2,318,951.53	987,410	685,731	1,633,221	43.83	37,263
1990	499,121.29	207,535	144,128	354,993	44.26	8,021
1992	491,771.34	192,971	134,013	357,758	45.68	7,832
1993	5,881,968.83	2,229,266	1,548,167	4,333,802	46.69	92,821
1994	238,553.56	87,907	61,049	177,505	47.13	3,766
1995	728,779.34	260,757	181,089	547,690	47.57	11,513
1996	236,500.47	81,403	56,532	179,968	48.58	3,705
1997	3,304,163.00	1,100,947	764,579	2,539,584	49.03	51,797
1998	1,829,767.83	584,794	406,124	1,423,644	50.03	28,456
1999	46,236.23	14,250	9,896	36,340	50.50	720
2000	953,792.70	282,990	196,529	757,264	50.96	14,860
2001	643,165.13	181,951	126,360	516,805	51.96	9,946
2002	1,103,530.05	299,057	207,687	895,843	52.45	17,080

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2003	364,820.22	94,488	65,619	299,201	52.93	5,653
2004	410,914.99	100,674	69,916	340,999	53.93	6,323
2005	2,850,309.84	662,982	460,424	2,389,886	54.43	43,908
2006	1,639,551.28	360,865	250,611	1,388,940	54.92	25,290
2007	2,555,423.93	529,995	368,068	2,187,356	55.43	39,462
2008	3,011,346.40	581,190	403,622	2,607,724	56.43	46,212
2009	6,540,764.94	1,177,338	817,631	5,723,134	56.94	100,512
2010	3,583,331.56	597,700	415,087	3,168,245	57.46	55,138
2011	419,323.15	64,282	44,642	374,681	57.99	6,461
2012	1,418,286.54	197,993	137,501	1,280,786	58.53	21,883
2013	4,229,715.62	532,098	369,528	3,860,188	59.07	65,349
2014	11,144,580.57	1,245,964	865,290	10,279,291	59.61	172,442
2015	4,600,905.27	448,588	311,533	4,289,372	60.17	71,288
2016	5,941,328.57	496,695	344,942	5,596,387	60.29	92,824
2017	7,630,272.31	528,778	367,223	7,263,049	60.44	120,170
2018	4,533,090.13	245,693	170,628	4,362,462	61.02	71,492
2019	8,615,461.91	340,311	236,337	8,379,125	60.79	137,837
2020	6,196,140.87	150,566	104,564	6,091,577	60.23	101,139
2021	8,178,542.19	70,335	48,846	8,129,696	57.98	140,216
9999	13,065,960.09-	2,402,331-	1,668,356-	11,397,604-		208,591-
	99,296,640.99	18,256,863	12,678,919	86,617,722		1,585,213

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 54.6 1.60

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1939	34,221.12	33,030	18,219	16,002	2.97	5,388
1946	5,386.79	5,084	2,804	2,583	4.50	574
1955	5,866.06	5,383	2,969	2,897	5.96	486
1965	48,949.96	42,591	23,493	25,457	8.44	3,016
1968	33,199.04	28,418	15,675	17,524	9.00	1,947
1969	79,631.07	67,304	37,124	42,507	9.61	4,423
1974	17,211.38	13,979	7,711	9,500	10.98	865
1977	41,247.63	32,305	17,819	23,429	12.32	1,902
1984	93,930.53	66,926	36,916	57,015	15.13	3,768
1985	165,311.47	115,850	63,902	101,409	15.58	6,509
1986	105,388.39	72,212	39,831	65,557	16.31	4,019
1990	21,795.70	13,731	7,574	14,222	18.50	769
1992	115,664.29	69,260	38,203	77,461	19.76	3,920
1993	106,497.29	62,216	34,318	72,179	20.28	3,559
1994	54,746.59	31,014	17,107	37,640	21.04	1,789
1995	19,938.90	10,990	6,062	13,877	21.58	643
1996	39,434.12	21,018	11,593	27,841	22.34	1,246
1997	1,031,397.30	530,654	292,703	738,694	23.12	31,950
1998	248,009.90	122,963	67,825	180,185	23.90	7,539
1999	32,985.24	15,734	8,679	24,306	24.67	985
2000	192,445.50	88,140	48,617	143,828	25.45	5,651
2001	231,436.80	101,531	56,003	175,434	26.23	6,688
2002	199,538.95	83,647	46,139	153,400	27.01	5,679
2003	115,359.94	46,098	25,427	89,933	27.80	3,235
2004	240,718.10	91,425	50,429	190,289	28.58	6,658
2005	874,981.97	313,244	172,782	702,200	29.59	23,731
2006	19,861.65	6,711	3,702	16,160	30.37	532
2007	1,565,141.70	497,089	274,189	1,290,953	31.16	41,430
2008	677,381.43	200,234	110,447	566,934	32.16	17,629
2009	121,461.56	33,256	18,344	103,118	33.16	3,110
2010	212,738.76	53,823	29,688	183,051	33.95	5,392
2011	37,439.13	8,648	4,770	32,669	34.95	935
2012	21,646.57	4,524	2,495	19,152	35.95	533
2013	1,023,199.49	191,338	105,540	917,659	36.95	24,835
2014	2,194,225.84	363,803	200,670	1,993,556	37.75	52,809
2015	5,489,067.05	788,230	434,781	5,054,286	38.75	130,433
2016	289,268.54	35,175	19,402	269,867	39.75	6,789
2017	372,833.80	37,060	20,442	352,392	40.75	8,648
2018	8,283.53	641	354	7,930	41.75	190
2019	43,323.40	2,391	1,319	42,004	42.75	983

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2020	487,360.00	16,180	8,925	478,435	43.75	10,936
2021	480,787.68	5,289	2,917	477,871	44.75	10,679
9999	4,387,312.76-	1,104,305-	609,123-	3,778,189-		115,504-
	12,812,001.40	3,224,834	1,778,786	11,033,216		337,298

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 32.7   2.63

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 363.00 SERVICES

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

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)
1955	1,290.59	1,236	1,035	256	2.94	87
1957	123,927.20	117,508	98,370	25,557	3.52	7,261
1961	697.77	650	544	154	4.44	35
1962	2,351.79	2,183	1,827	525	4.60	114
1965	44,457.04	40,438	33,852	10,605	5.61	1,890
1968	10,558.23	9,433	7,897	2,661	6.38	417
1969	13,552.09	12,023	10,065	3,487	6.67	523
1970	429.95	379	317	113	6.98	16
1971	489.60	428	358	132	7.31	18
1972	533.45	462	387	146	7.65	19
1973	2,219.90	1,895	1,586	634	8.32	76
1974	10,962.05	9,268	7,759	3,203	8.68	369
1975	166,599.52	139,444	116,733	49,867	9.06	5,504
1976	53,351.62	44,180	36,985	16,367	9.45	1,732
1977	52,755.67	43,196	36,161	16,595	9.85	1,685
1978	31,025.35	25,103	21,015	10,010	10.26	976
1979	39,527.93	31,417	26,300	13,228	10.97	1,206
1980	345,085.05	270,685	226,600	118,485	11.41	10,384
1981	68,739.31	53,177	44,516	24,223	11.85	2,044
1982	56,794.13	43,300	36,248	20,546	12.31	1,669
1983	136,647.05	102,062	85,440	51,207	13.05	3,924
1984	241,306.70	177,360	148,474	92,833	13.52	6,866
1985	163,099.47	117,872	98,675	64,424	14.01	4,598
1986	169,892.49	120,012	100,466	69,426	14.75	4,707
1987	164,294.12	113,922	95,368	68,926	15.25	4,520
1988	205,424.04	139,688	116,938	88,486	15.76	5,615
1989	301,515.76	199,905	167,348	134,168	16.52	8,122
1990	101,997.71	66,186	55,407	46,591	17.04	2,734
1991	77,445.85	48,899	40,935	36,511	17.81	2,050
1992	86,209.95	53,157	44,500	41,710	18.34	2,274
1993	577,110.23	345,400	289,146	287,964	19.12	15,061
1994	91,100.42	53,112	44,462	46,638	19.67	2,371
1995	87,816.12	49,563	41,491	46,325	20.45	2,265
1996	93,226.41	51,107	42,783	50,443	21.01	2,401
1997	432,207.21	228,724	191,473	240,734	21.80	11,043
1998	354,687.54	181,706	152,112	202,576	22.37	9,056
1999	150,145.30	73,992	61,941	88,204	23.16	3,808
2000	475,293.83	224,814	188,200	287,094	23.95	11,987
2001	170,317.94	77,512	64,888	105,430	24.55	4,295
2002	283,669.42	123,339	103,251	180,418	25.35	7,117
2003	195,739.49	81,114	67,903	127,836	26.14	4,890

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2004	731,809.45	289,431	242,293	489,516	26.75	18,300
2005	321,917.76	120,590	100,950	220,968	27.55	8,021
2006	858,635.12	303,442	254,022	604,613	28.36	21,319
2007	483,072.91	160,380	134,260	348,813	29.17	11,958
2008	506,152.42	157,160	131,564	374,588	29.98	12,495
2009	2,526,751.44	732,758	613,418	1,913,333	30.60	62,527
2010	473,405.87	126,873	106,210	367,196	31.42	11,687
2011	171,802.80	42,212	35,337	136,466	32.24	4,233
2012	216,214.91	48,259	40,399	175,816	33.06	5,318
2013	569,278.35	114,197	95,598	473,680	33.87	13,985
2014	988,430.95	175,743	147,121	841,310	34.69	24,252
2015	1,174,460.50	182,511	152,787	1,021,674	35.34	28,910
2016	680,978.43	89,889	75,249	605,729	36.17	16,747
2017	1,200,294.26	130,112	108,922	1,091,372	37.00	29,497
2018	773,006.49	65,706	55,005	718,001	37.65	19,070
2019	530,796.99	32,379	27,106	503,691	38.48	13,090
2020	2,404,185.80	88,714	74,265	2,329,921	39.15	59,513
2021	2,291,857.28	28,877	24,174	2,267,683	39.34	57,643
9999	3,824,000.91-	1,082,381-	906,099-	2,917,902-		97,659-
	18,663,546.11	5,282,703	4,422,337	14,241,209		476,635

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 29.9   2.55

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1989	5,317.10	5,063	2,859	2,458	1.63	1,508
1992	7,284.72	6,813	3,847	3,438	2.04	1,685
2005	8,722.16	6,937	3,917	4,805	4.25	1,131
2006	6,468.54	5,053	2,853	3,616	4.34	833
2007	9,030.61	6,914	3,904	5,127	4.44	1,155
2008	29,418.95	22,002	12,423	16,996	4.55	3,735
2009	92,082.61	66,870	37,758	54,325	4.71	11,534
2010	19,205.24	13,451	7,595	11,610	4.92	2,360
2013	26,874.75	15,695	8,862	18,013	6.06	2,972
2014	152,434.49	81,065	45,774	106,660	6.60	16,161
2015	4,972.70	2,353	1,329	3,644	7.24	503
2016	8,070.58	3,311	1,869	6,202	7.90	785
2018	1,269.20	344	195	1,074	9.42	114
9999	14,726.81-	9,359-	5,285-	9,442-		1,765-
	356,424.84	226,512	127,900	228,525		42,711

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.4   11.98

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S2						
NET SALVAGE PERCENT.. 0						
2009	14,938.00	7,825	1,315	13,623	11.37	1,198
	14,938.00	7,825	1,315	13,623		1,198

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.4 8.02

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 370.00 RECEIVING WELLS

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						
2007	6,261.10	1,961	1,813	4,448	31.80	140
2009	92,112.20	25,220	23,322	68,790	33.16	2,074
2013	33,467.05	6,345	5,867	27,600	36.34	759
2017	1,547.02	158	146	1,401	39.55	35
2019	10,032.40	577	534	9,499	40.98	232
	143,419.77	34,261	31,682	111,738		3,240

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 34.5 2.26

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 371.00 PUMPING 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 30-S0.5						
NET SALVAGE PERCENT.. 0						
1985	282.58	234	146	137	7.55	18
1986	79,157.23	64,909	40,582	38,575	7.79	4,952
1989	4,187.82	3,294	2,059	2,129	8.82	241
1992	104,463.97	78,578	49,128	55,336	9.72	5,693
1993	22,555.17	16,650	10,410	12,145	10.11	1,201
1994	17,532.78	12,729	7,958	9,575	10.38	922
1996	52,541.33	36,711	22,952	29,589	11.00	2,690
1997	30,464.34	20,825	13,020	17,444	11.34	1,538
1999	39,315.50	25,563	15,982	23,334	12.10	1,928
2001	18,557.48	11,450	7,159	11,398	12.72	896
2003	123,514.93	71,515	44,712	78,803	13.45	5,859
2004	156,410.02	87,308	54,586	101,824	13.85	7,352
2005	73,906.68	39,754	24,855	49,052	14.17	3,462
2006	52,792.51	27,167	16,985	35,808	14.62	2,449
2007	5,838.30	2,870	1,794	4,044	15.00	270
2008	349,836.66	163,863	102,450	247,387	15.32	16,148
2009	607,739.94	268,925	168,136	439,604	15.75	27,911
2010	283,834.80	118,160	73,876	209,959	16.12	13,025
2011	38,235.02	14,854	9,287	28,948	16.53	1,751
2012	19,254.40	6,932	4,334	14,920	16.89	883
2013	37,112.44	12,240	7,653	29,459	17.27	1,706
2014	1,802,676.29	536,837	335,639	1,467,037	17.69	82,930
2015	225,543.90	59,521	37,214	188,330	18.13	10,388
2016	644,316.90	147,420	92,169	552,148	18.54	29,781
2017	396,978.62	76,299	47,703	349,276	18.92	18,461
2018	391,495.93	60,016	37,523	353,973	19.33	18,312
2019	5,169,123.43	581,526	363,580	4,805,543	19.72	243,689
2020	2,473,830.59	171,684	107,340	2,366,491	20.10	117,736
9999	66,626.22-	13,696-	8,563-	58,063-		3,135-
	13,154,873.34	2,704,138	1,690,669	11,464,204		619,057

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.5   4.71

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1957	14,547.25	14,262	10,842	3,705	1.29	2,872
1965	68,959.61	65,070	49,465	19,495	3.38	5,768
1967	147,134.82	137,924	104,848	42,287	3.64	11,617
1973	841.50	759	577	264	5.26	50
1981	4,113.01	3,481	2,646	1,467	7.35	200
1984	542,852.24	445,790	338,884	203,968	8.16	24,996
1985	450,239.78	364,829	277,338	172,902	8.55	20,222
1986	658,713.17	526,180	399,995	258,718	8.94	28,939
1987	190,505.26	150,499	114,407	76,098	9.17	8,299
1989	776,378.07	595,482	452,678	323,700	9.87	32,796
1990	8,251.67	6,238	4,742	3,510	10.17	345
1992	779,365.18	567,845	431,668	347,697	10.99	31,638
1993	3,277,715.13	2,344,877	1,782,545	1,495,170	11.34	131,849
1994	56,453.36	39,585	30,092	26,361	11.72	2,249
1995	7,095.62	4,870	3,702	3,394	12.11	280
1996	24,979.54	16,751	12,734	12,246	12.52	978
1997	19,483.58	12,746	9,689	9,795	12.95	756
1998	3,577.10	2,286	1,738	1,839	13.26	139
1999	16,796.69	10,431	7,930	8,867	13.73	646
2001	64,160.37	37,354	28,396	35,764	14.71	2,431
2002	348,679.99	195,819	148,859	199,821	15.22	13,129
2004	349,560.73	181,072	137,649	211,912	16.28	13,017
2005	1,389,143.64	687,626	522,724	866,420	16.83	51,481
2006	279,650.52	131,771	100,171	179,480	17.39	10,321
2007	30,526.91	13,633	10,364	20,163	17.97	1,122
2008	804,821.96	338,991	257,697	547,125	18.55	29,495
2009	18,091,085.01	7,145,979	5,432,280	12,658,805	19.15	661,034
2010	9,623,464.65	3,529,887	2,683,374	6,940,091	19.85	349,627
2011	18,076.08	6,131	4,661	13,415	20.46	656
2012	743,816.47	230,360	175,117	568,699	21.17	26,863
2013	2,898,468.41	810,412	616,065	2,282,403	21.90	104,219
2014	8,825,496.71	2,197,549	1,670,548	7,154,949	22.62	316,311
2015	674,557.34	146,446	111,326	563,231	23.44	24,029
2016	453,758.69	84,127	63,952	389,807	24.17	16,128
2017	661,485.92	100,943	76,736	584,750	25.00	23,390
2018	3,452,495.79	412,228	313,370	3,139,126	25.82	121,577
2019	1,098,295.27	93,904	71,385	1,026,910	26.74	38,404

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2020	1,581,153.55	81,271	61,781	1,519,373	27.66	54,930
2021	8,345,000.00	143,534	109,113	8,235,887	28.57	288,270
9999	2,200,080.47-	720,788-	547,934-	1,652,146-		80,749-
	64,581,620.12	21,158,154	16,084,154	48,497,466		2,370,324

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.5   3.67

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2008	294,411.86	86,645	76,538	217,874	32.37	6,731
2009	4,434,866.70	1,214,267	1,072,624	3,362,243	33.16	101,395
2010	1,187,964.50	300,555	265,496	922,468	33.95	27,171
2011	6,597.06	1,531	1,352	5,245	34.75	151
2012	1,684.33	355	314	1,370	35.55	39
2014	234,318.33	39,365	34,773	199,545	37.14	5,373
2015	7,458.23	1,090	963	6,495	37.95	171
2016	45,239.43	5,623	4,967	40,272	38.75	1,039
9999	30,192.33-	8,016-	7,081-	23,111-		690-
	6,182,348.11	1,641,415	1,449,946	4,732,402		141,380

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 33.5   2.29

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1957	12,139.53	11,275	11,128	1,012	4.94	205
1975	4,984.00	4,033	3,980	1,004	10.97	92
1993	202,475.94	115,411	113,909	88,567	21.50	4,119
2004	1,695.94	632	624	1,072	29.45	36
2005	9,240.93	3,263	3,221	6,020	30.23	199
2006	201,117.58	67,012	66,139	134,979	31.01	4,353
2009	26,051.26	7,133	7,040	19,011	33.16	573
2010	27,827.93	7,040	6,948	20,880	33.95	615
2014	100,422.48	16,871	16,651	83,771	37.14	2,256
2017	18,433.32	1,884	1,860	16,573	39.55	419
	604,388.91	234,554	231,500	372,889		12,867

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 29.0 2.13

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2010	273,149.74	160,503	153,979	119,171	8.07	14,767
2013	8,814.50	4,001	3,838	4,976	10.23	486
2018	32,175.41	6,203	5,951	26,224	14.65	1,790
2019	268,065.51	36,993	35,489	232,576	15.62	14,890
	582,205.16	207,700	199,257	382,948		31,933

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.0   5.48

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 389.60 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS

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.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	57,500.00	17,250	10,423	47,077	3.50	13,451
2021	1,597,500.00	159,750	96,521	1,500,979	4.50	333,551
	1,655,000.00	177,000	106,944	1,548,056		347,002

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 4.5   20.97

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2008	3,529.23	2,382	863	2,666	6.50	410
2009	52,251.63	32,657	11,827	40,425	7.50	5,390
2010	7,240.80	4,163	1,508	5,733	8.50	674
2012	7,908.11	3,756	1,360	6,548	10.50	624
2013	18,309.85	7,782	2,818	15,492	11.50	1,347
2015	2,488.32	809	293	2,195	13.50	163
2016	17,826.99	4,902	1,775	16,052	14.50	1,107
2017	28,119.56	6,327	2,291	25,829	15.50	1,666
2018	10,405.16	1,821	659	9,746	16.50	591
2019	20,626.43	2,578	934	19,692	17.50	1,125
	168,706.08	67,177	24,328	144,378		13,097

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.0 7.76

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2006	36,080.08	31,483	28,716	7,364	2.26	3,258
2011	113,113.12	83,376	76,048	37,065	3.75	9,884
2012	68,445.40	46,687	42,584	25,861	4.43	5,838
2013	59,958.68	37,306	34,027	25,932	5.16	5,026
2016	2,417.92	1,004	916	1,502	7.75	194
2017	8,524.07	2,903	2,648	5,876	8.71	675
2018	927,892.60	246,170	224,534	703,359	9.69	72,586
2019	296,798.31	56,243	51,300	245,498	10.69	22,965
2020	536,928.00	61,049	55,683	481,245	11.69	41,167
2021	504,616.00	19,125	17,444	487,172	12.69	38,390
	2,554,774.18	585,346	533,900	2,020,874		199,983

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.1   7.83

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2012	58,391.33	22,189	22,451	35,940	15.50	2,319
2017	2,199.71	396	401	1,799	20.50	88
2018	46,760.40	6,546	6,623	40,137	21.50	1,867
	107,351.44	29,131	29,475	77,876		4,274

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.2   3.98

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2005	8,276.87	6,828	6,071	2,206	3.50	630
2006	75,500.00	58,512	52,027	23,473	4.50	5,216
2007	6,695.14	4,854	4,316	2,379	5.50	433
2008	2,776.47	1,874	1,666	1,110	6.50	171
2009	378.54	237	211	168	7.50	22
2010	61,467.53	35,344	31,427	30,041	8.50	3,534
2012	53,547.52	25,435	22,616	30,932	10.50	2,946
2013	16,093.74	6,840	6,082	10,012	11.50	871
2014	36,416.31	13,656	12,142	24,274	12.50	1,942
2015	56,943.11	18,507	16,456	40,487	13.50	2,999
2016	107,176.04	29,473	26,206	80,970	14.50	5,584
2017	7,458.66	1,678	1,492	5,967	15.50	385
2018	94,551.82	16,547	14,713	79,839	16.50	4,839
2019	13,456.70	1,682	1,496	11,961	17.50	683
2020	353,392.32	26,504	23,566	329,826	18.50	17,828
2021	305,483.51	7,637	6,791	298,693	19.50	15,318
	1,199,614.28	255,608	227,278	972,336		63,401

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.3   5.29

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2007	858.64	830	859			
2008	48,521.14	43,669	45,893	2,628	1.50	1,752
2009	41,773.44	34,811	36,584	5,189	2.50	2,076
2010	31,269.93	23,974	25,195	6,075	3.50	1,736
2011	16,488.52	11,542	12,130	4,359	4.50	969
2012	15,638.71	9,904	10,408	5,231	5.50	951
2013	5,917.50	3,353	3,524	2,394	6.50	368
2014	36,775.07	18,388	19,325	17,450	7.50	2,327
2015	12,751.71	5,526	5,807	6,945	8.50	817
2016	65,493.26	24,014	25,237	40,256	9.50	4,237
2017	48,566.17	14,570	15,312	33,254	10.50	3,167
2018	28,248.23	6,591	6,927	21,321	11.50	1,854
2019	56,408.91	9,402	9,881	46,528	12.50	3,722
2020	117,797.44	11,780	12,380	105,417	13.50	7,809
2021	101,827.84	3,394	3,567	98,261	14.50	6,777
	628,336.51	221,748	233,029	395,308		38,562

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.3   6.14

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1986	6,653.88	6,401	6,654			
1992	9,298.66	8,421	9,299			
1993	87,500.95	78,305	86,796	705	3.35	210
2002	70,593.20	52,719	58,436	12,157	6.61	1,839
2011	340,872.27	164,641	182,494	158,378	11.24	14,091
2015	3,226.21	1,050	1,164	2,062	13.46	153
2018	19,494.38	3,692	4,092	15,402	14.98	1,028
2020	133,835.22	11,804	13,084	120,751	15.51	7,785
2021	126,154.00	4,087	4,530	121,624	14.93	8,146
9999	10,000.00-	4,151-	4,595-	5,405-		417-
	787,628.77	326,969	361,954	425,675		32,835

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.0 4.17

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2007	2,450.35	2,369	2,421	29	0.50	29
2008	9,753.43	8,778	8,970	783	1.50	522
2009	521,963.46	434,968	444,493	77,470	2.50	30,988
2010	144,621.29	110,877	113,305	31,316	3.50	8,947
2011	4,370.98	3,060	3,127	1,244	4.50	276
2012	3,344.78	2,118	2,164	1,181	5.50	215
2013	263,689.84	149,425	152,698	110,992	6.50	17,076
2014	98,016.16	49,008	50,081	47,935	7.50	6,391
2016	172,002.57	63,068	64,449	107,554	9.50	11,321
2017	13,811.63	4,143	4,234	9,578	10.50	912
2018	12,412.19	2,896	2,959	9,453	11.50	822
2019	7,055.35	1,176	1,202	5,853	12.50	468
2020	339,244.08	33,924	34,667	304,577	13.50	22,561
2021	76,963.95	2,565	2,621	74,343	14.50	5,127
	1,669,700.06	868,375	887,391	782,309		105,655

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 7.4   6.33

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2008	20,048.36	18,044	20,048			
2009	6,270.00	5,225	6,270			
2010	4,161.94	3,191	4,162			
2011	14,880.36	10,416	14,880			
2012	15,424.61	9,769	15,425			
2013	16,427.62	9,309	16,428			
2015	4,104.14	1,778	3,516	588	8.50	69
2017	28,080.87	8,424	16,659	11,422	10.50	1,088
2018	33,269.93	7,763	15,352	17,918	11.50	1,558
2019	123,794.18	20,633	40,803	82,991	12.50	6,639
2020	123,500.00	12,350	24,423	99,077	13.50	7,339
2021	135,530.70	4,517	8,933	126,598	14.50	8,731
9999	29,000.00-	6,149-	10,314-	18,686-		1,403-
	496,492.71	105,270	176,585	319,908		24,021

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.3   4.84

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 398.00 OTHER TANGIBLE PLANT

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						
2019	14,231.50	1,423	1,652	12,580	22.50	559
	14,231.50	1,423	1,652	12,580		559

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 22.5   3.93

PART III. EXPERIENCED AND ESTIMATED NET SALVAGE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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
2017 TRANSACTION YEAR				
354.20	1,407.63	304.32		304.32-
354.30	166,438.60	36,849.10		36,849.10-
354.40	572,137.15	35,585.29		35,585.29-
354.70	12,302.62	2,146.21		2,146.21-
355.00	9,831.57	930.05		930.05-
360.10	1,620.35	1,809.34		1,809.34-
361.10	115,058.32	53,983.89		53,983.89-
361.20	.06			
363.00	25,016.92	69,276.31		69,276.31-
364.00	31,435.54			
365.00	5,980.30			
371.00	369,649.35	5,054.34		5,054.34-
380.00	888,989.12	6,892.29		6,892.29-
381.00	30,192.33			
382.00		604.43		604.43-
390.00	16,791.12	763.18		763.18-
391.00	20,700.00			
392.00	5,858.64			
393.00	33,251.29	328.18		328.18-
394.00	8,779.18	60.05		60.05-
396.00	13,448.85	5,474.39		5,474.39-
397.00	190,794.50			
	2,519,683.44	220,061.37		220,061.37-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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	416.47	2,367.05		2,367.05-
354.30	573,594.97	87.11		87.11-
354.40	744,885.32	18,538.55-		18,538.55
354.70		36,099.53		36,099.53-
355.00	422,792.78	4,538.63		4,538.63-
360.10	276,235.14	85,350.18		85,350.18-
361.10	2,339,080.10	345,943.14		345,943.14-
361.20	13,749.21			
363.00	56,288.53	48,455.35		48,455.35-
364.00	31,450.72			
371.00	113,724.18	18,884.54-		18,884.54
380.00	1,203,983.11	12,304.03		12,304.03-
382.00	5.76	980.65		980.65-
389.10		3,678.20-		3,678.20
390.00	5,925.73	93.95		93.95-
391.00	79,247.81	9,708.42		9,708.42-
393.00	17,334.55			
394.00	28,673.47	117.59		117.59-
396.00	3,064.59			
397.00		6,019.17		6,019.17-
	5,910,452.44	510,963.51		510,963.51-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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				
354.20	3,076.09	27,531.06		27,531.06-
354.30		61,135.00		61,135.00-
354.40	913,340.30	1,985.51		1,985.51-
354.70	3,125.06	18,075.18		18,075.18-
355.00		9,730.05		9,730.05-
360.10	55,943.69	245,202.29		245,202.29-
361.10	352,132.81	1,038,558.77		1,038,558.77-
361.20	1,170.55	109,567.01		109,567.01-
363.00	5,384.61	150,830.30		150,830.30-
364.00	3,202.68	239.58		239.58-
370.00	1,108.89			
371.00	5,188.39	141,438.05		141,438.05-
380.00	36,603.24	214,843.19		214,843.19-
381.00	2,120.40			
389.10		5,681.56		5,681.56-
390.00	67,403.59			
391.00		6,028.96		6,028.96-
393.00	60,983.28	1,931.40		1,931.40-
394.00	26,823.05	5,593.49		5,593.49-
395.00		2,048.24		2,048.24-
396.00	48,155.78	1,897.96		1,897.96-
397.00	141,002.08	5,512.61		5,512.61-
398.00		1,251.49		1,251.49-
	1,726,764.49	2,049,081.70		2,049,081.70-
2020 TRANSACTION YEAR				
354.20	3,007.76	29,175.27		29,175.27-
354.30	39,414.10	5,123.83		5,123.83-
354.40	120,604.23	1,206.04		1,206.04-
354.70	6,910.37	22,182.29		22,182.29-
360.10	40,213.82	41,420.24		41,420.24-
361.10	361,924.39	170,104.46		170,104.46-
361.20	22,020.95	132,345.92	440.42	131,905.50-
363.00	128,735.68	130,023.03		130,023.03-
371.00	144,361.10	37,533.89		37,533.89-
380.00	92,274.49	11,072.94		11,072.94-
391.00	31,332.59	5,013.21		5,013.21-
394.00	10,122.79	1,012.28		1,012.28-
395.00	7,833.15	156.66		156.66-
396.00	234,211.01	21,078.99		21,078.99-
	1,242,966.43	607,449.05	440.42	607,008.63-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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				
354.20	6,516.56	63,210.60		63,210.60-
354.30	85,393.93	11,101.21		11,101.21-
354.40	261,299.11	2,612.99		2,612.99-
354.70	14,971.90	48,059.79		48,059.79-
360.10	52,546.64	54,123.04		54,123.04-
361.10	472,919.80	222,272.31		222,272.31-
361.20	22,579.29	135,701.50	451.59	135,249.91-
363.00	121,252.04	122,464.56		122,464.56-
380.00	545,573.80	65,468.86		65,468.86-
391.00	29,179.15	4,668.66		4,668.66-
395.00	7,294.79	145.90		145.90-
396.00	3,256.29	293.07		293.07-
	1,622,783.30	730,122.49	451.59	729,670.90-
TOTAL	13,022,650.10	4,117,678.12	892.01	4,116,786.11-

EXHIBIT NO. 11-L - DEPRECIATION STUDY

WASTEWATER SSS OPERATIONS

EXCLUDING SADSBURY AND EXETER

AS OF DECEMBER 31, 2022

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

PENNSYLVANIA-AMERICAN WATER COMPANY

MECHANICSBURG, PENNSYLVANIA

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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-L
Witness: J. J. Spanos

PENNSYLVANIA-AMERICAN WATER COMPANY

Mechanicsburg, Pennsylvania

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

Excellence Delivered ***As Promised***

April 22, 2020

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

Attention Ashley E. Everette
Director, Rates & Regulatory

Ladies and Gentlemen:

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

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

Respectfully submitted,

GANNETT FLEMING VALUATION
AND RATE CONSULTANTS, LLC

John J. Spanos

JOHN J. SPANOS
President

JJS:mle

066548.100

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PENNSYLVANIA-AMERICAN WATER COMPANY

WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

DEPRECIATION STUDY

PART I. RESULTS OF STUDY

SUMMARY OF RESULTS

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

DESCRIPTION OF DETAILED TABULATIONS

The supporting data for the depreciation calculations are presented in account sequence in the section beginning on page II-7. 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 2018 through 2022, beginning on pages III-2 through III-4.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

DEPRCIABLE GROUP	ORIGINAL COST AS OF DECEMBER 31, 2022		CUSTOMER ADVANCES		CONTRIBUTIONS IN AID OF CONSTRUCTION		EXCLUDED PROPERTY		NET ORIGINAL COST AS OF DECMEBER 31, 2022
(1)	(2)	-	(3)	-	(4)	-	(5)	=	(6)
DEPRECIABLE PLANT									
354.20 STRUCTURES AND IMPROVEMENTS - COLLECTION	1,372,711.27								1,372,711.27
354.30 STRUCTURES AND IMPROVEMENTS - SPP	17,988,212.97				2,734,528.70				15,253,684.27
354.40 STRUCTURES AND IMPROVEMENTS - TDP	55,042,602.26				1,853,012.73				53,189,589.53
354.70 STRUCTURES AND IMPROVEMENTS - GENERAL	3,153,826.87								3,153,826.87
355.00 POWER GENERATION EQUIPMENT	4,180,589.06				144,517.16				4,036,071.90
360.10 COLLECTION SEWERS - FORCE MAINS	50,575,251.29		157,753.14		11,251,126.61				39,166,371.54
361.10 COLLECTION SEWERS - GRAVITY MAINS	120,095,333.20		133,423.53		13,295,536.11				106,666,373.56
361.20 MANHOLES	17,657,269.96				4,387,312.76				13,269,957.20
363.00 SERVICES	24,656,795.81		70,197.45		3,753,803.46				20,832,794.90
364.00 FLOW MEASURING DEVICES	371,151.65				14,726.81				356,424.84
365.00 FLOW MEASURING INSTALLATIONS	14,938.00								14,938.00
370.00 RECEIVING WELLS	143,419.77								143,419.77
371.00 PUMPING EQUIPMENT	13,374,027.20				66,626.22				13,307,400.98
380.00 TREATMENT EQUIPMENT	67,907,787.21				2,200,080.47				65,707,706.74
381.00 PLANT SEWERS	6,212,540.44				30,192.33				6,182,348.11
382.00 OUTFALL SEWER LINES	604,388.91								604,388.91
389.10 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	582,205.16								582,205.16
389.60 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	1,707,500.00								1,707,500.00
390.00 OFFICE FURNITURE AND EQUIPMENT	168,706.08								168,706.08
391.00 TRANSPORTATION EQUIPMENT	3,034,840.81								3,034,840.81
392.00 STORES EQUIPMENT	107,351.44								107,351.44
393.00 TOOLS, SHOP AND GARAGE EQUIPMENT	1,505,097.79								1,505,097.79
394.00 LABORATORY EQUIPMENT	729,305.71								729,305.71
395.00 POWER OPERATED EQUIPMENT	917,645.43				10,000.00				907,645.43
396.00 COMMUNICATION EQUIPMENT	1,744,213.66								1,744,213.66
397.00 MISCELLANEOUS EQUIPMENT	661,593.59				29,000.00				632,593.59
398.00 OTHER TANGIBLE PLANT	14,231.50								14,231.50
TOTAL DEPRECIABLE PLANT	**394,523,537.04**		**361,374.12**		**39,770,463.36**		**0.00**		**354,391,699.56**
NONDEPRECIABLE PLANT									
352.10 FRANCHISES	221,139.78								221,139.78
353.20 LAND AND LAND RIGHTS - COLLECTION	1,093,483.20								1,093,483.20
353.30 LAND AND LAND RIGHTS - SPP	85,560.07								85,560.07
353.40 LAND AND LAND RIGHTS - TDP	1,717,020.09				125,000.00				1,592,020.09
TOTAL NONDEPRECIABLE PLANT	**3,117,203.14**		**0.00**		**125,000.00**		**0.00**		**2,992,203.14**
TOTAL UTILITY PLANT	**397,640,740.18**		**361,374.12**		**39,895,463.36**		**0.00**		**357,383,902.70**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

TABLE 2. SUMMARY OF ESTIMATED SURVIVOR CURVE, ORIGINAL COST, BOOK 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 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	1,372,711.27	97,323	1,275,388	38,320	2.79	33.3
354.30	STRUCTURES AND IMPROVEMENTS - SPP	55-S0	15,253,684.27	5,449,788	9,803,896	300,957	1.97	32.6
354.40	STRUCTURES AND IMPROVEMENTS - TDP	55-S0	53,189,589.53	13,447,768	39,741,821	1,254,377	2.36	31.7
354.70	STRUCTURES AND IMPROVEMENTS - GENERAL	35-S1	3,153,826.87	1,687,584	1,466,242	63,310	2.01	23.2
355.00	POWER GENERATION EQUIPMENT	35-S0.5	4,036,071.90	2,807,978	1,228,094	63,471	1.57	19.3
360.10	COLLECTION SEWERS - FORCE MAINS	75-R3	39,166,371.54	3,526,886	35,639,485	678,631	1.73	52.5
361.10	COLLECTION SEWERS - GRAVITY MAINS	80-R2.5	106,666,373.56	13,972,547	92,693,827	1,691,826	1.59	54.8
361.20	MANHOLES	50-S2.5	13,269,957.20	2,036,681	11,233,276	348,535	2.63	32.2
363.00	SERVICES	47-R3	20,832,794.90	4,780,861	16,051,934	531,451	2.55	30.2
364.00	FLOW MEASURING DEVICES	15-L2.5	356,424.84	170,648	185,777	36,426	10.22	5.1
365.00	FLOW MEASURING INSTALLATIONS	25-S2	14,938.00	2,513	12,425	1,154	7.73	10.8
370.00	RECEIVING WELLS	50-R3	143,419.77	34,923	108,497	3,219	2.24	33.7
371.00	PUMPING EQUIPMENT	30-S0.5	13,307,400.98	2,331,656	10,975,745	602,548	4.53	18.2
380.00	TREATMENT EQUIPMENT	35-S1.5	65,707,706.74	18,480,154	47,227,552	2,355,132	3.58	20.1
381.00	PLANT SEWERS	50-R3	6,182,348.11	1,591,522	4,590,827	140,418	2.27	32.7
382.00	OUTFALL SEWER LINES	50-R3	604,388.91	244,690	359,698	12,727	2.11	28.3
389.10	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - INTANGIBLES	20-S2.5	582,205.16	231,563	350,642	31,102	5.34	11.3
389.60	OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS	5-SQ	1,707,500.00	457,989	1,249,511	357,607	20.94	3.5
390.00	OFFICE FURNITURE AND EQUIPMENT	20-SQ	168,706.08	37,591	131,115	13,043	7.73	10.1
391.00	TRANSPORTATION EQUIPMENT	14-L4	3,034,840.81	718,213	2,316,627	235,403	7.76	9.8
392.00	STORES EQUIPMENT	25-SQ	107,351.44	33,748	73,604	4,273	3.98	17.2
393.00	TOOLS, SHOP AND GARAGE EQUIPMENT	20-SQ	1,505,097.79	299,112	1,205,986	78,428	5.21	15.4
394.00	LABORATORY EQUIPMENT	15-SQ	729,305.71	275,058	454,248	43,556	5.97	10.4
395.00	POWER OPERATED EQUIPMENT	22-R2	907,645.43	389,500	518,146	39,364	4.34	13.2
396.00	COMMUNICATION EQUIPMENT	15-SQ	1,744,213.66	998,400	745,814	107,830	6.18	6.9
397.00	MISCELLANEOUS EQUIPMENT	15-SQ	632,593.59	205,091	427,503	33,372	5.28	12.8
398.00	OTHER TANGIBLE PLANT	25-SQ	14,231.50	2,461	11,771	547	3.84	21.5
	TOTAL DEPRECIABLE PLANT		**354,391,699.56**	**74,312,248**	**280,079,451**	**9,067,027**	**2.56**	**30.9**
	NONDEPRECIABLE PLANT							
352.10	FRANCHISES		221,139.78					
353.20	LAND AND LAND RIGHTS - COLLECTION		1,093,483.20					
353.30	LAND AND LAND RIGHTS - SPP		85,560.07					
353.40	LAND AND LAND RIGHTS - TDP		1,592,020.09					
	TOTAL NONDEPRECIABLE PLANT		**2,992,203.14**					
	AMORTIZATION OF NET SALVAGE					**897,190**		
	TOTAL UTILITY PLANT		**357,383,902.70**	**74,312,248**	**280,079,451**	**9,964,217**		

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

ACCOUNT (1)	PROJECTED 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	49,219		63,092		1,401		13,587						97,323
354.30	5,144,884		325,647		18,356		2,386						5,449,788
354.40	12,232,042		1,272,456		56,167		562						13,447,768
354.70	1,613,097		88,037		3,218		10,331						1,687,584
355.00	2,739,150		68,828										2,807,978
360.10	2,894,314		759,287		62,421		64,294						3,526,886
361.10	12,678,919		1,999,555		480,223		225,705						13,972,547
361.20	1,778,786		417,490		22,832		137,220		457				2,036,681
363.00	4,422,337		604,967		122,608		123,835						4,780,861
364.00	127,900		42,748										170,648
365.00	1,315		1,198										2,513
370.00	31,682		3,241										34,923
371.00	1,690,669		652,922		9,472		2,463						2,331,656
380.00	16,084,154		2,433,983		33,913		4,070						18,480,154
381.00	1,449,946		141,576										1,591,522
382.00	231,500		13,190										244,690
389.10	199,257		32,306										231,563
389.60	106,944		351,045										457,989
390.00	24,328		13,263										37,591
391.00	533,900		218,897		29,813		4,770						718,213
392.00	29,475		4,273										33,748
393.00	227,278		71,834										299,112
394.00	233,029		42,973		859		86						275,058
395.00	361,954		35,148		7,453		149						389,500
396.00	887,391		113,680		2,450		221						998,400
397.00	176,585		28,506										205,090
398.00	1,652		809										2,461
TOTAL	**65,951,706**		**9,800,949**		**851,187**		**589,676**		**457**		**0**		**74,312,248**

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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

ACCOUNT (1)	NET ORIGINAL COST AS OF 12/31/2021 (2)	NET ORIGINAL COST AS OF 12/31/2022 (3)	ACCRUAL RATE (4)	DEPRECIATION ACCRUALS (5)*	AMORTIZATION OF NET SALVAGE (6)	PROJECTED DEPRECIATION ACCRUALS (7)=(5)+(6)
354.20	1,350,155.77	1,372,711.27	2.84	38,574	24,518	63,092
354.30	14,958,113.65	15,253,684.27	2.01	302,788	22,859	325,647
354.40	52,285,165.25	53,189,589.53	2.41	1,267,886	4,570	1,272,456
354.70	3,102,005.24	3,153,826.87	2.01	62,724	25,313	88,037
355.00	4,036,071.90	4,036,071.90	1.63	65,788	3,040	68,828
360.10	38,161,242.14	39,166,371.54	1.75	673,706	85,581	759,287
361.10	99,296,640.99	106,666,373.56	1.60	1,633,382	366,173	1,999,555
361.20	12,812,001.40	13,269,957.20	2.63	342,146	75,344	417,490
363.00	18,663,546.11	20,832,794.90	2.55	500,757	104,210	604,967
364.00	356,424.84	356,424.84	11.98	42,700	48	42,748
365.00	14,938.00	14,938.00	8.02	1,198		1,198
370.00	143,419.77	143,419.77	2.26	3,241		3,241
371.00	13,154,873.34	13,307,400.98	4.71	619,894	33,028	652,922
380.00	64,581,620.12	65,707,706.74	3.67	2,371,867	62,116	2,433,983
381.00	6,182,348.11	6,182,348.11	2.29	141,576		141,576
382.00	604,388.91	604,388.91	2.13	12,873	317	13,190
389.10	582,205.16	582,205.16	5.48	31,905	401	32,306
389.60	1,655,000.00	1,707,500.00	20.97	351,045		351,045
390.00	168,706.08	168,706.08	7.76	13,092	171	13,263
391.00	2,554,774.18	3,034,840.81	7.83	213,813	5,084	218,897
392.00	107,351.44	107,351.44	3.98	4,273		4,273
393.00	1,199,614.28	1,505,097.79	5.29	71,382	452	71,834
394.00	628,336.51	729,305.71	6.14	41,616	1,357	42,973
395.00	787,628.77	907,645.43	4.17	34,678	470	35,148
396.00	1,669,700.06	1,744,213.66	6.33	107,931	5,749	113,680
397.00	496,492.71	632,593.59	4.84	26,200	2,306	28,506
398.00	14,231.50	14,231.50	3.93	559	250	809
TOTAL	**339,566,996.23**	**354,391,699.56**		**8,977,592**	**823,357**	**9,800,949**

* Total accruals shown are based on average monthly balances.

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

TABLE 5. AMORTIZATION OF EXPERIENCED AND ESTIMATED NET SALVAGE

ACCOUNT	2018 GROSS SALVAGE	2018 COST OF REMOVAL	2019 GROSS SALVAGE	2019 COST OF REMOVAL	PROJECTED 2020 GROSS SALVAGE	PROJECTED 2020 COST OF REMOVAL	PROJECTED 2021 GROSS SALVAGE	PROJECTED 2021 COST OF REMOVAL	PROJECTED 2022 GROSS SALVAGE	PROJECTED 2022 COST OF REMOVAL	NET SALVAGE	SALVAGE ACCRUAL
(1)	(2) -	(3) +	(4) -	(5) +	(6) -	(7) +	(8) -	(9) +	(10) -	(11) =	(12)*	(13)=(12)/5
354.20		2,367		27,531		29,175		63,211		13,587	(135,871)	(27,174)
354.30		87		61,135		5,124		11,101		2,386	(79,833)	(15,967)
354.40		(18,539)		1,986		1,206		2,613		562	12,172	2,434
354.70		36,100		18,075		22,182		48,060		10,331	(134,747)	(26,949)
355.00		4,539		9,730							(14,269)	(2,854)
360.10		85,350		245,202		41,420		54,123		64,294	(490,390)	(98,078)
361.10		345,943		1,038,559		170,104		222,272		225,705	(2,002,583)	(400,517)
361.20				109,567	440	132,346	452	135,702	457	137,220	(513,485)	(102,697)
363.00		48,455		150,830		130,023		122,465		123,835	(575,608)	(115,122)
364.00				240							(240)	(48)
371.00		(18,885)		141,438		37,534				2,463	(162,550)	(32,510)
380.00		12,304		214,843		11,073		65,469		4,070	(307,759)	(61,552)
382.00		981									(981)	(196)
389.10		(3,678)		5,682							(2,003)	(401)
390.00		94									(94)	(19)
391.00		9,708		6,029		5,013		4,669		4,770	(30,189)	(6,038)
393.00				1,931							(1,931)	(386)
394.00		118		5,593		1,012				86	(6,809)	(1,362)
395.00				2,048		157		146		149	(2,500)	(500)
396.00				1,898		21,079		293		221	(23,491)	(4,698)
397.00		6,019		5,513							(11,532)	(2,306)
398.00				1,251							(1,251)	(250)
TOTAL	**0**	**510,964**	**0**	**2,049,082**	**440**	**607,449**	**452**	**730,122**	**457**	**589,676**	**(4,485,944)**	**(897,190)**

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

PART II. DETAILED DEPRECIATION CALCULATIONS

CUMULATIVE DEPRECIATED ORIGINAL COST

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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)
1895					0.0
1915	27,440	17,928	9,512	9,512	0.0
1920	67,518	43,542	23,976	33,488	0.0
1922				33,488	0.0
1929	12,188	7,659	4,529	38,017	0.0
1930	152,175	95,612	56,563	94,580	0.0
1932	519	428	91	94,671	0.0
1935	11,242	6,892	4,350	99,021	0.0
1939	74,325	43,272	31,053	130,074	0.0
1940				130,074	0.0
1941				130,074	0.0
1942				130,074	0.0
1943				130,074	0.0
1944				130,074	0.0
1945	37,031	21,339	15,692	145,766	0.1
1946	82,221	47,186	35,035	180,801	0.1
1947				180,801	0.1
1948				180,801	0.1
1949				180,801	0.1
1950				180,801	0.1
1951				180,801	0.1
1952				180,801	0.1
1953				180,801	0.1
1954				180,801	0.1
1955	42,308	22,748	19,560	200,361	0.1
1956				200,361	0.1
1957	1,553,641	875,047	678,594	878,955	0.3
1958				878,955	0.3
1959				878,955	0.3
1961	346,673	238,217	108,456	987,411	0.4
1962	30,011	15,511	14,500	1,001,911	0.4
1965	775,699	434,896	340,803	1,342,714	0.5
1966				1,342,714	0.5
1967	169,863	126,038	43,825	1,386,539	0.5
1968	74,494	38,338	36,156	1,422,695	0.5
1969	468,865	220,207	248,658	1,671,353	0.6
1970	401	296	105	1,671,458	0.6
1971	459	337	122	1,671,580	0.6
1972	888	751	137	1,671,717	0.6
1973	163,848	61,516	102,332	1,774,049	0.6
1974	1,613,797	488,983	1,124,814	2,898,863	1.0
1975	2,773,312	1,168,486	1,604,826	4,503,689	1.6
1976	1,287,697	435,649	852,048	5,355,737	1.9
1977	712,664	246,098	466,566	5,822,303	2.1
1978	384,210	132,994	251,216	6,073,519	2.2

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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)
1979	142,674	57,361	85,313	6,158,832	2.2
1980	412,201	244,505	167,696	6,326,528	2.3
1981	229,959	87,171	142,788	6,469,316	2.3
1982	181,623	91,503	90,120	6,559,436	2.3
1983	859,673	380,813	478,860	7,038,296	2.5
1984	4,127,872	1,837,598	2,290,274	9,328,570	3.3
1985	2,138,746	996,464	1,142,282	10,470,852	3.7
1986	1,895,092	984,519	910,573	11,381,425	4.1
1987	692,992	333,743	359,249	11,740,674	4.2
1988	2,573,932	1,078,291	1,495,641	13,236,315	4.7
1989	3,710,853	1,567,765	2,143,088	15,379,403	5.5
1990	626,292	219,845	406,447	15,785,850	5.6
1991	431,555	275,260	156,295	15,942,145	5.7
1992	3,203,390	1,574,654	1,628,736	17,570,881	6.3
1993	11,643,463	4,906,200	6,737,263	24,308,144	8.7
1994	875,852	317,090	558,762	24,866,906	8.9
1995	839,090	243,931	595,159	25,462,065	9.1
1996	1,190,013	449,169	740,844	26,202,909	9.4
1997	6,383,849	1,714,919	4,668,930	30,871,839	11.0
1998	3,713,988	1,139,449	2,574,539	33,446,378	11.9
1999	504,651	151,208	353,443	33,799,821	12.1
2000	8,514,402	2,987,148	5,527,254	39,327,075	14.0
2001	2,613,024	721,537	1,891,487	41,218,562	14.7
2002	2,787,848	800,434	1,987,414	43,205,976	15.4
2003	1,503,997	470,389	1,033,608	44,239,584	15.8
2004	4,039,173	914,699	3,124,474	47,364,058	16.9
2005	6,309,629	1,672,590	4,637,039	52,001,097	18.6
2006	6,484,811	1,641,758	4,843,053	56,844,150	20.3
2007	6,346,832	1,254,023	5,092,809	61,936,959	22.1
2008	9,089,563	2,081,020	7,008,543	68,945,502	24.6
2009	55,562,883	17,165,599	38,397,284	107,342,786	38.3
2010	22,612,004	6,265,197	16,346,807	123,689,593	44.2
2011	1,296,642	451,117	845,525	124,535,118	44.5
2012	2,701,743	576,381	2,125,362	126,660,480	45.2
2013	9,996,680	1,797,104	8,199,576	134,860,056	48.2
2014	45,032,047	7,851,924	37,180,123	172,040,179	61.4
2015	17,375,376	2,433,924	14,941,452	186,981,631	66.8
2016	12,177,446	1,163,353	11,014,093	197,995,724	70.7
2017	24,182,603	1,561,671	22,620,932	220,616,656	78.8
2018	12,673,624	1,402,772	11,270,852	231,887,508	82.8
2019	21,048,902	1,407,065	19,641,837	251,529,345	89.8
2020	18,394,174	1,147,422	17,246,752	268,776,097	96.0

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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)
2021	30,499,998	1,476,508	29,023,490	297,799,587	106.3
2022	16,038,890	169,545	15,869,345	313,668,932	112.0
9999	40,131,837-	6,542,361-	33,589,476-	280,079,456	100.0
SUBTOTAL	354,391,703	74,312,247	280,079,456		
NONDEPRECIABLE	2,992,204		2,992,204		
TOTAL	357,383,907	74,312,247	283,071,660		

NET UTILITY PLANT IN SERVICE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2007	17,062.74	6,269	2,713	14,350	26.69	538
2008	110,930.43	38,448	16,638	94,292	27.34	3,449
2009	173,398.79	56,181	24,311	149,088	28.17	5,292
2011	8,461.07	2,364	1,023	7,438	29.65	251
2013	100,199.49	23,326	10,094	90,105	31.31	2,878
2014	14,647.84	3,063	1,325	13,323	32.15	414
2015	41,627.30	7,743	3,351	38,276	32.82	1,166
2016	36,467.39	5,900	2,553	33,914	33.66	1,008
2017	196,841.99	27,066	11,712	185,130	34.50	5,366
2018	185,182.66	21,000	9,087	176,096	35.18	5,006
2019	280,523.13	24,854	10,755	269,768	36.02	7,489
2020	51,474.01	3,284	1,421	50,053	36.71	1,363
2021	131,938.18	5,093	2,205	129,733	37.41	3,468
2022	23,956.25	314	135	23,821	37.67	632
	1,372,711.27	224,905	97,323	1,275,388		38,320

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 33.3   2.79

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1965	46,581.09	35,085	46,581			
1976	25,551.31	17,347	25,144	407	21.99	19
1978	10,858.75	7,152	10,367	492	23.07	21
1980	3,169.77	2,034	2,948	222	23.72	9
1982	28,811.94	18,088	26,218	2,594	24.01	108
1983	84,587.98	52,123	75,551	9,037	24.60	367
1984	29,865.10	18,167	26,332	3,533	24.79	143
1985	139,912.20	83,947	121,678	18,234	25.00	729
1986	66,617.18	39,144	56,738	9,879	25.61	386
1987	29,057.12	16,812	24,368	4,689	25.85	181
1988	76,429.93	43,504	63,058	13,372	26.11	512
1989	88,626.22	49,578	71,862	16,764	26.38	635
1991	280,050.98	150,835	218,630	61,421	26.98	2,277
1992	75,271.21	39,713	57,563	17,708	27.31	648
1993	478,529.23	247,017	358,043	120,486	27.65	4,358
1994	48,228.24	24,326	35,260	12,968	28.00	463
1996	23,777.58	11,468	16,622	7,156	28.45	252
1997	102,821.33	48,244	69,928	32,893	28.85	1,140
1998	220,624.42	101,090	146,526	74,098	28.97	2,558
1999	10,990.30	4,882	7,076	3,914	29.41	133
2000	6,934.71	2,996	4,343	2,592	29.58	88
2001	176,516.13	73,996	107,255	69,261	29.78	2,326
2002	9,593.10	3,874	5,615	3,978	30.26	131
2003	267,599.43	104,364	151,272	116,327	30.50	3,814
2004	100,161.41	37,621	54,530	45,631	30.76	1,483
2005	9,007.43	3,247	4,706	4,301	31.04	139
2006	918,353.51	316,648	458,970	459,384	31.35	14,653
2007	511,108.09	168,768	244,623	266,485	31.45	8,473
2008	49,735.80	15,577	22,578	27,158	31.80	854
2009	2,905,269.04	862,865	1,250,694	1,654,575	31.95	51,786
2010	1,278,821.34	358,070	519,010	759,811	32.14	23,641
2011	14,453.63	3,790	5,493	8,961	32.36	277
2013	180,417.01	40,449	58,629	121,788	32.87	3,705
2014	4,016,940.35	822,669	1,192,432	2,824,508	33.00	85,591
2015	1,544,216.54	284,908	412,965	1,131,252	33.15	34,125
2016	542,257.67	88,496	128,272	413,986	33.34	12,417
2017	461,463.16	64,974	94,178	367,285	33.56	10,944
2018	396,952.92	46,801	67,836	329,117	33.67	9,775
2019	10,197.63	961	1,393	8,805	33.67	262
2020	674,578.94	46,546	67,467	607,112	33.73	17,999

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2021	1,729,346.93	74,016	107,283	1,622,064	33.59	48,290
2022	313,926.32	4,646	6,735	307,191	33.40	9,197
9999	2,734,528.70-	674,478-	976,984-	1,757,545-		53,952-
	15,253,684.27	3,762,360	5,449,788	9,803,896		300,957

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 32.6 1.97

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

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						
1932	518.52	483	428	91	6.58	14
1946	480.41	415	368	112	12.00	9
1957	132,703.31	106,906	94,791	37,912	15.80	2,399
1961	336,088.48	262,485	232,740	103,348	17.24	5,995
1965	52,471.27	39,521	35,042	17,429	18.84	925
1967	23,767.19	17,676	15,673	8,094	19.13	423
1973	37,566.56	26,221	23,250	14,317	21.42	668
1975	409,827.28	280,322	248,556	161,271	21.94	7,351
1976	17,047.54	11,574	10,262	6,786	21.99	309
1984	680,280.73	413,815	366,921	313,360	24.79	12,641
1985	131,381.62	78,829	69,896	61,486	25.00	2,459
1986	168,379.16	98,940	87,728	80,651	25.61	3,149
1988	1,103,341.07	628,022	556,854	546,487	26.11	20,930
1989	98,116.63	54,886	48,666	49,451	26.38	1,875
1992	1,430,211.26	754,579	669,070	761,141	27.31	27,870
1993	240,209.03	123,996	109,945	130,264	27.65	4,711
1994	16,434.25	8,289	7,350	9,084	28.00	324
1996	590,050.61	284,581	252,332	337,719	28.45	11,871
1997	68,792.31	32,277	28,619	40,173	28.85	1,392
1998	591,814.98	271,170	240,441	351,374	28.97	12,129
2000	6,404,916.32	2,766,924	2,453,374	3,951,542	29.58	133,588
2001	402,601.53	168,771	149,646	252,956	29.78	8,494
2002	160,852.43	64,952	57,592	103,260	30.26	3,412
2003	12,700.50	4,953	4,392	8,308	30.50	272
2004	15,393.20	5,782	5,127	10,266	30.76	334
2005	528,313.66	190,457	168,874	359,440	31.04	11,580
2006	437,461.41	150,837	133,744	303,717	31.35	9,688
2007	3,253.85	1,074	952	2,302	31.45	73
2009	16,152,483.27	4,797,288	4,253,656	11,898,827	31.95	372,420
2010	4,984,198.05	1,395,575	1,237,427	3,746,771	32.14	116,577
2011	86,793.35	22,757	20,178	66,615	32.36	2,059
2012	9,636.74	2,348	2,082	7,555	32.60	232
2013	161,321.31	36,168	32,069	129,252	32.87	3,932
2014	9,974,285.97	2,042,734	1,811,250	8,163,036	33.00	247,365
2015	44,335.83	8,180	7,253	37,083	33.15	1,119
2016	18,548.14	3,027	2,684	15,864	33.34	476
2017	800,572.84	112,721	99,947	700,626	33.56	20,877
2018	192,876.70	22,740	20,163	172,714	33.67	5,130
2019	205,671.01	19,374	17,179	188,492	33.67	5,598
2020	2,064,578.88	142,456	126,313	1,938,266	33.73	57,464

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.40 STRUCTURES AND IMPROVEMENTS - TDP

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						
2021	5,291,733.71	226,486	200,821	5,090,913	33.59	151,560
2022	960,591.35	14,217	12,606	947,985	33.40	28,383
9999	1,853,012.73-	528,367-	468,493-	1,384,520-		43,700-
	53,189,589.53	15,166,441	13,447,768	39,741,821		1,254,377

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 31.7 2.36

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 354.70 STRUCTURES AND IMPROVEMENTS - GENERAL

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-S1						
NET SALVAGE PERCENT.. 0						
1972	385.16	348	385			
1984	10,337.16	8,398	10,337			
1992	14,129.94	10,257	14,130			
1993	16,084.98	11,436	16,085			
1994	27,754.02	19,378	27,754			
1997	5,608.93	3,676	5,609			
2002	1,034.89	592	1,035			
2003	41,724.82	23,107	41,725			
2007	1,118.25	525	1,118			
2008	356,623.24	159,268	341,345	15,278	17.97	850
2009	79,757.08	33,705	72,237	7,520	18.45	408
2010	38,450.48	15,284	32,757	5,693	18.95	300
2011	7,029.54	2,611	5,596	1,434	19.46	74
2012	28,211.35	9,716	20,823	7,388	19.99	370
2013	25,072.41	7,908	16,949	8,123	20.62	394
2014	411,255.04	117,783	252,434	158,821	21.18	7,499
2015	1,017,200.93	260,912	559,190	458,011	21.74	21,068
2016	9,147.88	2,057	4,409	4,739	22.40	212
2017	131,257.36	25,267	54,153	77,104	23.07	3,342
2018	372,051.00	59,268	127,024	245,027	23.75	10,317
2019	82,920.76	10,365	22,214	60,707	24.51	2,477
2020	118,395.54	10,656	22,838	95,558	25.28	3,780
2021	303,236.22	16,466	35,290	267,946	26.12	10,258
2022	55,039.89	1,002	2,147	52,892	26.97	1,961
	3,153,826.87	809,985	1,687,584	1,466,242		63,310

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 23.2   2.01

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1983	18,550.00	14,873	18,550			
1987	19,246.40	14,689	19,246			
1989	49,338.78	36,530	49,339			
1992	62,034.60	43,896	62,035			
1993	201,611.77	139,757	201,612			
1994	20,325.00	13,845	20,325			
1997	30,447.00	19,486	30,447			
1998	12,580.62	7,860	12,581			
2001	38,477.83	22,171	36,992	1,486	15.81	94
2002	62,407.82	34,923	58,268	4,140	16.13	257
2005	68,295.28	34,421	57,431	10,864	17.22	631
2007	12,208.69	5,658	9,440	2,769	17.95	154
2008	183,720.69	80,984	135,120	48,601	18.39	2,643
2009	2,574,089.51	1,077,256	1,797,380	776,710	18.76	41,402
2010	20,681.36	8,169	13,630	7,051	19.15	368
2011	14,376.97	5,324	8,883	5,494	19.56	281
2012	27,649.83	9,523	15,889	11,761	19.99	588
2013	26,762.41	8,516	14,209	12,553	20.35	617
2014	609,803.14	177,270	295,771	314,032	20.74	15,141
2015	90,933.42	23,806	39,720	51,213	21.15	2,421
2016	10,498.31	2,429	4,053	6,445	21.59	299
2017	13,046.73	2,612	4,358	8,689	21.97	395
2018	4,307.88	721	1,203	3,105	22.38	139
2019	9,195.02	1,223	2,040	7,155	22.82	314
9999	144,517.16-	61,738-	100,544-	43,973-		2,273-
	4,036,071.90	1,724,204	2,807,978	1,228,094		63,471

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 19.3 1.57

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1957	10,856.45	8,462	3,882	6,974	18.54	376
1965	12,959.49	9,240	4,239	8,720	23.15	377
1973	123,344.13	78,768	36,137	87,207	28.02	3,112
1974	1,477,106.93	931,316	427,267	1,049,840	28.42	36,940
1975	835,485.82	519,839	238,491	596,995	28.84	20,700
1976	955,912.94	582,342	267,166	688,747	29.83	23,089
1977	451,909.50	271,417	124,520	327,390	30.26	10,819
1978	266,473.98	156,527	71,811	194,663	31.26	6,227
1979	72,748.44	42,092	19,311	53,437	31.68	1,687
1980	74,141.90	42,224	19,371	54,771	32.13	1,705
1981	158,984.93	88,412	40,561	118,424	33.13	3,575
1982	52,862.06	28,905	13,261	39,601	33.57	1,180
1983	190,292.41	101,464	46,549	143,743	34.58	4,157
1985	306,929.69	156,534	71,814	235,116	36.03	6,526
1986	32,625.08	16,313	7,484	25,141	36.50	689
1987	224,003.83	108,955	49,986	174,018	37.49	4,642
1988	400,232.22	190,551	87,421	312,811	37.96	8,241
1989	91,406.36	42,257	19,387	72,019	38.96	1,849
1991	74,950.77	33,053	15,164	59,787	39.93	1,497
1992	34,462.73	14,716	6,751	27,712	40.93	677
1993	600,373.18	249,755	114,582	485,791	41.42	11,728
1994	307,208.37	123,436	56,630	250,578	42.43	5,906
1996	131,657.36	49,543	22,729	108,928	43.92	2,480
1997	1,379,351.77	502,912	230,725	1,148,627	44.43	25,853
1998	463,580.36	162,439	74,523	389,057	45.43	8,564
1999	209,412.67	70,865	32,511	176,902	45.94	3,851
2000	487,436.56	157,929	72,454	414,983	46.94	8,841
2001	871,346.89	269,769	123,764	747,583	47.94	15,594
2002	554,456.72	164,785	75,600	478,857	48.47	9,879
2003	384,818.29	108,827	49,927	334,891	49.46	6,771
2004	2,037,070.46	550,213	252,426	1,784,644	49.99	35,700
2005	178,159.51	45,520	20,884	157,276	50.99	3,084
2006	1,976,965.35	479,612	220,035	1,756,930	51.52	34,102
2007	1,148,322.84	261,588	120,011	1,028,312	52.53	19,576
2008	2,639,741.42	566,489	259,893	2,379,848	53.07	44,844
2009	534,986.91	106,890	49,039	485,948	54.07	8,987
2010	368,128.28	68,545	31,447	336,681	54.62	6,164
2013	306,342.71	43,654	20,027	286,316	57.17	5,008
2014	4,412,747.87	562,625	258,120	4,154,628	58.17	71,422
2015	2,388,759.22	270,408	124,057	2,264,702	58.73	38,561
2016	3,141,711.24	308,516	141,540	3,000,171	59.72	50,237

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 360.10 COLLECTION SEWERS - FORCE MAINS

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

SURVIVOR CURVE.. IOWA 75-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)
2017	12,171,506.85	1,017,538	466,824	11,704,683	60.29	194,140
2018	1,163,811.52	80,070	36,734	1,127,078	60.86	18,519
2019	4,204,777.57	225,376	103,398	4,101,380	61.86	66,301
2020	688,807.59	26,519	12,166	676,642	62.44	10,837
2021	908,529.60	21,260	9,754	898,776	62.60	14,357
2022	1,067,550.52	8,434	3,869	1,063,682	62.79	16,940
9999	11,408,879.75-	2,239,333-	1,027,356-	10,381,524-		197,680-
	39,166,371.54	7,687,571	3,526,886	35,639,485		678,631

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 52.5 1.73

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1915	27,440.40	25,075	17,928	9,512	10.14	938
1920	67,518.04	60,901	43,542	23,976	11.14	2,152
1929	12,187.59	10,712	7,659	4,529	12.88	352
1930	152,174.82	133,731	95,612	56,563	12.76	4,433
1935	11,241.85	9,640	6,892	4,350	14.54	299
1939	43,541.77	36,357	25,994	17,548	16.50	1,064
1945	37,031.24	29,847	21,339	15,692	18.65	841
1946	76,779.19	61,669	44,091	32,688	18.74	1,744
1955	35,731.55	26,531	18,969	16,763	23.41	716
1957	1,279,157.38	938,390	670,912	608,245	23.79	25,567
1961	9,973.98	6,993	5,000	4,974	26.22	190
1962	27,937.09	19,439	13,898	14,039	26.45	531
1965	507,994.26	338,832	242,252	265,742	28.71	9,256
1968	32,627.99	20,983	15,002	17,626	30.25	583
1969	379,077.88	241,321	172,535	206,543	30.54	6,763
1974	109,448.82	64,761	46,302	63,147	33.47	1,887
1975	1,363,986.91	790,430	565,127	798,860	34.47	23,176
1976	238,060.77	136,171	97,357	140,704	34.80	4,043
1977	169,543.10	94,876	67,833	101,710	35.80	2,841
1978	76,942.71	42,457	30,355	46,588	36.15	1,289
1979	31,671.26	17,083	12,214	19,457	37.15	524
1982	44,564.85	22,741	16,259	28,306	38.87	728
1983	432,707.12	217,046	155,179	277,528	39.24	7,073
1984	2,537,195.08	1,240,688	887,044	1,650,151	40.24	41,008
1985	787,825.45	378,156	270,367	517,458	40.62	12,739
1986	614,270.27	289,198	206,765	407,505	41.02	9,934
1987	69,081.20	31,639	22,621	46,460	42.02	1,106
1988	791,554.14	355,012	253,820	537,734	42.42	12,676
1989	2,302,058.53	1,002,546	716,781	1,585,278	43.42	36,510
1990	495,682.06	211,061	150,900	344,782	43.83	7,866
1992	488,761.12	196,775	140,686	348,075	45.26	7,691
1993	5,847,956.60	2,294,738	1,640,649	4,207,308	45.68	92,104
1994	237,258.20	89,921	64,290	172,968	46.69	3,705
1995	725,040.86	267,178	191,022	534,019	47.13	11,331
1996	235,356.70	84,211	60,208	175,149	47.57	3,682
1997	3,289,160.99	1,132,129	809,428	2,479,733	48.58	51,044
1998	1,821,928.38	607,067	434,029	1,387,899	49.03	28,307
1999	46,049.88	14,718	10,523	35,527	50.03	710
2000	950,184.98	292,847	209,374	740,811	50.50	14,670
2001	640,872.19	190,147	135,948	504,924	50.96	9,908
2002	1,099,837.90	311,144	222,456	877,382	51.96	16,886

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2003	363,674.99	98,556	70,464	293,211	52.45	5,590
2004	409,700.71	106,112	75,866	333,835	52.93	6,307
2005	2,842,424.58	696,394	497,895	2,344,530	53.93	43,474
2006	1,635,296.20	380,370	271,950	1,363,346	54.43	25,048
2007	2,549,188.07	561,076	401,147	2,148,041	54.92	39,112
2008	3,004,483.77	623,130	445,514	2,558,970	55.43	46,166
2009	6,526,781.88	1,259,669	900,614	5,626,168	56.43	99,702
2010	3,576,136.66	643,705	460,224	3,115,913	56.94	54,723
2011	418,538.66	69,812	49,913	368,626	57.46	6,415
2012	1,415,797.09	217,042	155,177	1,260,620	57.99	21,739
2013	4,222,754.13	589,496	421,467	3,801,287	58.53	64,946
2014	11,127,506.49	1,399,840	1,000,831	10,126,675	59.07	171,435
2015	4,594,294.02	513,642	367,234	4,227,060	59.61	70,912
2016	5,933,339.77	578,501	413,606	5,519,734	60.17	91,736
2017	7,620,718.63	637,092	455,496	7,165,223	60.29	118,846
2018	4,527,771.35	313,775	224,337	4,303,434	60.44	71,202
2019	8,606,019.68	466,446	333,490	8,272,530	61.02	135,571
2020	6,189,814.79	244,498	174,807	6,015,008	60.79	98,947
2021	8,170,721.99	198,549	141,955	8,028,767	60.23	133,302
2022	8,212,954.64	70,631	50,498	8,162,457	57.98	140,781
9999	13,428,959.64-	2,460,413-	1,759,100-	11,669,860-		212,995-
	106,666,373.56	19,543,084	13,972,547	92,693,827		1,691,826

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 54.8   1.59

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1939	30,783.52	29,817	17,278	13,506	2.71	4,984
1946	4,960.92	4,706	2,727	2,234	4.15	538
1955	5,531.86	5,078	2,943	2,589	6.03	429
1965	47,142.20	41,202	23,875	23,267	8.29	2,807
1968	32,143.83	27,679	16,039	16,105	8.79	1,832
1969	77,231.79	66,110	38,309	38,923	9.00	4,325
1974	16,821.30	13,787	7,989	8,832	10.67	828
1977	40,477.16	32,228	18,675	21,802	11.65	1,871
1984	92,897.11	67,239	38,963	53,934	14.69	3,671
1985	163,636.21	116,591	67,561	96,075	15.13	6,350
1986	104,416.04	73,175	42,403	62,013	15.58	3,980
1990	21,658.78	14,009	8,118	13,541	17.75	763
1992	115,081.02	70,901	41,085	73,996	19.00	3,895
1993	106,015.59	63,482	36,786	69,230	19.76	3,504
1994	54,526.97	31,855	18,459	36,068	20.28	1,779
1995	19,868.37	11,255	6,522	13,346	21.04	634
1996	39,310.67	21,668	12,556	26,755	21.58	1,240
1997	1,028,586.58	548,237	317,686	710,901	22.34	31,822
1998	247,421.33	127,298	73,765	173,656	23.12	7,511
1999	32,917.08	16,320	9,457	23,460	23.90	982
2000	192,107.19	91,635	53,100	139,007	24.67	5,635
2001	231,087.85	105,838	61,330	169,758	25.45	6,670
2002	199,282.66	87,425	50,660	148,623	26.23	5,666
2003	115,237.16	48,307	27,992	87,245	27.01	3,230
2004	240,503.06	96,105	55,690	184,813	27.80	6,648
2005	874,337.51	332,073	192,426	681,912	28.58	23,860
2006	19,849.85	7,106	4,118	15,732	29.59	532
2007	1,564,389.37	528,607	306,312	1,258,077	30.37	41,425
2008	677,124.92	215,055	124,618	552,507	31.16	17,731
2009	121,425.99	35,894	20,799	100,627	32.16	3,129
2010	212,690.77	58,235	33,745	178,946	33.16	5,396
2011	37,432.94	9,471	5,488	31,945	33.95	941
2012	21,643.98	5,000	2,897	18,747	34.95	536
2013	1,023,113.08	213,831	123,909	899,204	35.95	25,013
2014	2,194,106.11	410,298	237,755	1,956,351	36.95	52,946
2015	5,488,874.82	910,055	527,349	4,961,526	37.75	131,431
2016	289,262.53	41,538	24,070	265,193	38.75	6,844
2017	372,829.90	45,336	26,271	346,559	39.75	8,718
2018	8,283.49	823	477	7,806	40.75	192
2019	43,323.32	3,353	1,943	41,380	41.75	991
2020	487,359.77	26,902	15,589	471,771	42.75	11,036

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2021	480,787.68	15,962	9,249	471,539	43.75	10,778
2022	480,787.68	5,289	3,065	477,723	44.75	10,675
9999	4,387,312.76-	1,162,041-	673,367-	3,713,946-		115,233-
	13,269,957.20	3,514,734	2,036,681	11,233,276		348,535

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 32.2   2.63

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1955	1,044.89	1,002	836	209	2.92	72
1957	104,385.92	99,146	82,762	21,624	3.46	6,250
1961	610.32	571	477	133	4.29	31
1962	2,074.11	1,932	1,613	461	4.44	104
1965	40,114.02	36,672	30,612	9,502	5.40	1,760
1968	9,721.74	8,742	7,297	2,425	6.11	397
1969	12,555.06	11,217	9,363	3,192	6.38	500
1970	400.64	355	296	105	6.67	16
1971	458.72	404	337	122	6.98	17
1972	502.38	439	366	136	7.31	19
1973	2,100.71	1,820	1,519	582	7.65	76
1974	10,420.20	8,895	7,425	2,995	8.32	360
1975	159,027.50	134,458	112,239	46,788	8.68	5,390
1976	51,124.22	42,791	35,720	15,404	9.06	1,700
1977	50,734.14	42,013	35,070	15,664	9.45	1,658
1978	29,934.85	24,511	20,461	9,474	9.85	962
1979	38,254.01	30,951	25,836	12,418	10.26	1,210
1980	334,889.60	266,170	222,186	112,704	10.97	10,274
1981	66,877.57	52,459	43,790	23,088	11.41	2,023
1982	55,383.85	42,845	35,765	19,619	11.85	1,656
1983	133,535.28	101,807	84,984	48,551	12.31	3,944
1984	236,269.00	176,469	147,308	88,961	13.05	6,817
1985	159,974.76	117,581	98,151	61,824	13.52	4,573
1986	166,903.96	120,621	100,689	66,215	14.01	4,726
1987	161,639.54	114,182	95,314	66,326	14.75	4,497
1988	202,374.34	140,326	117,138	85,236	15.25	5,589
1989	297,402.02	202,233	168,815	128,587	15.76	8,159
1990	100,718.71	66,777	55,742	44,977	16.52	2,723
1991	76,553.36	49,675	41,466	35,087	17.04	2,059
1992	85,297.16	53,857	44,957	40,340	17.81	2,265
1993	571,498.65	352,386	294,155	277,344	18.34	15,122
1994	90,287.45	54,037	45,108	45,179	19.12	2,363
1995	87,097.53	50,778	42,387	44,711	19.67	2,273
1996	92,527.63	52,223	43,593	48,935	20.45	2,393
1997	429,243.52	235,311	196,427	232,817	21.01	11,081
1998	352,465.79	186,525	155,702	196,764	21.80	9,026
1999	149,287.57	76,480	63,842	85,446	22.37	3,820
2000	472,822.13	233,007	194,503	278,319	23.16	12,017
2001	169,513.25	80,180	66,931	102,582	23.95	4,283
2002	282,454.48	128,545	107,303	175,151	24.55	7,134
2003	194,981.86	84,778	70,769	124,213	25.35	4,900

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2004	729,254.85	302,203	252,265	476,990	26.14	18,248
2005	320,906.46	126,919	105,946	214,960	26.75	8,036
2006	856,214.45	320,738	267,737	588,477	27.55	21,360
2007	481,854.25	170,287	142,148	339,706	28.36	11,978
2008	505,013.23	167,664	139,958	365,055	29.17	12,515
2009	2,521,693.73	782,986	653,600	1,868,094	29.98	62,311
2010	472,565.91	137,044	114,398	358,168	30.60	11,705
2011	171,533.52	45,971	38,374	133,160	31.42	4,238
2012	215,916.61	53,051	44,285	171,632	32.24	5,324
2013	568,589.58	126,909	105,938	462,652	33.06	13,994
2014	987,386.28	198,070	165,340	822,046	33.87	24,271
2015	1,173,380.56	208,627	174,152	999,229	34.69	28,805
2016	680,435.92	105,740	88,267	592,169	35.34	16,756
2017	1,199,469.40	158,330	132,166	1,067,303	36.17	29,508
2018	772,550.40	83,744	69,906	702,644	37.00	18,990
2019	530,529.41	45,095	37,643	492,886	37.65	13,091
2020	2,403,155.02	146,592	122,368	2,280,787	38.48	59,272
2021	2,291,026.51	84,539	70,569	2,220,458	39.15	56,717
2022	2,291,857.28	28,877	24,106	2,267,751	39.34	57,645
9999	3,824,000.91-	1,051,280-	877,559-	2,946,442-		97,552-
	20,832,794.90	5,727,277	4,780,861	16,051,934		531,451

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 30.2 2.55

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1989	5,317.10	5,094	3,630	1,687	1.47	1,148
1992	7,284.72	6,843	4,876	2,409	1.97	1,223
2005	8,722.16	7,067	5,036	3,686	4.10	899
2006	6,468.54	5,144	3,666	2,803	4.25	660
2007	9,030.61	7,055	5,027	4,004	4.34	923
2008	29,418.95	22,523	16,050	13,369	4.44	3,011
2009	92,082.61	68,869	49,077	43,006	4.55	9,452
2010	19,205.24	13,947	9,939	9,266	4.71	1,967
2013	26,874.75	16,902	12,044	14,831	5.61	2,644
2014	152,434.49	89,022	63,438	88,996	6.06	14,686
2015	4,972.70	2,644	1,884	3,089	6.60	468
2016	8,070.58	3,819	2,721	5,350	7.24	739
2018	1,269.20	435	310	959	8.64	111
9999	14,726.81-	9,894-	7,050-	7,676-		1,505-
	356,424.84	239,470	170,648	185,777		36,426

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 5.1   10.22

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 365.00 FLOW MEASURING INSTALLATIONS

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

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUTURE BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
SURVIVOR CURVE.. IOWA 25-S2						
NET SALVAGE PERCENT.. 0						
2009	14,938.00	8,309	2,513	12,425	10.77	1,154
	14,938.00	8,309	2,513	12,425		1,154

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.8 7.73

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 370.00 RECEIVING WELLS

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						
2007	6,261.10	2,086	1,956	4,305	31.01	139
2009	92,112.20	27,109	25,418	66,694	32.37	2,060
2013	33,467.05	7,058	6,618	26,849	35.55	755
2017	1,547.02	192	180	1,367	38.75	35
2019	10,032.40	801	751	9,282	40.36	230
	143,419.77	37,246	34,923	108,497		3,219

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 33.7   2.24

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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)
1985	280.83	236	173	108	7.14	15
1986	78,840.22	65,327	47,828	31,012	7.55	4,108
1989	4,172.58	3,327	2,436	1,737	8.52	204
1992	104,120.43	79,715	58,362	45,758	9.34	4,899
1993	22,483.60	16,912	12,382	10,102	9.72	1,039
1994	17,479.16	12,903	9,447	8,032	10.11	794
1996	52,392.57	37,345	27,342	25,051	10.68	2,346
1997	30,381.51	21,228	15,542	14,840	11.00	1,349
1999	39,217.33	26,174	19,163	20,054	11.71	1,713
2001	18,515.20	11,742	8,597	9,918	12.40	800
2003	123,260.13	73,549	53,848	69,412	13.18	5,266
2004	156,104.03	90,384	66,173	89,931	13.45	6,686
2005	73,769.91	41,178	30,148	43,622	13.85	3,150
2006	52,700.35	28,348	20,755	31,945	14.17	2,254
2007	5,828.72	2,999	2,196	3,633	14.62	248
2008	349,298.64	171,715	125,718	223,581	15.00	14,905
2009	606,867.81	284,257	208,114	398,754	15.32	26,028
2010	283,456.49	125,429	91,831	191,625	15.75	12,167
2011	38,188.10	15,898	11,639	26,549	16.12	1,647
2012	19,232.74	7,472	5,471	13,762	16.53	833
2013	37,074.43	13,347	9,772	27,302	16.89	1,616
2014	1,801,011.48	593,974	434,869	1,366,142	17.27	79,105
2015	225,358.35	67,112	49,135	176,223	17.69	9,962
2016	643,852.07	169,913	124,399	519,453	18.13	28,652
2017	396,732.83	90,772	66,457	330,276	18.54	17,814
2018	391,294.24	75,207	55,062	336,232	18.92	17,771
2019	5,167,013.24	792,103	579,926	4,587,087	19.33	237,304
2020	2,473,100.21	278,224	203,698	2,269,402	19.72	115,081
2022	162,000.00	3,888	2,847	159,153	20.38	7,809
9999	66,626.22-	15,945-	11,674-	54,952-		3,017-
	13,307,400.98	3,184,733	2,331,656	10,975,745		602,548

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 18.2 4.53

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 380.00 TREATMENT 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-S1.5						
NET SALVAGE PERCENT.. 0						
1957	14,397.98	14,146	11,393	3,005	1.17	2,568
1965	68,436.61	64,933	52,295	16,142	3.10	5,207
1967	146,096.01	137,038	110,365	35,731	3.67	9,736
1973	836.79	758	610	227	5.15	44
1981	4,096.91	3,502	2,820	1,277	7.04	181
1984	541,028.26	447,863	360,693	180,335	8.01	22,514
1985	448,805.64	368,559	296,824	151,982	8.16	18,625
1986	656,727.54	532,146	428,571	228,157	8.55	26,685
1987	189,963.41	151,743	122,208	67,755	8.94	7,579
1989	774,414.47	604,508	486,849	287,565	9.42	30,527
1990	8,232.04	6,314	5,085	3,147	9.87	319
1992	777,733.97	578,790	466,137	311,597	10.48	29,733
1993	3,271,299.62	2,383,469	1,919,560	1,351,740	10.99	122,997
1994	56,350.25	40,313	32,467	23,883	11.34	2,106
1995	7,083.55	4,967	4,000	3,084	11.72	263
1996	24,940.09	17,119	13,787	11,153	12.11	921
1997	19,455.07	13,047	10,508	8,947	12.52	715
1998	3,572.27	2,337	1,882	1,690	12.95	131
1999	16,775.81	10,723	8,636	8,140	13.26	614
2001	64,093.42	38,584	31,074	33,019	14.21	2,324
2002	348,348.65	202,809	163,335	185,014	14.71	12,577
2004	349,288.95	188,686	151,961	197,328	15.75	12,529
2005	1,388,174.37	719,074	579,116	809,058	16.28	49,696
2006	279,476.45	138,341	111,415	168,061	16.83	9,986
2007	30,510.07	14,376	11,578	18,932	17.39	1,089
2008	804,431.70	359,259	289,334	515,098	17.97	28,664
2009	18,083,441.53	7,616,746	6,134,252	11,949,190	18.55	644,161
2010	9,619,965.98	3,799,887	3,060,292	6,559,674	19.15	342,542
2011	18,070.50	6,628	5,338	12,732	19.85	641
2012	743,623.81	252,237	203,143	540,481	20.46	26,416
2013	2,897,848.99	897,464	722,785	2,175,064	21.17	102,743
2014	8,823,974.04	2,467,183	1,986,980	6,836,994	21.90	312,192
2015	674,466.04	167,942	135,254	539,212	22.62	23,838
2016	453,712.16	98,501	79,329	374,383	23.44	15,972
2017	661,437.08	122,630	98,762	562,675	24.17	23,280
2018	3,452,324.74	526,825	424,286	3,028,039	25.00	121,122
2019	1,098,262.60	131,133	105,610	992,653	25.82	38,445
2020	1,581,130.31	135,187	108,875	1,472,255	26.74	55,058

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 380.00 TREATMENT 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-S1.5						
NET SALVAGE PERCENT.. 0						
2021	8,344,959.53	428,931	345,445	7,999,515	27.66	289,209
2022	1,160,000.00	19,952	16,069	1,143,931	28.57	40,040
9999	2,200,080.47-	768,309-	618,769-	1,581,312-		78,857-
	65,707,706.74	22,946,341	18,480,154	47,227,552		2,355,132

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 20.1 3.58

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2008	294,411.86	92,210	82,988	211,424	31.80	6,649
2009	4,434,866.70	1,305,181	1,174,652	3,260,215	32.37	100,717
2010	1,187,964.50	325,265	292,736	895,228	33.16	26,997
2011	6,597.06	1,669	1,502	5,095	33.95	150
2012	1,684.33	391	352	1,332	34.75	38
2014	234,318.33	44,427	39,984	194,334	36.34	5,348
2015	7,458.23	1,253	1,128	6,330	37.14	170
2016	45,239.43	6,614	5,952	39,287	37.95	1,035
9999	30,192.33-	8,636-	7,772-	22,420-		686-
	6,182,348.11	1,768,374	1,591,522	4,590,827		140,418

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 32.7   2.27

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1957	12,139.53	11,370	11,307	833	4.43	188
1975	4,984.00	4,096	4,073	911	10.30	88
1993	202,475.94	118,853	118,191	84,285	20.75	4,062
2004	1,695.94	665	661	1,035	28.67	36
2005	9,240.93	3,445	3,426	5,815	29.45	197
2006	201,117.58	71,015	70,619	130,499	30.23	4,317
2009	26,051.26	7,667	7,624	18,427	32.37	569
2010	27,827.93	7,619	7,577	20,251	33.16	611
2014	100,422.48	19,040	18,934	81,488	36.34	2,242
2017	18,433.32	2,291	2,278	16,155	38.75	417
	604,388.91	246,061	244,690	359,698		12,727

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 28.3   2.11

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2010	273,149.74	171,046	168,475	104,675	7.46	14,032
2013	8,814.50	4,421	4,355	4,460	9.44	472
2018	32,175.41	7,947	7,827	24,348	13.72	1,775
2019	268,065.51	51,683	50,906	217,159	14.65	14,823
	582,205.16	235,097	231,563	350,642		31,102

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 11.3 5.34

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 389.60 OTHER PLANT AND MISCELLANEOUS EQUIPMENT - CPS

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.. 5-SQUARE						
NET SALVAGE PERCENT.. 0						
2020	57,500.00	28,750	25,655	31,845	2.50	12,738
2021	1,597,500.00	479,250	427,650	1,169,850	3.50	334,243
2022	52,500.00	5,250	4,684	47,816	4.50	10,626
	1,707,500.00	513,250	457,989	1,249,511		357,607

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 3.5 20.94

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2008	3,529.23	2,559	1,272	2,257	5.50	410
2009	52,251.63	35,270	17,534	34,718	6.50	5,341
2010	7,240.80	4,526	2,250	4,991	7.50	665
2012	7,908.11	4,152	2,064	5,844	9.50	615
2013	18,309.85	8,697	4,324	13,986	10.50	1,332
2015	2,488.32	933	464	2,024	12.50	162
2016	17,826.99	5,794	2,880	14,947	13.50	1,107
2017	28,119.56	7,733	3,844	24,276	14.50	1,674
2018	10,405.16	2,341	1,164	9,241	15.50	596
2019	20,626.43	3,610	1,795	18,832	16.50	1,141
	168,706.08	75,615	37,591	131,115		13,043

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.1 7.73

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2006	25,407.39	22,511	21,108	4,299	2.12	2,028
2011	100,913.84	79,036	74,111	26,803	3.18	8,429
2012	64,091.36	47,242	44,298	19,793	3.75	5,278
2013	57,589.69	39,282	36,834	20,756	4.43	4,685
2016	2,403.72	1,173	1,100	1,304	6.81	191
2017	8,509.55	3,533	3,313	5,197	7.75	671
2018	927,703.39	315,976	296,288	631,415	8.71	72,493
2019	296,797.87	78,740	73,834	222,964	9.69	23,010
2020	536,928.00	101,748	95,408	441,520	10.69	41,302
2021	504,616.00	57,375	53,800	450,816	11.69	38,564
2022	509,880.00	19,324	18,119	491,761	12.69	38,752
	3,034,840.81	765,940	718,213	2,316,627		235,403

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 9.8 7.76

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2012	58,391.33	24,524	24,761	33,630	14.50	2,319
2017	2,199.71	484	489	1,711	19.50	88
2018	46,760.40	8,417	8,498	38,263	20.50	1,866
	107,351.44	33,425	33,748	73,604		4,273

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 17.2 3.98

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2005	8,276.87	7,242	6,702	1,575	2.50	630
2006	75,500.00	62,288	57,641	17,859	3.50	5,103
2007	6,695.14	5,189	4,802	1,893	4.50	421
2008	2,776.47	2,013	1,863	913	5.50	166
2009	378.54	256	237	142	6.50	22
2010	61,467.53	38,417	35,551	25,917	7.50	3,456
2012	53,547.52	28,112	26,014	27,534	9.50	2,898
2013	16,093.74	7,645	7,075	9,019	10.50	859
2014	36,416.31	15,477	14,322	22,094	11.50	1,921
2015	56,943.11	21,354	19,761	37,182	12.50	2,975
2016	107,176.04	34,832	32,233	74,943	13.50	5,551
2017	7,458.66	2,051	1,898	5,561	14.50	384
2018	94,551.82	21,274	19,687	74,865	15.50	4,830
2019	13,456.70	2,355	2,179	11,278	16.50	684
2020	353,392.32	44,174	40,878	312,514	17.50	17,858
2021	305,483.51	22,911	21,201	284,283	18.50	15,367
2022	305,483.51	7,637	7,068	298,416	19.50	15,303
	1,505,097.79	323,227	299,112	1,205,986		78,428

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 15.4   5.21

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2008	48,521.14	46,904	48,475	46	0.50	46
2009	41,773.44	37,596	38,855	2,918	1.50	1,945
2010	31,269.93	26,058	26,931	4,339	2.50	1,736
2011	16,488.52	12,641	13,064	3,425	3.50	979
2012	15,638.71	10,947	11,314	4,325	4.50	961
2013	5,917.50	3,748	3,874	2,044	5.50	372
2014	36,775.07	20,839	21,537	15,238	6.50	2,344
2015	12,751.71	6,376	6,590	6,162	7.50	822
2016	65,493.26	28,380	29,330	36,163	8.50	4,254
2017	48,566.17	17,808	18,404	30,162	9.50	3,175
2018	28,248.23	8,474	8,758	19,490	10.50	1,856
2019	56,408.91	13,162	13,603	42,806	11.50	3,722
2020	117,797.44	19,633	20,291	97,506	12.50	7,800
2021	101,827.84	10,183	10,524	91,304	13.50	6,763
2022	101,827.84	3,394	3,508	98,320	14.50	6,781
	729,305.71	266,143	275,058	454,248		43,556

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 10.4 5.97

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
1986	6,312.71	6,129	6,313			
1992	9,002.17	8,264	9,002			
1993	84,924.90	76,908	84,210	715	3.07	233
2002	69,579.11	53,492	58,570	11,009	6.17	1,784
2011	338,513.41	175,553	192,220	146,293	10.67	13,711
2015	3,210.33	1,180	1,292	1,918	12.91	149
2018	19,420.96	4,597	5,033	14,388	14.51	992
2020	133,416.65	18,705	20,481	112,936	15.33	7,367
2021	125,795.19	11,095	12,148	113,647	15.51	7,327
2022	127,470.00	4,130	4,522	122,948	14.93	8,235
9999	10,000.00-	3,924-	4,291-	5,709-		434-
	907,645.43	356,129	389,500	518,146		39,364

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 13.2 4.34

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2008	9,753.43	9,428	9,608	145	0.50	145
2009	521,963.46	469,767	478,723	43,240	1.50	28,827
2010	144,621.29	120,517	122,815	21,806	2.50	8,722
2011	4,370.98	3,351	3,415	956	3.50	273
2012	3,344.78	2,341	2,386	959	4.50	213
2013	263,689.84	167,003	170,187	93,503	5.50	17,001
2014	98,016.16	55,543	56,602	41,414	6.50	6,371
2016	172,002.57	74,534	75,955	96,048	8.50	11,300
2017	13,811.63	5,064	5,161	8,651	9.50	911
2018	12,412.19	3,724	3,795	8,617	10.50	821
2019	7,055.35	1,646	1,677	5,378	11.50	468
2020	339,244.08	56,542	57,620	281,624	12.50	22,530
2021	76,963.95	7,696	7,842	69,122	13.50	5,120
2022	76,963.95	2,565	2,614	74,350	14.50	5,128
	1,744,213.66	979,721	998,400	745,814		107,830

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 6.9   6.18

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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						
2008	20,048.36	19,380	20,048			
2009	6,270.00	5,643	6,270			
2010	4,161.94	3,468	4,162			
2011	14,880.36	11,408	14,880			
2012	15,424.61	10,797	15,425			
2013	16,427.62	10,404	15,945	483	5.50	88
2015	4,104.14	2,052	3,145	959	7.50	128
2017	28,080.87	10,296	15,780	12,301	9.50	1,295
2018	33,269.93	9,981	15,297	17,973	10.50	1,712
2019	123,794.18	28,885	44,269	79,525	11.50	6,915
2020	123,500.00	20,584	31,547	91,953	12.50	7,356
2021	135,530.70	13,553	20,772	114,759	13.50	8,501
2022	136,100.88	4,536	6,952	129,149	14.50	8,907
9999	29,000.00-	6,618-	9,402-	19,598-		1,530-
	632,593.59	144,369	205,091	427,503		33,372

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 12.8   5.28

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

ACCOUNT 398.00 OTHER TANGIBLE PLANT

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						
2019	14,231.50	1,992	2,461	11,771	21.50	547
	14,231.50	1,992	2,461	11,771		547

COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PERCENT .. 21.5   3.84

PART III. EXPERIENCED AND ESTIMATED NET SALVAGE

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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	416.47	2,367.05		2,367.05-
354.30	573,594.97	87.11		87.11-
354.40	744,885.32	18,538.55-		18,538.55
354.70		36,099.53		36,099.53-
355.00	422,792.78	4,538.63		4,538.63-
360.10	276,235.14	85,350.18		85,350.18-
361.10	2,339,080.10	345,943.14		345,943.14-
361.20	13,749.21			
363.00	56,288.53	48,455.35		48,455.35-
364.00	31,450.72			
371.00	113,724.18	18,884.54-		18,884.54
380.00	1,203,983.11	12,304.03		12,304.03-
382.00	5.76	980.65		980.65-
389.10		3,678.20-		3,678.20
390.00	5,925.73	93.95		93.95-
391.00	79,247.81	9,708.42		9,708.42-
393.00	17,334.55			
394.00	28,673.47	117.59		117.59-
396.00	3,064.59			
397.00		6,019.17		6,019.17-
	5,910,452.44	510,963.51		510,963.51-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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				
354.20	3,076.09	27,531.06		27,531.06-
354.30		61,135.00		61,135.00-
354.40	913,340.30	1,985.51		1,985.51-
354.70	3,125.06	18,075.18		18,075.18-
355.00		9,730.05		9,730.05-
360.10	55,943.69	245,202.29		245,202.29-
361.10	352,132.81	1,038,558.77		1,038,558.77-
361.20	1,170.55	109,567.01		109,567.01-
363.00	5,384.61	150,830.30		150,830.30-
364.00	3,202.68	239.58		239.58-
370.00	1,108.89			
371.00	5,188.39	141,438.05		141,438.05-
380.00	36,603.24	214,843.19		214,843.19-
381.00	2,120.40			
389.10		5,681.56		5,681.56-
390.00	67,403.59			
391.00		6,028.96		6,028.96-
393.00	60,983.28	1,931.40		1,931.40-
394.00	26,823.05	5,593.49		5,593.49-
395.00		2,048.24		2,048.24-
396.00	48,155.78	1,897.96		1,897.96-
397.00	141,002.08	5,512.61		5,512.61-
398.00		1,251.49		1,251.49-
	1,726,764.49	2,049,081.70		2,049,081.70-
2020 TRANSACTION YEAR				
354.20	3,007.76	29,175.27		29,175.27-
354.30	39,414.10	5,123.83		5,123.83-
354.40	120,604.23	1,206.04		1,206.04-
354.70	6,910.37	22,182.29		22,182.29-
360.10	40,213.82	41,420.24		41,420.24-
361.10	361,924.39	170,104.46		170,104.46-
361.20	22,020.95	132,345.92	440.42	131,905.50-
363.00	128,735.68	130,023.03		130,023.03-
371.00	144,361.10	37,533.89		37,533.89-
380.00	92,274.49	11,072.94		11,072.94-
391.00	31,332.59	5,013.21		5,013.21-
394.00	10,122.79	1,012.28		1,012.28-
395.00	7,833.15	156.66		156.66-
396.00	234,211.01	21,078.99		21,078.99-
	1,242,966.43	607,449.05	440.42	607,008.63-

PENNSYLVANIA-AMERICAN WATER COMPANY
WASTEWATER SSS OPERATIONS EXCLUDING SADSBURY AND EXETER

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				
354.20	6,516.56	63,210.60		63,210.60-
354.30	85,393.93	11,101.21		11,101.21-
354.40	261,299.11	2,612.99		2,612.99-
354.70	14,971.90	48,059.79		48,059.79-
360.10	52,546.64	54,123.04		54,123.04-
361.10	472,919.80	222,272.31		222,272.31-
361.20	22,579.29	135,701.50	451.59	135,249.91-
363.00	121,252.04	122,464.56		122,464.56-
380.00	545,573.80	65,468.86		65,468.86-
391.00	29,179.15	4,668.66		4,668.66-
395.00	7,294.79	145.90		145.90-
396.00	3,256.29	293.07		293.07-
	1,622,783.30	730,122.49	451.59	729,670.90-
2022 TRANSACTION YEAR				
354.20	1,400.75	13,587.28		13,587.28-
354.30	18,355.70	2,386.24		2,386.24-
354.40	56,167.07	561.67		561.67-
354.70	3,218.26	10,330.61		10,330.61-
360.10	62,421.12	64,293.75		64,293.75-
361.10	480,222.52	225,704.58		225,704.58-
361.20	22,831.88	137,219.60	456.64	136,762.96-
363.00	122,608.49	123,834.57		123,834.57-
371.00	9,472.36	2,462.81		2,462.81-
380.00	33,913.38	4,069.61		4,069.61-
391.00	29,813.37	4,770.14		4,770.14-
394.00	858.64	85.86		85.86-
395.00	7,453.34	149.07		149.07-
396.00	2,450.35	220.53		220.53-
	851,187.23	589,676.32	456.64	589,219.68-
TOTAL	11,354,153.89	4,487,293.07	1,348.65	4,485,944.42-