

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

In re: Application of Pennsylvania-American Water :  
Company under Section 1102(a) of the Pennsylvania :  
Public Utility Code, 66 Pa C.S. § 1102(a), for approval :  
of (1) the transfer, by sale, of substantially all of Valley :  
Township’s assets, properties and rights related to its : Docket No. A-2020-3019859 *et al.*  
water treatment and distribution system to :  
Pennsylvania-American Water Company, and (2) the :  
rights of Pennsylvania-American Water Company to :  
begin to offer or furnish water service to the public in :  
Valley Township, and in a portion of West Caln and :  
East Fallowfield Townships, Chester County, :  
Pennsylvania :

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**DIRECT TESTIMONY OF  
JEROME C. WEINERT, PE, ASA, CDP  
UTILITY VALUATION EXPERT  
SELECTED BY  
PENNSYLVANIA-AMERICAN WATER COMPANY**

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Date: October 7, 2020

PAWC Statement No. 4 W

DIRECT TESTIMONY OF JEROME C. WEINERT

1   **Q.   Please state your name, business address, and occupation.**

2   **A.**   My name is Jerome C. Weinert. My business address is 8555 West Forest Home Avenue,  
3       Suite 201, Greenfield, WI 53228. I am a Principal and Director of AUS Consultants, Inc.  
4       (“AUS Consultants”). This testimony was prepared by me.

5

6   **Q.   Please describe your qualifications and indicate if you are registered as a Utility**  
7       **Valuation Expert with the Pennsylvania Public Utility Commission (“PUC” or**  
8       **“Commission”).**

9   **A.**   My curriculum vitae (“CV”) is attached to my report and this testimony. **PAWC Exhibit**  
10       **JCW-1.** AUS Consultants is a registered Utility Valuation Expert with the PUC. We  
11       obtained that registration in 2016 and were informed of our renewal by the PUC’s Secretary  
12       on January 13, 2020.

13

14   **Q.   What is the purpose of your testimony?**

15   **A.**   This direct testimony provides clarification and explanation of the appraisal I provided to  
16       Pennsylvania-American Water Company (“PAWC”), the “Acquiring Public Utility”  
17       pursuant to 66 Pa. C.S. § 1329(a)(5) and in accordance with the Uniform Standards of  
18       Professional Appraisal Practice (“USPAP”) (2020-2021 Edition).

19

20   **Q.   Are you advocating for any party or outcome?**

21   **A.**   No. The Ethics Rule of the USPAP, applicable here pursuant to 66 Pa. C.S. § 1329(a)(3),  
22       requires that I perform the appraisal with impartiality, objectivity, and independence, and  
23       without accommodation of personal interests. In addition, the USPAP Ethics Rule requires

DIRECT TESTIMONY OF JEROME C. WEINERT

1           that I not perform the assignment with bias, that I must not advocate the cause or interest  
2           of any party or issue and that I must not accept an assignment that includes the reporting  
3           of predetermined opinions and conclusions.

4  
5   **Q.    Do you have any affiliation with either Valley (the “Selling Utility” pursuant to 66 Pa.**  
6   **C.S. § 1329(a)(5)) or the Acquiring Public Utility?**

7   **A.**    No. Other than the current assignment to provide the subject appraisal, and similar on-  
8           going assignments to provide appraisals of other utility systems, I have no business or  
9           personal relationships with any party to the proposed acquisition.

10  
11 **Q.    What is your fee arrangement to deliver the appraisal?**

12 **A.**    A copy of the fee arrangement is included with the Application as **Appendix A-7.1**. In  
13           summary, AUS Consultants are to receive \$25,200 plus expenses in compensation for our  
14           appraisal.

15  
16 **Q.    Will you receive that fee regardless of whether the Commission approves the**  
17 **proposed transaction or whether it closes?**

18 **A.**    Yes. 66 Pa. C.S. § 1329(a)(3) mandates that I comply with the USPAP when developing  
19           my appraisal. Under the USPAP, I cannot perform the appraisal with bias and acceptance  
20           of a fee contingent on a particular outcome like closing or Commission approval would  
21           violate that Ethics Rule.

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1 **Q. Have you prepared any exhibits, schedules, or appendices to accompany your direct**  
2 **testimony?**

3 **A.** Yes. The appraisal I submitted to the Acquiring Public Utility pursuant to Section  
4 1329(a)(5) is included in the Application as **Appendix A-5.1**. The appraisal includes a  
5 narrative and supporting exhibits in sections. All were prepared under my supervision and  
6 control. Also, as stated above, attached to this testimony as **PAWC Exhibit JCW-1** is my  
7 CV.

8  
9 **Q. Please summarize your results of the application of the cost, market, and income**  
10 **approaches to valuation.**

11 **A.** The summary results of the cost, income, and market approaches is presented below.  
12

Appraisal Approach	Value Indicator	Weight	Wtd Value Indicator
Cost	11,664,026	50%	5,832,013
Income	11,528,534	40%	4,611,414
Market	11,269,420	10%	1,126,942
Appraisal Conclusion			11,570,369

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14  
15 **Q. Please describe any assumptions, extraordinary assumptions, hypothetical**  
16 **conditions, and/or limiting conditions that you applied to the valuation.**

17 **A.** The major assumptions and limiting conditions used in preparing our appraisal of the  
18 Valley Township (“Valley”) Water System (“System”) are described in our appraisal report  
19 “Fair Market Appraisal Report of Valley Township (PA) Water System, as of December

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1           17, 2019.” Beyond the above-described assumptions, there are no extraordinary<sup>1</sup> or  
2           hypothetical<sup>2</sup> assumptions (as defined in the 2020-2021 edition of USPAP).

3  
4           **Q.     How was each assumption used and what was its result?**

5           **A.**     The assumptions are detailed in my appraisal report and are discussed further in this  
6           testimony.

7  
8           **Q.     How did you develop the weighting applied to each approach in your appraisal and**  
9           **why are the individual weights you chose appropriate for this proposed transaction?**

10          **A.**     For the cost approach I chose a weighting of 50%. It is my opinion that this weighting is  
11          appropriate for the cost approach because the major purpose of this appraisal is to be an  
12          input to the Commission’s establishment of cost for future ratemaking and the cost  
13          approach conclusion is directly reflective of the property cost.

14                   For the market approach, I chose a weighting of 10%. It is my opinion that this  
15          weighting is appropriate for the market approach because while the market approach  
16          provides some information as to the value of the property, establishing comparability  
17          between the individual sales to the subject property is difficult and uncertain therefore  
18          requiring less weight of the market approach and the 10% weight accomplishes that  
19          objective.

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<sup>1</sup> Extraordinary assumption: an assignment-specific assumption as of the effective date regarding uncertain information used in an analysis which, if found to be false, could alter the appraiser’s opinions or conclusions. 2020-2021 USPAP page 4.

<sup>2</sup> Hypothetical condition: a condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but used for the purpose of analysis. 2020-2021 USPAP page 4.

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1           For the income approach, I chose a weighting of 40%. It is my opinion that this  
2 weighting is appropriate for the income approach because the income approach reflects the  
3 value of the property's return to the property's owner. The 40% weight accomplishes that  
4 objective.

5  
6 **Q. Did you conduct an on-site inspection of the Selling Utility's assets, and if so, what  
7 was its result on the appraisal?**

8 A. Yes. AUS Consultants conducted an on-site inspection of Valley's water assets during  
9 June 2020. The on-site inspection was mainly used to provide an overview of the System  
10 and verify its condition.

11  
12 **Q. What Utility Earnings Report was used to create the capital structure used in your  
13 appraisal?**

14 A. I used a market required capital structure based on an analysis of the market capital  
15 structure analysis (detailed in the Cost of Capital / Required Return portion of our appraisal  
16 report). Information used in developing the market capital structure was obtained from  
17 financial statistics reported in Value Line Investment Survey for the water / wastewater  
18 industry published in their January 10, 2020 issue.

19  
20 **Q. What capital structure was used in your appraisal?**

21 A. The capital structure used in my appraisal is included below.

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Water and Wastewater Cost of Capital							
First Quarter 2020 (1-1-2020)							
As an Investor-Owned Utility							
Weighted Cost of Capital (Discount Rate)							
(1)	(2)	(2a)	(3)	(3a)	(4)	(4a)	(5)
	Portion of Capital AUS Input	Type of Data	Capital Cost AUS Input	Type of Data	Tax Rate	Tax affect on cost of capital	After-tax Market Capital Cost (2)*(3)*(4a)
Debt	26%	Market	3.23%	Market	28.89%	71.11%	0.60%
Equity	74%	Market	9.90%	Market	0.0%	100.0%	7.33%
<b>Total Capital r</b>	<b>100.0%</b>						<b>7.93%</b>
Growth (g)							<b>1.82%</b>
<b>Rate without Growth: <math>[(1+r)/(1+g)]-1</math></b>							<b>6.00%</b>

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**Cost Approach**

4 **Q. Regarding your application of the cost approach, what method did you use to**  
 5 **determine the cost approach result (e.g. original cost, replacement cost, reproduction**  
 6 **cost)?**

7 **A.** I used the replacement cost method.

9 **Q. Please explain why you chose the replacement cost method.**

10 **A.** I chose the replacement cost method because it is considered the proper starting point for  
 11 a cost approach. Replacement cost reflects the appraisal date cost of providing the  
 12 property’s functionality and capacity at the appraisal date using recognized materials and  
 13 labor costs.

15 **Q. What index did you use for that method?**

16 **A.** I used the Handy Whitman Index of Public Utility Construction Costs for the Water  
 17 Industry (North Eastern US Region), AUS Telephone Index (General Plant), and various  
 18 United States Bureau of Labor Statistics cost index series.

DIRECT TESTIMONY OF JEROME C. WEINERT

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**Q. Under your application of the cost approach what assets did you value or trend differently from other assets and why was that necessary?**

**A.** I costed each property account with cost trends appropriate for the property contained in the account. As such, the costing of each property account may differ from account to account. It is my opinion that an accurate appraisal requires each property account be costed with cost trends reflective of the property contained in the account. Valley's property as detailed in the Pennoni Associates, Inc. Engineer's Assessment of \$6,843,616 was determined to have a replacement cost new of \$15,320,978 summarized as follows:

Pennsylvania American Water Company  
Valley Township Water System  
Water System  
Investor-Owned Utility  
As of December 17, 2019

**Replacement Cost New (RCN)**

(1)	(2)	(3)	(9)	(10)	(13)	(14)	(15)	(16)
Account	Account	Asset Description	Original Cost	Costing Parameter	Cost Translator	Reproduction Cost New (RCN)	Reproduction Cost New (RCN) to Replacement Cost New (COR)	Replacement Cost New (COR)
Input	Input	Input	OC \$s	Input	Calculation	RCN \$s	COR \$s / RCN \$s	COR \$s
Eng Assmnt NARUC Code	AUS Input NARUC Code	Pennoni Associates, Inc.'s Valley Water Engineers Assessment Asset Description	Eng Assmnt Original Cost	AUS Input Cost Index Table	Translator	RCN	AUS Input COR / RCN Factor	Col (14) * (15) COR
303.20	303.20	303.20 DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	1	USBL51	1.20	1	1.00	1
303.30	303.30	303.30 WTP & WELLS LANDPURIFICATION LAND	1	USBL51	1.46	1	1.00	1
304.30	304.30	304.3 WTP - LARGE STRUCTURES	176,847	HWW-18	2.87	506,668	1.00	506,668
304.40	304.40	304.4 Vaults & Meter Pits	221,428	HWW-145	1.51	333,359	1.00	333,359
307.20	307.20	307.00 WELLS AND SPRINGS	74,873	HWW-12	1.95	146,102	1.00	146,102
311.20	311.20	311.20 PUMPING EQUIPMENT - ELECTRIC	9,675	HWW-19	1.03	9,985	1.00	9,985
311.30	311.30	311.30 PUMPING EQUIPMENT - BOOSTER ELECTRIC	9,571	HWW-19	1.23	11,772	1.00	11,772
320.30	320.30	320.30 WTP EQUIPMENT LARGE STRUCTURES	84,211	HWW-117	1.98	166,588	1.00	166,588
330.40	330.40	330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES	478,330	HWW-123	2.82	1,346,301	1.00	1,346,301
331.40	331.40	331.4 Distribution - Mains - Ductile Iron	4,314,166	HWW-135	2.30	9,912,614	1.00	9,912,614
333.40	333.40	333.00 SERVICES	937,011	HWW-139	1.97	1,844,022	1.00	1,844,022
334.40	334.40	334.40 METERS AND METER INSTALLATIONS	171,050	HWW-140	1.83	313,009	1.00	313,009
335.40	335.40	335.00 FIRE HYDRANTS	326,483	HWW-142	2.12	691,030	1.00	691,030
346.40	346.40	346.4 COMMUNICATION EQUIPMENT - SCADA	39,970	USBL52	0.99	39,526	1.00	39,526
		<b>Grand Total</b>	<b>6,843,616</b>		<b>2.24</b>	<b>15,320,978</b>	<b>1.00</b>	<b>15,320,978</b>

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These results are detailed in the Application **Appendix A-5.1** (AUS Appraisal) under the Cost Approach section.



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1   **Q.    Under your application of the cost approach, what year-end date did you use for**  
2       **calculating the depreciation or condition of the property?**

3   **A.    I used the date of December 17, 2019.**

4  
5   **Q.    How did you determine the depreciation parameters of survival/retirement**  
6       **characteristics and service lives for the utility property under the cost approach?**

7   **A.    I determined those parameters based on our review of the depreciation studies filed by**  
8       PAWC in support of their depreciation parameters (Iowa-type Survival Characteristics and  
9       Service Lives) and the resultant depreciation expense and rate base (net book) in their  
10      recent General Rate Cases (R-2017-2595853 and R-2020-3019371) and AUS Consultants’  
11      experience in preparing depreciation studies for the water and wastewater industry and our  
12      experience appraising water and wastewater properties.

13  
14   **Q.    Why are those parameters appropriate?**

15   **A.    Those parameters are appropriate because the parameters reflect the actual service life**  
16       experienced by PAWC in serving water customers in the Commonwealth of Pennsylvania  
17       and which were adjudicated by the PUC in the 2017 General Rate Cases and will be  
18       adjudicated by the PUC in the 2020 General Rate Cases (Docket Nos. R-2020-3019369  
19       and R-2020-30193371). The parameters in the following table also reflect AUS  
20       Consultants’ experience of the survival / retirement characteristics of normal and functional  
21       service lives of water properties:

22

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**Pennsylvania American Water Company  
Valley Township Water System  
Water Distribution System  
Investor-Owned Utility  
December 17, 2019**

Summary of Account Costing and Depreciation Parameters Used in the Depreciation Original Cost and the Depreciated

(1)	(2)	(4)	(5)	(6)	(6b)	
Account Number	Description	(4a) Survivor / Retirement Curve	(4b) Normal Service Life years	(5) Economic Obsolescence % of CORLD	(6) (6a) Tax Depreciation Table	(6b) Life
303.20	303.20 DISTRIBUTION RESERVOIRS AND STANDPIPES	LZNonDep	0.00	0.00%	MACRS	0.00
303.30	303.30 WTP & WELLS LANDPURIFICATION LAND	ZNonDep	0.00	0.00%	MACRS	0.00
304.40	304.4 Vaults & Meter Pits	R3.0	75.00	0.00%	MACRS	25.00
307.20	307.00 WELLS AND SPRINGS	S0.0	55.00	0.00%	MACRS	25.00
311.20	311.20 PUMPING EQUIPMENT - ELECTRIC	S0.0	42.00	0.00%	MACRS	25.00
311.30	311.30 PUMPING EQUIPMENT - BOOSTER ELECTRIC	S0.0	42.00	0.00%	MACRS	25.00
320.30	320.30 WTP EQUIPMENT LARGE STRUCTURES	S0.5	60.00	0.00%	MACRS	25.00
330.40	330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES	S0.5	65.00	0.00%	MACRS	25.00
331.40	331.4 Distribution - Mains - Ductile Iron	R2.0	110.00	0.00%	MACRS	25.00
333.40	333.00 SERVICES	R2.5	70.00	0.00%	MACRS	25.00
334.40	334.40 METERS AND METER INSTALLATIONS	L1.0	25.00	0.00%	MACRS	25.00
335.40	335.00 FIRE HYDRANTS	R2.5	75.00	0.00%	MACRS	25.00
346.40	346.4 COMMUNICATION EQUIPMENT - SCADA	SQ.0	12.00	0.00%	MACRS	12.00

Also, due the age of Valley's early property installations the maximum depreciation was limited to 85% of the cost new.

**Q. What was the result of the application of the depreciation parameters to the previously described replacement cost new of \$15,320,978?**

**A. With the application of the above described depreciation parameters, the replacement cost new of \$15,320,978 results in a replacement cost new less depreciation of \$11,664,026 determined as follows:**

DIRECT TESTIMONY OF JEROME C. WEINERT

Pennsylvania American Water Company  
 Valley Township Water System  
 Water System  
 Investor-Owned Utility  
 As of December 17, 2019

**Replacement Cost New less Depreciation (RCNLD)**

(18)	(19)	(21)	(22)	(23)	(24)	(28)	(29)	(30)	(31)
Account	Description	Age at December 17, 2019 Appraisal Date	Replacement Cost New (COR)	Retirement Dispersion lowa-type	Normal Service Life (NSL)	Normal Remaining Life	Total Life Expectancy	Condition	Preliminary Cost Approach (COR less Normal Depreciation)
Input	Input	years	COR \$s	Input	years	years	years	% of COR	CORLD \$s
Eng Assmnt	Pennoni Associates, Inc.'s Valley Water Engineers Assessment	Calculation	Calculation	Input	Input	Calculation	Calculation	Calculation	Calculation
Account	Description	Age	RCN	lowa	NL	Rem Life	Total Life	Condition	CORLD
			Col (18)	AUS Input	AUS Input		Col (21) + (28)	Col (28) / (29)	Col (22) * (30)
353.20	303.20 DISTRIBUTION RESERVOIRS AND STANDPIPES LAND	10.83	1	ZNonDep	-	-	-	100.00%	1
353.30	303.30 WTP & WELLS LANDPURIFICATION LAND	18.49	1	ZNonDep	-	-	-	100.00%	1
354.40	304.3 WTP - LARGE STRUCTURES	31.50	506,668	R2.5	60.00	32.23	63.73	51.00%	256,236
355.30	304.4 Vaults & Meter Pits	17.66	333,359	R3.0	75.00	58.08	75.74	77.00%	255,870
360.21	307.00 WELLS AND SPRINGS	26.67	146,102	S0.0	55.00	36.40	63.07	59.00%	85,499
360.23	311.20 PUMPING EQUIPMENT - ELECTRIC	0.50	9,985	S0.0	42.00	41.59	42.09	99.00%	9,866
361.21	311.30 PUMPING EQUIPMENT - BOOSTER ELECTRIC	2.50	11,772	S0.0	42.00	39.68	42.18	94.00%	11,075
361.22	320.30 WTP EQUIPMENT LARGE STRUCTURES	20.03	166,588	S0.5	60.00	43.96	63.99	70.00%	115,877
361.23	330.4 DISTRIBUTION RESERVOIRS AND STANDPIPES	28.28	1,346,301	S0.5	65.00	42.92	71.20	61.00%	815,734
363.20	331.4 Distribution - Mains - Ductile Iron	20.86	9,912,614	R2.0	110.00	91.72	112.58	82.00%	8,081,515
363.20	333.00 SERVICES	20.50	1,844,022	R2.5	70.00	51.38	71.88	72.00%	1,320,985
363.20	334.40 METERS AND METER INSTALLATIONS	13.31	313,009	L1.0	25.00	15.94	29.25	55.00%	170,870
363.20	335.00 FIRE HYDRANTS	19.94	691,030	R2.5	75.00	56.95	76.89	74.00%	512,653
360.21	346.4 COMMUNICATION EQUIPMENT - SCADA	3.55	39,526	SQ.0	12.00	8.47	12.02	70.00%	27,845
	Grand Total	21.53	15,320,978		94.08	75.43	96.96	76.13%	11,664,026

The above replacement cost new less depreciation represents the preliminary cost approach conclusion which was tested for economic obsolescence based on the results of the income and market approaches which will be described in the remainder of this testimony. Based on our review of the preliminary cost approach and the results of the income and market approaches, no economic obsolescence exists at the preliminary cost approach conclusion of \$11,664,026; therefore, the final cost approach conclusion was determined to be \$11,664,026. These results are detailed in the Application **Appendix A-5.1** (AUS Appraisal) under the Cost Approach section.

**Market Approach**

**Q. Regarding your application of the market approach, what methods did you use to determine the market approach result?**

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1    **A.**    I used the comparable sales of water and wastewater properties in the Commonwealth of  
2            Pennsylvania subsequent to the passage of Section 1329 and financial market value ratios  
3            of publicly traded water and wastewater companies as reported in the January 10, 2020  
4            issue of Value Line Investment Survey.

5

6    **Q.**    **What assumptions, analyses, and/or adjustments did you make under each method?**

7    **A.**    Under the comparable sales method, it is my opinion that sales amount to depreciated  
8            replacement cost is the best indicator in arriving at the appraised value of physical assets  
9            operating as a water system. Under the financial ratios method, I believe that an accurate  
10           result depends on using the weighted mean of the ratio of the market debt and equity to  
11           book debt and equity.

12

13   **Q.**    **What were the results of the market analysis you performed?**

14   **A.**    The comparable sales analysis produced a result of \$11,269,420. The financial market  
15           analysis produced a result of \$11,331,625 detailed as follows:

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Pennsylvania American Water Company  
 Valley Township Water System  
 Water System  
 Investor-Owned Utility  
 As of December 17, 2019

## Comparable Sales Approach

### Market Sales Data

### Central Tendency and Reliability Analysis

#### Market Sales Analysis - PP/OCLD

	Simple	Weighted
Mean	2.082	1.9992
Standard Deviation	0.8607	0.6008
Median	1.608	1.5598
Mode	Not Applicable	1.5598

#### Market Sales Analysis - PP/CORLD

	Simple	Weighted
Mean	0.8130	0.9285
Standard Deviation	0.1852	0.1086
Median	0.8908	0.9637
Mode	Not Applicable	0.9919

Conclusion 2.0000 AUS Input Conclusion 0.9314 AUS Input

Valley Township Water System's OCLD 5,370,438 AUS Cost Approach Valley Township Water System's CORLD 11,664,026 AUS Cost Approach

Market Value Indication 10,740,877 Market Value Indication 10,863,874

#### Market Sales Analysis - PP/Customer

	Simple	Weighted
Mean	7441	9,157
Standard Deviation	4031	3,158
Median	8221	6,312
Mode	Not Applicable	7,825
Forecast	7,293	

#### Market Sales Analysis - PP/Cash Flow (EBITDA)

	Simple	Weighted
Mean	22.38	22.00
Standard Deviation	12.00	8.00
Median	21.00	13.00
Mode	Not Applicable	Not Applicable
Forecast	17.00	

Conclusion 7,300 AUS Input Conclusion 520,405 AUS Income Approach

Valley Township Water System's Customers 1,596 Valley Info Flows Valley Township Water System's Cash Flows 22.00 AUS Input

Market Value Indication 11,650,800 Market Value Indication 11,448,901

### Financial Basis<sup>1</sup>

	Market Value per Share to Book Value per Share	
Financial Markets		
Market to Book (equity)	3.40	
Market to Book (equity and debt)	2.11	
Use (equity and debt)	2.11	AUS Input

Valley Township Water System's OCLD 5,370,438 AUS Cost Approach

Market Value Indication 11,331,625

### Summary of Market Analyses

Indicators	Value
OCLD	10,740,877
CORLD	10,863,874
Customers	11,650,800
Cash Flow (EBITDA)	11,448,901
Value Line	11,331,625
Mean	11,207,215
Median	11,331,625
Conclusion	11,269,420

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3

**Q. Which results were used to determine your market approach result?**

DIRECT TESTIMONY OF JEROME C. WEINERT

1    **A.**    I used the results of \$11,269,420 because I believe those results represent an accurate  
2           assessment and it was based on the relationship of market comparable sales to the  
3           replacement cost new less depreciation of those properties. These results are detailed in  
4           the Application **Appendix A-5.1** (AUS Appraisal) under the Market Approach section.

5

6    **Q.**    **What was the calculation you used to determine your overall market approach**  
7           **results?**

8    **A.**    The calculation I used consisted of the ratio of the market sales to their depreciated original  
9           cost, replacement cost new less depreciation, customers, and cash flows (EBITDA) of  
10          Valley's property.

11

12   **Q.**    **What comparable transactions or comparable sales did you evaluate to develop your**  
13          **market approach?**

14   **A.**    I examined the following transactions to develop the result of my market approach:

15

DIRECT TESTIMONY OF JEROME C. WEINERT

Approximate Date	Buyer	Seller	County	Type of Facility	Initial Purchase Price	Final Purchase Price <sup>1</sup>	Number of Total Customers	Relationship to the passage of Section 1329
6/1/2016	PA American Water	City of McKeesport	Allegheny	Wastewater Collection and Treatment	159,000,000	159,000,000	21,953	Post
8/1/2016	Aqua PA	New Garden Twp. SA	Chester	Collection and Treatment for and Owned	29,500,000	29,500,000	2,106	Post
12/1/2017	Aqua PA	Limerick Township	Montgomery	Wastewater Collection and Treatment	64,373,000	64,373,000	5,434	Post
12/10/2017	Aqua PA	East Bradford Township	Chester	Wastewater Collection and paid for treatment Capacity	5,000,000	5,000,000	1,248	Post
	SUEZ	Mahoning	Carbon	Water Treatment and Distribution System	4,734,800	4,734,800	2,806	Post
	SUEZ	Mahoning	Carbon	Wastewater Collection and Treatment	4,765,200	4,765,200	2,806	Post
6/1/2018	Aqua PA	Cheltenham	Montgomery	Wastewater Collection	50,250,000	50,250,000	10,500	Post
11/14/2018	PA American Water	Steelton	Dauphin	Water Distribution and Treatment	22,500,000	22,500,000	2,325	Post
	PA American Water	Sadsbury	Chester	Wastewater Collection	9,250,000	9,250,000	998	Post
5/28/2018	PA American Water	Exeter	Berks	Wastewater Collection and Treatment	96,000,000	96,000,000	9,000	Post
10/29/2018	Aqua PA	East Norriton	Montgomery	Wastewater Collection	21,000,000	21,000,000	4,950	Post
9/30/2018	PA American	Kane	McKean	Wastewater Collection and Treatment	17,560,000	17,560,000	2006	Post

Note: <sup>1</sup> Final Purchase Price reflects the agreed upon purchase price achieved to settle the acquisition application

1

2

3 **Income Approach**

4 **Q. Regarding your application of the income approach, what method did you use to**  
 5 **determine the income approach result?**

6 **A.** I used the discounted cash flow method.

7

8 **Q. What assumptions did you employ to develop your income approach result?**

9 **A.** Under the income approach, it is my opinion that the results of the future operations of the  
 10 Valley System must be considered. I believe that an accurate result depends on adjusting  
 11 recent results of the system's operation to better reflect how those results will migrate over  
 12 future periods under the operation as a rate regulated water system regulated by the PUC.

13

DIRECT TESTIMONY OF JEROME C. WEINERT

1    **Q.    What discount rate did you use to calculate your income approach?**

2    **A.**    I used a discount rate of 7.93% and a capitalization rate of 6.00%.

3

4    **Q.    Please explain how you developed the discount rate.**

5    **A.**    In each case, the discount rate was a market discount rate at the appraisal date and was  
6           determined using the weighted average cost of capital (“WACC”) of both debt and equity.

7           The inputs to the WACC determination, capital structure, cost of debt, cost of equity, and

8           income tax rate (state and federal) were determined based on an analysis of Value Line

9           Investment Surveys and the Ibbotson Stock, Bonds, Bills, and Inflation (“Ibbotson SBBI”)

10          2020 Edition (SBBI activity over the period 1926 through 2019). The cost of debt was

11          determined at December 10, 2019, based on the Value Line Investment Survey. The cost

12          of equity was based on the capital asset pricing model (“CAPM”) and the Dividend Growth

13          Model (“DGM”), two recognized cost of equity estimating models and the PUC’s Bureau

14          of Technical Utility Services’ Report on Quarterly Earnings of Jurisdictional Utilities for

15          Year-ending December 31, 2019. The above described data for Valley’s appraisal can be

16          found in the exhibits to my appraisal report in the section entitled Cost of Capital / Required

17          Return.

18

19    **Q.    What capital structure inputs differ from those identified in capital structure set forth  
20           earlier in your testimony?**

21    **A.**    None. As described in the previous discussion of the capital structure, we utilized a market

22          required capital structure based on analysis of the water / wastewater industry’s market

23          capital structure as defined by analysis of market financials as published in Value Line



DIRECT TESTIMONY OF JEROME C. WEINERT

1 Investment Survey (January 10, 2020). The theory in appraisal is to estimate the value of  
2 a property in an arm's length transaction wherein the purchaser finances the purchase with  
3 capital (debt and equity) available in the financial markets at the appraisal date. Those are  
4 the current (appraisal date) financial markets.

5  
6 **Q. What is the source and basis of the alternative input you propose in the income  
7 approach?**

8 **A.** As discussed above, we used Value Line Investment Survey to develop a market required  
9 capital structure. Please see Application **Appendix A-5.1** (AUS Appraisal) Income  
10 Approach section for the cost of capital of the Income Approach and Cost of Capital /  
11 Required Return section for the basis of the Cost of Capital / Required Return.

12  
13 **Q. If you used a terminal value in your discounted cash flow analysis what is the number  
14 of years over which the cash flows are considered?**

15 **A.** I considered those cash flows over 19 periods with period 20 representing all future periods.  
16

17 **Q. What is the basis for using this number of years?**

18 **A.** It is my opinion that the use of 19 periods is a reasonable number of periods for the forecast  
19 revenues and expenses to stabilize.

20  
21 **Q. What is your Income Approach conclusion?**

22 **A.** AUS Consultants' income approach conclusion was determined to be \$11,528,534 detailed  
23 as follows:

DIRECT TESTIMONY OF JEROME C. WEINERT

1

**Pennsylvania American Water Company  
Valley Township Water System  
Water System  
Potential Purchaser: Investor-Owned Utility  
As of December 17, 2019  
Discounted Cash Flow Analysis**

Discount Rate:		7.93%												
Capitalization Rate:		6.00%												
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	
Period	Age	Revenues	O&M Expenses	Tax Depreciation	Cash Flow from Operations	Taxable Income before State & Federal Taxes	State and Federal Taxes @ 28.89%	Capital Expenditures	Change in Working Capital	Net Cash Flows	Period Present Worth Factor (PW)	PW of Cashflow	Accumulated PW of Cashflows	
					(3)-(4)	(6)-(5)	(7) *28.89%			(9)-(4)-(8)-(9)-(10)		(11)*(12)	Sum (13)	
1	0.5	718,202	500,233	296,474	217,969	(78,505)	(22,680)	72,624	946	167,079	0.963	160,897	160,897	
2	1.5	736,157	496,203	299,239	239,954	(59,285)	(17,128)	73,247	970	182,865	0.892	163,116	324,013	
3	2.5	975,408	492,295	302,054	483,113	181,059	52,308	73,877	12,919	344,009	0.826	284,151	608,164	
4	3.5	999,793	488,503	304,917	511,290	206,373	59,621	74,508	1,317	375,844	0.766	287,897	896,061	
5	4.5	1,024,788	484,826	307,833	539,962	232,129	67,062	75,152	1,350	396,398	0.709	281,046	1,177,107	
6	5.5	1,306,605	493,333	310,798	813,272	502,474	145,165	75,797	15,217	577,093	0.657	379,150	1,556,257	
7	6.5	1,339,270	501,998	313,811	837,272	523,461	151,228	76,430	1,765	607,849	0.609	370,180	1,926,437	
8	7.5	1,372,752	510,825	316,880	861,927	545,047	157,464	77,087	1,808	625,568	0.564	352,820	2,279,257	
9	8.5	1,612,984	519,816	320,003	1,093,168	773,165	223,367	77,751	12,973	779,077	0.523	407,457	2,686,714	
10	9.5	1,653,309	528,976	323,180	1,124,333	801,153	231,453	78,420	2,177	812,283	0.484	393,145	3,079,859	
11	10.5	1,694,642	538,305	326,412	1,156,337	829,925	239,765	79,097	2,232	835,243	0.449	375,024	3,454,883	
12	11.5	1,906,472	547,809	329,699	1,358,663	1,028,964	297,268	79,777	11,438	970,180	0.416	403,595	3,858,478	
13	12.5	1,954,134	557,490	331,596	1,396,644	1,065,048	307,693	80,468	2,575	1,005,908	0.385	387,275	4,245,753	
14	13.5	2,002,987	567,353	334,992	1,435,634	1,100,642	317,976	81,162	2,637	1,033,859	0.357	369,088	4,614,841	
15	14.5	2,173,241	577,399	338,447	1,595,842	1,257,395	363,261	81,865	9,194	1,141,522	0.331	377,844	4,992,685	
16	15.5	2,216,706	587,633	341,960	1,629,073	1,287,113	371,847	82,572	2,347	1,172,307	0.306	358,726	5,351,411	
17	16.5	2,261,040	598,059	345,532	1,662,981	1,317,449	380,611	83,285	2,394	1,196,691	0.284	339,860	5,691,271	
18	17.5	2,441,923	608,679	345,803	1,833,244	1,487,441	429,722	84,007	9,767	1,309,748	0.263	344,464	6,035,735	
19	18.5	2,490,761	619,500	346,078	1,871,261	1,525,183	440,625	84,736	2,638	1,343,262	0.244	327,756	6,363,491	
20 and beyond	19.5	2,540,576	630,523	349,775	1,910,053	1,560,278	450,764	85,470	2,690	1,371,129	3.767	5,165,043	11,528,534	
Age				19.5					1,577,332					
PW(Age) = 1/(1+Discount Rate) <sup>Age</sup>				0.226					Net Plant ADIT			6,700,885		
PW to Perpetuity = 1/Capitalization Rate				16.667					Rate Base			5,463,229	7,598,181	
PW(20and beyond) = PW to Perpetuity * PW Factor(19.5)				3.767					Annual Plant Construction Inflation Rate			0.0422 Input		
										Plant Inflation over 19.5 years			12,487,364	9,185,635
										PP			7,325,000	
										OCLD			5,370,438	
										PP/OCLD			1.364	
										RCNLD			11,664,026	
										RCNLD/PP			1.592358489	
													8,699,418.82	8,329,560
										Average				9,160,477

2

3

4

These results are detailed in the Application **Appendix A-5.1** (AUS Appraisal) under the

5

Income Approach section.

6

7

**Q. What number of Selling Utility customers or equivalent dwelling units did you use to value the Selling Utility's system and how did you develop that number?**

8

9

**A.** I did not use customers/EDUs in developing the forecasted revenues and expenses. Instead,

10

I used past and budgeted results from operations to establish forecasted operating results.

11

DIRECT TESTIMONY OF JEROME C. WEINERT

1   **Q.    Did you make any updates to your appraisal after it was submitted to the Buyer, and**  
2       **if so, what was the update, when was it made, and why was it necessary?**

3   **A.    I did update my initial appraisal after it was submitted to PAWC since an additional year**  
4       **of financials (2019) was available and a final Engineers Assessment dated April 20, 2020**  
5       **was received in early May 2020.**

6  
7   **Q.    Does this conclude your direct testimony?**

8   **A.    It does.  However, by filing this direct testimony I understand that I may have the**  
9       **opportunity to submit additional testimony responsive to challenges to my appraisal.**

Curriculum Vitae (CV) of Jerome C. Weinert, P.E., CDP, ASA

Mr. Weinert is currently Principal and Director of AUS Consultants, Depreciation and Valuation. He has forty-eight (2020-1972) years' experience in valuation and depreciation consulting and management. AUS, with offices across the country, has provided consulting services to the regulated utility industry nationally for over thirty-nine years. A partial list of services provided includes valuations depreciation studies, rate of return studies, cost of service studies, and rate design.

Prior to joining AUS in 1987, Mr. Weinert was employed by American Appraisal Associates, Inc. (American) for sixteen years in their Regulated Industries Group. He held various positions at American, the last being supervising appraiser. Among his other valuation responsibilities, he directed the firm's utility industry capital recovery studies and AUS Consultant's valuation of communication company assets and businesses.

Mr. Weinert graduated from the Milwaukee School of Engineering with a Bachelor of Science degree in Mechanical Engineering and received a master's in business administration from Marquette University. He is a registered professional engineer (1976) (by examination) in the state of Wisconsin as well as a senior member (1982) of the American Society of Appraisers in the public utility valuation field. This latter designation is obtained by written examination primarily in the areas of utility valuation, depreciation, and the economics of regulated firms. He is also a Certified Depreciation Professional (1997) (CDP) and founding member of the Society of Depreciation Professionals and the Society's 1995 President and sponsor of the Society's Certification and re-certification program; as such Mr. Weinert developed these programs and oversaw their initial introduction into the Society. He also worked in conjunction with Society members in the development of the Society's training programs which as of 2003 has become the only such formalized depreciation training program in the North America and is an instructor in several of its courses.

During his professional career related to valuations and depreciation matters Mr. Weinert has testified before various courts and public service commissions on these subjects. He has also assisted numerous utilities in preparing capital recovery plans which specifically address the issues of plant replacement. Mr. Weinert has also presented expert testimony on valuation matters. Mr. Weinert has testified before the Pennsylvania Public Utility Commission on regulatory matters associated with Pennsylvania Section 1329 matters. On matters related to eminent domain issues, Mr. Weinert has presented expert testimony in the Massachusetts Superior Court, the Court of Common Pleas, Fayette County, Ohio, the New Hampshire Public Utilities Commission, the Twentieth Judicial Court (deposition only) in Charlotte County, Florida, the Nineteenth Judicial Circuit Court in St. Lucie County, Florida (deposition only). In regard to ad valorem taxation, Mr. Weinert has presented study results to the New York State Board of Equalization and Assessment (now the New York Office of Real Property Services (NY ORPS)), pertaining to useful life and net salvage values for all types of utility property subject to the Board's mass appraisal model. Mr. Weinert has appeared before the Valuation Adjustment Board in Florida for Duval, Hillsborough, Okeechobee, and Palm Beach counties, the Twelfth Judicial Circuit Sarasota County, Florida, the California Board of Equalization and Assessment, the Arizona Board of Assessment, the Missouri Board of Taxation, the Colorado and Texas Departments of Review, the Massachusetts Tax Appeal Court, the Superior Court of the State of Arizona in the County of Maricopa, the State Tax Appeal Board of the State of Montana, the New York City Tax Commission and the Public Utility Commission of Pennsylvania Section 1329 hearings (8).

Mr. Weinert has appeared before regulatory bodies in Alaska, Arkansas, Illinois, Indiana, Iowa, Missouri, Nevada, Nebraska, North Carolina, Ohio, Oregon, Pennsylvania, and South Carolina in support of rate-base valuation determination and capital recovery. He has presented testimony on depreciation matters

before the Canadian Radio-Television and Telecommunications Commission (CRTC) and the United States Federal Energy Regulatory Commission (FERC). In terms of water and wastewater acquisitions and applications for regulatory approval of rate base Mr. Weinert has testified for two investor-owned acquisitions of municipal wastewater authorities one representing the municipality and secondly for the acquiring investor-owned utility. He has submitted study results to the State Commissions of Alabama, Alaska, Arkansas, Idaho, Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, North Carolina, Oregon, Pennsylvania, South Carolina, Washington, and Wisconsin, and the Federal Communications Commission.

Mr. Weinert has presented papers on valuation and depreciation topics to professional and utility industry trade organizations. He also directed AUS Consultants' semi-annual week-long depreciation training programs (1988-1997). These specialized training courses, offered at basic and advanced levels, teach depreciation study techniques to public utility and public service commission staff specialists. The training includes depreciation theory and concepts and hands-on experience with personal computer-based analytical depreciation programs.

## Appraisal &amp; Capital Recovery Activities Client List

<u>Company</u>	<u>Property</u>	<u>Study Year</u>	<u>Year Performed</u>	<u>Activity</u>
<b>2020</b>				
AT&T Communications	North America	2019	2020	Ad Valorem Tax Appraisal
AT&T Communications	California	2019	2020	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2019	2020	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2019	2020	Ad Valorem Tax Appraisal
Verizon New York, Inc.	New York	2019	2020	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2019	2020	Ad Valorem Tax Appraisal
East Norriton Township, PA	East Norriton Wastewater	2019	2020	Fair Market Value 1329
Pennsylvania American Water Company	Kane Wastewater	2019	2020	Fair Market Value 1329
Pennsylvania American Water Company	Royersford Wastewater	2019	2020	Fair Market Value 1329
<b>2019</b>				
AT&T Communications	North America	2018	2019	Ad Valorem Tax Appraisal
AT&T Communications	California	2018	2019	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2018	2019	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2018	2019	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2018	2019	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2018	2019	Ad Valorem Tax Appraisal
Cheltenham Township, PA	Cheltenham Wastewater	2018	2019	Fair Market Value 1329
Pennsylvania American Water Company	Steelton Water	2018	2019	Fair Market Value 1329
Pennsylvania American Water Company	Exeter Wastewater	2018	2019	Fair Market Value 1329
<b>2018</b>				
AT&T Communications	North America	2017	2018	Ad Valorem Tax Appraisal
AT&T Communications	California	2017	2018	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2017	2018	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2017	2018	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2017	2018	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2017	2018	Ad Valorem Tax Appraisal
Level 3 Communications, LLC	North America	2017	2018	Ad Valorem Tax Appraisal
Level 3 Communications, LLC	California	2017	2018	Ad Valorem Tax Appraisal
CenturyLink Communications, LLC	North America	2017	2018	Ad Valorem Tax Appraisal
CenturyLink Communications, LLC	California	2017	2018	Ad Valorem Tax Appraisal
East Bradford Township, PA	East Bradford Wastewater	2018	2018	Fair Market Value 1329
Pennsylvania American Water Company	Sadsbury Wastewater	2017	2018	Fair Market Value Appraisal
Pennsylvania American Water Company	Kane Wastewater	2017	2018	Fair Market Value Appraisal
<b>2017</b>				
AT&T Communications	North America	2016	2017	Ad Valorem Tax Appraisal
AT&T Communications	California	2016	2017	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2016	2017	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2016	2017	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2016	2017	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2016	2017	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2016	2017	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2016	2017	Ad Valorem Tax Appraisal
Level 3 Communications	California	2016	2017	Ad Valorem Tax Appraisal

QUALIFICATIONS 3

## Appraisal &amp; Capital Recovery Activities Client List

<u>Company</u>	<u>Property</u>	<u>Study Year</u>	<u>Year Performed</u>	<u>Activity</u>
Whitpain Township, PA	Whitpain Wastewater	2016	2017	Appraisal for Planning
Plymouth Township, PA	Plymouth Wastewater	2016	2017	Appraisal for Planning
East Norriton Township, PA	East Norriton Wastewater	2016	2017	Appraisal for Planning
Pennsylvania American Water Company	Sadsbury Wastewater	2016	2017	Fair Market Value Appraisal
Pennsylvania American Water Company	McKeesport Wastewater	2016	2017	Fair Market Value Appraisal
Intermountain Gas Company	Idaho	2016	2017	Depreciation Study
<b>2016</b>				
AT&T Communications	North America	2015	2016	Ad Valorem Tax Appraisal
AT&T Communications	California	2015	2016	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2015	2016	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2015	2016	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2015	2016	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2015	2016	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2015	2016	Ad Valorem Tax Appraisal
Level 3 Communications	North America,	2015	2016	Ad Valorem Tax Appraisal
Level 3 Communications	California	2015	2016	Ad Valorem Tax Appraisal
New Garden Township, PA	New Garden Wastewater	2016	2016	Fair Market Value Appraisal
<b>2015</b>				
AT&T Communications	North America	2014	2015	Ad Valorem Tax Appraisal
AT&T Communications	California	2014	2015	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2014	2015	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2014	2015	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2014	2015	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2014	2015	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2014	2015	Ad Valorem Tax Appraisal
Level 3 Communications	North America,	2014	2015	Ad Valorem Tax Appraisal
Level 3 Communications	California	2014	2015	Ad Valorem Tax Appraisal
Verizon Wireless	Nationwide	2014	2015	Ad Valorem Tax Appraisal
<b>2014</b>				
AT&T Communications	North America	2013	2014	Ad Valorem Tax Appraisal
AT&T Communications	California	2013	2014	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2013	2014	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2013	2014	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2013	2014	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2013	2014	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2013	2014	Ad Valorem Tax Appraisal
Level 3 Communications	North America,	2013	2014	Ad Valorem Tax Appraisal
Level 3 Communications	California	2013	2014	Ad Valorem Tax Appraisal
Cascade Natural Gas Corporation	Oregon & Washington	2013	2014	Depreciation Study
Intermountain Gas Company	Idaho	2013	2014	Depreciation Study
Virgin Islands Telephone Corporation	US Virgin Islands	2013	2014	Depreciation Study
Verizon Wireless	Nationwide	2013	2014	Ad Valorem Tax Appraisal
<b>2013</b>				
AT&T Communications	North America	2012	2013	Ad Valorem Tax Appraisal

## Appraisal &amp; Capital Recovery Activities Client List

<u>Company</u>	<u>Property</u>	<u>Study Year</u>	<u>Year Performed</u>	<u>Activity</u>
AT&T Communications	California	2012	2013	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2012	2013	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2012	2013	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2012	2013	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2012	2013	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2012	2013	Ad Valorem Tax Appraisal
Verizon Communications	New England - Mass	2012	2013	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2012	2013	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California	2012	2013	Ad Valorem Tax Appraisal
Sprint Nextel Corporation	North America	2012	2013	Ad Valorem Tax Appraisal
Verizon Wireless	Palm Beach, Florida	2012	2013	Ad Valorem Tax Appraisal
Verizon Communications	New England Mass	2002-2007	2013	Ad Valorem Tax Appraisal
<b>2012</b>				
AT&T Communications	North America	2011	2012	Ad Valorem Tax Appraisal
AT&T Communications	California	2011	2012	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2011	2012	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2011	2012	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2011	2012	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2011	2012	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2011	2012	Ad Valorem Tax Appraisal
Verizon Communications	New England - Mass	2011	2012	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2011	2012	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California	2011	2012	Ad Valorem Tax Appraisal
Sprint Nextel Corporation	North America	2011	2012	Ad Valorem Tax Appraisal
Verizon Wireless	Palm Beach, Florida	2011	2012	Ad Valorem Tax Appraisal
MetroPCS	Palm Beach, Florida	2011	2012	Ad Valorem Tax Appraisal
Verizon Communications	Florida - revised	2008	2012	Ad Valorem Tax Appraisal
Verizon Wireless	Palm Beach, Florida	2012	2012	Ad Valorem Tax Appraisal
<b>2011</b>				
AT&T Communications	North America	2010	2011	Ad Valorem Tax Appraisal
AT&T Communications	California	2010	2011	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2010	2011	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2010	2011	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2010	2011	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2010	2011	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2010	2011	Ad Valorem Tax Appraisal
Verizon Communications	New England - Mass	2010	2011	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2010	2011	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California	2010	2011	Ad Valorem Tax Appraisal
Global Crossing	North America	2010	2011	Ad Valorem Tax Appraisal
Intermountain Gas Company	Idaho	2010	2011	Depreciation Study
Sprint Nextel Corporation	North America	2010	2011	Ad Valorem Tax Appraisal
Verizon Wireless	Palm Beach, Florida	2010	2011	Ad Valorem Tax Appraisal
MetroPCS	Palm Beach, Florida	2010	2011	Ad Valorem Tax Appraisal
Verizon Communications	Florida - revised	2008	2011	Ad Valorem Tax Appraisal
Intermountain Gas Company	Idaho	2010	2011	Depreciation Study
Virgin Islands Telephone Corporation	US Virgin Islands	2010	2011	Technical Update of Depreciat



## Appraisal &amp; Capital Recovery Activities Client List

<u>Company</u>	<u>Property</u>	<u>Study Year</u>	<u>Year Performed</u>	<u>Activity</u>
<b>2010</b>				
AT&T Communications	North America	2009	2010	Ad Valorem Tax Appraisal
AT&T Communications	California	2009	2010	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2009	2010	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2009	2010	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2009	2010	Ad Valorem Tax Appraisal
AT&T - Southwestern Bell Telephone Company	Arkansas, Kansas, Missouri, Oklahoma, Texas	2009	2010	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2009	2010	Ad Valorem Tax Appraisal
Embarq Missouri, Inc.	Missouri	2009	2010	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2009	2010	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2009	2010	Ad Valorem Tax Appraisal
Verizon Communications	New England - Mass	2009	2010	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2009	2010	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California	2009	2010	Ad Valorem Tax Appraisal
Global Crossing	North America	2009	2010	Ad Valorem Tax Appraisal
MetroPCS	Palm Beach, Florida	2009	2010	Ad Valorem Tax Appraisal
<b>2009</b>				
AT&T Communications	North America	2008	2009	Ad Valorem Tax Appraisal
AT&T Communications	California	2008	2009	Ad Valorem Tax Appraisal
AT&T Communications	Florida	2008	2009	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2008	2009	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2008	2009	Ad Valorem Tax Appraisal
AT&T - Wisconsin Bell Telephone Company	Wisconsin	2008	2009	Ad Valorem Tax Appraisal
AT&T - Southwestern Bell Telephone Company	Arkansas, Kansas, Missouri, Oklahoma, Texas	2008	2009	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2008	2009	Ad Valorem Tax Appraisal
Embarq Texas, Inc.	Texas	2008	2009	Ad Valorem Tax Appraisal
Embarq Missouri, Inc.	Missouri	2008	2009	Ad Valorem Tax Appraisal
Embarq Northwest	Washington	2008	2009	Ad Valorem Tax Appraisal
Embarq Virginia	Virginia	2008	2009	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2008	2009	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2008	2009	Ad Valorem Tax Appraisal
Verizon Communications	New England - Mass	2008	2009	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2008	2009	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California, Michigan & Arizona	2008	2009	Ad Valorem Tax Appraisal
Global Crossing	North America	2008	2009	Ad Valorem Tax Appraisal
AboveNet, Inc	North America/California	2003	2009	Ad Valorem Tax Appraisal
Verizon Wireless	Ohio Properties	2004-2005	2009	Ad Valorem Tax Appraisal
Virgin Islands Telephone Corporation	US Virgin Islands	2008	2009	Depreciation Study
Sprint Nextel Corporation	North America	2008	2009	Ad Valorem Tax Appraisal
<b>2008</b>				
AT&T Communications	North America	2007	2008	Ad Valorem Tax Appraisal

## Appraisal &amp; Capital Recovery Activities Client List

<u>Company</u>	<u>Property</u>	<u>Study Year</u>	<u>Year Performed</u>	<u>Activity</u>
AT&T Communications	California	2007	2008	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2007	2008	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2007	2008	Ad Valorem Tax Appraisal
AT&T - Wisconsin Bell Telephone Company	Wisconsin	2007	2008	Ad Valorem Tax Appraisal
AT&T - Southwestern Bell Telephone Company	Arkansas, Kansas, Missouri, Oklahoma, Texas	2007	2008	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2007	2008	Ad Valorem Tax Appraisal
Embarq Texas, Inc.	Texas	2007	2008	Ad Valorem Tax Appraisal
Embarq Missouri, Inc.	Missouri	2007	2008	Ad Valorem Tax Appraisal
Embarq Northwest	Washington	2007	2008	Ad Valorem Tax Appraisal
Embarq Virginia	Virginia	2007	2008	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2007	2008	Ad Valorem Tax Appraisal
Verizon Communications	California	2007	2008	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2007	2008	Ad Valorem Tax Appraisal
Verizon Communications	New England Mass	2002-2007	2008	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2007	2008	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California, Michigan & Arizona	2007	2008	Ad Valorem Tax Appraisal
Global Crossing	North America	2007	2007	Ad Valorem Tax Appraisal
Intermountain Gas Company	Idaho	2007	2008	Depreciation Study

**2007**

AT&T Communications	North America	2006	2007	Ad Valorem Tax Appraisal
AT&T Communications	California	2006	2007	Ad Valorem Tax Appraisal
AT&T - Indiana Bell Telephone Company	Indiana	2006	2007	Ad Valorem Tax Appraisal
AT&T - Michigan Bell Telephone Company	Michigan	2006	2007	Ad Valorem Tax Appraisal
AT&T - Wisconsin Bell Telephone Company	Wisconsin	2006	2007	Ad Valorem Tax Appraisal
Embarq Florida, Inc.	Florida	2006	2007	Ad Valorem Tax Appraisal
Embarq Texas, Inc.	Texas	2006	2007	Ad Valorem Tax Appraisal
Embarq Missouri, Inc.	Missouri	2006	2007	Ad Valorem Tax Appraisal
Embarq North Carolina	North Carolina	2006	2007	Ad Valorem Tax Appraisal
Embarq Virginia	Virginia	2006	2007	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2006	2007	Ad Valorem Tax Appraisal
Verizon Communications	California	2006	2007	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2006	2007	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	North America	2006	2007	Ad Valorem Tax Appraisal
Qwest Communications Corporation	North America California	2006	2007	Ad Valorem Tax Appraisal
Level 3 Communications	North America, California, Michigan, & Arizona	2006	2007	Ad Valorem Tax Appraisal
Level 3 Communications	Arizona	2002 - 2006	2007	Ad Valorem Tax Appraisal
Global Crossing	North America	2006	2007	Ad Valorem Tax Appraisal
Alaska Communications System, Inc. (ACS)	ACS of Alaska ACS of Anchorage ACS of Fairbanks ACS of the Northland ACS Holdings	2006	2007	Depreciation Studies
Intermountain Gas Company	Idaho	2006	2007	Depreciation Study

## Appraisal &amp; Capital Recovery Activities Client List

<u>Company</u>	<u>Property</u>	<u>Study Year</u>	<u>Year Performed</u>	<u>Activity</u>
<b>2006</b>				
AT&T Communications	Palm Beach Florida	2000 - 2003	2006	Ad Valorem Tax Appraisal
AT&T Communications	North America	2005	2006	Ad Valorem Tax Appraisal
AT&T Communications	California	2005	2006	Ad Valorem Tax Appraisal
Sprint Florida, Inc.	Florida	2005	2006	Ad Valorem Tax Appraisal
Sprint Texas, Inc.	Texas,	2005	2006	Ad Valorem Tax Appraisal
Sprint Missouri, Inc.	Missouri	2005	2006	Ad Valorem Tax Appraisal
Sprint North Carolina	North Carolina	2005	2006	Ad Valorem Tax Appraisal
Sprint Virginia	Virginia	2005	2006	Ad Valorem Tax Appraisal
Embarq Nevada	Nevada	2005	2006	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2005	2006	Ad Valorem Tax Appraisal
Verizon Communications	California	2005	2006	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2005	2006	Ad Valorem Tax Appraisal
Verizon Business (formerly MCI)	Massachusetts	2002-2--5	2006	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2005	2006	Ad Valorem Tax Appraisal
Level 3 Communications	Arizona	2002-2006	2006	Ad Valorem Tax Appraisal
Global Crossing	North America	2005	2006	Ad Valorem Tax Appraisal
Indianapolis Power & Light	IPL	2005	2006	Depreciation Study
<b>2005</b>				
AT&T Communications	North America	2004	2005	Ad Valorem Tax Appraisal
AT&T Communications	California	2004	2005	Ad Valorem Tax Appraisal
Sprint Florida, Inc.	Florida	2004	2005	Ad Valorem Tax Appraisal
Sprint PCS	North America	2004	2005	Ad Valorem Tax Appraisal
Verizon Communications	Florida	2004	2005	Ad Valorem Tax Appraisal
Verizon Communications	California	2004	2005	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2004	2005	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	2004	2005	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2004	2005	Ad Valorem Tax Appraisal
Global Crossing	North America	2004	2005	Ad Valorem Tax Appraisal
Global Crossing	New York Special Franchise Property	2003 & 2004	2005	Ad Valorem Tax Appraisal
Indianapolis Power & Light	IPL	2004	2005	Depreciation Study
<b>2004</b>				
Sprint Florida, Inc.	Florida	2003	2004	Ad Valorem Tax Appraisal
Verizon Communications	California	2003	2004	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2003	2004	Ad Valorem Tax Appraisal
Verizon Communications	New England	2003	2004	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	2003	2004	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2003	2004	Ad Valorem Tax Appraisal
Global Crossing	North America	2003	2004	Ad Valorem Tax Appraisal
Sprint PCS	Cost Indexes	2003	2004	Ad Valorem Tax Appraisal
AT&T Communications	North America	2003	2004	Ad Valorem Tax Appraisal
AT&T Communications	California	2003	2004	Ad Valorem Tax Appraisal
Intermountain Gas Company	Idaho	2003	2004	Depreciation Study
<b>2003</b>				
Sprint Florida, Inc.	Florida	2002	2003	Ad Valorem Tax Appraisal
Verizon Communications	California	2002	2003	Ad Valorem Tax Appraisal

## Appraisal &amp; Capital Recovery Activities Client List

<u>Company</u>	<u>Property</u>	<u>Study Year</u>	<u>Year Performed</u>	<u>Activity</u>
Verizon Communications	Northwest	2002	2003	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	2002	2003	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2002	2003	Ad Valorem Tax Appraisal
Sprint PCS	Cost Indexes	2002	2003	Ad Valorem Tax Appraisal
AT&T Communications	North America	2002	2003	Ad Valorem Tax Appraisal
AT&T Communications	California	2002	2003	Ad Valorem Tax Appraisal
Global Crossing	North America	2002	2003	Ad Valorem Tax Appraisal
Verizon Wireless	Broward County, FL	1998 through 2002	2003	Ad Valorem Tax Appraisal
<b>2002</b>				
Sprint Florida, Inc.	Florida	2001	2002	Ad Valorem Tax Appraisal
Verizon Communications	California	2001	2002	Ad Valorem Tax Appraisal
Verizon Communications	Northwest	2001	2002	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	2001	2002	Ad Valorem Tax Appraisal
Level 3 Communications	North America	2001	2002	Ad Valorem Tax Appraisal
Global Crossing	North America	2001	2002	Ad Valorem Tax Appraisal
AT&T Wireless	Plymouth, MI	2001	2002	Ad Valorem Tax Appraisal
Sprint PCS	Cost Indexes	2001	2002	Ad Valorem Tax Appraisal
AT&T Communications	North America	2001	2002	Ad Valorem Tax Appraisal
Intermountain Gas Company	Idaho	2001	2002	Depreciation Study
AT&T Communications	California	2001	2002	Ad Valorem Tax Appraisal
<b>2001</b>				
Verizon	Verizon - New York	2001	2001-2	Functional Obsolescence & Useful Life studies for valuation
Sprint Florida, Inc.	Sprint Florida, Inc.	2000	2001	Ad Valorem Tax Appraisal
Verizon Communications	California	2000	2001	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	2000	2001	Ad Valorem Tax Appraisal
Global Crossing	North America	2000	2001	Ad Valorem Tax Appraisal
Sprint PCS	Cost Indexes	2000	2001	Ad Valorem Tax Appraisal
Sprint Corporation	Centel - Nevada	2000	2001-2	Depreciation Study
Alaska Communications System, Inc. (ACS)	ACS of Alaska	2000	2001	Depreciation Study
	ACS of Anchorage			
	ACS of Fairbanks			
	ACS of the Northland			
	ACS Holdings			
<b>2000</b>				
Sprint PCS	BTS Equipment	2000	2000	Economic Life Study
Telus Communications	Telus - Alberta & British Columbia	2000	2000	Depreciation study Phase III Price Caps
Sprint Florida, Inc.	Florida	1999	2000	Ad Valorem Tax Appraisal
Verizon Communications	California	1999	2000	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	1999	2000	Ad Valorem Tax Appraisal
<b>1999</b>				
Sprint Corporation	Centel - Nevada	1998	1999	Depreciation Study
Intermountain Gas Company	Intermountain Gas Company	1998	1999	Depreciation Study
Sprint Florida, Inc.	Florida	1998	1999	Ad Valorem Tax Appraisal

## Appraisal &amp; Capital Recovery Activities Client List

<u>Company</u>	<u>Property</u>	<u>Study Year</u>	<u>Year Performed</u>	<u>Activity</u>
Sprint Communications, LP	North America	1998	1999	Ad Valorem Tax Appraisal
<b>1998</b>				
Frontier Corporation	Frontier Telephone of Rochester	1998	1997	Valuation depreciation Lives and Net Salvage Parameters
Pacific Telecom, Inc.	Telephone Utilities of Washington	1997	1998	Depreciation Study
Sprint Florida, Inc.	Florida	1997	1998	Ad Valorem Tax Appraisal
Verizon Communications	Florida	1997	1998	Ad Valorem Tax Appraisal
Sprint Communications, LP	North America	1997	1998	Ad Valorem Tax Appraisal
Sprint Corporation	United Telephone Company of South Carolina	1998	1998	Depreciation Expense Universal Service Fund
Sprint Corporation	Carolina Telephone and Telegraph and Central Telephone of North Carolina	1998	1998	Depreciation Expense Universal Service Fund
Telus Communications	Telus - Edmonton (TCE)	1997	1998	Depreciation Study Phase II Price Caps
<b>1997</b>				
Sprint Corporation	Centel - Nevada	1997	1997	Unbundling/ Inter-connection Depreciation Study
Pacific Telecom, Inc.	Telephone Utilities of Oregon	1996	1997	Depreciation Study
Pacific Telecom, Inc.	Telephone Utilities of Alaska 1996 And the Northland		1997	Depreciation Study
Telus Communications	Telus - TCI formerly AGT	1996	1997	Depreciation Study Phase II Price Caps
Indianapolis Power & Light	IPL	1996	1997	Depreciation Study
Sprint Florida, Inc.	Florida	1996	1997	Ad Valorem Tax Appraisal
Verizon Communications	Florida	1996	1997	Ad Valorem Tax Appraisal
Pacific Telecom, Inc.	Eagle Telephone (Colorado) 1996		1997	Depreciation Study
<b>1996</b>				
Intermountain Gas Company	Intermountain Gas Company	1995	1996	Depreciation Study
Sprint Florida, Inc.	Florida	1995	1996	Ad Valorem Tax Appraisal
Century Telephone	Century Telephone of Ohio, Inc.	1995	1996	Depreciation Study
Telus Communications	AGT Limited (Alberta Government Telephones)	1995	1996	Depreciation Study
Johnson County Kansas Office of the Assessor	Useful Life of Computer Equipment	1995	1995	Useful/Market Life Analysis

**QUALIFICATIONS 10**

**Appraisal & Capital Recovery Activities Client List**

<u>Company</u>	<u>Property</u>	<u>Study Year</u>	<u>Year Performed</u>	<u>Activity</u>
Milwaukee Metropolitan Sewerage District	Milwaukee Metropolitan Sewerage District	1995	1996	Depreciation Study
Sprint Corporation	Long Distance Division	1995	1995	Depreciation/Recovery Status Study
Sprint Corporation	Cellular Division	1995	1995	Depreciation/Recovery Status Study
Pacific Telecom, Inc.	Alascom, Inc.	1994	1995	Depreciation Study
Pacific Telecom, Inc.	Telephone Utilities of the Northland	1993	1994	Depreciation Study
	Telephone Utilities of Alaska	1993	1994	Depreciation Study
Indiana Energy	Indiana Gas Company	1993	1994	Depreciation Study
Columbia Gas Transmission	Gas Pipeline Property in Sullivan County, NY	1993	1993	Useful Life Study
United Telephone - Midwest Group	United Telephone Company of Missouri	1993	1993	Modernization/Depreciation Study
Intermountain Gas Co.	Intermountain Gas Co.	1992	1993	Depreciation Study
Pacific Telecom, Inc.	Alascom, Inc.	1992	1993	Depreciation Study
	Telephone Utilities of Oregon, Inc.	1991	1992	Depreciation Study
	Telephone Utilities of Washington, Inc.	1991	1992	Depreciation Study
Small Telephone Company Coalition	Oregon Small Telephone Companies	1991	1992	Depreciation Support
United Telephone Systems	United Telephone Co. of Pennsylvania	1991	1992	Instructional Depreciation Study
New York State Division of Equalization and Assessment	Electric, Gas, Water, Telephone, Pipeline, Steam, CATV	1991	1992	Useful Lives and Net Salvage Values
Rochester Telephone Company	Enterprise Telephone	1991	1992	Study Review
Indiana Energy	Indiana Gas/Richmond Gas/Terre Haute Gas	1990	1991	Depreciation Study
American Electric Power	Indiana/Michigan Power Co.	1990	1991	Depreciation Study

## Appraisal &amp; Capital Recovery Activities Client List

<u>Company</u>	<u>Property</u>	<u>Year</u>	<u>Study Performed</u>	<u>Year</u>	<u>Activity</u>
Rochester Telephone Company	Rochester Telephone Co.	1990	1991		Study Review
United Telephone Systems	United Telephone Co. of Florida	1990	1991		Instructional Depreciation Study
United Telephone Systems	United Telephone Co. of Oregon	1989	1990		Study Review
Telephone and Data Systems, Inc.	Quincy Telephone Company	1990	1991		Depreciation Study
Telephone and Data Systems, Inc.	Wolverine Telephone Company	1989	1990		Depreciation Study
Indiana Energy	Indiana Gas Company, Inc.	1989	1990		Depreciation Study
Intermountain Gas Co.	Intermountain Gas Co.	1989	1990		Remaining Life/Net Salvage Support
North-West Telephone Company	North-West Telephone Company	1989	1990		Study Review
United Telephone System	United of Texas	1989	1990		Instructional Depreciation Study
	United of Missouri	1989	1990		Instructional Depreciation Study
Milwaukee Water	Milwaukee Water	1989	1990		Depreciation Study
Indiana Natural Gas Corp.	Indiana Natural Gas Corp.	1989	1990		Depreciation Study
Pacific Telecom	Telephone Utilities of the Northland	1989	1990		Depreciation Study
	Telephone Utilities of Alaska	1989	1990		Depreciation Study
	Alascom	1989	1990		Depreciation Study
	Telephone Utilities of Washington, Inc.	1988	1989		Depreciation Study
WICOR	Wisconsin Gas Company	1988	1989		Depreciation Study
ALLTEL	ALLTEL - Kentucky, Inc.	1987	1989		Depreciation Study
	ALLTEL - Ohio, Inc.	1988	1989		Depreciation Study

**Utility Industries  
Capital Recovery Activities Client List**

<u>Company</u>	<u>Property</u>	<u>Year</u>	<u>Study Performed</u>	<u>Year</u>	<u>Activity</u>
	Western Reserve Telephone Company	1988	1989		Depreciation Study
Milwaukee Metropolitan Sewer District	Milwaukee Metropolitan Sewer District	1988	1989		Depreciation Study
United Telephone Company	United of Ohio Telephone Company	1988 1988	1989 1989		ELG Support ELG Support
United Telecom	U.S. Sprint	1988	1988		Useful Life Study
Pacific Telecom	Telephone Utilities of Oregon	1987	1988		Depreciation Study
	Telephone Utilities of Eastern Oregon	1987	1988		Depreciation Study
	Rose Valley Telephone Company	1987	1988		Depreciation Study
United Telephone	United of Minnesota	1987	1988		Capital Planning Support
Wisconsin Southern Gas	Wisconsin Southern Gas	1987	1988		Depreciation Study
Pacific Telecom	Glacier State Telephone Company	1986	1987		Depreciation Study
	Sitka Telephone Co.	1986	1987		Depreciation Study
	Juneau-Douglas Tel Company	1986	1987		Depreciation Study
Pacific Telecom	Telephone Utilities of Alaska	1986	1987		Depreciation Study
	Alascom	1986	1987		Depreciation Study
Lincoln Telecommunications	Lincoln Telephone and Telegraph Company	1986	1987		Digital Switching Service Life
Northwest Natural Gas Corporation	Northwest Natural Gas Corporation	1985	1986		Depreciation Study
ALLTEL	Western Reserve Telephone Company	1984	1985		Depreciation Study
	ALLTEL - Ohio	1984	1985		Depreciation Study
	ALLTEL - Alabama	1984	1985		Depreciation Study
Gulf Telephone Co.	Gulf Telephone Company	1984	1985		Depreciation Study



## Appraisal &amp; Capital Recovery Activities Client List

<u>Company</u>	<u>Property</u>	<u>Study Year</u>	<u>Year Performed</u>	<u>Activity</u>
United Telephone Systems, Inc.	United of Iowa	1984	1985	Depreciation Study
	United of Arkansas	1984	1985	Depreciation Study
Pacific Telecom	Telephone Utilities of Washington	1983	1984	Depreciation Study
	Telephone Utilities of Eastern Oregon	1983	1984	Depreciation Study
Pacific Telecom	Telephone Utilities of Oregon	1983	1984	Depreciation Study
	Northwestern Telephone Systems, Inc., Oregon	1983	1984	Depreciation Study
	Rose Valley Telephone Company	1983	1984	Depreciation Study
United Telecommunications	All United Telephone Companies	1983	1984	Capital Recovery Strategy
Lincoln Telecommunications	Lincoln Telephone & Telegraph Company	1983	1984	Depreciation Study
ALLTEL	ALLTEL - Mississippi	1982	1983	Depreciation Study
	ALLTEL - Michigan	1982	1983	Depreciation Study
North Carolina Natural Gas Corp.	North Carolina Natural Gas Corporation	1982	1983	Depreciation Study
Mid Continent Telephone (Currently ALLTEL)	Western Reserve Telephone	1982	1983	Depreciation Study
	Mid Ohio Telephone	1982	1982	Depreciation Study
	Florence Telephone Company	1980	1981	Depreciation Study
	Leeds Telephone Co.	1980	1981	Depreciation Study
	Elmore Coosa Tel Company	1980	1981	Depreciation Study
	Brookville Telephone Company	1980	1981	Depreciation Study
	Mid-Pennsylvania Telegraph	1980	1981	Depreciation Study
	Telephone Utilities (Currently Pacific Telecom)	Telephone Utilities of Oregon	1979	1980
	Telephone Utilities of	1979	1980	Depreciation Study

**Papers and Seminars**

	Eastern Oregon			
	Northwestern Telephone Systems, Inc.-Oregon	1979	1980	Depreciation Study
	Rose Valley Telephone Company	1979	1980	Depreciation Study
United Telephone Systems, Inc.	United of Ohio	1979	1980	Depreciation Study
Telephone Utilities	Telephone Utilities of Washington	1978	1979	Depreciation Study
United Telephone Systems, Inc.	United of Ohio	1978	1979	Depreciation Study
Rochester Telephone	Rochester Telephone (Indiana)	1977	1978	Depreciation Study
United Telephone Systems, Inc.	United of Ohio	1977	1978	Depreciation Study
Princeton Telephone	Princeton Telephone (Indiana)	1976	1977	Depreciation Study
Northwestern Telephone	Northwestern Telephone (Illinois)	1975	1976	Depreciation Study

**Papers and Seminars**

- 2011      Training Instructor Depreciation Basics Sessions A & B and Life and Salvage Analysis  
Society of Depreciation Professionals 25<sup>th</sup> Annual Meeting  
Atlanta, GA September 20-22, 2011
- 2010      Will the Real Cost Approach Please Stand Up?  
National Association of Property Tax Representatives Transportation, Energy, & Communications (NAPTR-TEC)  
Scottsdale, Arizona October 25-27, 2010
- Issues Affecting Assessment of Regulated Industries  
Institute for Professionals in Taxation (IPT) Property Tax Symposium  
Austin, Texas October 31 – November 3, 2010
- 2009      (Valuing) Intangibles  
Appraisal for Ad Valorem Taxation, Wichita State University  
Wichita, Kansas July 28, 2009
- Fair Value Accounting (Appraisal Panelist)  
Appraisal for Ad Valorem Taxation, Wichita State University  
Wichita, Kansas July 29, 2009
- 2008      Valuation Issues Valuation of Assets and the Impact of Depreciation  
Society of Depreciation Professionals Annual Meeting  
Greenville, SC September 21-26, 2008
- Obsolescence in the Long-Distance and Local Transport Networks  
Technology Futures Inc. Asset Valuation Conference  
Austin Texas February 8, 2008
- 2007      Communications Industry Issues  
National Association of Property Tax Representative – Transportation, Energy, & Communications  
New Orleans, LA October 30, 2007
- 2006      Appraisal Procedures & Issues in a Changing communications Industry  
Florida Chapter International Association of Assessing Officers' Tangible Personal Property Conference  
Ocala, Florida January 12, 2006
- Valuation of Intangibles  
Appraisal for Ad Valorem Taxation, Wichita State University  
Wichita, Kansas July 25, 2006
- SDP 20 years of History and Beyond  
Society of Depreciation Professionals 20<sup>th</sup> Annual Meeting  
Long Beach, CA September 18, 2006
- 2005      Valuation in a World with Asset Impairments  
Appraisal for Ad Valorem Taxation, Wichita State University  
Wichita, Kansas August 1, 2005

**Papers and Seminars**

- 2004      Depreciation in the Valuation of Assets  
Society of Depreciation Professionals' Eighteenth Annual Meeting  
Washington, D.C., September 13, 2004
- 2003      Cost Approach and the Use of Appraisal Guidelines  
Institute for Professionals in Taxation – Property Tax Symposium  
Fort Lauderdale, FL, September 17, 2003
- Cost Approach – Obsolescence and Depreciation  
Appraisal for Ad Valorem Taxation, Wichita State University  
Wichita, Kansas, July 28, 2003
- 2000      Appraisal Issues Associated with Technological Change in the Wireline Telecommunications Industry  
Appraisal for Ad Valorem Taxation, Wichita State University  
Wichita, Kansas, July 31, 2000
- The Impact of Advancing Technology and the Changing Regulatory Environment on Obsolescence Calculations for Ad Valorem Valuation Purposes  
Journal of Property Tax Management, Spring 2000
- 1996      How to Develop a Reproduction/Replacement Cost New Less Depreciation Approach to Value  
Appraisal for Ad Valorem Taxation, Wichita State University  
Wichita, Kansas, August 4, 1996
- 1995      Valuation Method, Techniques and Strategies (How to Quantify Stranded Investment) (Market, Income, & Cost Approach)  
AGA Depreciation Committee Meeting  
Denver, Colorado, August 6-9, 1995, jointly presented with Earl Robinson of AUS Consultants
- 1994      Integrating Future Expectations for the Telephone Industry into Historical Depreciation Analysis  
United States Telephone Association (USTA's 1994 Capital Recovery Seminar)  
Scottsdale, Arizona, September 12-13, 1994
- 1994      Capital Recovery: United States versus Canada  
Canadian Telephone Industry's Annual Capital Recovery Seminar  
Edmonton, Alberta, Canada June 14-15, 1994
- 1990      Capital Recovery: Methods, Terminology, Procedures, and Record Keeping  
United States Telephone Association (USTA)'s  
1990 Non-FCC Subject and Small Company Capital Recovery Seminar  
Minneapolis, Minnesota April 10\_11, 1990
- Integration of Technology Forecasting Into Historical Life Studies  
29th Iowa State Regulatory Conference  
Ames, Iowa May 15-17, 1990
- The 1990's and the Second Wave of Major Plant Retirements in the Communications Industry  
NARUC's Seventh Biennial Information Conference  
Columbus, Ohio September 12-14, 1990

**Papers and Seminars**

How Do We Incorporate Change into the Study Filing Procedures?  
USTA's 1990 Capital Recovery Seminar  
Chicago, Illinois October 16\_17, 1990

1989 Plant Modernization: Capital Planning and Capital Recovery  
Midwest Utilities Conference  
Chicago, Illinois September 11\_14, 1989

Price Indexes Today: Procedures, Uses, and Misuses  
Society of Depreciation Professionals' Third Annual Meeting  
New Orleans, Louisiana December 6\_7, 1989

1988 Plant Modernization: Capital Planning and Capital Recovery  
National Association of Regulatory Utility Commissioners (NARUC)'s  
Sixth Biennial Regulatory Information Conference  
Columbus, Ohio September 14\_16, 1988

**Papers and Seminars**

- 1997 Sprint Corporation - West Finance Center  
Overland Park, Kansas, August 1997
- 1997 Rochester Telephone Corporation  
Rochester, New York, April 1997
- 1996 Sprint-Florida-Vista United Telecommunications  
Altamonte Springs, Florida August 27-29, 1996
- 1994 Saskatchewan Telecommunications  
Regina, Saskatchewan, Canada, June 1994
- 1994 AUS Consultants/Leroy J. Murphy and Associates 1994 Capital Recovery Seminar  
May 1994
- 1993 Manitoba Telephone System, Winnipeg, Manitoba, December 1993
- 1993 Society of Depreciation Professionals Annual Meeting  
Charleston, South Carolina September 30, 1993
- 1993 SPRINT - Local Telephone Division  
Atlanta, Georgia August 11-12, 1993
- 1993 AUS Consultants/Leroy J. Murphy and Associates 1993 Capital Recovery Seminar  
Chicago, Illinois May 11 - 13, 1993
- 1993 Canadian Telephone Capital Recovery Seminar  
Halifax, Nova Scotia April 20 - 22, 1993
- 1993 United Telephone, Midwest Group  
Overland Park, Kansas January 20, 1993
- 1992 BellSouth Corporation  
Birmingham, Alabama November 23, 1992
- 1992 Sprint - Local Telephone Division  
Kansas City, Kansas November 18 - 20, 1992
- 1992 Society of Depreciation Professionals Annual Meeting  
San Antonio, Texas September 9 - 10, 1992
- 1992 AUS Consultants/Leroy J. Murphy and Associates 1992 Capital Recovery Seminar  
Chicago, Illinois October 6 - 8, 1992
- 1991 Society of Depreciation Professionals Annual Meeting  
Nashville, Tennessee November 20-22, 1991
- 1991 ALLTEL Corporation Microcomputer Depreciation Studies System Training  
Hudson, Ohio October 14-16, 1991

**Capital Recovery Training**

- 2016 Society of Depreciation Professionals  
Annual Training  
Charleston, South Carolina, September 18-23, 2016
- 2015 Society of Depreciation Professionals  
Annual Training  
Austin Texas September 2015
- 2014 Society of Depreciation Professionals  
Annual Training  
New Orleans, Louisiana September 2014
- 2013 Society of Depreciation Professionals  
Annual Training  
Salt Lake City, Utah September 2013
- 2012 Society of Depreciation Professionals  
Annual Training  
Minneapolis, Minnesota, September 16-18, 2012
- 1991 United Telecommunications, Inc., Capital Recovery/Microcomputer Depreciation  
Studies System Training  
Kansas City, Kansas September 23-25, 1991
- 1991 AUS Consultants/Leroy J. Murphy and Associates 1991 Capital Recovery Seminar  
Lake Geneva, Wisconsin September 17-19, 1991
- 1991 Rochester Telephone Corporation, Capital Recovery/Microcomputer Depreciation Studies  
System Training, Rochester, New York September 3-7, 1991
- 1991 Ameritech Services, Microcomputer Depreciation Studies System Training  
Chicago, Illinois May 16-17, 1991
- 1991 AUS Consultants/Leroy J. Murphy and Associates 1991 Capital Recovery Seminar  
Washington, D.C. April 9\_11, 1991
- 1990 United Telecommunications, Inc., Capital Recovery Seminar  
Overland Park, Kansas December 1990
- 1990 AUS Consultants/Leroy J. Murphy and Associates 1990 Capital Recovery Seminar  
Chicago, Illinois September 24\_27, 1990
- 1990 AUS Consultants/Leroy J. Murphy and Associates 1990 Capital Recovery Seminar  
Chicago, Illinois January 29-February 1, 1990
- 1990 United Telecommunications, Inc., Capital Recovery/Microcomputer Depreciation Studies  
System Training, Chicago, Illinois July 1990
- 1989 United Telecommunications, Inc., Capital Recovery/Microcomputer Depreciation Studies  
System Training, Chicago, Illinois July 1989

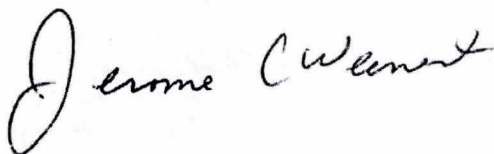
**Capital Recovery Training**

- 1989           AUS Consultants/Leroy J. Murphy and Associates 1989 Capital Recovery Seminar  
                  Chicago, Illinois March 6\_9, 1989
- 1988           AUS Consultants/Leroy J. Murphy and Associates 1988 Capital Recovery Seminar  
                  Chicago, Illinois July 25\_28, 1988
- 1988           United Telecommunications, Inc., Microcomputer Depreciation Studies System Training  
                  Kansas City, Kansas January 1988



## VERIFICATION

I, Jerome C. Weinert, P.E., hereby state that the facts above set forth above are true and correct to the best of my knowledge, information and belief, and that I expect to be able to prove the same at a hearing held in this matter. I understand that the statements made herein are made subject to the penalties of 18 Pa. Cons. Stat. §4904 relating to unsworn falsification to authorities.



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Jerome C. Weinert, P.E. Principal and Director  
AUS Consultants, Inc.

Dated: *October 7, 2020*