

FINAL REPORT



Salem City, New Jersey

Water and Sewer Systems

Asset Valuation

January 12, 2023



NW Financial Group, LLC

Hoboken, New Jersey

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1. Executive Summary

City of Salem (“City”) is currently considering the sale of its water/sewer utility system which provides drinking water and sewage disposal its residents (the “Facilities”).

NW Financial Group has been retained by the City to undertake an asset valuation assessment for its water and sewer assets (the “Facilities”) and a financial capacity analysis for the option of the City retaining ownership. This report has analyzed the following:

- a. The value of the systems.

Based upon our analysis we value the systems at \$13,000,000.

As shown in the Valuation Analysis Section of this report, our analysis considered a range of values from a low of \$9.5 million to a high of \$28 million depending upon the valuation approach selected our conclusion of a \$13 million value takes into account the various factors considered by each approach.

- b. The short- and long-term impacts to ratepayers of the cash-flow structure of a proposed sale of the utilities.

Based upon our analysis we find that a sale of the systems will result in short term stabilized rates if required in the Sale RFP, and longer-term higher rates as the systems are folded into the regional systems of the buyer and are charged the area wide rates approved by NJBPU.

Although rates will rise over time in a sale, the City budget will see a cost reduction of over \$1 million and could lead to lower real estate tax rates for ratepayers that are also property owners.

- c. Provide an estimate as to the financial requirements necessary to address the emergent conditions identified by the City/City's engineer as set forth in the Emergent Conditions Analysis prepared by Remington and Vernick and to operate and maintain the systems.

Emergent conditions have a cost of \$950,000 per annum for the next 20 years as projected by the engineering analysis, in addition to the nearly \$1 million annual deficit the City has in the utility account. In order for the utility to run on a non-deficit basis, just to pay operating costs and the emergent conditions



annual, a rate increase of at least 68% would be required. This rate increase would result in rates equal to 9.04% of the City's median income, a rate in excess of USDEP water/sewer affordability standards of 5%.

Any sale of the Facilities would produce an economic gain and/or an economic benefit to the city as the buyer will pay the City a purchase price at the time of sale and assume future costs related to facilities operations and future capital needs.

The ultimate value/benefit received by the city in the sale of the Facilities will depend heavily on various operating and economic variables. Most importantly, these include significant cost efficiencies that are obtainable by private operation. The various prices that have been determined within this report represent the values of the economic potential of the Facilities.

When comparing the various approaches to valuing the business operations and assets of the Facilities the facilities could potentially bring the city approximately \$13,000,000 in a sale price. This would equate to approximately \$3,500 per customer. Under New Jersey Law the use of any proceeds from the sale of the asset must be approved by the New Jersey Department of Community Development.

As in every valuation analysis, there are numerous factors that will affect the ultimate sale price at the time of transfer, such as current market conditions, a lender's willingness to lend and the applicable interest rate and other terms of the loan, financial strength of bidders, quality and condition of water system, limitations on rate increases and others.

There are several potential buyers/investors in the water/sewer system facility marketplace. These include large public water companies, smaller private water companies, and/or private developers/investors. Many of the large water companies are anxious to expand their footprint and in the market for acquisitions. A private buyer will review the potential of the investment and how the Facilities fit in the overall strategic plan of the company. This private ownership structure will result in more efficient operations and deliver more profit to the bottom line than a public ownership structure.

This report is based in part upon data available provided by the City of Salem, its consulting engineer-RVE, and other sources.



2. City of Salem

The City of Salem is located in Salem County, the State's most rural county, in the southern part of the State of New Jersey. Salem County has a population of 65,046 people and has a county median household income of (\$64,234) as compared to the Statewide median income (\$85,245) and population of 9,671,130. Salem City is approximately 43 miles from Philadelphia, Pa., 62 miles from Dover, De. and 67 miles from Atlantic City, NJ.



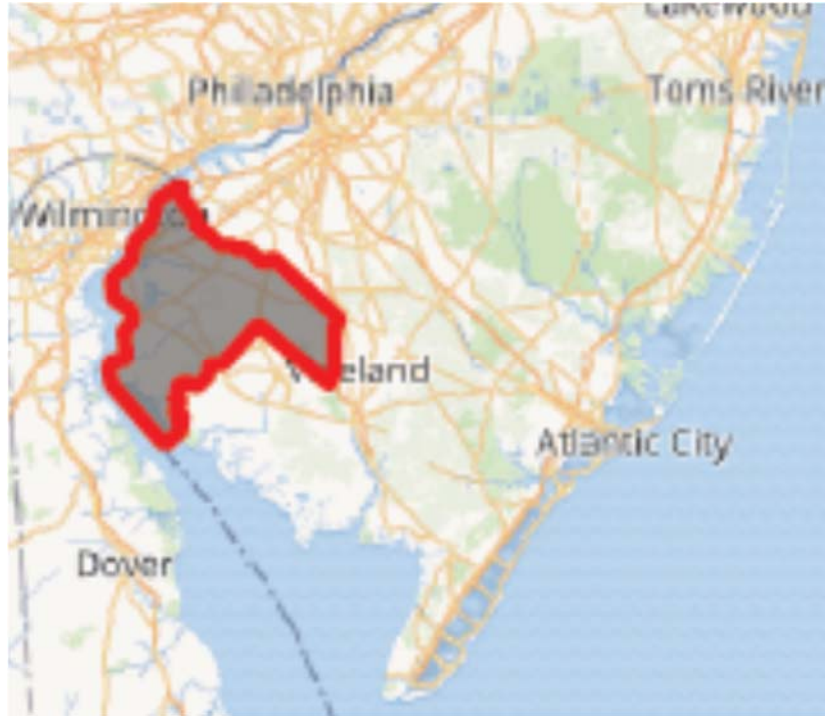
The city is the county seat of Salem County and was founded in 1693, Salem City currently has a census population estimated at 5,297 people in 2,011 households. In the last ten years the city has experienced a population decline of approximately 25%.

Median Income in the City is \$22,125 per household for its 2,011 households as compared to Salem County at \$64,234 and the State of New Jersey \$85,245.

The city has a geographic area of 2.8 square miles. It consists primarily of single and multifamily land usage. Residential assessments both single family and apartments represent 59.4% of the tax base for City. The City is rated "Ba2" by Moody's credit rating agency. The water transmission system is approximately 21 miles long; the sewer collection system 17 miles long.



Salem County



Salem City



Major roadways serving Salem include New Jersey Routes 45 north and south and 49 east and west.



3. Financial Capacity Analysis

The City of Salem is a small municipality with a property assessment tax base of just \$123,563,054. Under New Jersey law the city borrowing limit is 3% of the average assessed valuations for the last three years, in this case the borrowing limit would be \$4,131,426. Currently the City has \$1,380,512 in outstanding net indebtedness (1.00% of tax base) and therefore has \$2,761,000 in remaining debt capacity.

The City's 2022 budget is \$24,582,120, including the water and sewer utility budget of \$3,776,000.

Based upon the engineering reports from RVE the water and sewer systems are in need of \$25 million in capital improvements over the next 20 years.

Each \$1 million of additional debt would result in an additional expense of new annual debt service equal to approximately \$51,000, this would amount to \$1.291 million in additional cost to ratepayers by the 20th year of the capital improvement program.

Salem City Water/Sewer System Capital Plan Summary

Year	Water	Sewer	Total	New Debt Service	Cummulative Debt Service
1	\$ 4,567,662		\$ 4,567,662	\$233,038.73	\$233,038.73
2		\$ 2,211,344	\$ 2,211,344	\$112,821.13	\$345,859.87
3	\$ 5,337,610		\$ 5,337,610	\$272,320.91	\$618,180.77
4		\$ 1,056,989	\$ 1,056,989	\$53,926.80	\$672,107.57
5	\$ 1,289,213		\$ 1,289,213	\$65,774.69	\$737,882.26
6		\$ 1,574,460	\$ 1,574,460	\$80,327.78	\$818,210.05
7	\$ 1,065,464		\$ 1,065,464	\$54,359.18	\$872,569.23
8		\$ 741,396	\$ 741,396	\$37,825.47	\$910,394.70
9	\$ 759,482		\$ 759,482	\$38,748.21	\$949,142.91
10		\$ 454,898	\$ 454,898	\$23,208.56	\$972,351.47
11	\$ 726,254		\$ 726,254	\$37,052.94	\$1,009,404.41
12		\$ 390,967	\$ 390,967	\$19,946.85	\$1,029,351.26
13	\$ 755,595		\$ 755,595	\$38,549.90	\$1,067,901.16
14		\$ 595,157	\$ 595,157	\$30,364.47	\$1,098,265.63
15	\$ 803,591		\$ 803,591	\$40,998.62	\$1,139,264.24
16		\$ 423,195	\$ 423,195	\$21,591.10	\$1,160,855.34
17	\$ 817,881		\$ 817,881	\$41,727.68	\$1,202,583.02
18		\$ 440,292	\$ 440,292	\$22,463.37	\$1,225,046.39
19	\$ 850,923		\$ 850,923	\$43,413.46	\$1,268,459.86
20		\$ 458,080	\$ 458,080	\$23,370.90	\$1,291,830.76
Totals	\$ 16,973,675	\$ 8,346,778	\$ 25,320,453	\$ 33,667,231	



The water and sewer utility are a part of the City budget and is expected to be self-supporting, however in recent years the systems have required annual cash infusions of nearly \$1 million per annum to pay all costs including debt service.

In the 2022 water utility budget the anticipated revenues are \$3,776,896 up slightly from 2021 budget of \$3,678,670. However, only \$2,775,000 are from rate revenues or sources other than City contributions and of this amount only \$2,300,000 are from rate payer revenues. It should be noted that the city water and sewer systems also serve some customers outside the City boundaries at the same rates as City residents. The systems bill 1,815 accounts for each service.

In addition to the increased debt service related to the water/sewer system capital improvements the city would also need to increase rates annually to pay the rising cost of operating the systems, likely at an escalation rate of 3% which would add another \$90,000 per annum to the cost to rate payers.

Total annual system operating costs in 2022 dollars are budgeted at approximately \$2,600,000 without current debt service.

Annual user rates (minimums) per household are approximately \$1,190 consisting of \$660 in water charges and \$530 in sewer charges, which is already over 5.3% of median income, a very high amount by comparison to other communities. Over 70% of accounts (1,313 customers) pay the minimum of \$1,190.

If the City were to seek to balance the utilities budget through a rate increase it would require a rate increase of 44% without consideration of funding the \$25 million capital needs program. This increase alone would drive the annual household cost up to \$1,700 or 8% of median income.

In our opinion the continued ownership of the water and sewer systems would impose a significant financial burden on the City of Salem and its ratepayers.



4. Water Industry Overview

Over the past 30 years there have been many efforts in the State of New Jersey and nationally to use public/private partnership models to convert governmentally owned water and sewer utilities to privately owned (or leased) and operated status.

Nationwide it is estimated that 80% to 85% of all water and sewer utilities are governmentally owned and operated. In New Jersey there is a larger concentration of private water utilities than in most of the country and they are regulated by the NJ Board of Public Utilities (“BPU”). BPU regulates many facets of these private utilities but with a focus on water/sewer rate justification based upon costs of service, costs of capital and required equity returns. The four major private water/sewer utilities in New Jersey are:

- Suez Water
- New Jersey American Water
- Middlesex Water
- Aqua Water

New Jersey has enacted several laws which permit private water companies to acquire, operate or lease public water/sewer utilities. In the 1990’s several public water systems were the subject of operator/concession (effectively lease) agreements for terms of up to 40 years, these included:

- Jersey City
- Hoboken
- North Brunswick
- Rahway
- Perth Amboy
- Harrison
- Camden

Recently in 2011, the first water/sewer public private partnership in over 2 decades was undertaken by the City of Bayonne through the use of the concession approach. After a competitive process, the city utilizing the same law that the earlier 1990’s deals were based on, entered into a 40-year agreement with a partnership formed by Suez Water and KKR, the Wall Street leveraged buyout firm. Under the agreement the partnership paid Bayonne \$150 million and agreed to a rate setting model that was expected to produce annual rate increases in the 3.5% to 4% range on average. This transaction provided insight into what factors were needed to make a successful transaction for both the public and private sectors. *Although this transaction was not a pure sale, the economics of a 40-year concession are indicative of a sale value and therefore are considered in our analysis.*

Subsequently, New Jersey enacted a law that allowed private utilities to directly acquire public



water and sewer systems with voter approval in a referendum. The first transaction using this approach was undertaken by New Jersey American Water in Haddonfield. The Town of Haddonfield in 2015 agreed to sell its water and sewer systems to New Jersey American Water (“NJAW”) for a price of \$28,675,000. NJAW agreed to limit rate increases during the first 10 years to three years of zero increases, then 2 years at 3% increases but was free to increase rates beyond that after the fifth anniversary when Haddonfield would be folded into its overall New Jersey regulated utility model.

Recently New Jersey has instituted another law known as WIPA (the Water Infrastructure Protection Act) that allow for the sale of public water and sewer systems. One which allows for sale in the event a public utility cannot effectively run its system and another which allows for a sale after a public referendum. Importantly in WIPA law a regulated utility buyer will be allowed to recognize the actual purchase price as the regulatory cost basis for NJBPU purposes, however under the referendum law the price recognized for regulatory purposes by NJBPU will be based upon the hard asset values purchased To date only 5 systems have been sold under the new laws: Long Hill (referendum), Egg Harbor City (under WIPA), Allendale(referendum), Bound Brook(referendum) and West Milford(referendum).

In 2018, West Milford, a community of 26,000, sold its water and sewer systems to SUEZ (now Veolia) for a price of \$12,600,000 plus a commitment to invest \$55 million over 5-10 years into system infrastructure. Rates had an initial 3 year rate freeze and then are folded into the NJBPU rate setting model for the Suez system.

In 2020, Long Hill, a community of 26,000, sold its sewer system to New Jersey American Water for a price of \$12,700,000 plus a commitment to invest \$6 million the first 5 years into system infrastructure. Rates had an initial 2 year rate freeze and no more than 3% for an additional 3 years before folding rates into the NJBPU rate setting model for the New Jersey American system.

In 2021, Egg Harbor City, a community of only 4,200 people, sold its water and sewer systems to New Jersey American Water for a price of \$21,800,000 plus a commitment to invest \$14 million over 10 years into the system infrastructure. Rates have an initial 5% decrease and then are folded into the NJBPU rate setting model for the NJAW system.

In 2021, Bound Brook, a community of 10,254 people, sold its sewer collection system to New Jersey American Water for a price of \$5,000,000 plus a commitment to invest \$11 million over 10 years into the system infrastructure. Rates have an initial 2-year freeze and then 3% average of the following 3 years and then are folded into the NJBPU rate setting model for the NJAW system.

In 2021, Allendale, a community of 6,734 people, sold its water system to Suez (Now Veolia) for a price of \$18,000,000 plus a commitment to invest \$16.88 million over 10 years into the system infrastructure. Rates have three 5% increase over a 10-year period and then will be folded into the NJBPU rate setting model for the Veolia system.

In 2022, Sommerville, a community of 12,139 people, voted to sell its sewer system and New Jersey American was the winning bidder with a price of \$7,000,000 plus a commitment to invest



\$9,500,000 over 10 years into system infrastructure. Rates have a two-year freeze then 3% for 3 years then 4% for 3 years then get folded into the NJBPU rate setting model for the NJAW system. The sale is expected to close in 2023.

Nationwide there has been limited activity on the concession model, however there were successful transactions implemented in Rialto, California and Middleton, Pennsylvania. Additionally, a public/private partnership procurement was done in Allentown, Pennsylvania on a competitive basis and the local county utility authority offered the best deal. A number of systems have also been sold in Pennsylvania and other states.

American Water, the parent of New Jersey American Water, has adopted the acquisition approach as its favored model, rather than the concession approach. On a national basis, they report at least 26 recent acquisitions of small systems over an 8-state area representing 45,800 water or sewer connections. An average of 1,761 customers per acquisition.



5. Facilities Description

The combined Water/Sewer Utility is owned and operated by the City of Salem and consists of the following elements:

- A- Total Billed 1,815 Customers in 2021, more than 77% of these customers were either 1 or 2 family houses. The 143 larger customer account for 54% of system revenues with the top 10 customers accounting for 13% of total revenues. The largest customer is the Salem City Housing Authority.
- B- 21 miles of water mains consisting of cast iron and ductile pipes ranging in size from four inches to twelve inches in diameter, approximately 50% are twelve inches in diameter. Average age of water mains is in excess of 40 years.
- C- Estimated 238 manholes and 300 fire hydrants.
- D- Annual gallons of water distributed averaging approximately 900 MG per year.
- E- 4 water supply wells
- F- 1 water treatment plant, constructed in 2012
- G- 1 elevated storage tank
- H- 1 standpipe
- I- 17 miles of a combination of 6 inch to 8 inch sewer mains; forced mains (2 miles) and gravity mains (15 miles); average age in excess of 60 years.
- J- 3 sanitary lift stations
- K- 1 sewer treatment plant, permitted at 1.4 MHD, the plant is approximately 40 years old

The facilities are reported to be operational and in fair to good condition given the age of the system by the City consulting engineer. However, there is projected to be a need for a major capital program which will require a total investment approaching \$25 million over time.



6. Financial Summary of Current Operations

Financial results and general information for the system are based upon information provided by the City, including budgets, audited financial statements, billing summaries and engineering reports. The financial results herein are intended to provide a picture of the Facility's current financial situation as of the end of 2021 and provide a basis for analyzing options for the City, including the potential sale of the Facility.

Rate Structure

The City of Salem has a customized rate structure as follows:

City of Salem Water and Sewer Rates				
Sewer 2014				
Per Single Family Unit			Minimum	
Commercial, Institutional & Industrial	\$ 6.87 per gallon		\$ 265.06	semi annual
			\$ 265.06	semi annual
			\$ 132.55	quarterly
			\$ 44.17	monthly
Water 2016				
Per Single Family Unit			\$ 330.10	semi annual
Light Commercial	Up to 1mm gallons Over 1mm gallons	6.57 per gallon 7.86 per gallon	Pipe Size First	
			5/8	15,000 \$ 143.85 semi annual
			3/4	30,000 \$ 286.18 semi annual
			1	54,000 \$ 513.32 semi annual
			1.25-1 1/2	120,000 \$ 1,141.71 semi annual
			2	210,000 \$ 1,914.13 semi annual
Commercial, Institutional & Industrial	Up to 167,000 gallons Over 167,000 gallons	6.57 per 1,000 gallon 7.86 per 1,000 gallon	Pipe Size First	minimum
			5/8	2,500 \$ 24.06 per month
			3/4	2,500 \$ 48.82 per month
			1	5,000 \$ 85.67 per month
			1.25-1 1/2	5,000 \$ 190.49 per month
			2	5,000 \$ 333.41 per month
			3	5,000 \$ 476.97 per month
			4	5,000 \$ 952.43 per month
			6	5,000 \$ 1,426.99 per month
			8	5,000 \$ 2,857.30 per month
Fire Service per month				
Public	\$ 48.18 Per hydrant/month	Annual	\$ 578.16	
Private				
2	\$ 41.17 Per hydrant/month	\$ 494.04		
4	\$ 193.45 Per hydrant/month	\$ 2,321.40		
6	\$ 340.86 Per hydrant/month	\$ 4,090.32		
8	\$ 480.88 Per hydrant/month	\$ 5,770.56		
10	\$ 625.52 Per hydrant/month	\$ 7,506.24		
unmetered sprinkler head	\$ 0.28 Per sprinkler/month	\$ 3.36		
Bulk Water	\$ 15.50 per 1,000 gallons			



A private operator would be expected to have significantly lower operating expenses, estimated at a savings of 25%, for the water and sewer system which would allow the private owner to achieve higher net operating income and therefore support a higher value than reflective of the historical operating costs of the Borough. The table below compares operating cost under city ownership versus private ownership:

Operating Costs	City Run	Privately Run
Salaries and Wages	\$ 600,000	\$ 500,000
Pension/Health	\$ 134,000	\$ 100,000
Other Expense		
Utilities	\$ 250,000	\$ 250,000
Plant operation	\$ 550,000	\$ 400,000
Administration	\$ 100,000	\$ 75,000
Disposal	\$ 120,000	\$ 120,000
Engineering	\$ 200,000	\$ 100,000
DEP Fees	\$ 30,000	\$ 30,000
Other Expense	\$ 639,396	\$ 400,000
Total Operating Costs	\$ 2,623,396	\$ 1,975,000

Bidding Parameters

Under state law the sale of the water system can be offered for sale via a Request for Proposal process. As a result, the City has is expected to establish rate increase limitations on proposers in order to provide transitional rate protection to rate payers as follows:

“The Financial Bid shall contain the Purchase Price and the Rate Stabilization Proposal. The Bidder shall describe in detail its plan for implementing a binding rate structure for the ratepayers following the sale. Bidder shall propose its best offer to address the Borough’s objective of stabilizing rates for its ratepayers following the sale. Proposed binding rate freezes or decreases, limits on annual rate escalation, etc. shall be described in detail. Bidders shall submit a ten-year binding rate schedule following the Closing Date. Bidders may propose a binding rate schedule in excess of ten years. The binding rate schedule should reflect that proposed rates shall be frozen for the first year, then not exceed a maximum rate increase of 3% in any year for the first 10 years. following the Closing. After the 10th year the buyer would be free to propose its own rate structure.”



7. Valuation Analysis

Typically, there are three components to valuation:

- 1- Income Approach
- 2- Market Comparable Approach
- 3- Cost Approach

Income Approach

Historical operating cost data based upon budget and audit filings are as follows:

	Budget 2022	Actual 2021
Salaries & Wages	\$ 595,000	\$ 742,550
PERS	\$ 73,396	\$ 87,058
Social Security	\$ 60,000	\$ 61,873
Emergencies	\$ 90,000	
Over expenditure		\$ 15,183
Other Expenditure	\$ 1,895,000	\$ 1,667,206
Capital Improvement Fund	\$ 20,000	\$ 20,000
Capital Outlay	\$ 200,000	\$ 290,000
Bond Principal	\$ 630,005	\$ 613,127
Bond Interest	\$ 213,495	\$ 230,780
Note Interest		\$ 4,125
Total Expense	\$ 3,776,896	\$ 3,731,902
NOI	\$ (1,001,896)	\$ (925,399)

To convert net income to value, the industry typically utilizes a discounted cash flow analysis to convert future cash flows from the asset to the equivalent of today's (2022) dollars. This discounting is done using a risk adjusted weighted average cost of capital taking into account both the debt and equity returns required to finance the purchase price. In the case of water assets there are 2 distinct types of possible buyers each with different capital structures. A public utility buyer will be subject to regulation by NJBPU and both its return on equity and its leverage are controlled by NJBPU. As an example, NJAW is restricted to a 54% leverage ratio and a return on equity of 9.50%. The other type of buyer would be a single enterprise buyer such as the investment partnership that bought Bayonne. A single enterprise buyer would not be subject to BPU regulation, and we would expect such a buyer to leverage at the 70% level and target equity returns at 12%. In both cases we have assumed that capital expenditures would be treated as pass through expense add-ons to rates.



For the purpose of this valuation, we have used the proposed rate increase restrictions and we have calculated the likely value using a 30-year cash flow projection for each of the two likely types of buyers and create a range of likely values based upon a weighted average cost of capital (“WACC”) as a discount rate to determine the present value of the future cash flows.

When the discounting of the cash flows is applied to projected net income under private management for the water system it produces the following valuation results:

City of Salem	Public Utility Buyer	Enterprise Buyer
Net income (Year 1)	\$ 625,000	\$ 625,000
WACC	8.00%	7.20%
Discounted Cash Flow	\$ 9,484,814	\$ 10,394,491
Value per Customer	\$ 3,327	\$ 3,646

Note: each account is counted as 2 customers for comparison purposes as they are both water and sewer customers

Market Comparable Approach

A second method of valuing the assets is to consider what price the marketplace has recently paid for water/sewer system acquisitions. The following pages show the results of nine transactions in the region:



Sale 1

Seller/Lessee/Concessionee	Egg Harbor City, NJ
Population	4,243
Year	2021
Buyer/Lessor/Concessionaire	NJ American Water
Sale Price	\$ 21,800,000
Asset Type	water/sewer
Asset Miles	52
Customers/Connections	3,000
Prior Annual Revenue	\$ 2,079,000
Prior Annual Expense	\$ 1,048,000
Transaction Type	Sale-WIPA
CAPEX Commitment- 10 Year	\$ 14,000,000
Rate Regime	-5% then NJBPU



Sale 2

	Long Hill, NJ
Population	8,702
Year	2019
Buyer/Lessor/Concessionaire	NJ American Water
Sale Price	\$ 12,700,000
Asset Type	sewer
Asset Miles	57
Customers/Connections	2,800
Prior Annual Revenue	\$ 2,204,800
Prior Annual Expense	\$ 1,295,000
Transaction Type	Sale - Referendum
CAPEX Commitment- 10 Year	\$ 6,000,000
Rate Regime	0% for 2 years/3% fro 3 years then NJBPU



Sale 3

Seller/Lessee/Concessionee	Haddonfield , NJ
Population	11,593
Year	2015
Buyer/Lessor/Concessionaire	NJ American Water
Sale Price	\$ 28,675,000
Asset Type	water/sewer
Asset Miles	66
Customers/Connections	4,545
Prior Annual Revenue	\$ 3,677,000
Prior Annual Expense	\$ 1,634,000
Transaction Type	Sale - Referendum
CAPEX Commitment- 10 Year	\$ 16,000,000
Rate Regime	0%/0%/0% then 3%, then NJBPU; sewer 12.5% then 3.5%



Sale 4

Seller/Lessee/Concessionee	Middleton, Pa
Population	8,901
Year	2013
Buyer/Lessor/Concessionaire	SUEZ/KKR
Sale Price	\$ 43,000,000
Asset Type	water/sewer
Asset Miles	61
Customers/Connections	6,267
Prior Annual Revenue	\$ 4,530,000
Prior Annual Expense	\$ 1,676,000
Transaction Type	Concession
CAPEX Commitment- 10 Year	None
Rate Regime	4.50%



Sale 5

Seller/Lessee/Concessionee	Bayonne, NJ
Population	60,000
Year	2011
Buyer/Lessor/Concessionaire	SUEZ/KKR
Sale Price	\$ 150,000,000
Asset Type	water/sewer
Asset Miles	228
Customers/Connections	23,670
Prior Annual Revenue	\$ 20,600,000
Prior Annual Expense	\$ 10,000,000
Transaction Type	Concession
CAPEX Commitment- 10 Year	\$ 10,000,000
Rate Regime	8%/0%/0%/3.5-4%



Sale 6

6

Seller/Lessee/Concessionee**Bound Brook NJ****Population**

10,254

Year

2022

Buyer/Lessor/Concessionaire

NJ American

Sale Price

\$ 5,000,000

Asset Type

Sewer

Asset Miles

25

Customers/Connections

3,000

Prior Annual Revenue

\$ 1,600,000

Prior Annual Expense

\$ 1,305,436

Transaction Type

Sale

CAPEX Commitment- 10 Year

\$ 11,000,000



Sale 7

7

Seller/Lessee/Concessionee**Allendale, NJ****Population**

6,734

Year

2022

Buyer/Lessor/Concessionaire

Veolia/Suez

Sale Price

\$ 18,000,000

Asset Type

Water

Asset Miles

44

Customers/Connections

2,507

Prior Annual Revenue

\$ 2,000,727

Prior Annual Expense

\$ 1,625,409

Transaction Type

Sale

CAPEX Commitment- 10 Year

\$ 16,880,000



Sale 8

	8
Seller/Lessee/Concessionee	Somerville
	(Pending)
Population	12,139
Year	2022
Buyer/Lessor/Concessionaire	NJ American
Sale Price	\$ 7,000,000
Asset Type	Sewer
Asset Miles	35
Customers/Connections	3,812
Prior Annual Revenue	\$ 2,680,000
Prior Annual Expense	\$ 2,380,000
Transaction Type	Sale
CAPEX Commitment- 10 Year	\$ 9,500,000



Sale 9

Seller/Lessee/Concessionee	West Milford
Population	26,392
Year	2018
Buyer/Lessor/Concessionaire	SUEZ/Veolia
Sale Price	\$ 12,600,000
Asset Type	Water & Sewer
Asset Miles	300
Customers/Connections	1,760
Prior Annual Revenue	\$ 1,800,000
Prior Annual Expense	\$ 1,200,000
Transaction Type	Sale
CAPEX Commitment- 10 Year	\$ 55,000,000
Rate Regime	3 year rate freeze



These sales have a wide range of metrics that can be applied to the analysis of the Salem water/sewer system as follows:

Comparable Sale Metrics	Average		Salem Base		Indicated Value	
Price per customer/connection	\$	5,461	3,702	Customers	\$	20,217,833
Price per mile	\$	365,601	38	Mile of Pipe	\$	13,892,847
Gross Revenue Multiplier		6.95	\$ 2,600,000	Revenues	\$	18,070,562
EBITDA Multiple		20.85	\$ 625,000	Net Income	\$	13,029,429
Average Result					\$	16,302,668

The comparable sales analysis displays a wide range of values from \$13 to \$20 million, our interpretation of this data leads us to believe the average value is the most likely value under this method. Thus, this approach to value results in a likely value of \$16.3 million.

Cost Approach to Value

The Cost Approach is utilized by estimating the replacement cost of the assets and then deducting depreciation based upon the useful life of the assets and the years in service. In the case of the subject assets there are three categories:

- The pipes that distribute the water to the customers
- The pumps and other equipment needed to transmit the water to and within the pipes.
- The water wells which are the source of the water
- The sewer mains
- The lift stations for the sewer system
- The sewer treatment plant and related assets

In considering these assets it is important to realize that the valuation of the assets as an integrated system is different than the value of the underlying parts.

The assets are valued as shown in the table below:



City of Salem

	Replacement Cost	less Depreciation	Net Value
Water System			
Treatment Plant	\$ 21,345,000	\$ 11,737,200	\$ 9,607,800
Water Mains	\$ 22,290,500	\$ 15,696,950	\$ 6,593,550
Water Valves	\$ 4,594,000	\$ 3,154,450	\$ 1,439,550
Fire Hydrants	\$ 1,350,000	\$ 1,001,700	\$ 348,300
Soft Costs (22%)	\$ 10,907,490	\$ 6,949,866	\$ 3,957,624
Total Water Assets	\$ 60,486,990	\$ 38,540,166	\$ 21,946,824

	Replacement Cost	less Depreciation	Net Value
Sewer System			
Treatment Plant	\$ 9,180,000	\$ 5,631,000	\$ 3,549,000
Gravity Mains	\$ 10,715,625	\$ 9,910,313	\$ 805,313
Force Mains	\$ 3,220,000	\$ 2,536,000	\$ 684,000
Manholes	\$ 1,190,000	\$ 1,100,000	\$ 90,000
Soft Costs (22%)	\$ 5,347,238	\$ 4,219,009	\$ 1,128,229
Total Sewer Assets	\$ 29,652,863	\$ 23,396,321	\$ 6,256,541

	Replacement Cost	less Depreciation	Net Value
Combined Values	\$ 90,139,853	\$ 61,936,487	\$ 28,203,365

Total Facilities Cost Approach valuation is indicated as \$28,200,000.



Summary of Valuation Findings

Utilizing the different approaches to value provides a range of potential values for the water assets of the city of between \$9.5 million and \$28.2 million as shown below:

Valuation Approach

Income Approach	\$ 9,484,814
Comparable Sales Approach	\$ 16,302,668
Replacement Cost	\$ 28,203,000
Average	\$ 17,996,827

In summary, our estimate of value is usually heavily weighted to the comparable sales approach value that will reflect the value of added customers to a public utility, which is the likely bidder for such a small system, of \$16,300,000. In this case, the assets being sold include 2 treatment plants rather than just a distribution/collection system which adds more hard asset value to the sale. However, given the small and low-income population being served, the replacement cost could not be supported by the expected rate regime and thus the income approach becomes more relevant. Our conclusion of value for the Salem Water System Assets is an average of the first 2 methods (income approach and the comparable sales approach), as follows:

Final Estimate of Asset Value

\$13,000,000

