

**Table 4-1
Village of Ransom, Illinois Replacement Cost New Less
Physical Depreciation**

Description and Unit Distribution System	Quantity	Unit Cost	Reproduction Cost New	Age	Average Service Life	Physical Depreciation	Reproduction Cost New Less Depreciation
Services Each	184	\$ 350	\$ 64,400	20	50	\$ 25,800	\$ 38,600
1" Water Main	276	\$ 12	\$ 3,312	27.5	80	\$ 1,139	\$ 2,173
2" Water Main	2,819	\$ 16	\$ 45,104	27.5	80	\$ 15,505	\$ 29,599
4" Water Main	1,297	\$ 20	\$ 25,940	27.5	80	\$ 8,917	\$ 17,023
6" Water Main	24,707	\$ 30	\$ 741,210	27.5	80	\$ 254,791	\$ 486,419
8" Water Main	3,936	\$ 39	\$ 153,504	27.5	80	\$ 52,767	\$ 100,737
6" GV's Each	75	\$ 1,250	\$ 93,750	27.5	50	\$ 51,563	\$ 42,187
4" GV's Each	2	\$ 750	\$ 1,500	27.5	50	\$ 825	\$ 675
Hydrants Each	27	\$ 3,390	<u>\$ 91,530</u>	27.5	65	<u>\$ 38,724</u>	<u>\$ 52,806</u>
Subtotal Distribution System			\$ 1,220,250			\$ 450,031	\$ 770,219
Water Supply Treatment & Storage							
Well #4	Lump Sum Ea.	\$ 60,000	\$ 60,000	1971/2014 44/1	47/4	\$ 35,585	\$ 24,415
Well #3	Lump Sum Ea.	\$ 20,000	<u>\$ 20,000</u>	1946 69	72	<u>\$ 19,167</u>	<u>\$ 833</u>
	Subtotal Wells		\$ 80,000			\$ 54,752	\$ 25,248
Water Treatment Plant – Abandoned and Non-Compliant							\$ 0
2 @ 10 Hp HSP	Lump Sum Ea.	\$ 16,000	\$ 16,000	Rebuilt 2012	Salvage	\$ 14,000	\$ 2,000
Elevated Storage Tank							
75,000 Gal	115	Nom EST Ea.	\$ 250,000	25	70	<u>\$ 89,286</u>	<u>\$ 160,714</u>
Subtotal Water Supply, Treatment & Storage			\$ 346,000			\$ 158,038	\$ 187,962
Subtotal Facilities			\$ 1,566,250			\$ 608,069	\$ 958,181
Overheads @ 18.5%			<u>\$ 289,756</u>			<u>\$ 112,493</u>	<u>\$ 177,263</u>
Totals			\$ 1,856,006			\$ 720,562	<u>\$ 1,135,444</u>
Rounded RCNLPD							\$ 1,140,000

Table 4-2
Village of Ransom Replacement Cost New Less Depreciation
(TPP) plus Going Concern (IP) Summary

Description	Amount
1. Replacement Cost New	\$1,856,000
2. Physical Depreciation	720,562
3. RCNLPD	\$1,135,444
4. Consumables & Inventory	N/A
5. Equipment & Tools	2,200
6. Records, Report, O&M, etc	10,000
7. Deficiencies & Deferred Maintenance	(150,000)
8. Functional Depreciation	(220,000)
Rounded Subtotal	\$777,000
9. External Depreciation	(310,000)
10. Going Concern	35,000
RCNLD Rounded	\$502,000

Section 5

SECTION 5 INCOME APPROACH

The purpose of this section of the Report is to consider the applicability and appropriateness of calculating the value of the System based on the income approach. In general, the income approach values the System based on the present value of the available cash flows generated from the ongoing operations of the System. However, in this particular instance there are several unique and mitigating factors which would tend to diminish the importance of the income approach in the determination of value, such that the weighting applied to this approach would be zero.

The income approach requires the use of the historic customer growth rates, consumption patterns, weather variability, utility revenues, utility expenses, capital requirements, debt service, current budgets, historic budget variances, etc. These historic data are used to create a "typical" financial year for the utility which is called a Test Year. The Test year is the starting point for a projection of the utility's financials for some period into the future, typically 20 to 30 years. The present value of the net income of the utility over this projection period is used, along with potential reversion value (the net income in the last year of the projection period capitalized to reflect ongoing operations in perpetuity) to determine the opinion of value for the income approach. In this particular instance, none of the base data are available to create a Test Year. American is the entity that will purchase each System, they are regulated by the ICC which would have to establish the appropriate rates and charges for each System. The rates that may be approved, as well as operations and maintenance costs, renewal and replacement program, capital improvement program, etc. are purely speculative at this point in time. Therefore, it is nearly impossible to create a proforma financial analysis of each System with any confidence in the results.

Because of the reasons discussed above, I have determined that the income approach is not applicable for these Systems.

Section 6

SECTION 6 COMPARABLE SALES APPROACH

The third approach is the Comparable Sales Approach. This approach provides an indication of value by analyzing recent sales of similar property to the subject or the Village of Ransom Water System.

This approach is most reliable when the subject property sold at FMV recently or there is an active market providing a sufficient number of sales of comparable properties. That is not the case with this system.

While the system is a special purpose property and has certain unique characteristics, it is not so unique that the approach is not feasible. There is an active sales market for water utilities in Illinois and nationally.

The system such as Ransom would sell as a complete utility property with all rights and privileges and as an on-going concern (i.e., a “live” plant versus a “dead” plant).

The water utility market is a monopoly with an exclusive service area which can not be invaded without a special circumstance.

USPAP in the Frequently Asked Question concerning pending sales as a comparable (page F-105); addresses the question as “USPAP does not require the use of a pending sale as a comparable, nor does USPAP prohibit such use”. The response continues with the statement that “not considering a pending sale of a property highly similar to the subject could constitute an omission that would significantly affect the appraisal”.

A recent sale is North Maine Utilities (NMU) with a water ERC at approximately \$2,200 per ERC.

The selected sales are shown on **Table 6-1**.

These sales have to be timed adjusted to the present.

The time adjustment factors are taken from **Table 6-2**.

The effects of the time adjustment are shown on **Table 6-3**.

The average result is \$2,186. NMU approximates that amount as a recent verification. Therefore, for the purposes of this report I am using the amount of \$1,500 per connection for the indicator of market sales due to the (1) location, (2) quality of assets as somewhat below the average and the, (3) USEPA consent order for radium in the water.

There are 184 service connections. Based upon my inspection there were 17 non-residential properties. The residential flat rate is \$53.00 per month. The non-residential rate is \$75.00 per month or 1.415 ERC's. The 17 non-residential services then equates to 24 ERC's. The total ERC's becomes 167 residential ERC's plus 24 non-residential ERC or a total of 191 ERC's. Applying the \$1,500 per water ERC found above results in \$286,500 or \$287,000 rounded.

Table 6-4 presents the effect of the factor applied to the system as shown below.

Table 6-1
ILLINOIS WATER SYSTEM
COMPARABLE SALES ANALYSIS
Asset Composition Adjustment

<u>No.</u>	<u>Name of Utility</u>	<u>Name of Purchasers</u>	<u>System Type</u>	<u>Year</u>	<u>Water System</u>		
					<u>Alloc P.P.</u>	<u>Conn</u>	<u>\$/Conn</u>
1	Moecherville Water District	Aqua Illinois	W	2012	\$ 1,470,000	400	\$ 3,675.00
2	Village of Philo	Aqua Illinois	W	2004	\$ 599,675	540	\$ 1,110.51
3	Olwen Heights	Pennsylvania American	W	2013	\$ 461,250	175	\$ 2,635.71
4	Claysville Donegal Joint Municipal Authority	Pennsylvania American	W/S	2008	\$ 837,200	550	\$ 1,272.73
5	Mifflin Township Water Authority	Aqua Pennsylvania	W	2012	\$ 1,155,000	600	\$ 1,925.00
6	Town of Waveland	American Water Indiana	W	2009	\$ 800,175	213	\$ 3,756.69
7	Town of Darlington	Aqua Indiana	W	2006	\$ 321,045	315	\$ 1,019.19
8	Wingert Water System	Aqua Texas	W	2012	\$ 1,984,500	1,100	\$ 1,804.09
9	Royal Oaks Water System	Aqua Texas	W	2012	\$ 42,000	40	\$ 1,050.00
10	East Pasco Utilities	Pasco County	W/S	2003	\$ 2,798,127	1,693	\$ 1,652.76
11	Carolina Water Service	Dorchester County	W/S	2006	\$ 994,443	779	\$ 1,276.56
12	Park Manor Waterworks, Inc.	Orange County	W/S	2003	\$ 1,451,580	1,436	\$ 1,010.85

The time adjustment factors are taken from Table 6-2.

Table 6-2							
Escalation Indices							
	FPSC Annual Commission- Approved Index of Regulated Water & WW Utilities	U.S. Dept. of Labor Bureau of Labor Stats Customer Price Index Avg. All Urban Consumers (CPI-U) US		Engineering News Record Construction Cost Index		Risk Free Rate as calculated from Daily U.S. Treasury Yield Curve Rates	
Year	FPSC Price Deflator	CPI - U		ENR CCI		Ann. Avg Risk Free Rate	
		Index	% Chg.	Index	% Chg.	%	Chg.
		90.9		3,535			
1982	9.02%	96.5	6.13%	3,825	8.20%		
1983	5.99%	99.6	3.21%	4,066	6.30%		
1984	4.25%	103.9	4.30%	4,146	1.97%		
1985	3.76%	107.6	3.55%	4,195	1.18%		
1986	3.33%	109.6	1.90%	4,295	2.38%		
1987	2.69%	113.6	3.66%	4,406	2.58%		
1988	2.89%	118.3	4.08%	4,519	2.56%		
1989	4.35%	124.0	4.83%	4,615	2.12%		
1990	4.12%	130.7	5.40%	4,732	2.54%	8.61%	
1991	4.12%	136.2	4.23%	4,835	2.18%	8.14%	-0.47%
1992	3.63%	140.3	3.03%	4,985	3.10%	7.67%	-0.47%
1993	3.33%	144.5	2.95%	5,210	4.51%	6.59%	-1.07%
1994	2.56%	148.2	2.61%	5,408	3.80%	7.37%	0.78%
1995	1.95%	152.4	2.81%	5,471	1.16%	6.88%	-0.49%
1996	2.49%	156.9	2.93%	5,620	2.72%	6.71%	-0.17%
1997	2.13%	160.5	2.34%	5,826	3.67%	6.61%	-0.10%
1998	2.10%	163.0	1.55%	5,920	1.61%	5.58%	-1.03%
1999	1.21%	166.6	2.19%	6,059	2.35%	5.87%	0.30%
2000	1.36%	172.2	3.38%	6,221	2.67%	5.94%	0.07%
2001	2.50%	177.1	2.83%	6,343	1.96%	5.49%	-0.45%
2002	2.33%	179.9	1.59%	6,538	3.07%	5.40%	-0.09%
2003	1.31%	184.0	2.27%	6,694	2.39%	4.96%	-0.44%
2004	1.60%	188.9	2.68%	7,115	6.29%	5.04%	0.09%
2005	2.17%	195.3	3.39%	7,446	4.65%	4.64%	-0.40%
2006	2.74%	201.6	3.23%	7,751	4.10%	4.89%	0.24%
2007	3.09%	207.3	2.85%	7,966	2.77%	4.84%	-0.05%
2008	2.39%	215.3	3.84%	8,310	4.32%	4.28%	-0.56%
2009	2.55%	214.5	-0.36%	8,570	3.13%	4.08%	-0.20%
2010	0.56%	218.1	1.64%	8,802	2.71%	4.25%	0.17%
2011	1.18%	224.9	3.16%	9,066	2.99%	3.91%	-0.34%
2012	2.41%	229.6	2.07%	9,313	2.73%	2.92%	-0.99%
2013	1.63%	233.0	1.46%	9,546	2.50%	3.45%	0.52%
2014	1.41%	235.0	0.88%	9,699	1.61%	3.66%	0.21%
30-Yr Avg	2.46%		2.88%		2.89%		
20-Yr Avg	1.96%		2.42%		3.08%	5.16%	
10-Yr Avg	2.01%		2.40%		3.62%	4.23%	
5-Yr Avg	1.44%		1.60%		2.81%	3.72%	
1-Yr Avg						3.66%	
	(Estab. Jan 27, 2014)	(Through Mar 2014)		(Through Apr 2014)		Through 04/22/2014	
	(Upd. April 23, 2014)	(Upd. April 23, 2014)		(Upd. Apr 23, 2014)		(Upd. Apr 23, 2014)	

**Table 6-3
ILLINOIS WATER SYSTEM
COMPARABLE SALES ANALYSIS
Time Adjustment**

<u>No.</u>	<u>Name of Utility</u>	<u>Name of Purchasers</u>	<u>System Type</u>	<u>Year</u>	<u>Water System</u>		
					<u>Sale \$/Conn</u>	<u>Time Factor⁽¹⁾</u>	<u>Adjusted \$/Conn</u>
1	Moecherville Water District	Aqua Illinois	W	2012	\$ 3,675.00	1,073	\$ 3,943.00
2	Village of Philo	Aqua Illinois	W	2004	\$ 1,110.51	1,404	\$ 1,559.00
3	Olwen Heights	Pennsylvania American	W	2013	\$ 2,635.71	1,047	\$ 2,760.00
4	Claysville Donegal Joint Municipal Authority	Pennsylvania American	W/S	2008	\$ 1,272.73	1,202	\$ 1,530.00
5	Mifflin Township Water Authority	Aqua Pennsylvania	W	2012	\$ 1,925.00	1,073	\$ 2,066.00
6	Town of Waveland	American Water Indiana	W	2009	\$ 3,756.69	1,166	\$ 4,380.00
7	Town of Darlington	Aqua Indiana	W	2006	\$ 1,019.19	1,289	\$ 1,314.00
8	Wingert Water System	Aqua Texas	W	2012	\$ 1,804.09	1,073	\$ 1,936.00
9	Royal Oaks Water System	Aqua Texas	W	2012	\$ 1,050.00	1,073	\$ 1,127.00
10	East Pasco Utilities	Pasco County	W/S	2003	\$ 1,652.76	1,493	\$ 2,468.00
11	Carolina Water Service	Dorchester County	W/S	2006	\$ 1,276.56	1,289	\$ 1,509.00
12	Park Manor Waterworks, Inc.	Orange County	W/S	2003	\$ 1,010.85	1,436	\$ 1,509.00
Average						\$	2,186.00

⁽¹⁾ Current ENR CCI is approximately 10,000 which was used for previous year ratios

Table 6-4
Market Factor Analysis

System	Factor	#Conn	Amount
Village of Ransom	1,500	191	\$287,000

Rounding the above results in the respective opinion for the system.

The opinion of market sales for TPP and IP is \$287,000.00.