VALUATION REPORT

CITY OF NEOSHO WATER AND WASTEWATER SYSTEMS NEOSHO, MISSOURI

Prepared for:

Mr. Stephen Kadyk
MISSOURI AMERICAN WATER
Engineering Manager
Customer Development
727 Craig Road
St. Louis, Missouri 63141

Prepared by:

Mr. Edward W. Dinan, CRE, MAI
DINAN REAL ESTATE ADVISORS, INC.
2023 South Big Bend Boulevard
St. Louis, Missouri 63117

Ms. Elizabeth Goodman Schneider, ASA
GOODMAN APPRAISAL CONSULTANTS, LLC
6260 S. Lake Drive, #718
Cudahy, Wisconsin 53110

Mr. Joseph E. Batis, MAI, AI-GRS, ASA
UTILITY VALUATION EXPERTS, INC.
313 N. Chicago Street, Suite 101
Joliet, Illinois 60432

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2023 South Big Bend Boulevard	313 N. Chicago Street, Suite 101	6260 S. Lake Drive, #718
St. Louis, Missouri 63117	Joliet, Illinois 60432	Cudahy, Wisconsin 53110

March 5, 2025

Mr. Stephen Kadyk
MISSOURI AMERICAN WATER
Engineering Manager
Customer Development
727 Craig Road
St. Louis, Missouri 63141

Re: ***Valuation Report***
City of Neosho Water and Wastewater Systems
Neosho, Missouri

Dear Mr. Kadyk:

In accordance with your request, we have made a physical inspection of the facilities and real estate that comprise the City of Neosho water and wastewater system assets.[1] The water and wastewater systems (referred to herein as "the subject property") are owned by the City of Neosho located in Newton County, Missouri. The subject property water system includes 5,783 customers and the subject property wastewater system includes 5,700 wastewater customers.

The purpose of the appraisal report was to arrive at opinions of market value of the subject property water and wastewater systems as of September 23, 2024.[2]

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[1] *Throughout the attached appraisal report, any reference to the appraisers' "inspection", "subject property inspection", "inspection of the subject property", "inspection of the subject water and wastewater systems", etc., refers to the appraisers' customary task of viewing the subject property for purposes of observing the condition, layout, design, and utility of the real estate (land and building), as is typical in the appraisal profession and in the framework of completing the appraisal process. The reference to the term "inspection" in the context of the appraisers' work should not be interpreted to suggest the appraisers have any expertise and/or qualifications in the assessment of the condition and functionality of any mechanical and non-mechanical components of the subject property water and wastewater systems. The appraisers refer the client and intended users of the attached appraisal report to the engineer's report for an assessment of the water and wastewater systems' infrastructure components. The three professional real estate appraisers co-signing the attached appraisal report are not qualified to independently detect and assess the condition and functionality of the water and wastewater systems' infrastructure components. However, the three professional real estate appraisers co-signing the attached appraisal report assume that the water and wastewaters systems' components are in proper working order and have been maintained adequately to meet all pertinent codes and regulatory requirements.*

[2] *The appraisers inspected the subject property on three different dates: Joseph Batis – September 12, 2024; Elizabeth Goodman-Schneider – September 23, 2024; Edward Dinan – September 23, 2024. For purposes of this assignment, September 23, 2024 is selected as the date of value.*

This restricted appraisal report is prepared in conformance with Standards Rule 2-2(b) of the 2024 of the *Uniform Standards of Professional Appraisal Practice* (USPAP).

In completing our analysis of the subject property water and wastewater systems, we relied on a report prepared by Hartman Consultants, LLC, dated December 16, 2024 (revised March 5, 2025; "the Hartman report"). The Hartman report is attached to this report. Based upon our analysis of the subject property systems and taking into consideration the independent report prepared by Hartman Consultants, our opinions of the market value of the Neosho water and wastewater systems is as follows:

Market Value of the Neosho Water System Assets
$17,400,000
SEVENTEEN MILLION FOUR HUNDRED THOUSAND DOLLARS

Market Value of the Neosho Wastewater System Assets
$17,100,000
SEVENTEEN MILLION ONE HUNDRED THOUSAND DOLLARS

This assignment is subject to the Extraordinary Assumptions found on Pages 13-15. The assumptions address several significant issues that impact the analysis and conclusions presented in the attached report.

Each of the three appraisers co-signing this appraisal report (Mr. Dinan, Ms. Goodman-Schneider, and Mr. Batis) participated in the assignment by collecting and analyzing relevant data and forming the opinions and final conclusions.

While each of the three appraisers – representing three appraisal firms -- (Dinan, Goodman-Schneider, and Batis) performed different tasks and were responsible for different parts of this valuation assignment, the appraisers consulted throughout the assignment with each other in developing the final opinions.

We certify that we personally have no undisclosed interest, either present or contemplated, in the real estate described herein as the subject properties; furthermore, neither the procurement of this appraisal assignment nor the negotiated compensation was contingent upon predetermined conclusions of value, value estimates which advocate the client's position, or the occurrence of any subsequent event.

Mr. Kadyk
Missouri American Water Company
March 5, 2025
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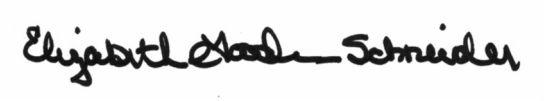
On behalf of DINAN REAL ESTATE ADVISORS, GOODMAN APPRAISAL CONSULTANTS, and UTILITY VALUATION EXPERTS, we appreciate the opportunity to prepare this appraisal report for the Missouri American Water Company. Please feel free to contact the undersigned should you have any questions regarding the assignment.

Sincerely,

Edward W. Dinan, CRE, MAI
Dinan Real Estate Advisors, Inc.
Missouri State General Certification: RA001300 (Expires 06/26)



Elizabeth Goodman Schneider, ASA
Goodman Appraisal Consultants, LLC
Illinois Certified General Real Estate Appraiser No. 553-001973 exp 9/30/2025
Iowa Certified General Appraiser No. CG04095 exp 6/30/2026
Louisiana Certified General Appraiser No. APR.04505-CGA exp 12/31/2025
Missouri State Certified General Real Estate Appraiser No. 2016042105 exp 6/30/2026
Wisconsin Certified General Appraiser No. 1586-010 exp 12/14/2025

Joseph E. Batis, MAI, AI-GRS, ASA
Utility Valuation Experts, Inc.
General Certification Lic. #553.000493 (IL; Expires 09/25)
General Certification Lic. #RZ4558 (FL; Expires 11/26)
General Certification Lic. #2016044083 (MO; Expires 06/26)
General Certification Lic. #TX 131049 G (TX; Expires 11/26)
General Certification Lic. #NHCG-1081 (NH; Expires 04/25)
General Certification Lic. #GA004696 (PA; Expires 06/25)
General Certification Lic. #34627 (MD; Expires 04/25)

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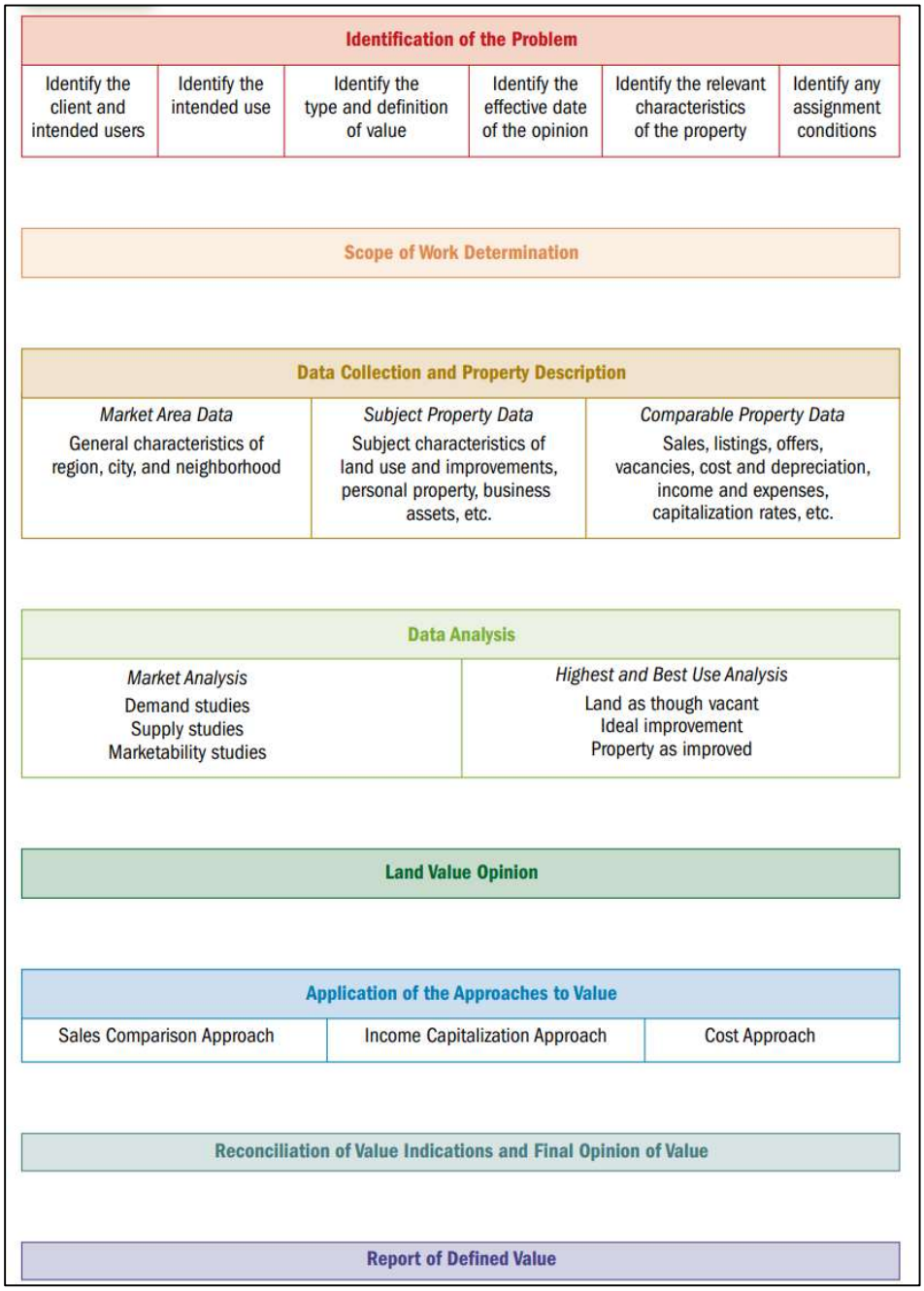
Summary of Salient Facts

Property Type:	Public water and wastewater systems
Location:	Neosho, Newton County, Missouri
Facilities:	The subject property includes the assets and facilities that comprise the City of Neosho water and wastewater systems. Please refer to the attached report prepared by Hartman Consultants (dated December 16, 2024 and revised March 5, 2025) for a list and description of the infrastructure, system assets, and facilities.
Date of Inspection:	
Edward Dinan:	September 23, 2024
Elizabeth Goodman Schneider:	September 23, 2024
Joseph Batis:	September 12, 2024
Date of Value:	September 23, 2024
Date of Report:	March 5, 2025
Type of Value:	Market Value
Property Rights:	Fee Simple Estate
Value Conclusions:	
Market Value of Water System:	$17,400,000
Market Value of Wastewater System:	$17,100,000

The Appraisal Process

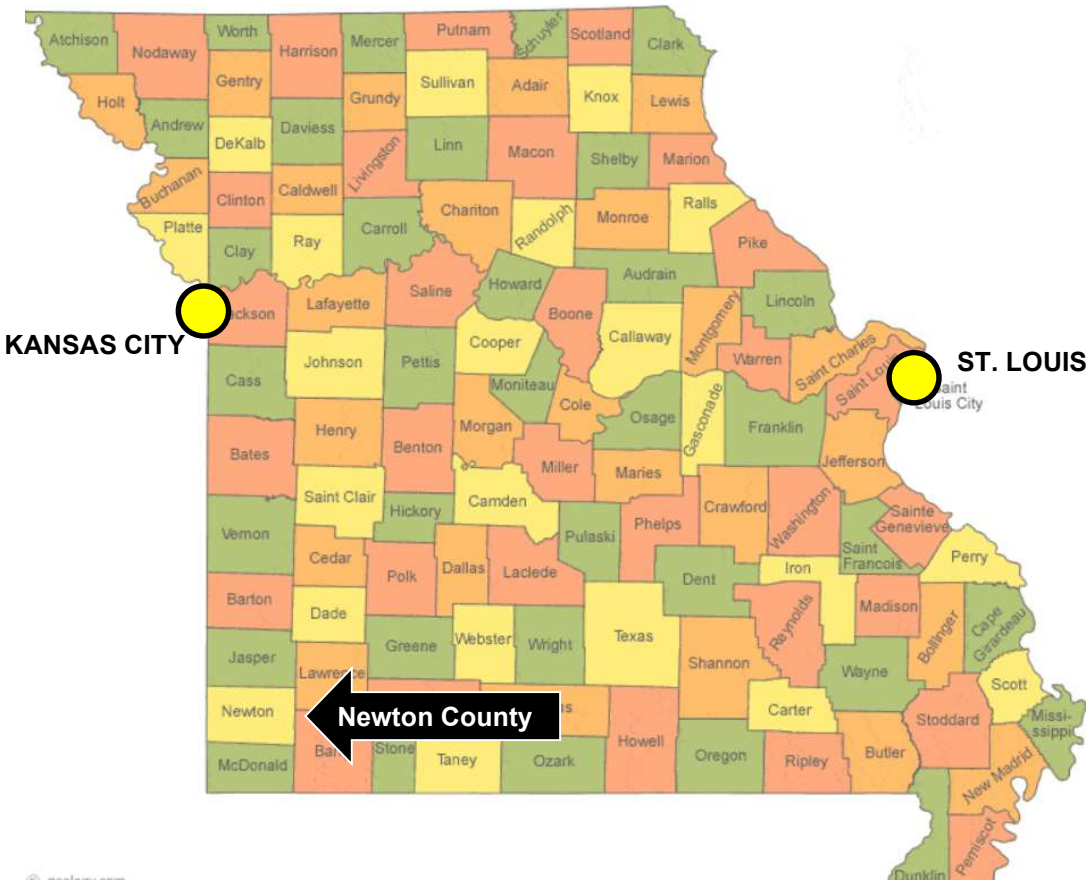
The client requested opinions of market value for the water and wastewater assets owned and operated by the City of Neosho located in Newton County, Missouri. In arriving at an opinion of value for the subject property systems, we followed an orderly set of steps that has led us to the opinions of market value. This procedure is known as the "Appraisal Process" and is summarized in the exhibit below.



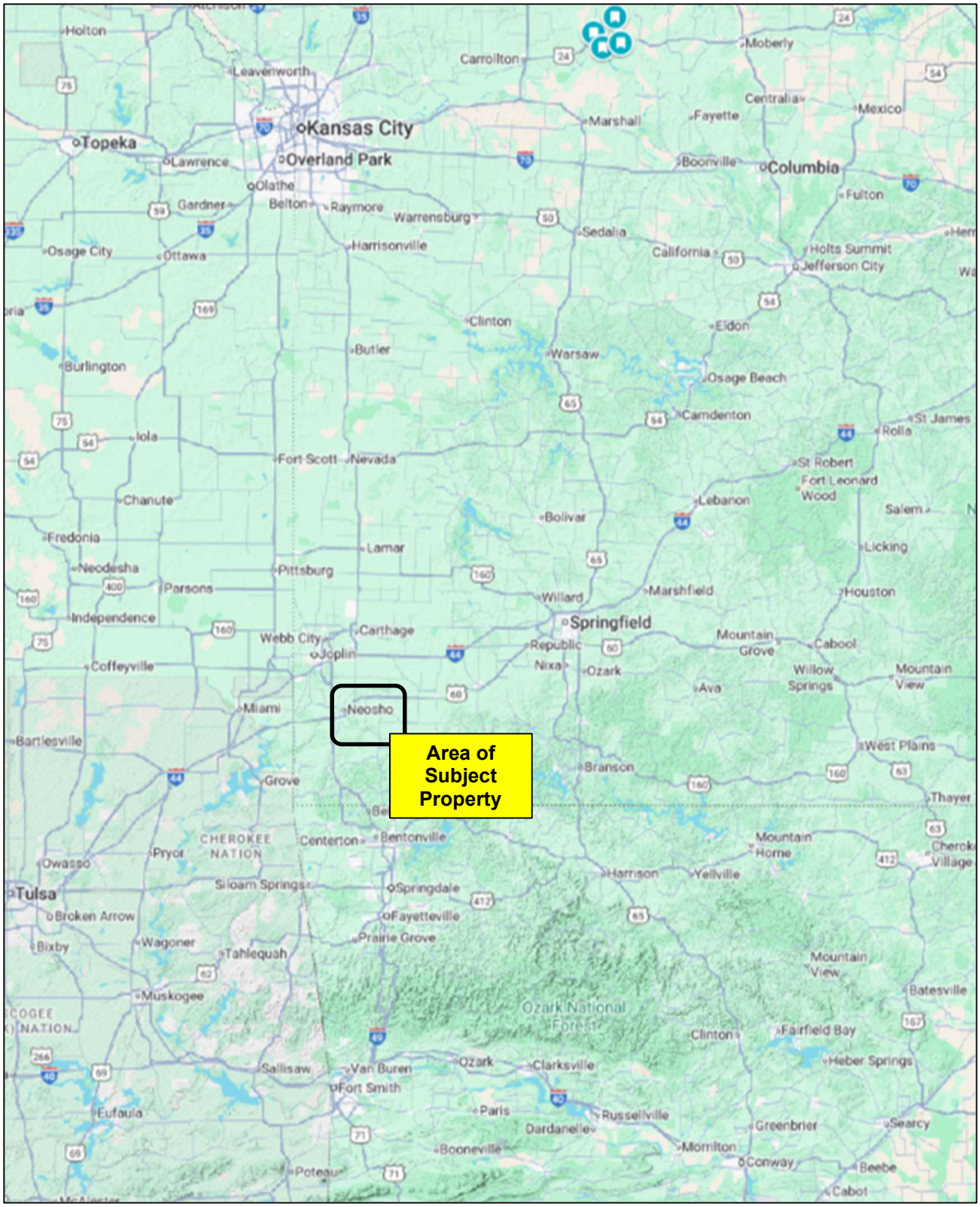
Source: The Appraisal of Real Estate, 15th Ed.,
Published by the *Appraisal Institute*, 2020; P. 31.

Identification of the Subject Property

The subject property consists of the assets that comprise the City of Neosho water and wastewater systems located in Newton County, Missouri. There are 5,783 water customers and 5,700 wastewater customers for the subject property systems.



Identification of the Subject Property
(Continued)



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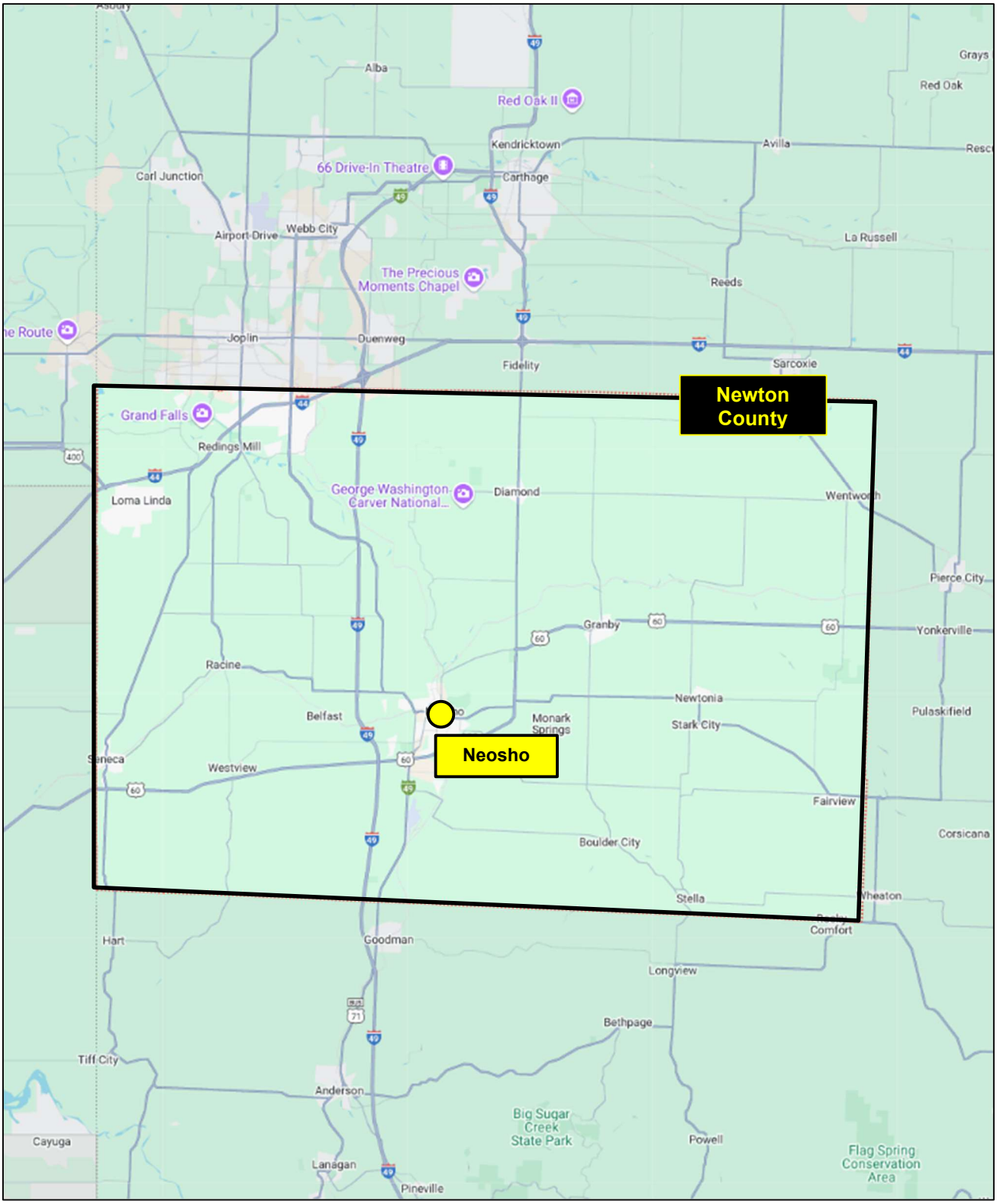

Type of Property Being Appraised

The Uniform Standards of Professional Appraisal Practice (USPAP) defines real estate and personal property as follows:

> **REAL ESTATE**: an identified parcel or tract of land, including improvements, if any.
>
> **PERSONAL PROPERTY**: any tangible or intangible article that is subject to ownership and not classified as real property, including identifiable objects that are considered by the general public as being "personal", such as furnishings, artwork, antiques, gems and jewelry, collectibles, machinery and equipment; and, intangible property that is created and stored electronically such as plans for installation art, choreography, emails, or designs for digital tokens.

The following excerpt is from *The Appraisal Foundation*:

> *The term "personal property" refers to items that can "travel with the person," meaning they are portable. This excludes land, buildings, and other permanent structures. It includes everything from paintings and doll and stamp collections to tools and injection molding machines, to boats and diamond rings, books and manuscripts, coins, toys, and even livestock…the list is nearly endless.*

The subject property assets are the type that are sometimes referred to as real estate (as they are attached to the land) and sometimes referred to as personal property (as they are interconnected and part of a utility system's total assets). The primary significance of the distinction is the applicable professional standards (USPAP). For real estate, the USPAP rules that apply for an assignment are Standards Rules 1 and 2. For personal property, the USPAP rules that apply for an assignment are Standards Rules 7 and 8.

While valuation experts and users of valuation services (clients and intended users) might have differing opinions, the most common classification by those professionals who specialize in the valuation of utility assets is personal property, which is also consistent with the valuation guidelines established by the American Society of Appraisers and the methodology standard established by USPAP (which is guided by the conduct of peers in the profession). However, the valuation of any real property rights that are part of the subject property – including parcels of land in fee and/or permanent easement rights – is subject to Standard Rule 1 and 2 regardless of the classification of the infrastructure assets as real estate or personal property. For this assignment, the subject property infrastructure assets are concluded to be personal property.

Purpose of the Assignment and Definition of Market Value

The purpose of this appraisal assignment is to arrive at an opinion of market value for the subject property water and wastewater systems.

Market value is defined as:

The most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms, for which the specified property rights should sell after reasonable exposure in a competitive market under all conditions requisite to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress.[3]

Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. Buyer and seller are typically motivated;

2. Both parties are well informed or well advised, and acting in what they consider their best interest;

3. A reasonable time is allowed for exposure in the open market;

4. Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and

5. The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

[3] *The Appraisal of Real Estate,* 15th Edition, (Chicago, Illinois: Appraisal Institute, 2020), p. 48.

Relevant Assignment Dates

Date of Inspection:

Edward Dinan:	September 23, 2024
Elizabeth Goodman Schneider:	September 23, 2024
Joseph Batis:	September 12, 2024
Date of Value:	September 23, 2024
Date of Report:	March 5, 2025

Property Rights Appraised

The property rights appraised for the subject property are based on the fee simple estate of the property which is defined as:

> *Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.*[4]

A fee simple estate implies absolute ownership unencumbered by any other interest or estate.

[4] *The Appraisal of Real Estate,* 15th Edition, (Chicago, Illinois: Appraisal Institute, 2020), p. 60.

Exposure Time and Marketing Time

The marketing time of a property implicitly assumes the property would be marketed in a manner typical in the market for that particular type of property, including utilization of the normal channels of exposure; also, implicit is the assumption that the asking price would be reasonably close to the market value of the property; and, the sale terms would conform to the market value definition included herein.

The *Dictionary of Real Estate Appraisal*, 6th Edition, defines *exposure time* as follows:

The estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective opinion based on an analysis of past events assuming a competitive and open market.

Based upon the conditions which prevailed in the local market effective September 23, 2024, I have concluded a reasonable market time for the subject property systems is 12 to 18 months and the exposure time for the subject property systems is also concluded to be 12 to 18 months.

Intended Use and Intended User of the Appraisal

The intended use of this appraisal report is to assist the client (Missouri American Water Company) and the City of Neosho with the acquisition of the Neosho water and wastewater system assets by the client. The intended users of this appraisal report include Mr. Steve Kadyk of Missouri American Water, Mr. David Kennedy, City Manager for the City of Neosho, and Ms. Kayla Hahn, Chair of the Missouri Public Service Commission.

History of the Subject Property

Pursuant to Standards Rule 1-5 of USPAP, we are required to consider and analyze any current Agreement of Sale, option, or listing of the property being appraised. We are also required to consider and analyze any sales of the subject property that have occurred within the last three years.

To the best of our knowledge, and based upon discussions with the client and a representative of the City of Neosho, the subject property has not been the subject of any sales, listings, offerings or contracts during the last three years.

Scope of Work

The subject property systems are reportedly owned and operated by the City of Neosho. In addition to receiving and reviewing numerous pertinent documents from the client pertaining to the subject property water and wastewater systems, we inspected the subject property, met with representatives from the City of Neosho, and collected relevant market data for this assignment.

Proper and accepted appraisal methodology in the subject matter is (1) governed by Missouri legislation[5], and (2) guided by the binding requirements of the Uniform Standards of Professional Appraisal Practice (USPAP).[6]

Explicit in the SCOPE OF WORK RULE section of the current (2024) edition of USPAP is the requirement of the real estate appraiser to include research and analysis necessary to develop credible assignment results. The standard for acceptability of Scope of Work is, in part, what an appraiser's peers' actions would be in performing the same or similar assignment.[7]

In accordance with USPAP, consideration was given to the market standards in the appraisal profession established in other market areas by qualified appraisers performing similar assignments. In our opinion, the applicable professional standards of valuation of utility systems generally in Missouri -- and specifically in the case of the valuation of the City of Neosho water and wastewater systems -- are similar to those established and utilized in other market areas, including Illinois.

Illinois has similar legislation in place regulating the procedures for acquisitions of public utility systems by investor-owned companies. Although not identical, the procedures and framework for valuation are considered to be very similar.[8]

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[5] The Missouri legislation mandates the inclusion and participation of three independent professional real estate appraisers, all of which shall be licensed in the State of Missouri. Missouri Revised Statutes, Chapter 393, Section 393.320 (August 28, 2016).

[6] USPAP is developed, interpreted, and amended by The Appraisal Standards Board (ASB) of The Appraisal Foundation. State and federal regulatory authorities enforce the content of the current or applicable edition of USPAP. All state licensed/certified professional real estate appraisers must perform services in compliance with USPAP.

[7] USPAP, 2024 Edition.

[8] On August 9, 2013, P.A. 98-0213, codified as 220 ILCS 5/9-210.5, went into effect in Illinois. That Section of the Public Utilities Act ("Act") provides an alternate procedure that a large public utility may choose in establishing the ratemaking rate base of a water or sewer utility that the large public utility is acquiring. Among other things, Section 9-210.5 requires that if the utility company elects the procedures of that Section of the Act, three appraisals shall be performed, the appraisers must be selected by the Illinois Commerce Commission, and each appraiser must be State certified general real estate appraiser under the Illinois Real Estate Licensing Act of 2002.

Scope of Work
(Continued)

The Illinois legislation has been in place since 2013. In Illinois, there have been several conveyances of utility systems from the public sector to investor-owned companies that were subject to the recently-enacted legislation governing such transactions.

The standards for valuation in Illinois have been established by the market and are consistently followed by the professional appraisers who engage in valuation assignments of public utility systems pursuant to the applicable governing legislation. The industry-accepted framework for the valuation of utility system assets includes the application of the cost approach and the application of the sales comparison approach, and the omission of the income capitalization approach.

The income capitalization approach is not relied on in the typical appraisals of the utility systems due to the generally limited information available from the market necessary for the credible and reliable application of the income capitalization approach. For instance, a proper application of the income capitalization approach would require substantial detail from competing/alternate utility systems in the market, including, but not limited to, income levels from all sources (historic and future expectations), operating expense details, and market-derived capitalization rates used to convert projected net operating income into present value.

One of the factors impacting the challenges of obtaining necessary income and expense data from other systems pertains to the fact that most of the municipal-owned utility systems include public water and sanitary sewer, and often the management and budget operations for the two systems are not separated. Therefore, we have not applied the income capitalization approach in the valuation of the subject property system. The omission of the income capitalization approach does not result in a misleading analysis or conclusion of value. The omission of the income capitalization approach is in compliance with USPAP, and is consistent with the actions of peers for similar assignments.

We applied the cost approach in arriving at an opinion of value for the subject property system. The cost approach utilized the Hartman report as the primary indication of the cost and depreciation data necessary for its application.

Scope of Work
(Continued)

We then reviewed limited market data pertaining to sales of other utility systems in order to apply the sales comparison approach. In our selection of market data, we included transactional data pertaining to utility systems located in Illinois. The market data available for utility systems acquired in Missouri is very limited, with Missouri American Water Company being the primary entity acquiring systems. Therefore, it is reasonable and acceptable to expand the search for comparable market data to areas outside the borders of Missouri. We selected the Illinois market due to the following factors: proximity, availability of relatively current market data, similarity of legislative rules governing the valuation process, and the existence of a competitive market environment with multiple buyers influencing the balance of supply and demand.

For purposes of this appraisal report, we are relying, in part, on a report prepared by Hartman Consultants, dated December 16, 2024, in which Hartman arrives at an opinion of the depreciated cost new of the infrastructure components of the City of Neosho water and wastewater system assets. We reviewed the Hartman report, consulted with its author, and reviewed the data Hartman relied on in forming their opinions. Furthermore, we reviewed other engineering data and reports pertaining to the subject system as well as several other water and wastewater systems. Based upon our reviews and independent research, we find the report prepared by Hartman Consultants to be thorough, prepared in compliance with industry standards, and credible. Therefore, we have relied on the opinions rendered in the Hartman report. Our reliance on the Hartman report is consistent with the Appraisal Institute's Guide Note 4 which addresses the conditions for an appropriate reliance by appraisers of reports prepared by others.[9]

Finally, we prepared this restricted report in compliance with the Standard Rule 2-2 as set forth in the 2024 Edition of USPAP.

[9] The Appraisal Institute has adopted Guide Notes to the Institute's Standards of Professional Practice ("SPP"). The Guide Notes are not part of the SSP but provide guidance on how the standards requirements may apply to specific situations.

Extraordinary Assumptions

The 2024 Edition of the *Uniform Standards of Professional Appraisal Practice* (USPAP) defines an extraordinary assumption as follows:

> *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 and conclusions.*

This appraisal report is prepared subject to the following Extraordinary Assumptions.

INFORMATION PROVIDED BY THE CLIENT AND THE CITY OF NEOSHO

We have been provided information for this assignment by the client (Missouri American Water Company) and from the City of Neosho. The information is assumed to be correct, accurate, and complete. This includes, but is not limited to, all information pertaining to the subject property systems (financial, physical, legal) as well as all information pertaining to other systems acquired by American Water. The client and intended users are advised that if this assumption is found to be false, it could impact the analysis and opinions.

WATER AND SEWER MAINS PRESUMED TO BE LOCATED IN PUBLIC RIGHTS-OF-WAY

The valuation of the subject property water and wastewater systems includes the water and wastewater mains that are located throughout the community and that connect the facilities. According to Neosho officials, the majority of the water and wastewater mains are located in public rights-of-way. The information provided by the City of Neosho with regard to the mains is assumed to be accurate. The client and intended users are advised that if this assumption is found to be false, it could impact the analysis and opinions.

CUSTOMER COUNTS

According to the client, the subject property water system serves 5,783 customers and the subject property wastewater system serves 5,700 customers. This appraisal is based upon the assumption that the customer count provided by the client is accurate. The client and intended users are advised that if this assumption is found to be false, it could impact the analysis and opinions.

Extraordinary Assumptions
(Continued)

THE HARTMAN ENGINEERING REPORT

The Hartman report, dated December 16, 2024 and revised March 5, 2025, referenced in the Scope of Work section of this report, is assumed to be accurate, complete, and prepared in compliance with applicable industry standards. The client and intended users are advised that if this assumption is found to be false, it could impact the analysis and opinions.

TOWER LEASES

The City of Neosho provided copies of four leases summarized below.

1) Empire District Electric Water Tower Lease
   $1.00 per year; lease dated November 3, 1992
   Indefinite term

2) AT&T Water Tower Lease Agreement
   First Amendment to Lease agreement signed February 2020
   Includes four (4) five-year options
   $2,000 per month

3) T-Mobile Water Tower Lease
   Five-year lease with five (5) five-year options; Signed July 2008
   $1,500 per month

4) Wisper Wireless Internet-Antenna Lease
   Signed February 9, 2015; $150 per month

This appraisal assumes the leases are still in effect and the leased fee interests are being transferred to Missouri American Water. The contributory value of these interests is factored into the final valuation opinion. The client and intended users are advised that if this assumption is found to be false, it could impact the analysis and opinions.

Extraordinary Assumptions
(Continued)

THE TERM "INSPECTION"

Throughout the attached appraisal report, any reference to the appraisers' "inspection", "subject property inspection", "inspection of the subject property", "inspection of the subject water and wastewater systems", etc., refers to the appraisers' customary task of viewing the subject property for purposes of observing the condition, layout, design, and utility of the real estate (land and building), as is typical in the appraisal profession and in the framework of completing the appraisal process.

The reference to the term "inspection" in the context of the appraisers' work should not be interpreted to suggest the appraisers have any expertise and/or qualifications in the assessment of the condition and functionality of any mechanical and non-mechanical components of the subject property water and wastewater systems. The appraisers refer the client and intended users of the attached appraisal report to the engineer's report for an assessment of the water and wastewater systems' infrastructure components.

The three professional real estate appraisers co-signing the attached appraisal report are not qualified to independently detect and assess the condition and functionality of the water and wastewater systems' infrastructure components. However, the three professional real estate appraisers co-signing the attached appraisal report assume that the water and wastewaters systems' components are in proper working order and have been maintained adequately to meet all pertinent codes and regulatory requirements. The client and intended users are advised that if this assumption is found to be false, it could impact the analysis and opinions.

Description of the Subject Property

The property referred to herein as the subject property includes a water and wastewater system owned and operated by the City of Neosho. The following is a summary of the primary assets included in this appraisal assignment. Please refer to the Hartman report for additional details and descriptions of the assets as well as an assessment of the assets and a list of recent major capital investments by the City of Neosho.

- Water treatment plant with 3,000,000 AADF
- Water storage capacity
    - Standpipe Baxter Tank (1,690,000 gallons)
    - Crowder Reservoir (2,000,000 gallons)
    - Crowder Camp Elevated Storage Tank #1 (400,000 gallons)
    - Crowder Camp Elevated Storage Tank #2 (400,000 gallons)
    - Dewey and Finney Storage Tank (450,000 gallons)
    - Total for system: 4,940,000 gallons
- Three wells
- Average daily flow of 3,520,000 gallons
- Approximately 800,000 feet of distribution mains (varying size, age and material)
- Total of 848 hydrants (771 are active and functioning)
- A combination of gravity and force mains for wastewater collection system
- Approximately 600,000 feet of collection mains
- Five lift stations
    - Buffalo Lift Station
    - Pella Lift Station
    - Jay Lift Station
    - Bradford Lift Station
    - Lime Kiln Lift Station
- Crowder wastewater treatment plant (3 MGD AADF)
- Shoal Creek wastewater treatment plant (3 MGD AADF)
- 1,123 manholes
- Flow equalization systems for Crowder and Shoal Creek plants
    - Shoal Creek – 12.1-million-gallon capacity
    - Crowder – 6-million-gallon capacity

Description of the Subject Property
(Continued)

Site and Building Descriptions

4300 Doniphan Drive – Underground Storage

This site is located at the west side of Doniphan Drive, at its intersection with Kit Carson Avenue. The Newton County Assessor identifies this site as Parcel Number 21-2.0-10-003-001-002.000. This site is reportedly 1.65 acres, or 71,874 square feet, in area. This site is improved with a one story, with basement, treatment plant of masonry construction, containing approximately 1,702 square feet of gross building area, which was reported to have been built in 1942. This building is considered to be in fair to average condition. The interior has minimal to no finish. The lower level houses four pumps. This site is also improved with an underground storage tank with a reported capacity of two million gallons. A backup generator is located on site. The improvements are secured by a three strand wire chain fence with a height of six feet and a length of approximately 1,080 lineal feet.

It is the appraisers' understanding that this site is slated for decommission. Therefore, the improvements are considered to have minimal, if any, contributory value.

Clark Drive – Elevated Tank

The site is located on the east side of Clark Drive, between its intersection with Benton Avenue and Ray A. Carver. The Newton County Assessor identifies this site by Parcel Number 21-6.0-14-000-000-004.000. This site is reportedly 0.23 acres, or 10,019 square feet, in area. The site is improved with a 400,000 gallon multi-leg elevated tank that was reportedly erected in 1945 and is considered to be in average condition. The improvements are secured by a three strand wire chain fence with a height of six feet and a length of approximately 400 lineal feet.

Kit Carson Avenue – Elevated Tank

The site is located on the south side of Kit Carson Avenue, just east of its intersection with Hackney Street. The Newton County Assessor identifies this site by Parcel Number 21-6.0-14-000-000-004.000. This site is reportedly 0.23 acres, or 10,019 square feet, in area. The site is improved with a 500,000 gallon multi-leg elevated tank that was reportedly erected in 1945 and is considered to be in average condition. The improvements are secured by a three strand wire chain fence with a height of six feet and a length of approximately 400 lineal feet.

Description of the Subject Property
(Continued)

625 Radio Road – Wastewater Treatment Facility

This site is located at the terminus of Radio Road. This Newton County Assessor identifies this site as Parcel Number 21-5.0-16-000-000-002.000. The entirety of the parcel consists of approximately 440.31 acres. However, the wastewater treatment facility site is calculated to be approximately 40 acres in area. The wastewater treatment facility includes three trickling filters, two primary clarifiers, a sludge drying bed, two flow equalization basins, three final clarifiers, a lift station, primary sludge digesters, and an out of service trickling filter. Building improvements include a metal storage building, an operator's building, a chemical recirculation building, and a primary pump house. The metal storage building consists of a one story, with no basement, building of steel frame construction and corrugated metal exterior siding that reportedly contains 2,400 square feet of gross building area, was reportedly built in 1970 and is considered to be in fair to average condition. The operator's building consists of a one story, with no basement, building of masonry construction that reportedly contains 1,080 square feet of gross building area, was reportedly built in 1970, and is considered to be in average condition. The chemical recirculation building consists of a one story, with no basement, building of concrete block construction that reportedly contains 672 square feet of gross building area, was reportedly built in 1970, and is considered to be in average condition. The primary pump house consists of a one story, with no basement, building of masonry construction that reportedly contains 600 square feet of gross building area, was reportedly built in 1970, and is considered to be in average condition.

Crowder Drive - Lift Station

This site is located on the west side of Crowder Drive, just west of its intersection with Beaumont Street. The site is improved with a lift station that was reportedly built in 1985. The Newton County Assessor identifies this site as Parcel Number 21-2.0-09-001-001-002.001 and calculates it to be 13.87 acres in size. However, the lift station site is estimated to consist of a 20 foot by 20 foot, or 400 square foot, area. According to public records, this parcel is in the name of Neosho Villas LP. The improvements are secured by a three strand wire chain fence with a height of six feet and a length of approximately 80 lineal feet.

South Highway 59 - Lift Station

This site is located on the west side of South Highway 59, approximately 0.25 miles south of Malcom Mosby Drive. The site is improved with a lift station that was reportedly built in 1999. The Newton County Assessor identifies this site as Parcel Number 21-3.0-08-000-000-022.006 and calculates it to be 3.26 acres in size. However, the lift station site is estimated to consist of a 30 foot by 35 foot, or 1,050 square foot, area. According to public records, this parcel is in the name of Jan Antonsson. The improvements are secured by a three-strand wire-chain fence with a height of six feet and a length of approximately 130 lineal feet.

Description of the Subject Property
(Continued)

Pella Lane - Lift Station

This site is located on the south side of Pella Lane at its terminus. The site is improved with a lift station that was reportedly built in 2012. The Newton County Assessor identifies this site as Parcel Number 21-4.0-17-000-000-022.014 and calculates it to be 0.30 acres, or 13,068 square feet, in size. However, the lift station site is estimated to consist of a 20 foot by 20 foot, or 400 square foot, area. According to public records, this parcel is in the name of Douglas & Louis Sherman. The improvements are secured by a wooden privacy fence with a height of six feet and a length of approximately 80 lineal feet.

Quince Road - Lift Station

This site is located on the north side of Quince Road, approximately 0.20 miles west of its intersection with Kendall Lane. The site is improved with a lift station that was reportedly built in 2008. The Newton County Assessor identifies this site as Parcel Number 21-4.0-17-000-000-009.001 and calculates it to be 18.99 acres in size. However, the lift station site is estimated to consist of a 20 foot by 20 foot, or 400 square foot, area. According to public records, this parcel is in the name of Stepping Stone MHC, LLC. The improvements are secured by a chain fence with a height of five feet and a length of approximately 80 lineal feet.

1000 Block of Carl Sweeny Parkway – Valve House

This site is located at the north side of Carl Sweeny Parkway, at its intersection with Cemetery Road. The Newton County Assessor identifies this site as Parcel Number 15-9.0-29-002-003-019.000. This site is reportedly 0.52 acres, or 22,651 square feet, in area. This site is improved with a one story, with basement, building of masonry construction, containing approximately 306 square feet of gross building area, which was reported to have been built in 1970. This building is considered to be in fair to average condition. The lower level houses valving.

Description of the Subject Property
(Continued)

909 Finney Avenue – Elevated Tank and Well House

The site is located on the east side of Finney Avenue, at its intersection with Dewey Avenue. The Newton County Assessor identifies this site by Parcel Number 15-9.0-30-002-026-002.000. This site is reportedly 0.28 acres, or 12,197 square feet, in area. The site is improved with a 400,000-gallon multi-leg elevated tank that was reportedly erected in the 1980s and is considered to be in average condition. A second tank with a capacity estimated to be less than 100,000 gallons is on older structure that has no contributory value. This site is also improved with a one-story, with no basement well house building of masonry construction that was reportedly built in 1929. This building has approximately 320 square feet of gross building area and is considered to be average in condition. The improvements are secured by a three-strand wire-chain fence with a height of six feet and a length of approximately 442 lineal feet. Contributory improvements include a frame shed with a metal roof. It should be noted that a variety of telecommunication equipment is located on this site. However, it is the appraisers' understanding that this equipment is not included.

215 Wheeler Street –Well House

This site is located at the terminus of Wheeler Street, at its intersection with North College Street. This site is also improved with a one-story, with no basement well house building of concrete block construction that was reportedly built in 1995. This building is approximately 360 square feet in gross building area and is considered to be in average condition. The Newton County Assessor identifies this site as Parcel Number 15-4.0-19-002-008-024.000 and calculates it to be 1.82 acres, or 79,279 square feet, in size. However, the well house site is estimated to be 30 feet by 30 feet , or 900 square feet.. According to public records, this parcel is in the name of the City of Neosho.

15318 Kentucky Road – Filtration Plant

This site is located at the north side of Kentucky Road and the south side of Elwood Junction Road, at their intersections. The Newton County Assessor identifies this site as Parcel Number 15-4.0-18-000-000-007.000. This site is reportedly 4.1 acres, or 178,596 square feet, in area. This site is improved with a filtration plant, an aluminum silo, a chemical mix building, a clarifying building, a filtration plant-high service pump building, a flocculator building, a lime silo, a mower shed, a Polyaluminum Chloride building, two settling basins, and a sludge pump building. The filtration building is a part one story, part two story, with partial basement, filtration plant of masonry construction, containing approximately 9,082 square feet of gross building area, which was reported to have been built in 1942. This building is considered to be in fair to average condition. The interior finish consists of a combination of exposed, painted concrete, gypsum board, plaster, and acoustic tile ceilings. There is a combination of exposed brick, plaster, gypsum board, and paneled walls. Flooring consists of a combination of concrete and resilient tile covering.

Description of the Subject Property
(Continued)

The aluminum silo is of steel construction and was reportedly built in 1950.

The chemical mix building is a one story, with no basement, building with masonry exterior walls that are approximately 20 feet in height that was reportedly constructed in 1988. This building reportedly consists of 224 square feet of building area and is considered to be in average condition. This building is attached to the filtration building.

The clarifying building is a one story, with no basement, wood frame with corrugated metal siding building that was reportedly built in 1996. This building reportedly consists of 1,548 square feet of gross building area and is considered to be in average condition.

The filtration plant-high service pump building is a one story, with no basement, building of frame construction and corrugated interior and exterior walls that was reportedly built in 2013. This building reportedly consists of 1,850 square feet of gross building area and is considered to be in average to good condition.

The flocculator building is a one story, with no basement building of frame construction and corrugated metal exterior walls that was reportedly built in 1996. This building reportedly consists of 4,920 square feet of above gross building area and is considered to be in average condition.

The lime silo is of steel construction and was reportedly built in 1950.

The mower shed is a one story, with no basement, building of wood frame construction with corrugated metal exterior walls that was reportedly constructed in 1980. This building reportedly consists of 500 square foot of gross building are and is considered to be in average condition.

The PAC building is a one story, with no basement, building of frame construction that was reportedly constructed in 2002. This building reportedly consists of 224 square feet of gross building area and is considered to be in average condition.

The settling basin buildings are each one story, with no basement, buildings of frame construction with corrugated metal exterior walls that were both reportedly constructed in 1996. Each building reportedly consists of 3,690 square feet of gross building area and they are considered to be in average condition.

Description of the Subject Property
(Continued)

The sludge pump building is a one story, with no basement, building of wood frame and concrete block construction that was reportedly constructed in 1982. This building reportedly consists of 320 square feet of gross building area and is considered to be in average condition.

The improvements are secured by a three-strand, wire-chain fence with a height of six feet and a length of approximately 1,440 lineal feet. This site is served by a generator.

Shoal Creek – Intake Building

This site is located on the east side of Lime Kiln Drive, approximately 0.25 miles north of its intersection with U.S. Highway 60. The site is improved with an intake building that is of concrete construction, cylindrical in shape, and was reportedly constructed in 1942. This building reportedly consists of 707 square feet of gross building area and is considered to be in fair condition. The Newton County Assessor identifies this site as Parcel Number 15-3.0-07-000-000-011.000 and calculates it to be 8.1 acres in size. However, the intake building site is estimated to consist of a 45 foot by 45 foot, or 2,025 square foot, area. According to public records, this parcel is in the name of the City of Neosho. The improvements are secured by a chain fence with a height of six feet and a length of approximately 180 lineal feet.

Lime Kiln Drive – Lift Station

This site is located on the west side of Lime Kiln Drive, approximately 0.35 miles north of its intersection with U.S. Highway 60. The site is improved with a lift station that was reportedly built in 1999. The Newton County Assessor identifies this site as Parcel Number 15-3.0-07-000-000-011.000 and calculates it to be 8.1 acres in size. However, the lift station site is estimated to be 20 feet by 20 feet, or 400 square feet.. According to public records, this parcel is in the name of the City of Neosho. The improvements are secured by a chain fence with a height of five feet and a length of approximately 80 lineal feet.

1701 Wall Street – Equalization Basin and Pump Station

This site is located at the terminus of North Wall Street, just north of its intersection with Jefferson Avenue. The Newton County Assessor identifies this site as Parcel Number 16-6.0-13-000-000-018.000. This site is reportedly 13.06 acres, or 568,894 square feet, in area. This site is improved with a pump station and an approximate 4.0-acre equalization basin built in 2011.

Description of the Subject Property
(Continued)

2201 Old Scenic Drive – Wastewater Plant

This site is located at the terminus of a service road east of Old Scenic Drive, approximately 0.50 miles north of its intersection with Jefferson Avenue. The Newton County Assessor identifies this site as Parcel Number 16-6.0-13-000-000-002.000. This site is reportedly 13.59 acres in area. This site is improved with sludge tanks, two oxidation ditches, a shop/generator building, a sludge holding tank, a u.v. building, and an operator building.

The clarifiers each have a capacity of 350,000 gallons and were reportedly constructed in 1988.

The final sludge tanks have a total capacity of 150,000 and were reportedly constructed in 1988.

The two oxidation ditches each have a capacity of 1,500,000 gallons and were both reportedly constructed in 1988.

The shop/generator building is a one story, with a slab foundation, building of pole frame construction and corrugated metal exterior walls that was reportedly constructed in 1985. This building reportedly consists of 4,576 square feet of gross building area and is considered to be in average condition.

The sludge holding tank has a capacity of 500,000 gallons and was reportedly constructed in 1988.

The u.v. building is a one story, on slab foundation, building of frame construction with corrugated metal exterior walls that was reportedly built in 1985. This building reportedly consists of 480 square feet of gross building area and is considered to be in average condition.

The operator building is a one story, with no basement, office building of masonry construction, containing approximately 1,800 square feet of gross building area, which was reported to have been built in 1985. This building is considered to be in average condition. The interior finish consists of a combination of exposed, gypsum board, and acoustic tile ceilings. There is a combination of exposed concrete and gypsum board walls. Flooring consists of a combination of concrete, tile, and resilient floor covering.

This is served by a generator and is also improved with a 4.0-acre lagoon.

Description of the Subject Property
(Continued)

1040 Baxter Street – Ground Supported Tank and Well House

The site is located on the north side of Baxter Street, at its intersection with Oakwood Trail Road. The Newton County Assessor identifies this site by Parcel Number 16-6.0-14-000-000-029.000. This site is reportedly 1.0 acres, or 43,560 square feet, in area. The site is improved with a 1,700,000-gallon ground-supported steel tank that was reportedly erected in 1978 and is considered to be in average condition. This site is also improved with a one-story, with no basement, pump station building of masonry construction that was reportedly built in 2005 and is considered to be average to good in condition. The pump station reportedly consists of 440 square feet of gross building area. The improvements are secured by a three-strand wire-chain fence with a height of six feet and a length of approximately 840 lineal feet.

13000 Block Jay Drive – Lift Station

This site is located on the east side of Jay Drive, approximately 0.20 miles north of its intersection with Lauren Lane. The site is improved with a lift station that was reportedly built in 2005. The Newton County Assessor identifies this site as Parcel Number 16-5.0-22-001-001-004.0001 and calculates it to be 20.63 acres in size. However, the lift station site is estimated to consist of a 25 foot by 25 foot, or 625 square foot, area. According to public records, this parcel is in the name of Wilthom, LLC. The improvements are secured by a chain fence with a height of five feet and a length of approximately 80 lineal feet.

The Crowder Treatment Plant

The Crowder trickling filter wastewater treatment plant does not and will not meet future effluent discharge quality standards and is considered in poor/fair condition. It is the opinion of the valuation experts that the Crowder treatment plant has no contributory value to the system as a whole from a market value perspective.

Highest and Best Use Analysis

The beginning point in the valuation of any real estate is the determination of the property's highest and best use. Highest and Best Use is defined in the 15th Edition of *The Appraisal of Real Estate* as follows:

> *The reasonably probable and legal use of vacant land or an improved property that is physically possible, appropriately supported, and financially feasible and that results in the highest value.*

The 15th Edition states that there are four implicit steps as part of the analysis that are applied in the following order: (1) Legally Permissible, (2) Physically Possible, (3) Financially Feasible, and (4) Maximally Productive.

After considering the components of the subject property's infrastructure and taking into account the analysis and report prepared by Hartman Consultants, it is our opinion the highest and best use of the subject property system as of September 23, 2024, is the present use as water and wastewater systems.

Application of the Approaches to Value

Normally included within the steps of this process are the three classic approaches to a value estimate: the cost approach, the sales comparison approach and the income capitalization approach. Each of these approaches tends to independently serve as a guide to the valuation of the property with varying degrees of validity.

The cost approach gives recognition to the fact that buyers have available to them the alternative of constructing a new building when contemplating the purchase of an existing building. Thus, the cost to reproduce the property is utilized as a measure of value. However, most properties experience varying degrees of accrued depreciation which result from physical depreciation, functional obsolescence and external obsolescence. Any of these three types of depreciation (or a combination thereof) from which the property suffers must be deducted from the estimated cost new of the improvements. The difficulty, then, in applying the cost approach is the ability of the appraiser to accurately extract or estimate the amount of depreciation the property being appraised suffers.

The sales comparison approach is based upon the theory that the value of a property is determined by the actions of buyers and sellers in the market for comparable types of property. Recognizing no two properties are identical and that properties sell at different times under different market conditions, the application of the sales comparison approach requires the appraiser to consider any differences between a respective sale and the subject property which may affect value. After the relevant differences are adjusted for, an indicated range of value results.

The theory of the sales comparison approach also realizes that buyers and sellers often have motivations that are unknown to the appraiser and difficult to quantify in the adjustment process. Therefore, while this approach has certain strengths and foundation, it must be carefully applied in order to lead the appraiser to a realistic opinion of value.

And lastly, the income capitalization approach is typically given very much consideration in the appraisal process for income-producing properties. The income capitalization approach gives recognition to the subject property's capabilities of producing an income and that investors in the real estate market will pay a specific amount of cash, or its equivalency, to receive that income, as well as the rights of ownership of the property at the end of the income period.

Application of the Approaches to Value
(Continued)

The income capitalization approach is applied based upon market-extracted information, most notably the income and expenses that prevail in the market for the type of property being appraised. After an appropriate estimate of income is arrived at, the income is converted to an estimate of value via a capitalization rate. The capitalization rate is also either extracted from the market or may be derived based upon a built-up method.

After the appraiser independently applies each approach to value, the three resultant value estimates are reconciled into an overall estimate of value. In the reconciliation process, the appraiser analyzes each approach with respect to its applicability to the property being appraised. Also considered in the reconciliation process is the strength and weakness of each approach with regards to supporting market data.

Regarding the valuation of the subject property, we have applied the *cost approach* and the *sales comparison approach*. The income capitalization approach was not applied due to the unavailability of the significant amount of market data pertaining to market income and market expenses that would be necessary to arrive at a credible conclusion.

Following this section is a more detailed explanation of the cost approach and the sales comparison approach.

Cost Approach

The cost approach is a technique in the appraisal process which recognizes that a prudent purchaser/investor of real estate or personal property may consider constructing a new building or water/wastewater system as an alternative to buying an existing property.

Although it holds true that a prudent purchaser would not pay more for a building or water/wastewater system than the cost of buying the land and constructing a new building or water/wastewater system which would offer similar utility, the estimated cost new of the property must be adjusted for items of depreciation and obsolescence which the property being appraised has suffered. Only then will the cost approach yield an indication of value which can be correlated with the other two approaches to arrive at the market value of the property.

The beginning point of the typical cost approach is to arrive at an estimate of the land value as vacant. The land value is arrived at by applying the sales comparison approach utilizing vacant land sales from the market.

The next step is to estimate the cost new of the building and water/wastewater. There are two primary types of cost: reproduction cost and replacement cost.

Reproduction Cost is defined as:

> *The estimated cost to construct, at current prices as of the effective date of the appraisal, an exact duplicate or replica of the building being appraised, using the same materials, construction standards, design, layout, and quality of workmanship and embodying all the deficiencies, superadequacies, and obsolescence of the subject building.* [10]

Replacement Cost is defined as:

> *The estimated cost to construct, at current prices as of a specific date, a substitute for a building or other improvements, using modern materials and current standards, design, and layout.*[11]

If a property suffers any functional obsolescence, it is necessary to utilize the reproduction cost estimate. The measure of loss of value from the functional inadequacy (or superadequacy) would then be deducted as an item of depreciation.

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[10] *The Dictionary of Real Estate Appraisal*, Second Edition, (Chicago, Illinois: American Institute of Real Estate Appraisers, 1989), p. 254.

[11] Ibid.

Cost Approach
(Continued)

After the cost of the property is estimated, all items of depreciation are measured and deducted from the cost to arrive at an estimate of the depreciated cost new of the improvements. The land value as vacant is then added to arrive at a total estimate of the property via the cost approach.

Thus, to accurately estimate the value of the property, the appraiser must:

1). Estimate the value of the land as vacant;
2). Estimate the cost new of the building and improvements;
3). Estimate the amount of all items of depreciation, if any;
4). Deduct the depreciation estimate from the cost new estimate; and
5). Add the estimated land value to the depreciated value of the building and improvements.

The starting point in the application of the Cost Approach is to arrive at an estimate of the subject property land as vacant. The land value is estimated based upon the Direct Sales Comparison theory which basically states that no one will pay more for a parcel of land than the cost of acquiring an equally suitable parcel. Therefore, the value of the site is arrived at by measuring the actions of buyers and sellers in the market for comparable parcels of land.

Cost Approach
(Continued)

Land Value Contribution

Below is a summary of land transactions that were relied on in developing land value opinions.

Comparable Residential Land Sales

No.	Address	Sale Date	Sale Price	Size (Sq. Ft.)	Size (Acres)	Price per S.F.	Price per Acre
1	415 Ravenwood Circle	10/31/2024	$20,000	6,970	0.16	$2.87	$125,000
2	431 Ravenwood Circle	10/31/2024	$20,000	16,117	0.37	$1.24	$54,054
3	400 Ravenwood Circle	10/31/2024	$20,000	8,712	0.20	$2.30	$100,000
4	412 Maple Street	12/19/2023	$14,500	9,148	0.21	$1.59	$69,048
5	Lot 25 Whispering Springs	9/1/2022	$6,000	16,988	0.39	$0.35	$15,385
6	800 Block Mary Avenue	9/15/2023	$30,000	16,988	0.39	$1.77	$76,923
7	1809 Sally Ann Avenue	10/25/2024	$15,833	17,424	0.40	$0.91	$39,583
8	8673 Riverview Drive	7/14/2022	$14,000	22,651	0.52	$0.62	$26,923
9	25 South Place #D	8/2/2024	$188,200	186,872	4.29	$1.01	$43,869

Comparable Commercial Land Sales

No.	Address	Sale Date	Sale Price	Size (Sq. Ft.)	Size (Acres)	Price per S.F.	Price per Acre
1	108 East McCord Street	8/30/2023	$39,000	6,534	0.15	$5.97	$260,000
2	INCA Lane	6/27/2024	$190,000	252,648	5.80	$0.75	$32,759
3	1358 North Business 49	10/21/2020	$30,000	87,120	2.00	$0.34	$15,000
4	13700 Block Phillip Land	9/21/2021	$110,000	176,854	4.06	$0.62	$27,094
5	15500 Block Kodiak Road	Listing	$170,000	87,120	2.00	$1.95	$85,000
6	1400 Block West Daugherty Road	Listing	$307,500	188,615	4.33	$1.63	$71,016

Based upon an analysis of this market data as well as the contributory values and sales data relating to other systems, we have concluded the contributory value of the land rights for the subject property water system is $250,000 and the contributory value of the land rights for the subject property wastewater system is $250,000.

Cost Approach
(Continued)

Cost New Estimates

The next component of the cost approach is the development of the depreciated cost new of the system assets. The cost new and depreciation estimates presented below are based in part of the work developed in the Hartman report and in part based on the appraisers' research of cost data from published cost services.

The Hartman report includes an opinion of Replacement Cost New Less Physical Depreciation of approximately $32,665,000 for the water system assets excluding land and buildings. (Hartman report, Page 38; Table 10.) The Hartman report includes an opinion of Replacement Cost New Less Physical Depreciation of approximately $56,700,000 for the wastewater system assets excluding land and buildings. (Hartman report, Page 40; Table 12.) However, the Hartman report states on Page 43 that if the Crowder trickling filter wastewater treatment plant is excluded, the estimate would for the wastewater system assets would be reduced by approximately $10,000,000 resulting in a depreciated cost for the wastewater system assets of approximately $46,700,000.

The exhibit below summarizes the Hartman opinions prior to rounding the final conclusions. On the following two pages are summaries of the depreciated cost data for the buildings and improvements not covered by the Hartman analysis.

SUMMARY OF DEPRECIATED COST ESTIMATES		
WATER SYSTEM COST ESTIMATE		
	TOTAL	***PER CUSTOMER***
REPLACEMENT COST NEW	$92,037,000	$15,915
PHYSICAL DEPRECIATION	$59,372,000	$10,267
REPLACEMENT COST NEW LESS PHYSICAL DEPRECIATION	$32,665,000	$5,648
WASTEWATER SYSTEM COST ESTIMATE		
	TOTAL	***PER CUSTOMER***
REPLACEMENT COST NEW	$124,427,000	$21,829
PHYSICAL DEPRECIATION	$68,519,010	$12,021
REPLACEMENT COST NEW LESS PHYSICAL DEPRECIATION	$55,907,990	$9,808

Cost Approach
(Continued)

WATER SYSTEM ASSETS							
Location	Building	Size		Value per Unit	Cost New	REL	As Is Value
Clark Street							
	Chain Fence 6ft	400	Lineal Ft.	$26.11	$10,444	70%	$7,311
Kit Carson Avenue							
	Chain Fence 6ft	400	Lineal Ft.	$26.11	$10,444	70%	$7,311
625 Radio Road							
	Metal Storage Building	2,400	S.F.	$29.53	$70,872	40%	$28,349
	Operator's Building	1,080	S.F.	$69.87	$75,460	50%	$37,730
	Chemical Recirculation Buildir	672	S.F.	$66.72	$44,836	50%	$22,418
	Primary Pump House	600	S.F.	$69.87	$41,922	50%	$20,961
1000 Block Carl Sweeny Parkway							
	Valve House	306	S.F.	$69.87	$21,380	50%	$10,690
909 Finney Avenue							
	Well House	320	S.F.	$69.87	$22,358	50%	$11,179
	Chain Fence 6ft	442	Lineal Ft.	$26.11	$11,541	70%	$8,078
215 Wheeler Street							
	Well House	360	S.F.	$69.87	$25,153	50%	$12,577
15318 Kentucky Road							
	Filtration Plant	9,082	S.F.	$229.91	$2,088,043	40%	$835,217
	Chemical Mix Building	224	S.F.	$260.49	$58,350	50%	$29,175
	Clarifying Building	1,548	S.F.	$30.65	$47,446	50%	$23,723
	Filtration Plant Pump Building	1,850	S.F.	$50.04	$92,574	70%	$64,802
	Flocculator Building	4,920	S.F.	$30.65	$150,798	50%	$75,399
	Mower Shed	500	S.F.	$30.65	$15,325	50%	$7,663
	PAC Building	224	S.F.	$30.65	$6,866	50%	$3,433
	Sludge Pump Building	320	S.F.	$38.77	$12,406	50%	$6,203
	Chain Fence 6ft	1,440	Lineal Ft.	$26.11	$37,598	70%	$26,319
1040 Baxter Street							
	Pump Station Building	440	S.F.	$69.87	$30,743	70%	$21,520
	Chain Fence 6ft	840	Lineal Ft.	$26.11	$21,932	70%	$15,353
						Total	$1,275,409

Cost Approach
(Continued)

WASTEWATER SYSTEM ASSETS							
Location	Building	Size		Value per Unit	Cost New	REL	As Is Value
Crowder Drive							
	Chain Fence 6ft	80	Lineal Ft.	$26.11	$2,089	70%	$1,462
South Highway 59							
	Chain Fence 6ft	130	Lineal Ft.	$26.11	$3,394	70%	$2,376
Pella Lane							
	Chain Fence 6ft	80	Lineal Ft.	$26.11	$2,089	70%	$1,462
Quince Road							
	Chain Fence 5ft	80	Lineal Ft.	$19.23	$1,538	70%	$1,077
Shoal Creek							
	Intake Building	707	S.F.	$63.56	$44,937	30%	$13,481
	Chain Fence 6ft	180	Lineal Ft.	$26.11	$4,700	70%	$3,290
Lime Kiln Road							
	Chain Fence 5ft	180	Lineal Ft.	$19.23	$3,461	70%	$2,423
2201 Old Scenic Drive							
	Shop/Generator Build	4,576	S.F.	$17.94	$82,093	50%	$41,047
	U.V. Building	480	S.F.	$17.94	$8,611	50%	$4,306
	Operator Building	1,800	S.F.	$69.87	$125,766	50%	$62,883
13000 Jay Drive							
	Chain Fence 5ft	80	Lineal Ft.	$19.23	$1,538	70%	$1,077
						Total	$128,506

Total should be $134,884, not $128,506 as shown. This value is updated throughout the document but was not identified until after the appraisal was finalized. The difference in value did not have an affect on the final valuation of the wastewater system.

Cost Approach
(Continued)

Entrepreneurial Profit is defined (The Dictionary of Real Estate Appraisal, Sixth Edition, Appraisal Institute, 2015, page 77) as follows:

"A market-derived figure that represents the amount an entrepreneur receives for his or her contribution to a project and risk; the difference between the total cost of a property (cost of development) and its market value (property value after completion), which represents the entrepreneur's compensation for the risk and expertise associated with development. An entrepreneur is motivated by the prospect of future value enhancement (i.e., the entrepreneurial incentive). An entrepreneur who successfully creates value through new development, expansion, renovation, or an innovative change of use is rewarded by entrepreneurial profit. Entrepreneurs may also fail and suffer losses."

It is synonymous with such terms as "developer's profit" and "entrepreneurial reward", and is the return required or expected by the entrepreneur for assuming the risk associated with developing a new property or system. The Cost Approach would be incomplete without accounting for entrepreneurial profit. For properties such as the subject, an estimated entrepreneurial profit of five percent is considered to be reasonable.

The cost approach opinions are summarized below.

	WATER SYSTEM	WASTEWATER SYSTEM
Replacement Cost New Estimate of System Assets per Hartman Report:	$92,037,000	$123,687,000
Less Phyiscal Depreciation:	$59,371,940	$67,368,000
Replacement Cost New Less Physical Depreciation per Hartman Report:	$32,665,060	$56,319,000
Contributory Value of Other Improvements:	$1,275,409	$128,506
Subtotal:	$33,940,469	$56,447,506
Entrepreneurial Incentive:	$1,697,023	$2,822,375
Contributory Value of Land:	$250,000	$250,000
Total:	$35,887,492	$59,519,881
Rounded Opinion:	**$35,900,000**	**$59,500,000**

Total should be $134,884, not $128,506 as shown. This value is updated throughout the document but was not identified until after the appraisal was finalized. The difference in value did not have an affect on the final valuation of the wastewater system.

Sales Comparison Approach

The sales comparison approach is an approach to value which measures the actions and activity of buyers and sellers in the market and relates those actions to the property being appraised. Also referred to as the market approach, the underlying premise of this approach to value is that no prudent purchaser will pay more for a property than the cost of acquiring an equally suitable parcel. The fundamental concept of the sales comparison approach is the principle of substitution, which is defined as:

> *A valuation principle that states that a prudent purchaser would pay no more for real property than the cost of acquiring an equally desirable substitute on the open market. The Principle of Substitution presumes that the purchaser will consider the alternatives available and will act rationally or prudently on the basis of the information about those alternatives, and that reasonable time is available for the decision. Substitution may assume the form of the purchase of an existing property, with the same utility, or of acquiring an investment which will produce an income stream of the same size with the same risk as that involved in the property in question.* [12]

Research of the area, state and national real estate market was completed in order to find sales of water and wastewater systems that included comparable features to the subject property.

The following pages of this report include a summary of the sale properties and analysis of the transactions for comparison with the subject property to develop an opinion of value of the subject property water and wastewater systems using this valuation approach.

The sales were reported to be cash to the seller at closing unless otherwise noted in the specific sale transaction description. There is not adequate income information available for the sale properties to extract income multipliers and overall rates. The best method of comparison for the subject property in this appraisal is the sale price per customer accounts or connections.

Based upon this market data, we have concluded a unit value of $3,000 per connection for the subject property water system and a unit value of $3,000 per connection for the subject property wastewater system. The value opinions developed by the sales comparison approach are rounded to $17,400,000 for the water system and $17,100,000 for the wastewater system. Details pertaining to the market data relied on for this analysis are on the following pages.

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[12] Byrl N. Boyce, Ph. D., SRPA, Real Estate Appraisal Terminology, 2nd ed., (Cambridge, Mass.: Ballinger Publishing Company, 1984), p. 234.

Sales Comparison Approach
(Continued)

There have been several sale properties selected from all available sale transactions for analysis in this approach. The sales data was provided through information from the Missouri Public Service Commission, Illinois Commerce Commission, Aqua America Inc., American Water Company, Utilities Inc., and Hartman Consultants LLC.

The sales were considered to be the most comparable to the subject property in terms of arms-length sales transactions, location of the system, capital improvements supporting the water and wastewater systems and number of water and wastewater customer accounts in the entire system. All information of the sale transactions and properties was confirmed by the previously mentioned party or parties to the transaction.

As explained in the Scope of Work section of this report, we included transactional data pertaining to utility systems located in Illinois in addition to the market data from Missouri. We did consider transactions by Missouri American of seven water systems, eight wastewater systems, and seven combined water-wastewater systems in Missouri. However, the market data available for utility systems acquired in Missouri is very limited, with Missouri American Water Company being the primary entity acquiring systems. Therefore, it is reasonable and acceptable to expand the search for comparable market data to areas outside the borders of Missouri.

We selected the Illinois market due to the following factors: proximity, availability of relatively current market data, similarity of legislative rules governing the valuation process, and the existence of a competitive market environment with multiple buyers influencing the balance of supply and demand. The following is a summary of the market data given the most weight in our analysis.

Sales Comparison Approach
(Continued)

Sale 1

MESD Landowne (Sewer)
Madison & St Clair Counties, Illinois

Closed November 13, 2024
Asset Purchase Agreement signed December 21, 2023
Price: $6,886,000 or OCLD
Wastewater collection system with 6,222 customers ($1,107 per customer)

Seller: Metro East Sanitary District
Buyer: Illinois American Water Company
ICC Docket 24-0143

The wastewater collection system consists of mains that collect only sanitary sewage or both sanitary sewage and storm water. Serves City of Venice, Village of Brooklyn, City of Madison, City of Fairmont City, a portion of City of East St Louis, City of Washington Park, City of National City, and Village of Caseyville.

OCLD is $6,907,268.

Sales Comparison Approach
(Continued)

Sale 2

Westfield Homeowners Association (Sewer)

Near City of Glenview, Cook County, Illinois

Closed May 21, 2024

Asset Purchase Agreement signed June 30, 2023

Price: $50,000

Wastewater collection system with 223 customers ($224 per customer)

Seller: Westfield Homeowners Association

Buyer: Aqua Illinois

ICC Docket 23-0588

Wastewater collection system with 223 customers, 50 manholes, 9,172 feet 8” mains, and 1,238 feet 10” mains.

Sales Comparison Approach
(Continued)

Sale 3

City of Granite City Wastewater Treatment Plant (Sewer)

City of Granite City, Madison County, Illinois

Closed March 11, 2024

Asset purchase agreement signed April 6, 2023

Price: $83,000,000

Wastewater treatment plant with 35,444 customers ($2,342 per customer)

Seller: City of Granite City

Buyer: Illinois American Water Company

ICC Docket 23-0304

Sale of a wastewater treatment plant with 35,444 customers. Six primary clarifiers, four final clarifiers, disinfection delivery system, two sludge thickeners, one treated sludge decant tank, two combined overflow station mechanical bar screens, grit removal tank fine screens, five raw waste pumping station inlet valves, service water pump, 36” magnetic flow meter at grit chamber, water sludge pump building motor control center upgrade, aeration tank #4 upgrades, plant office building, 29 electric-operated activators. Land is leased from America’s Central Port District.

Sales Comparison Approach
(Continued)

Sale 4

City of Ironton (Water & Sewer)

City of Ironton, Missouri

Closed December 13, 2023

Asset purchase agreement signed February 15, 2023

Price: $3,700,000 ($2,000,000 water; $1,700,000 wastewater)

Water delivery & treatment system with 726 customers ($2,755 per customer)

Wastewater collection & treatment system with 705 customers ($2,411 per customer)

Seller: City of Ironton, Missouri

Buyer: Missouri American Water Company

MO PSC Case: WA-2023-0434 & SA-2023-0435

This sale includes the transfer of a water system and a sewer system. The City of Ironton is a fourth-class city with a population of approximately 1,475, located in Iron County. According to the application, the City serves approximately 725 water accounts and 700 sewer accounts. The water and sewer systems are currently not subject to the jurisdiction of the Commission. The City's water system consists of a water treatment plant, three storage tanks (one 200,000 gallon storage tank, two 106,000 gallon storage tanks), a pressure reducing valve vault, and the water distribution system. For sewer, there is a three-cell lagoon partial irrigation wastewater treatment plant with 400,000 gallon per day design flow, lift station, and collection system.

Missouri American Water has committed to investing $8.4 million over the next 10 years to upgrade Ironton's water and wastewater systems, including replacing or rehabilitating water and sewer mains.

Sales Comparison Approach
(Continued)

Sale 5

City of Wood Heights (Water & Sewer)

City of Wood Heights, Ray County, Missouri

Closed July 20, 2023

Asset purchase agreement signed January 10, 2023

Price: $1,000,000 ($800,000 water; $200,000 wastewater)

Water delivery system with 268 customers ($2,985 per customer)

Wastewater collection & treatment system with 194 customers ($1,031 per customer)

Seller: City of Wood Heights, Missouri

Buyer: Missouri American Water Company

MO PSC Case: WA-2023-0345 & SA-2023-0346

Water delivery system with 268 customers consisting of a booster pump station, 100,000 gallon elevated storage tank, approximately 49,000 feet of water mains, and 42 hydrants. Original system placed in service in 1957. Water is purchased from Ray County PWSD #2.

Wastewater collection and treatment system with 194 customers consisting of a wastewater treatment plant (lift station, coarse screening headworks, oxidation ditch, secondary clarifiers, UV disinfection system), 13,600 feet of gravity mains, 3,200 feet of force mains, 40 manholes, and two lift stations.

Sales Comparison Approach
(Continued)

Sale 6

City of Smithton (Water & Sewer)

City of Smithton, Pettis County, Missouri

Closed February 28, 2023

Asset purchase agreement signed May 9, 2022

Price: $565,001 ($565,000 water; $1 wastewater)

Water delivery system with 225 customers ($2,511 per customer)

Wastewater collection & treatment system with 223 customers ($NA per customer)

Seller: City of Smithton, Missouri

Buyer: Missouri American Water Company

MO PSC Case: WA-2023-0071 & SA-2023-0072

The water delivery system consists of one 50,000 gallon elevated welded steel storage tank, two deep wells, and approximately 28,000 feet of 2", 4" and 6" mains. There are 30 fire hydrants.

The sewer system consists of a two-cell treatment lagoon and a collection system consisting of approximately 23,000 feet of mains and 75 manholes.

There are 225 water connections and 223 wastewater connections.

Sales Comparison Approach
(Continued)

Sale 7

City of Stewartsville (Water & Sewer)

City of Stewartsville, Missouri

Closed February 17, 2023

Asset purchase agreement signed February 17, 2022

Price: $1,900,000 ($900,000 water; $1,000,000 wastewater)

Water delivery system with 357 customers ($2,521 per customer)

Wastewater collection & treatment system with 354 customers ($2,825 per customer)

Seller: City of Stewartsville, Missouri

Buyer: Missouri American Water Company

MO PSC Case: WA-2022-0311 & SA-2022-0312

Water delivery system with 357 customers consisting of an elevated 200,000 gallon storage tank and approximately 52,000 feet of mains. Water supply is an interconnect of DeKalb County PWSD #1.

Wastewater collection and treatment system consisting of two pump stations, a three-cell treatment lagoon with two aerators/mixers, approximately 37,000 feet of gravity mains and 2,000 feet of force mains.

Sales Comparison Approach
(Continued)

Sale 8

Timber Ridge Estates (Water & Sewer)
Village of Frankfort, Will & Cook Counties, Illinois

Closed July 31, 2023
Asset purchase agreement signed August 1, 2022
Price: $1,400,000
Water delivery & wastewater collection system with 706 water & 706 wastewater customers ($992 per customer)

Seller: Village of Frankfort, Illinois
Buyer: Aqua Illinois
ICC Docket 22-0554

Water delivery service includes 16,940 feet of 4” mains, 29,455 feet of 10” mains, 62 hydrants, and 706 meters. Water is supplied by Village of Frankfort via 8” and 10” mains from Harlem Avenue. Investment after purchase: $1,020,000 over three years to install meter vaults and mains to accommodate, replace hydrants, mains, looping and upsizing program.

Wastewater collection service includes 27,972 feet of 8” gravity mains, 960 feet of 10” gravity mains, 5,140 feet of 12” gravity mains, 2,868 feet of 15” gravity mains, and one lift station that collects and pumps sewage through 5,896 feet of 12” force main to a gravity sewer. Investment after purchase: $4,225,000 over three years for new force main from lift station, replace lift station at cost of $1,300,000, replace generator and communications, install master flow meter, and six year program of lining mains and manholes.

Sales Comparison Approach
(Continued)

Sale 9

Village of Broadlands (Water)

Village of Broadlands, Champaign County, Illinois

Closed August 22, 2023

Asset purchase agreement signed August 1, 2022

Price: $425,000

Water treatment and delivery system with 155 customers ($2,742 per customer)

Seller: Village of Broadlands, Illinois

Buyer: Illinois American Water Company

ICC Docket 22-0537

Water treatment and distribution system with 155 connections. The primary water source is purchased water from Embarras Area Water District. Assets include a meter station, meter and chlorination station, 90,000-gallon standpipe water storage tank, 155 meters, 28 hydrants, and 14,020 linear feet of water mains. There are two parcels of land.

Sales Comparison Approach
(Continued)

Sale 10

Village of Tolono (Water & Sewer)

Village of Tolono, Illinois

Closed June 20, 2023

Asset purchase agreement signed August 11, 2022

Price: $9,475,0000 ($4,000,000 water; $5,475,000 wastewater)

Water delivery system with 1,295 customers ($3,089 per customer)

Wastewater collection and treatment system with 1,254 customers ($4,366 per customer)

Seller: Village of Tolono, Illinois

Buyer: Illinois American Water Company

ICC Docket 23-0536

Water system with 1,295 connections, 193,000 linear feet of mains, and 130 hydrants.

Wastewater system with 1,254 connections consisting of a wastewater treatment plant and six lift stations. The treatment plant is a standard secondary STP with screening, excess flow treatment, grinding, primary clarification, suspended growth, extended aeration activated sludge, rapid sand filters, aerobic digestion, sludge sand drying beds, sludge lagoons. The six lift stations are: Elizabeth Street, Third Street, Larmon Street, East Street, Condit Street, and Watson Street. There are 310 sanitary sewer manholes. The buyer will spend $17 million in the first five years of ownership to upgrade both systems. Sale includes engineering work on design of new wastewater treatment plant and two lift stations totaling $575,500.72.

Sales Comparison Approach
(Continued)

Sale 11

Pom-Osa Heights Subdivision (Water)

Benton County, Missouri

Closed December 19, 2022

Asset purchase agreement signed November 8, 2021

Price: $10,000

Water delivery system with 60 customers ($167 per customer)

Seller: Pom-Osa Heights Subdivision, Benton County, Missouri

Buyer: Missouri American Water Company

MO PSC Case WA-2022-0361

Water delivery system with 60 customers, primary well, backup well, 10,000 gallon standpipe, four 119 gallon hydropneumatic tanks and two booster pumps, and approximately 10,000 feet of PVC mains.

Sales Comparison Approach
(Continued)

Sale 12

Village of Purcell (Water & Sewer)

Village of Purcell, Jasper County, Missouri

Closed October 28, 2022

Price: $400,000

Water delivery & wastewater collection system with 164 water customers and 146 wastewater customers ($1,290 per customer)

Seller: Village of Purcell, Missouri

Buyer: Missouri American Water Company

MO PSC Case WA-2022-0293 & SA-2022-0294

Water delivery system with 164 customers consisting of two deep wells (one shared by City of Alba), a 50,000 gallon elevated storage tank, and approximately seven miles of mains.

Wastewater collection system with 146 customers consisting of three lift stations, a recirculating sand filter treatment plant with 43,000 gallon per day capacity and approximately six miles of mains.

Includes loan payoff of $46,045 and grant reimbursement to MO DNR of $296,544 relating to wastewater.

Sales Comparison Approach
(Continued)

Sale 13

City of Orrick (Water & Sewer)

City of Orrick, Ray County, Missouri

Closed February 16, 2022

Asset purchase agreement signed June 8, 2021

Price: $1,510,000 ($840,000 water; $670,000 wastewater)

Water delivery system with 335 customers ($2,507 per customer)

Wastewater collection and treatment system with 335 customers ($2,000 per customer)

Seller: City of Orrick, Missouri

Buyer: Missouri American Water Company

MO PSC Case WA-2022-0049 & SA-2022-0050

Orrick purchases water from Ray County Consolidated Public Water Supply District 2 (PWSD #2). The Orrick water system consists of approximately 39,250 feet of water mains ranging in size from 1” to 8 “ with approximately 47 hydrants. The system includes a 150,000-gallon elevated storage tank. Water is supplied to the system through an 8” metered interconnect with PWSD #2. There are 335 water connections.

The wastewater system consists of approximately 34,000 feet of 8” gravity mains and 351 manholes and five duplex lift stations pumping through 7,300 feet of 6” force mains to the lagoon treatment system. The lagoon consists of three cells, a small aeration cell followed by primary and polishing cells. The system discharges into Kenney Creek. There are 335 wastewater connections.

Missouri American will complete $1.3 million in upgrades to both systems.

Sales Comparison Approach
(Continued)

Sale 14

City of Eureka (Water & Sewer)
City of Eureka, St. Louis County, Missouri

Closed August 4, 2022
Price: $28,000,000 ($18,000,000 water; $10,000,000 wastewater)
Water delivery system with 4,009 customers ($4,490 per customer)
Wastewater collection & treatment system with 3,957 customers ($2,527 per customer)

Seller: City of Eureka, Missouri
Buyer: Missouri American Water Company
MO PSC Case WA-2021-0376 & SA-2021-0377

The City of Eureka water and wastewater systems consist of 4,009 water customers and 3,957 wastewater customers, located in St Louis County.

The water system consists of six wells, eight booster pumping stations, seven storage tanks, and the water distribution system. The water distribution system includes approximately 58.8 miles of water mains ranging in size from 2” to 12”, 642 hydrants, associated valves and fittings.

The wastewater plant is a three-cell aerated lagoon wastewater treatment plant with a design flow of 2.8 million gallons per day, according to the MDNR Operating Permit. The wastewater collection system consisting of ten sewer lift stations, approximately 62.5 miles of sewer mains ranging in size from 4” to 48”, and 1,452 manholes.

Sales Comparison Approach
(Continued)

Sale 15

City of Hallsville (Sewer)

City of Hallsville, Boone County, Missouri

Closed February 25, 2022

Price: $2,000,000

Wastewater collection system with 664 customers ($3,012 per customer)

Seller: City of Hallsville

Buyer: Missouri American Water Company

MO PSC Case SA-2021-0017

The Hallsville wastewater system is unique in that it utilizes a land application process to dispose of its wastewater. Large irrigation systems distribute untreated wastewater onto farmland. This process has resulted in some compliance issues with the Missouri Department of Natural Resources. When irrigation is not possible, wastewater is held and accumulates in three holding cells or lagoons. The collection system has just over 13 miles of pipe and 256 manholes.

There is a capital commitment of $3,300,000 over five years, including terms that provide for future service, maintenance, capital improvements and other terms and conditions.

Sales Comparison Approach
(Continued)

Sale 16

City of Rosiclare (Water)

City of Rosiclare, Hardin County, Illinois

Closed February 14, 2022

Price: $2,700,000

Water delivery system with 525 customers ($5,143 per customer)

Seller: City of Rosiclare, Illinois

Buyer: Illinois American Water Company

ICC Docket 22-0143

The current water treatment plant was built in 1934 during the 'prosperous years" through 1960. The current water supply wells were built in 1995. The last improvements to the subject facilities were in the 2003/2004 period. There are 525 water connections on the City's distribution system. There are 54,715 feet of mains, 89 hydrants, and 160 valves. There are no land or easements that are part of this water delivery system.

Sales Comparison Approach
(Continued)

Sales 17a & 17b

17a - Royal Oaks Mobile Water & Wastewater System (Water & Sewer)

17b - Four Seasons Water & Wastewater System (Water & Sewer)

City of Peoria, Peoria County, Illinois

Closed October 13, 2022

Price: Royal Oaks Water $56,000 ($221 per customer)

Royal Oaks Wastewater $35,000 ($138 per customer)

Four Seasons Water $26,000 ($123 per customer)

Four Seasons Wastewater $15,000 ($71 per customer)

Seller: YES Companies EXP Fred, LLC

Buyer: Illinois American

ICC Docket 21-0836

Water and wastewater system serving Royal Oaks Mobile Home Community, 2109 N. Abbey Cir., Peoria, Illinois, having approximately 253 customer connections, main, valves, and hydrants; and water and wastewater system serving Four Seasons Mobile Home Community, 204 N. Apple Blossom, Peoria, Illinois, having approximately 212 customer connections, mains, valves, and hydrants.

The water systems are distribution facilities and customers only. They received wholesale potable water service and have no source, treatment, or storage facilities.

The wastewater systems have only wastewater collection systems consisting of gravity sewers, manholes, connecting into the wastewater transmission, treatment, and disposal by other providers. They own no transmission, treatment, or disposal facilities.

Sales Comparison Approach
(Continued)

Sale 18

Country Meadows Water Utility (Water)

Village of Swansea, St. Clair County, Illinois

Closed 2022

Price: $400,000

Water system with 230 customers ($1,739 per customer)

Seller: Jim McDonald Sales, Inc.

Buyer: Illinois American

The water system includes approximately 17,784 linear feet of water mains, 67 valves, one master meter vault, one tapping saddle and valve, and approximately 230 water meters. There are no land or easements applicable to this water system. This is a water system for a mobile home park.

Sales Comparison Approach
(Continued)

Sale 19

Village of Hardin Water & Wastewater Utility (Water & Sewer)
Village of Hardin, Calhoun County, Illinois

Closed June 7, 2022
Price: #3,300,000 ($2,300,000 Water; $1,000,000 Sewer)
Water system with 435 customers ($5,287 per customer)
Wastewater system with 405 customers ($2,469 per customer)
.
Seller: Village of Hardin, Illinois
Buyer: Illinois American
ICC Docket #21-0511

The water system includes five parcels of land owned in fee, one water treatment plant, two active wells, one water storage tank, one pressure reducing station, one booster pump station, meters, hydrants, and approximately 49,800 linear feet of water mains. The land parcels owned in fee include 1 Lions Lane (a water treatment plant), Dripping Springs Hollow Road (a water storage tank), the east side of County Hwy 1 (two wells), S County Road (booster pump station), and W Main St and Stone Hill Road (pressure reducing station).

The wastewater system includes six parcels of land owned in fee, five wastewater lift stations, a wastewater treatment plant, and approximately 57,400 linear feet of mains. The land parcels owned in fee include 21415 Illinois River Road (wastewater treatment plant), 2 Braun St (lift station #1), South of North Side Grocery on Rt 100 (lift station #2), North of North Side Grocery on Rt 100 (lift station #3), South of Calhoun Auto on Rt 100 (lift station #4), East of Water Treatment Plant on Rt 100 (lift station #5).

Sales Comparison Approach
(Continued)

Sale 20

City of Garden City (Water & Sewer)

City of Garden City, Cass County, Missouri

Closed December 14, 2021

Price: $3,000,000

Water system with 716 customers & wastewater system with 680 customers

($2,149 per customer)

.

Seller: City of Garden City, Missouri

Buyer: Missouri American

MO PSC Case WA-2021-0391 & SA-2021-0392

Water system consists of water treatment plant (surface), two elevated storage tanks, two lakes for water service, and approximately 20 miles of distribution piping.

Wastewater system consists of a three-cell lagoon wastewater treatment plant, three lift stations, and approximately 14 miles of collection piping.

Sales Comparison Approach
(Continued)

Sale 21

City of Taos (Sewer)

City of Taos, Cole County, Missouri

Closed July 31, 2021

Price: $4,100,000

Wastewater system with 421 customers ($9,739 per customer)

.

Seller: City of Taos, Missouri

Buyer: Missouri American

MO PSC Case SA-2021-0120

System consists of approximately 1/3 pressure sewer lines and 2/3 gravity sewer lines, five lift stations, 22 duplex and five simple pumping stations.

Sales Comparison Approach
(Continued)

Sale 22

City of Trimble (Sewer)

City of Trimble, Missouri

Closed April 9, 2021

Price: $1,000,000

Wastewater system with 200 customers ($5,000 per customer)

.

Seller: City of Trimble, Missouri

Buyer: Missouri American

MO PSC Case SA-2021-0074

Wastewater system consisting of 24,200 feet of sewer line, five pumping stations, a three-cell lagoon wastewater treatment plant.

Sales Comparison Approach
(Continued)

Sale 23

City of Villa Grove (Water & Sewer)

City of Villa Grove, Douglas County, Illinois

Closed September 22, 2022

Price: $11,000,000 ($7,000,000 Water; $4,000,000 Sewer)

Water system with 1,489 customers ($4,701 per customer)

Wastewater system with 1,069 customers ($3,742 per customer)

.

Seller: City of Villa Grove, Illinois

Buyer: Illinois American

ICC Docket #21-0869

Water system consists of four parcels of land owned in fee, one water treatment plant, one active well, one 75,000 gallon elevated storage tank (built in 1919, refurbished in 1935, 85' in height), one 150,000 gallon elevated storage tank (built in 1993 with an elevation to base bottom of 103 feet and over-flow at 135 feet), meters, 140 hydrants, and approximately 96,500 feet of mains. There are 1,489 connections (1,453 connections plus an equivalency of another 36 water customers from wholesale metering). There are 1,129 water customers with some customers having multiple meters. There are two 4" large customer meters. The water system operations are very good for the general age of the system. The new 500 gpm ion-exchange water softening facility with refurbished wells and new appurtenances was online in May 2019 at a cost of $4.6 million. The current annual average water demand is near 500,000 gpd. The water treatment plant capacity is 720,000 gpd AADF.

The wastewater system consists of two parcels of land owned in fee, six lift stations, one wastewater treatment plant, and approximately 84,100 feet of mains. There are 1,069 connections. The current wastewater facilities were built in 1978 and are in need of refurbishment or replacement. The facility is a conventional complete mix activated sludge CMAS pre-engineered facility. There are two sanitary type 300,000 gpd AADF concrete/steel package plants trains. The current flow rate is in the 350,000 to 400,000 gpd AADF range. There are six wastewater lift/pump stations: McCoy, Old Sewer Plant, Birch Lane, Industrial Park, Adams Avenue, and Harrison Park.

Illinois American Water will invest approximately $21 million in the first seven years of ownership to upgrade both systems.

Sales Comparison Approach
(Continued)

Sale 24

City of Mt Pulaski Water & Wastewater Utility (Water & Sewer)

City of Mt Pulaski, Logan County, Illinois

Closed December 17, 2021

Price: $3,800,000 Water; $1,450,000 Sewer

Water system with 834 customers ($4,556 per customer)

Wastewater system with 800 customers ($1,813 per customer)

.

Seller: City of Mt Pulaski, Illinois

Buyer: Illinois American

ICC Docket #21-0309

The water system includes three parcels of land owned in fee, one water treatment plant, three active wells, one water tower, meters, hydrants, and approximately 68,000 linear feet of water mains.

The wastewater system includes four wastewater lift stations, a wastewater treatment plant, and approximately 71,600 linear feet of mains.

Sales Comparison Approach
(Continued)

Sale 25

Village of Oak Brook (Water)

Village of Oak Brook, DuPage & Cook Counties, Illinois

Closed November 29, 2022

Price: $12,500,000

Water system with 4,036 customers ($3,097 per customer)

.

Seller: Village of Oak Brook, Illinois

Buyer: Aqua Illinois

ICC Docket #21-0872

The Oak Brook water distribution system provides water system services via approximately 2,058 connections, or 4,036 equivalent dwelling units. Water is purchased from DuPage Water Commission by the Village of Oak Brook. There are 94,484 feet of mains and 203 fire hydrants. There are five zones that lie outside the Village of Oak Brook boundaries that make up the subject property area.

Zone 1: 1,329 residential customers and 46 commercial customers, delivers 9,654,292 gallons per month.

Zone 2: 12 commercial customers; delivers 1,792,600 gallons per month.

Zone 3: 13 commercial customers; delivers 2,061,700 gallons per month.

Zone 4: 130 residential customers, one tollway maintenance building; delivers 594,300 gallons per month.

Zone 5: 490 residential customers; delivers 2,020,100 gallons per month.

Sales Comparison Approach
(Continued)

Sale 26

City of Livingston Water & Wastewater Utility (Water & Sewer)

City of Livingston, Logan County, Illinois

Closed 2021

Price: $550,001 ($550,000 Water; $1 Sewer)

Water system with 375 customers ($1,467 per customer)

Wastewater system with 340 customers ($NA per customer)

.

Seller: City of Livingston, Illinois

Buyer: Illinois American

ICC Docket #20-0680

The water system includes one parcels of land owned in fee, one water treatment plant, one water tower, two booster pumps, meters, hydrants, and approximately 45,000 linear feet of water mains.

The wastewater system includes four wastewater lift stations, one wastewater treatment plant, and approximately 34,000 linear feet of mains.

Sales Comparison Approach
(Continued)

Sale 27

City of Bourbonnais Wastewater Utility (Sewer)

City of Bourbonnais, Logan County, Illinois

Closed 2020

Price: $32,100,000 Sewer

Wastewater system with 6,469 customers ($4,962 per customer)

.

Seller: City of Bourbonnais, Illinois

Buyer: Aqua Illinois

ICC Docket #20-0866

The wastewater system includes 14 wastewater lift stations, and approximately 530,000 linear feet of mains. The system provides sewage collection and pumps the sewage to the Kankakee Regional Metropolitan Authority (KRMA) Wastewater Treatment Plant. The Village of Bourbonnais recently constructed $14.5 million of improvements to the wastewater system which was an interceptor extension to accommodate planned growth at the new Interstate 57 interchange at 6000N. The subject property includes easements, facilities and buildings, and the wastewater system personal property assets.

Sales Comparison Approach
(Continued)

Water

Below is a summary of the water sales transactions that were considered in this analysis. These sales are included on the previous pages. These sales transactions were reported to be cash to the seller at closing unless otherwise noted in the specific sale transaction description. There is not adequate income information available for the sale properties to extract income multipliers and overall rates. The best method of comparison for the subject property in this appraisal is the sale price per customer.

SUMMARY OF SALES OF WATER DELIVERY SYSTEMS
(INCLUDES ALLOCATIONS FROM SALES OF WATER/SEWER SYSTEMS)

Sale	Location		Sale Date	Sale Price	# of Cust	Price/Customer
4	City of Ironton	MO	2023	$2,000,000	726	$2,755
5	City of Wood Heights	MO	2023	$800,000	268	$2,985
6	City of Smithton	MO	2023	$565,000	225	$2,511
7	City of Stewartsville	MO	2023	$900,000	357	$2,521
9	Village of Broadlands	IL	2023	$425,000	155	$2,742
10	Village of Tolono	IL	2023	$4,000,000	1,295	$3,089
11	Benton County	MO	2022	$10,000	60	$167
13	City of Orrick	MO	2022	$840,000	335	$2,507
14	City of Eureka	MO	2022	$18,000,000	4,009	$4,490
16	City of Rosiclare	IL	2022	$2,700,000	525	$5,143
17a	City of Peoria	IL	2022	$56,000	253	$221
17b	City of Peoria	IL	2022	$26,000	212	$123
18	Village of Swansea	IL	2022	$400,000	230	$1,739
19	City of Hardin	IL	2022	$2,300,000	435	$5,287
23	City of Villa Grove	IL	2021	$7,000,000	1,489	$4,701
24	City of Mount Pulaski	IL	2021	$3,800,000	834	$4,556
25	Village of Oak Brook	IL	2021	$12,500,000	4,036	$3,097
26	City of Livingston	IL	2021	$550,000	375	$1,467
				High	4,036	$5,287
				Low	60	$123
				Median	366	$2,749
				Mean	879	$2,783

Sales Comparison Approach
(Continued)

Of the 18 examples of market data, all are closed sales. The analysis of the sale properties for comparison with the subject property is ultimately based on the number of customers within the water system, the age of the system, and the overall general condition of the system. The Missouri and Illinois sale properties indicate a range of sale prices from $123 to $5,287 per customer.

The most comparable properties would be those that include a similar number of customer accounts for the water system, although other differences such as age/condition, location and market area must be reconciled. The sales utilized were of water systems that were pending, relatively recent, or took place within the last four years. The dates of sale and market conditions at the time of sale do not appear to significantly impact the unit sale prices of the sale properties selected for analysis in this approach.

The water system has 5,783 customers. Exclusion of sales of systems with customer counts fewer than 1,500 would not benefit the analysis and would leave the appraisers with too few comparables to analyze.

While the mean is below the concluded value for the subject water system, weight is not placed on the mean, as such. In the final analysis, each sale was viewed and compared individually on a qualitative basis based on appraiser judgment and experience with each of these systems. Weight is placed on each sale based on comparability to the subject property over a number of factors including condition. Based on the Hartman Consultants engineering report, the water system appears to be in poor/fair condition. There is excessive water loss, at 65.8% in 2020, more substantial in the high-pressure zone. Much of the water treatment plant is aged beyond its average service life. The distribution piping is cast iron, old, and assumed to be in poor condition as indicated by water loss. Major future improvements are anticipated.

Using unit prices that result from allocations are generally less reliable than sales of individual systems. And, in cases where one component of the system has an allocation substantially higher than the other component, it is important to use the allocations with caution as internal bookkeeping purposes may have been a factor in the diverse allocations.

Based on the above condition of the water system, weight is placed on Rosiclare as it also has an old water treatment plant, Hardin, Villa Grove, Mount Pulaski, Ironton, Broadlands and Livingston because they all have water treatment plants.

We have concluded a unit value of $3,000 per water customer for the subject property water system. Based on the 5,783 reported water customers, the indicated value of the water system is $17,400,000 (SEVENTEEN MILLION FOUR HUNDRED THOUSAND DOLLARS).

Sales Comparison Approach
(Continued)

SUMMARY OF WATER DELIVERY SYSTEM VALUATION	
Number of Water System Customers	5,783
Unit Value (value per customer) Concluded from Market Data	$3,000
Value of Water Delivery System (rounded)	**$17,400,000**

Sewer

We were able to determine a unit value (price per sewer customer) for 18 sewer or water and sewer system sales transactions. The table below summarizes the transactions for which a price per sewer customer was calculated. In some cases, the unit values are developed based upon an allocation of a sale price that included a water and sewer system. The other sales were of sewer systems.

Sales Comparison Approach
(Continued)

SUMMARY OF SALES OF SEWER SYSTEMS
(INCLUDES ALLOCATIONS FROM SALES OF WATER/SEWER SYSTEMS)

Sale	Location		Sale Date	Sale Price	# of Cust	Price/Customer
1	Madison & St Clair Count	IL	2024	$6,886,000	6,222	$1,107
2	Village of Glenview	IL	2024	$50,000	223	$224
3	City of Granite City	IL	2024	$83,000,000	35,444	$2,342
4	City of Ironton	MO	2023	$1,700,000	705	$2,411
5	City of Wood Heights	MO	2023	$200,000	194	$1,031
7	City of Stewartsville	MO	2023	$1,000,000	354	$2,825
10	Village of Tolono	IL	2023	$5,475,000	1,254	$4,366
13	City of Orrick	MO	2022	$670,000	335	$2,000
14	City of Eureka	MO	2022	$10,000,000	3,957	$2,527
15	City of Hallsville	MO	2022	$2,000,000	664	$3,012
17a	City of Peoria	IL	2022	$35,000	253	$138
17b	City of Peoria	IL	2022	$15,000	106	$142
19	Village of Hardin	IL	2022	$1,000,000	405	$2,469
21	City of Taos	MO	2021	$4,100,000	421	$9,739
22	City of Trimble	MO	2021	$1,000,000	200	$5,000
23	City of Villa Grove	IL	2021	$4,000,000	1,069	$3,742
24	City of Mt Pulaski	IL	2021	$1,450,000	800	$1,813
27	Village of Bourbonnais	IL	2020	$32,100,000	6,469	$4,962
				High	35,444	$9,739
				Low	106	$138
				Median	421	$2,469
				Mean	3,109	$2,867

Sales Comparison Approach
(Continued)

Of the 18 examples of market data, all are closed sales. The analysis of the sale properties for comparison with the subject property is ultimately based on the number of customers within the sewer system, the age of the system, and the overall general condition of the system. The Missouri and Illinois sale properties indicate a range of sale prices from $138 to $9,739 per customer.

The most comparable properties would be those that include a similar number of customer accounts for the sewer system, although other differences such as age/condition, location and market area must be reconciled. The sales utilized were of sewer systems that were pending or took place within the last four years. The dates of sale and market conditions at the time of sale do not appear to significantly impact the unit sale prices of the sale properties selected for analysis in this approach.

The wastewater system has 5,700 customers. Exclusion of sales of systems with customer counts fewer than 1,500 would not benefit the analysis and would leave the appraisers with too few comparables to analyze.

While the mean is lower than the concluded value for the subject sewer system, weight is not placed on the mean, as such. In the final analysis, each sale was viewed and compared individually on a qualitative basis based on appraiser judgment and experience with each of these systems. Weight is placed on each sale based on comparability to the subject property over a number of factors including condition.

Based on the Hartman Consultants engineering report, the wastewater system appears to be in poor/fair condition. An ongoing slip-lining and pipe reproduction program is underway. Major future improvements are anticipated. The Crowder trickling filter wastewater treatment plant does not and will not meet future effluent discharge quality standards and is considered in poor/fair condition. The wastewater effluent permit lapsed in 2022 and the renewal permit has not been issued as of the appraisal effective date. The gravity collection and manhole services are in poor/fair condition.

Sales Comparison Approach
(Continued)

Weight is placed on sales with wastewater treatment plants: Tolono, Eureka, Hallsville, Trimble, Hardin, Villa Grove, Granite City, Ironton, Wood Heights, Stewartsville, Orrick and Mount Pulaski. Sales of properties with wastewater treatment plants are considered most comparable to the subject property wastewater system.

As previously noted, the Crowder trickling filter wastewater treatment plant does not and will not meet future effluent discharge quality standards and is considered in poor/fair condition. It is the opinion of the valuation experts that the Crowder treatment plant has no contributory value to the system as a whole from a market value perspective.

We have concluded a unit value of $3,000 per sewer customer for the subject property sewer system. Based on the 5,700 reported sewer customers, the indicated value of the sewer system is $17,100,000 (SEVENTEEN MILLION ONE HUNDRED THOUSAND DOLLARS).

SUMMARY OF SEWER SYSTEM VALUATION	
Number of Sewer System Customers	5,700
Unit Value (value per customer) Concluded from Market Data	$3,000
Value of Sewer System (rounded)	**$17,100,000**

Water Delivery and Wastewater Collection Systems Combined

The combined value opinion of the water delivery and wastewater systems is $34,450,000. Based upon the subject property system having a total of 11,483 customers (5,783 water customers, 5,700 sewer customers), the overall value per customer is approximately $3,000.

SUMMARY OF COMBINED WATER & SEWER SYSTEM VALUATION	
Number of Water & Sewer System Customers	11,483
Unit Value (value per customer) Concluded from Market Data	$3,000
Value of Combined Water & Sewer System (rounded)	**$34,500,000**

Sales Comparison Approach
(Continued)

Our market data included 13 examples of transactions that included both water and sewer systems.

SUMMARY OF SALES OF COMBINED WATER & SEWER SYSTEMS

Sale	Location		Sale Date	Sale Price	# of Cust	Price/Customer
4	City of Ironton	MO	2023	$3,700,000	1,431	$2,586
5	City of Wood Heights	MO	2023	$1,000,000	462	$2,165
7	City of Stewartsville	MO	2023	$1,900,000	711	$2,672
8	Timber Ridge Estates	IL	2023	$1,400,000	1,412	$992
10	Village of Tolono	IL	2023	$9,475,000	2,549	$3,717
12	City of Purcell	MO	2022	$400,000	310	$1,290
13	City of Orrick	MO	2022	$1,510,000	670	$2,254
14	City of Eureka	MO	2022	$28,000,000	7,966	$3,515
17a	City of Peoria	IL	2022	$91,000	506	$180
17b	City of Peoria	IL	2022	$41,000	212	$193
19	Village of Hardin	IL	2022	$3,300,000	840	$3,929
20	City of Garden City	MO	2021	$3,000,000	1,396	$2,149
23	City of Villa Grove	IL	2021	$11,000,000	2,558	$4,300
24	City of Mt Pulaski	IL	2021	$5,250,000	1,634	$3,213
				High	7,966	$4,300
				Low	212	$180
				Median	1,396	$2,254
				Mean	1,823	$2,339

The above market data indicates a water and sewer system sale price of $180 to $4,300 per customer. A review of the market data pertaining to utility systems that included water and sewer shows the subject property's unit value of $3,000 per customer is within the range indicated by the market data. Based upon this analysis, it is our opinion the market value of the subject property systems (water and sewer) as a whole is supported at $34,500,000 (THIRTY FOUR MILLION FIVE HUNDRED THOUSAND DOLLARS) based upon the Sales Comparison Approach.

Income Capitalization Approach

The income capitalization approach has its strengths and weaknesses, similar to the inherent weaknesses and strengths that exist in the application of the cost approach and the market approach. The valuation expert's reconciliation of the value(s) indicated by the income approach takes into consideration various factors.

The income capitalization approach is a technique in which the value of assets are arrived at by capitalizing future (anticipated) benefits into a present value. The capitalization process includes one of two methods: (1) direct capitalization or (2) yield capitalization. The distinction between the two capitalization methods pertains to the perspective of the future benefits (cash flows).

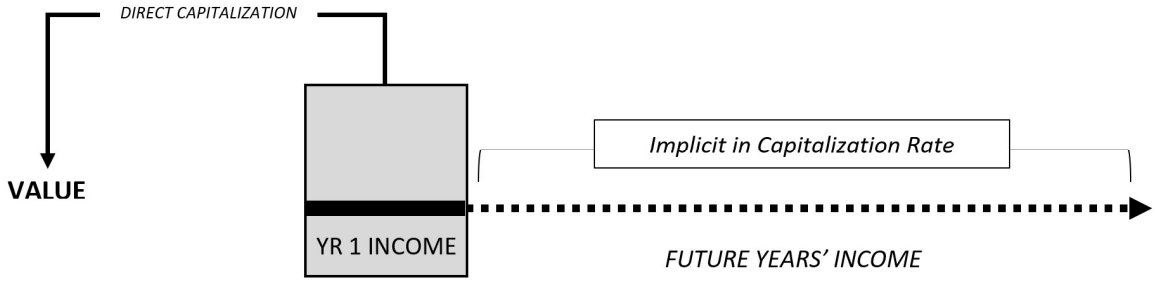
Direct Capitalization

Direct capitalization involves the conversion of a single-year's income (referred to as "first-year income") by applying an overall capitalization rate and using the following formula.

VALUE = INCOME ÷ RATE

*Where **INCOME** = First Year Income and **RATE** = Capitalization Rate*

The capitalization rate may be developed through a market extraction process or by utilizing built-up techniques in which the rates of return (dividend rates) of the respective property components are weighted (for example, debt and equity investment returns, land and building investment returns, etc.). In direct capitalization, change in value (over the investment/holding term) and change in income (over the investment/holding term) are implicit in the capitalization rate.



Income Capitalization Approach
(Continued)

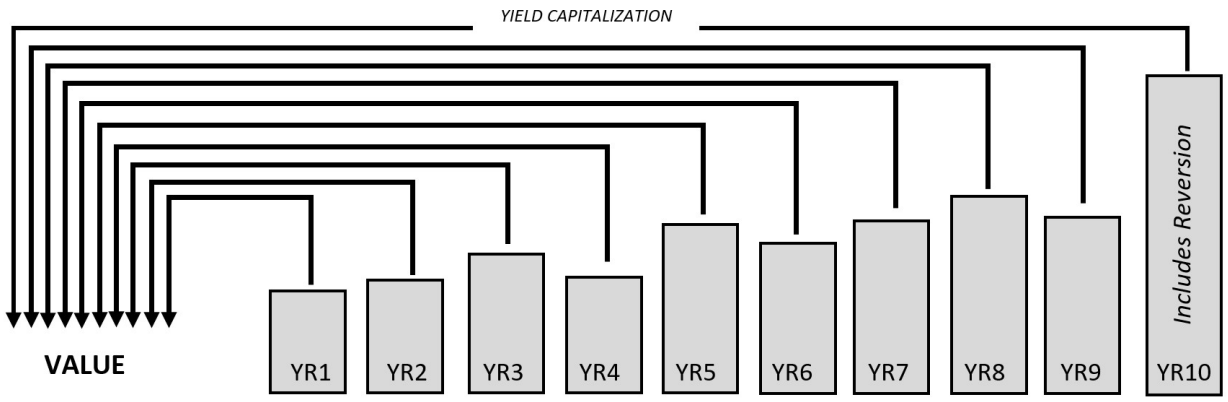
Yield Capitalization

Yield capitalization involves a more detailed analysis of the projected income of the asset. Anticipated changes in (1) income patterns and (2) overall value are explicitly stated. In yield capitalization, the conversion of each anticipated future cash flow (plus the reversion at the end of the income/investment period) is by means of discounting using a discount rate (also referred to as a yield rate). The resultant net present value is the sum of the present value calculations for each individual periodic cash flow plus the present value of the reversion.

Below is the formula for the discounting process followed by an illustration depicting the discounting of each individual periodic cash flow.

$$PV = \frac{P_1}{1+r} + \frac{P_2}{(1+r)^2} + \ldots + \frac{P_n}{(1+r)^n}$$

Where P = Income, r = discount rate, and n = term (years)



Income Capitalization Approach
(Continued)

Factors significant to the income capitalization methodology

A proper analysis in the valuation of a utility system will take into account the fact that there are many issues relating to the income capitalization process, whether that process includes direct capitalization or yield capitalization.

The issues that are inherent in the projection of cash flows for the income capitalization process pertaining to the valuation of public utility systems include:

(1) the fact that revenue (potential income) generated through customer rates is determined based upon the tariff or service area of which the subject system becomes part and impacted by rate cases;

(2) the changes in revenue resulting from changes in the level of income and expenses for the tariff resulting from, amongst other issues, the management and operational efficiencies of the IOU;

(3) changes in the rate base of the tariff resulting from acquisitions, mergers, and consolidations, and consequently the revenues that are generated by tariffs tend to experience irregular patterns of change over time;

(4) the changes in the rate base of the tariff resulting from qualified capital investment projects impacting systems within the tariff;

(5) the concept of *investment value* (value to a *particular* purchaser based on buyer-specific investment returns and criteria) v*. market value* (value of the system to a *typical* purchaser and not influenced by that particular buyer's specific returns generated by its respective tariffs).

The last factor (6) that impacts yield capitalization (DCF) exclusively goes to the issue of assumptions that are incorporated into the discounting model and how sensitive net present values can be to seemingly subtle variances in the valuation expert's inputs (DCF assumptions).

Additionally, yield capitalization models that use a pre-tax cash flow are not impacted by changes in tax rates and tax codes. However, after-tax DCF models can be affected by changing tax rates, similar to the situation that might occur in the near future based upon the current administration's proposed revisions to the federal tax code. The following provides additional explanations regarding the issues inherent in the income capitalization approach.

Income Capitalization Approach
(Continued)

(1) Revenue influenced by systems in the tariff and rate cases

Tariffs often include assets from multiple systems, combined for investment, management, operational, and regulatory agency-influenced purposes. In many cases, the applicable customer rates are the same for all customers in the tariff, regardless of the system or service area of which they were part prior to acquisition and placement in the tariff; and, the applicable customer rates for the tariff are impacted by financial and regulatory components for the systems in the tariff collectively. Thus, often there is no tariff revenue (income and expense) data that can be credibly attributed to one particular system that is part of a multiple-system tariff.

Additionally, the customer rates (income) and operating expenses for one IOU may vary amongst that IOU's different tariffs, and likewise there may be no correlation between the projected income and expenses of a service area as part of one IOU's holdings as opposed to the projected income and expenses for that same service area that would pertain to a different IOU's tariff in the same general geographical location or market area.

Tariffs are highly regulated and changes in allowed revenues, and ultimately changes in rates, can be granted provided the applicant meets extensive application and regulatory requirements. Rate cases provide mechanisms for the applicants to have allowed revenues and customer rates adjusted by the regulating authority. It is the role of the regulating authority (commission, for example) to review the applicant's request and, assuming the applicant and its operations meet the requirements established by the agency, adjust the revenues and rates, if deemed appropriate by the agency, in an effort to provide the applicant the opportunity to receive a fair and reasonable rate of return on its investment.

Income Capitalization Approach
(Continued)

As part of the rate case process, IOUs are required to validate operating expenses and operational efficiencies, which contribute to the respective commission's decision and determination regarding a rate change. Rate cases can impact all of a tariff's customers -- even though the customers may have come from various independent service areas. Examples of approved rate cases impacting multiple service areas include the 2016 rate case in Illinois involving Illinois American Water[13] and the 2017 rate case in Illinois involving Aqua Illinois.[14]

(2) Operational efficiencies impact income and expenses of the tariff

IOUs generate revenues for services provided by the IOU that are directly impacted by management and operational efficiencies. For example, it is reasonable to expect certain line item expenses to be generally lower for a tariff consisting of multiple utility systems as compared to the sum of the line item expenses for each system if operated and managed independently. The ability of the IOU to spread certain costs among all customers in a tariff and to benefit from economies of scale generally results in a lower expense unit cost (cost per customer) for the individual systems; and, the extent of the benefit tends to be greater for the smaller systems due to the economies of scale.

(3) Changes to the rate base and customer rates are impacted by mergers, acquisitions, and consolidations; revenue streams typically do not remain constant or demonstrate level/patterned increases

[13] In January 2016, Illinois American Water requested a change in its water and wastewater rates of $340 million, due to substantial capital investments including a $76 million investment in its Chicago Metro service area. The Illinois Commerce Commission (ICC) issued an Order in 2016 that allowed Illinois American Water to adjust its rates effective January 1, 2017. The Order provided a decrease in monthly water rates applicable to its customers in Arlington Heights, Bolingbrook, Des Plaines, Elk Grove, Homer Glen, Homer Township, Lemont, Lockport, Mount Prospect, Norwood Park Township, Orland Hills, Orland Park, Prospect Heights, Romeoville, Wheeling, and Woodridge; but, increases (ranging from $6.51 per month to $17.70 per month) for wastewater services. For Illinois American Water customers in Carol Stream, Elmhurst, Glen Ellyn, Lisle, Lisle Township, Lombard, Villa Park, Winfield, and Wheaton, the monthly water rates decreased by $5.57 while wastewater service rates had increases by up to $17.70 per month on top of the pre-existing rates; and, for its water customers in Glenview and Rolling Meadows, the wastewater rates increased by $6.57 per month.

[14] In May 2017, Aqua Illinois, Inc., filed revised tariff sheets with the Illinois Commerce Commission which included the request for increases in water and wastewater service rates affecting numerous service areas throughout Illinois and a consolidation of multiple service areas into one extensive service area. (Case 17-0259). In its Final Order, filed March 11, 2018, the Commission authorized Aqua to file new tariff sheets for its Consolidated Sewer Division and Consolidated Water Division and further amended the original cost of plant for the water division of more than $382 million and amended the original cost of the plant for the sewer division of more than $76 million.

Income Capitalization Approach
(Continued)

The rate base of a tariff is also subject to change if the IOU acquires additional systems that are incorporated into the tariff or by consolidation of two or more tariffs. In the latter, it is reasonable to expect some of the customers may experience increases in rates while others may experience decreases in rates. Also significant is the fact that rate changes often occur within the first few years of the service area's acquisition, demonstrated by the March 2021 consolidation of service areas in Missouri into the Elm Hills tariff.[15]

I have researched this issue in public filings and dockets in several states where IOUs have acquired public utility systems.

Some of the additional relevant recent examples include a Missouri rate case from 2020[16], a pending case in Missouri for establishing a new service area[17], and a Missouri consolidation including recent (2021) acquisitions by the consolidated district[18].

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[15] Four Missouri service areas -- Missouri Utilities, Rainbow Acres, State Park Village, and Twin Oaks -- were acquired between May 2018 and December 2018. In each case, the rate change and consolidation occurred within 3 years of the acquisitions. Substantial rate increases were also realized for the service areas that comprise the Elm Hills tariff. The four service areas had monthly rates from $3.18 (applies to Twin Oaks/Preserve and is estimated as the customers were not previously individually billed for sewer service) to $45 per month (State Park Village), and all customer rates were set at $99.88 per month as a result of the consolidation.

[16] On April 7, 2021, the State of Missouri Public Service Commission issued an ORDER APPROVING STIPULATION AND AGREEMENT for the matter of Missouri American Water's 2020 application to implement a general rate increase for water and sewer services in its Missouri service areas. (Case No. WR-2020-0344.) The stipulation, filed on March 5, 2021, provides for an increase in Missouri American Water's revenue requirement of $30 million over revenues authorized in its last general rate case. The $30 million increase results in Missouri American Water's annual revenue requirement being increased to $348 million. The Commission's Order became effective May 7, 2021.

[17] An example of a possible change in customer rates is evident in the docket filing by Missouri American Water of its PROPOSAL OFFER TO CITY OF HALLSVILLE dated July 18, 2019. (File No. SA-2021-0017.) On July 20, 2020, Missouri American Water filed its application for a certificate of convenience and necessity (CCN) to essentially operate a wastewater system in and near Hallsville, Missouri. In its offer to Hallsville, Missouri American Water proposed placing the City of Hallsville system in its existing tariff that would result in a 3% reduction in the Hallsville customer rates.

[18] 12 utility service areas located in Missouri that were consolidated in a July 2020 rate case into a tariff known as Confluence Rivers. All 12 service areas that comprise the Confluence Rivers tariff were purchased between April 2019 and June 2019. In each case, consolidation and rate change occurred less than 16 months after the system's acquisition date. The 12 service areas (systems) include the Auburn Lake Service Area, the Calvey Brook Service Area, the City of Eugene Service Area, the Evergreen Lake Subdivision Service Area, the Whispering Pines Subdivision Service Area (formerly Gladlo), the Lake Virginia Service Area, the Majestic Lakes Service Area, the Mill Creek Service Area, the Roy-L Service Area, the Bon-Gor Lake Estates Subdivision Service Area (formerly Smithview H2O), the Villa Ridge Service Area, and Chalet City West Subdivision/Alpine Village Community Service Area (formerly The Willows Utility Company). The rate changes for the service areas that comprise the Confluence Rivers Service Area ranged from increases of approximately 127% (Roy-L) to 807% (The Willows Utility System). Examples of customer rate increases for systems in Confluence Rivers include the Evergreen Lake Subdivision Service Area (water system) in which rates were increased from $7.71 per month to $42.20 per month and The Willows Utility Company (water system) in which rates were $5.23 per month and increased to $42.20 per month as a result of the consolidation and rate case. On May 3, 2021, the Missouri Public Service Commission approved the acquisition of five additional systems by the Company (Branson Cedars Resort Utility Company, DeGuire Subdivision, Freeman Hills Subdivision, Prairie Heights Water Company, and Terre du Lac.

Income Capitalization Approach
(Continued)

(4) Changes to the rate base impacted by capital improvements

Qualifying capital investments can impact the rate base of a tariff that consequently could impact all of the customers within the tariff. For instance, a substantial capital investment program to replace, repair, or add infrastructure to a particular system's assets can, subject to regulatory approval, have a direct influence on all of the customers in the tariff, including those customers from different systems that are not the subject of the capital investment project. Consequently, customer rates for one service area in a tariff are subject to change over time based upon qualifying capital projects necessary for the maintenance and/or improvements to other service areas in the tariff.

Capital Improvement Projects (CIPs) often can add substantially to the total investment of an IOU in an acquired service area or utility system. In the case of the proposal by Missouri American Water to acquire the City of Hallsville wastewater system, the proposal offer included a $2 million cash purchase price payable at closing with an additional $3.3 million committed to a five-year CIP. In this case, the CIP represented 62% of the total anticipated investment.

Another important consideration relating to CIPs and their impact on potential revenue streams over an investment period is that very often the actual investments by the IOU can be considerably higher or lower than the anticipated or projected investments prior to acquisition. For instance, a CIP might require less than anticipated based solely on more efficient management and operations due to IOU ownership after acquisition; or, the CIP might include substantially more investment than projected based upon an acquired system operating at levels that exceed capacity -- which might require substantial upgrades and improvements not contemplated at the time the Asset Purchase Agreement was executed.

(5) Investment Value v. Market Value

Implicit in the definition of market value is the concept that the value conclusion pertains to "typical" purchasers under "typical" circumstances based upon "typical" market forces and influences. Investment value, by contrast, is an opinion of value developed based upon particular investment criteria, returns, or requirements that are unique and/or specific to an investor and not necessarily representative of the market in general. If the objective of the valuation assignment is to develop a market value opinion, discounted cash flow analysis and other yield capitalization models must, by definition, incorporate and be based upon *market* inputs: market income levels, market expense ratios, market returns for the investors, etc.

Income Capitalization Approach
(Continued)

Utilizing a system's projected income for a specific purchaser, based upon that purchaser's anticipated income resulting from that purchaser's tariff, and using that investor's projected increases and/or decreases in income and expenses, respectively, during the investment period, and based upon that investor's allowed rate of return for the investment period, may or may not be consistent with market levels for the same inputs (income, expenses, periodic rates of change, rate of return, etc.). If the investor's particular income and expense projections are not consistent with or based upon market levels, the resultant value opinion would be *investment* value.

(6) Sensitivity inherent in DCF analysis

Discounted cash flow analysis (DCF) is a method of yield capitalization in which anticipated/projected future cash flows, identified for a particular investment period, are discounted to a present value, often referred to as a net present value. The process requires a number of investment assumptions, all of which impact the level of periodic cash flows and the net present value of the investment as a whole.

Seemingly insignificant changes in one input can have a significant impact on the final calculation/opinion; and, changes in multiple assumptions can compound the effect of the change on the conclusions.

Conclusion of DCF analysis

DCF analysis is sensitive to subtle changes in the assumptions. Valuation experts need to exercise caution in selecting inputs (assumptions) as what seemingly are small/insignificant changes in the inputs can have a significant impact on the final conclusion. Credible assignment results for a market value opinion using DCF requires careful analysis of comparable market data to assist in determining appropriate assumptions.

Summary of Income Approach

The Income Capitalization Approach is not considered applicable in the subject property valuation assignment. It is not possible to project accurate and credible cash flows for the subject property system due to the number of variables that are unknown. Projecting future cash flows attributable to the subject property would not be realistic or credible, and could result in assignment results that are misleading.

Final Reconciliation

The purpose of this appraisal report was to arrive at an estimate of market value for the City of Neosho water and wastewater systems based upon conditions evident in the market as of September 23, 2024. We inspected the subject property, reviewed numerous reports and documents provided by the client and the City of Neosho, conducted independent research, and reviewed a report prepared by Hartman Consultants.

Our analysis of the subject property water and wastewater systems included the application of the cost approach and the sales comparison approach. As explained in the report, the income capitalization approach is not customarily relied on for the valuation of public water and wastewater systems acquired by investor-owned entities.

The sales comparison approach included an analysis of transactions primarily from Missouri and Illinois. As explained in this report, the Illinois market is more representative of a competitive market with balance the supply and demand forces. The market approach resulted in opinions of $17,400,000 for the subject property water system and $17,100,000 for the subject property wastewater system.

The cost approach included the analysis of the contributory value of the land rights associated with the subject property systems and the development of a depreciated cost estimate for the components based, in part, on our reliance on the Harman report. The cost approach resulted in a conclusion of value for the subject property water system of $35,900,000 and an opinion of market value for the subject property wastewater system of $59,500,000.

Based upon a review of the market data available for both applications, we have concluded that all emphasis should be placed on the value opinion indicated by the sales comparison approach. The cost approach is not considered reliable due to the excessive cost estimates and the amount of depreciation.

Therefore, our final value opinion for the subject property systems is as follows:

Market Value of the Neosho Water System Assets
$17,400,000
SEVENTEEN MILLION FOUR HUNDRED THOUSAND DOLLARS

Market Value of the Neosho Wastewater System Assets
$17,100,000
SEVENTEEN MILLION ONE HUNDRED THOUSAND DOLLARS

Statement of Certification – Joseph E. Batis, MAI, AI-GRS, ASA

I certify that, to the best of my knowledge and belief:

- -- the statements of fact contained in this report are true and correct.
- -- the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
- -- I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
- -- I have not completed a real estate appraisal of the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
- -- I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
- -- my engagement in this assignment was not contingent upon developing or reporting predetermined results.
- -- my compensation for completing this assignment is not contingent upon the developing or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
- -- my analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the *Uniform Standards of Professional Appraisal Practice* and in conformity with the requirements of the *Code of Professional Ethics* and the *Standards of Professional Appraisal Practice* of the Appraisal Institute.
- -- I have made a personal inspection of the property that is the subject of this report.
- -- no one other than Edward Dinan and Elizabeth Goodman Schneider provided significant real property professional assistance to the person signing this certification.

As of the date of this report, Joseph E. Batis has completed the requirements of the continuing education program of the Appraisal Institute.

Furthermore, I certify that the use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

March 5, 2025

Joseph E. Batis, MAI, AI-GRS, ASA
Utility Valuation Experts, Inc.
General Certification Lic. #553.000493 (IL; Expires 09/25)
General Certification Lic. #RZ4558 (FL; Expires 11/26)
General Certification Lic. #2016044083 (MO; Expires 06/26)
General Certification Lic. #TX 131049 G (TX; Expires 11/26)
General Certification Lic. #NHCG-1081 (NH; Expires 04/25)
General Certification Lic. #GA004696 (PA; Expires 06/25)
General Certification Lic. #34627 (MD; Expires 04/25)

Statement of Certification – Elizabeth Goodman-Schneider

I certify that, to the best of my knowledge and belief:

The statements of fact contained in this report are true and correct.

The analyses, opinions, and conclusions in this review report are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.

I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.

I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.

My engagement in this assignment was not contingent upon developing or reporting predetermined results.

My compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favor the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.

My analyses, opinions, and conclusions were developed and this appraisal report was prepared in conformity with the *Uniform Standards of Professional Appraisal Practice*.

Elizabeth Goodman Schneider made a personal inspection of the property that is the subject of this appraisal report.

No one other than Joseph Batis and Edward Dinan provided significant real property appraisal assistance to the person signing this certification.

My engagement for this assignment, and my conclusions as well as other opinions expressed herein are not based on a required minimum value, a specific value, or approval of a loan.

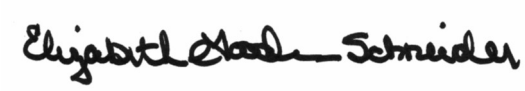
Elizabeth Goodman Schneider has performed no services, as an appraiser or in any other capacity, regarding the property that is the subject of this appraisal report within the past three-year period immediately preceding acceptance of this assignment.

Statement of Certification – Elizabeth Goodman-Schneider

As of the date of this report, Elizabeth Goodman Schneider has completed the Standards and Ethics Education Requirement of the Appraisal Institute for Associate Members.

As of the date of this report, Elizabeth Goodman Schneider has completed the continuing education programs of the State of Missouri and the State of Wisconsin.

All individuals who participated in the preparation of this report and who are Senior Members of the American Society of Appraisers are recertified as required by the mandatory recertification as set out in the constitution by-laws and administrative rules of the American Society of Appraisers.



March 5, 2025

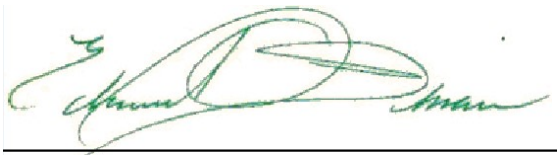
Elizabeth Goodman Schneider, ASA

Illinois Certified General Real Estate Appraiser No. 553-001973 exp 9/30/2025
Iowa Certified General Appraiser No. CG04095 exp 6/30/2026
Louisiana Certified General Appraiser No. APR.04505-CGA exp 12/31/2025
Missouri State Certified General Real Estate Appraiser No. 2016042105 exp 6/30/2026
Wisconsin Certified General Appraiser No. 1586-010 exp 12/14/2025

Statement of Certification – Edward Dinan, CRE, MAI

I certify that, to the best of my knowledge and belief:

-- the statements of fact contained in this report are true and correct.
-- the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions and are my personal, impartial, and unbiased professional analyses, opinions, and conclusions.
-- I have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
-- I have not completed a real estate appraisal of the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
-- I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
-- my engagement in this assignment was not contingent upon developing or reporting predetermined results.
-- my compensation for completing this assignment is not contingent upon the developing or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
-- my analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the *Uniform Standards of Professional Appraisal Practice.*
-- I have made a personal inspection of the property that is the subject of this report.
-- no one other than Elizabeth Goodman Schneider and Joseph Batis provided significant real property professional assistance to the person signing this certification.



March 5, 2025

Edward W. Dinan, CRE, MAI
Dinan Real Estate Advisors, Inc.
Missouri State General Certification: RA001300 (Expires 06/26)

ADDENDA

Statement of Assumptions and Limiting Conditions

Qualifications of the Appraisers

Hartman Report

STATEMENT OF ASSUMPTION AND LIMITING CONDITIONS

The value herein estimated and/or other opinions presented are predicated on the following:

1. No responsibility is assumed for matters of a legal nature concerning the appraised property -- especially those affecting title. It is considered that the title is marketable for purposes of this report. The legal description as used herein is assumed to be correct.

2. The improvement is considered to be within the lot lines (unless otherwise stated); and, except as herein noted, is presumed to be in accordance with local zoning and building ordinances. Any plots, diagrams, and drawings found herein are to facilitate and aid the reader in picturing the subject property and are not meant to be used as references in matters of survey.

3. The appraiser assumes that there are no hidden or unapparent conditions of the property, subsoil or structure which would render it more or less valuable than otherwise comparable properties. The appraiser assumes no responsibility for such conditions or for engineering which might be required to discover such things.

4. Any description herein of the physical condition of improvements including, but not limited to, the heating, plumbing, and electrical systems, is based on visual inspection only, with no demonstration performed, and they are thus assumed to be in normal working condition. No liability is assumed for same, nor for the soundness of structural members for which no engineering tests were made.

5. The appraiser shall not be required to give testimony or appear in court by reason of this appraisal with reference to the property herein described unless prior arrangements have been made.

6. The distribution of total valuation in this report between land and improvements applies only under the existing program of utilization under the conditions stated. This appraisal and the allocations of land and building values should not be used as a reference for any other purpose and are invalid if used so.

7. That this report is to be used in its entirety and only for the purpose for which it was rendered.

8. Information, estimates, and opinions furnished to us and considered in this report were obtained from sources considered reliable and believed to be true and correct; however, no responsibility for guaranteed accuracy can be assumed by the appraiser.

9. The property is appraised as though under responsible ownership and competent management.

10. The report rendered herein is based upon the premise that the property is free and clear of all encumbrances, all mortgage indebtedness, special assessments, and liens--unless specifically set forth in the description of property rights appraised.

11. No part of this report is to be reproduced or published without the consent of its author.

12. The appraisal covers only the property described herein. Neither the figures therein, nor any analysis thereof, nor any unit values thereof derived, are to be construed as applicable to any other property, however similar it may be.

13. Neither all, nor any part, of the contents of this report, or copy thereof, shall be used for any purpose by any but the client without the previous written consent of the appraiser and/or the client; nor shall it be conveyed by any including the client to the public through advertising, public relations, news, sales, or other media, without the written consent and approval of the author--particularly as to value conclusions, the identity of the appraiser or a firm with which he is connected, or any reference to any professional society or institute or any initialed designations conferred upon the appraiser, as stated in his qualifications attached hereto.

14. Any cash flow calculations included in this report are developed from but one of a few alternatives of a possible series and are presented in that context only. Specific tax counsel should be sought from a C.P.A., or attorney, for confirmation that this data is the best alternative. This is advised since a change in value allocation, method or rate of depreciation or financing will have consequences in the taxable income.

15. This appraisal has been made in accordance with the Code of Ethics of the Appraisal Institute.

16. This report has not taken into consideration the possibility of the existence of asbestos, PCB transformers, or other toxic, hazardous or contaminated substances, and/or underground storage tanks (hazardous materials), or the cost of encapsulation or removal thereof. Should client have concern over the existence of such substances on the property, the appraiser considers it imperative for the client to retain the services of a qualified, independent engineer or contractor to determine the existence and extent of any hazardous materials, as well as the cost associated with any required or desirable treatment or removal thereof. The valuation stated herein would therefore be void, and would require further analysis to arrive at a market estimate of value.

ENGINEER'S REPORT

FOR THE

CITY OF NEOSHO, MISSOURI

WATER AND WASTEWATER SYSTEMS

FOR

GOODMAN APPRAISAL CONSULTANTS, LLC

EFFECTIVE DATE: SEPTEMBER 23, 2024

DATE OF REPORT: NOVEMBER 18, 2024

REVISED REPORT: DECEMBER 16, 2024

REVISED REPORT #2: MARCH 5, 2025

HC PROJECT #: 24032.00

PREPARED BY: HARTMAN CONSULTANTS, LLC
1580 BRYAN AVENUE
WINTER PARK, FLORIDA 32789

WITH ASSISTANCE FROM: CITY OF NEOSHO, MISSOURI

Hartman Consultants, LLC
www.hartmanconsultant.com

HC #24032.00

March 5, 2025

Mrs. Elizabeth Goodman Schneider, ASA
Goodman Appraisal Consultants, LLC
6260 S. Lake Drive, Unit #718
Cudahy, WI 53110

goodmanappraisal@gmail.com

RE: 2nd Revised Engineer's Report
City of Neosho, Missouri Water and Wastewater Systems

Dear Mrs. Goodman Schneider:

This letter is Hartman Consultants, LLC (HC) Engineers Report regarding the City of Neosho Water and Wastewater Systems. The intended users are Goodman Appraisal Consultants, LLC (GAC), the City of Neosho, Joe Batis, Ed Dinan, and Missouri American Water Company.

1.0 BACKGROUND

The City of Neosho is willing to sell its Water and Wastewater Systems, and the Missouri American Water Company (MOAW) is willing to purchase them. The transaction is an "as-is and where-is" type, without guarantees or warranties. All other standard terms and conditions apply. This is a complete transaction, including all property interests of all kinds, as well as all tangible and intangible types of property.

The City and MOAW will implement an Asset Purchase Agreement where the payment will be lesser than MOAW's offer, or the determination jointly arrived at by the three (3) independent appraisers. This Engineer's Report is a supporting document for the three (3) independent appraisers' consideration.

This Report does not include:

- The Fee Simple Land Value
- The Exclusive Easement Land Value
- Certain adjustments, findings, and determinations associated with an appraiser's Cost Approach
- The Income Approach
- The Market Approach
- The reconciliation of appraisal approaches to the opinion of fair market value
- Other appraisal considerations or determinations

2.0 NEOSHO - GENERAL

Neosho is a community of approximately 12,600 residents in Newton County, Missouri. The City is the county seat and is located about 20 miles south of Joplin. The elevation ranges from 980 feet to 1,290 feet, resulting in a 310-foot elevation difference that has necessitated two (2) pressure zones in the water system. In 2015, the water loss was over 60%; however, the City believes that its efforts have since reduced this loss, though it is too early to determine the extent of the reduction.

Both the Crowder Wastewater Treatment Plant (WWTP) and the Shoal Creek WWTP have rated capacities of 3 million gallons per day (MGD) each. The Crowder WWTP experiences more significant inflow and infiltration (I/I), with a 5.6 peaking factor based on the 2023/2024 average daily flow (ADF) of 900,000 gallons per day (GPD). In contrast, Shoal Creek has a peaking factor of 2.3 based on the 2023/2024 ADF of 2,400,000 GPD. The Crowder effluent is pumped from the WWTP to the Shoal Creek WWTP for the UV disinfection process before blending and discharging for additional treatment if needed. There is also flexibility in polishing the Crowder effluent at the Shoal Creek WWTP.

Crowder is a basic secondary trickling filter WWTP, which has a lower treatment level than the Shoal Creek closed-loop reactor WWTP.

This area features Karst geology, where leaks simply percolate and cracks in the sewers allow groundwater or stormwater to flow into the collection system.

Since approximately 73% of the potable water comes from Shoal Creek and 27% from existing groundwater wells (in a Karst geology), there are concerns regarding surface watershed management, regulation, and pollution impact zones (groundwater capture) for induced flows to the wells are a need that may be deficient.

3.0 APPARENT DEFICIENCIES

3.1 WATER

- Excessive Water Loss
  - 2020 at 65.8%
  - Current is Less
  - More substantial in the high-pressure zone
- Galvanized Pipe and Asbestos Cement Pipe both minor lengths yet need replacement.
- Surface Water Treatment Plant – While improvements have been made, much of the WTP is beyond its average service life.
- Distribution Piping – Much cast iron is very old and assumed to be in poor condition, as indicated by water loss. Due to Karst's geology, leaks are not readily apparent.
- Need for more aggressive watershed (for Shoal Creek) management

- Ongoing and needed major water pipeline replacement program. Major future improvements are anticipated.
- Annual water audits are needed in the future.

3.2 WASTEWATER

- Crowder Collection Area – Excessive inflow and infiltration
- An ongoing slip-lining and pipe replacement program is underway. Major future improvements are needed.
- The Crowder trickling filter WWTP does not and will not meet future effluent discharge quality standards.
- The Shoal Creek WWTP is undergoing improvements. We assume that these improvements will be completed prior to transfer.
- The wastewater effluent permit has lapsed (2022), and the renewal permit has yet to be issued (2024).

4.0 DESCRIPTION OF EXISTING FACILITIES

Table 1 presents the Water Treatment and Storage Facilities.

Table 2 presents the Water Main Inventory.

Table 3 presents the Wastewater Facilities Summary.

Following Table 3, you will find AM Figures 3-2 and 3-3, which present the site plans for the Crowder and Shoal Creek WWTPs.

TABLE 1
CITY OF NEOSHO, MISSOURI
WATER TREATMENT AND STORAGE FACILITIES
(SOURCES: CITY OF NEOSHO CONTRACT OPERATIONS AND THE CITY)

1) Neosho Surface Water Treatment Plant

- Intake on Shoal Creek and Raw Water Pumping Station
- 24-inch Raw Water Transmission - 1,900 Linear Feet
- Surface Water Treatment Plant (Kentucky Road WTP) - 3,000,000 AADF

2) Water Storage

- Standpipe Baxter Tank (GSR) - 1,690,000 Gallons
- Crowder Reservoir (GSR) - 2,000,000 Gallons
- Crowder Camp Elevated Storage Tank #1 - 400,000 Gallons
- Crowder Camp Elevated Storage Tank #2 - 400,000 Gallons
- Dewey and Finney Storage Tank - 450,000 Gallons

Total GSR - 3,690,000 Gallons
Total EST - 1,250,000 Gallons
Total System - 4,940,000 Gallons

3) Major Transmission

Crowder P.S.	20-inch Pipeline	-	27,984	Linear Feet
Kentucky WTP	20-inch Transmission	-	976	Linear Feet

4) Wells

	Depth	Dia.	Casing Depth	Pump Motor	Yield
Kentucky WTP	1,247	10-inch	405	-	265 GPM
1944-Wheeler Well	1,195	13-inch	368	125	550 GPM
Pet Milk	Inactive				

5) Sources Used

Shoal Creek - 73%
Wells - 27%

6) Average Daily Flow

Average Daily Flow - 3.52 MGD
Billed Flow - 1.25 MGD

TABLE 2
CITY OF NEOSHO, MISSOURI WATER MAIN INVENTORY
(SOURCES: CITY OF NEOSHO, GIS)

Size	Material	Length (LF)
1-inch	Copper, Other	457
1 1/2-inch	Galvanized	352
2-inch	Galvanized, PVC, CI	5,464
3-inch	PVC	16
4-inch	CI, DI, PVC, C900	81,441 + 7,062 + 960 = 89,463
6-inch	C200, C900, CI, PVC, Transit	135,079 + 11,716 = 146,795
8-inch	DI, CI, PVC, C200, C900	285,510 + 24,758 = 310,268
10-inch	CI, DI	21,637
12-inch	CI, PVC, C200, DI, Poly DD	127,592
16-inch	CI, DI, C900	23,612
20-inch	CI, Cast Iron	28,960
	Grand Total :	**754,613 LF**
Unknown	43,534 Assume 4-inch to 8-inch	4-inch = 7,062 LF 6-inch = 11,716 LF 8-inch = 24,758 LF
Blank	Assume All 4-inch	960 LF
Customers		5,783
Hydrants	Total	848
	Active and Functioning	771

TABLE 3
CITY OF NEOSHO, MISSOURI
WASTEWATER FACILITIES SUMMARY

Description		Extent/Capacity		
8-inch Gravity Sewers	-	453,024	-	Linear Feet
10-inch Gravity Sewers	-	34,400	-	Linear Feet
12-inch Gravity Sewers	-	11,900	-	Linear Feet
15-inch Gravity Sewers	-	40,900	-	Linear Feet
18-inch Gravity Sewers	-	4,400	-	Linear Feet
24-inch Gravity Sewers	-	4,400	-	Linear Feet
30-inch Gravity Sewers	-	4,400	-	Linear Feet
36-inch Gravity Sewers	-	14,000	-	Linear Feet
48-inch Gravity Sewers	-	9,300	-	Linear Feet
10-inch Force Mains	-	9,900	-	Linear Feet
Existing 10-inch Force Mains From Buffalo Creek Lift Station To Radio Rd. and Howard Bush Dr. and Internal Systems		Crowder, Jay Dr., Buffalo Creek, and South Hwy 69		
Crowder To WWTP 16-inch Force Mains	-	37,500	-	Linear Feet
Pump/Lift Stations	-	4		
Crowder WWTP	-	3.0 MGD AADF	-	Fixed Film
Shoal Creek WWTP	-	3.0 MGD AADF	-	CLR Mixed Liquor
Services	-	Estimated Approx. 5,700		
Manholes	-	Estimated Approx. 1,123		
Flow Equalization				
Crowder	-	6,000,000	-	Gallons
Shoal Creek	-	12,100,000	-	Gallons
Crowder P.S. - Two at 50 HP V.T.'s Each	-	1,500 GPM	-	97 FT TDH
16-inch Force Main is Approximately	-	30,100 Linear Feet to Shoal Creek		
Flow Equalization Basins for Shoal Creek WWTP Capacity	-	12.1 MG with Two (2) 40 HP Pumps at 5.79 MGD at 42 FT TDH		
Flow Equalization Basins for Crowder WWTP Capacity	-	5.9 and 0.1 MG		

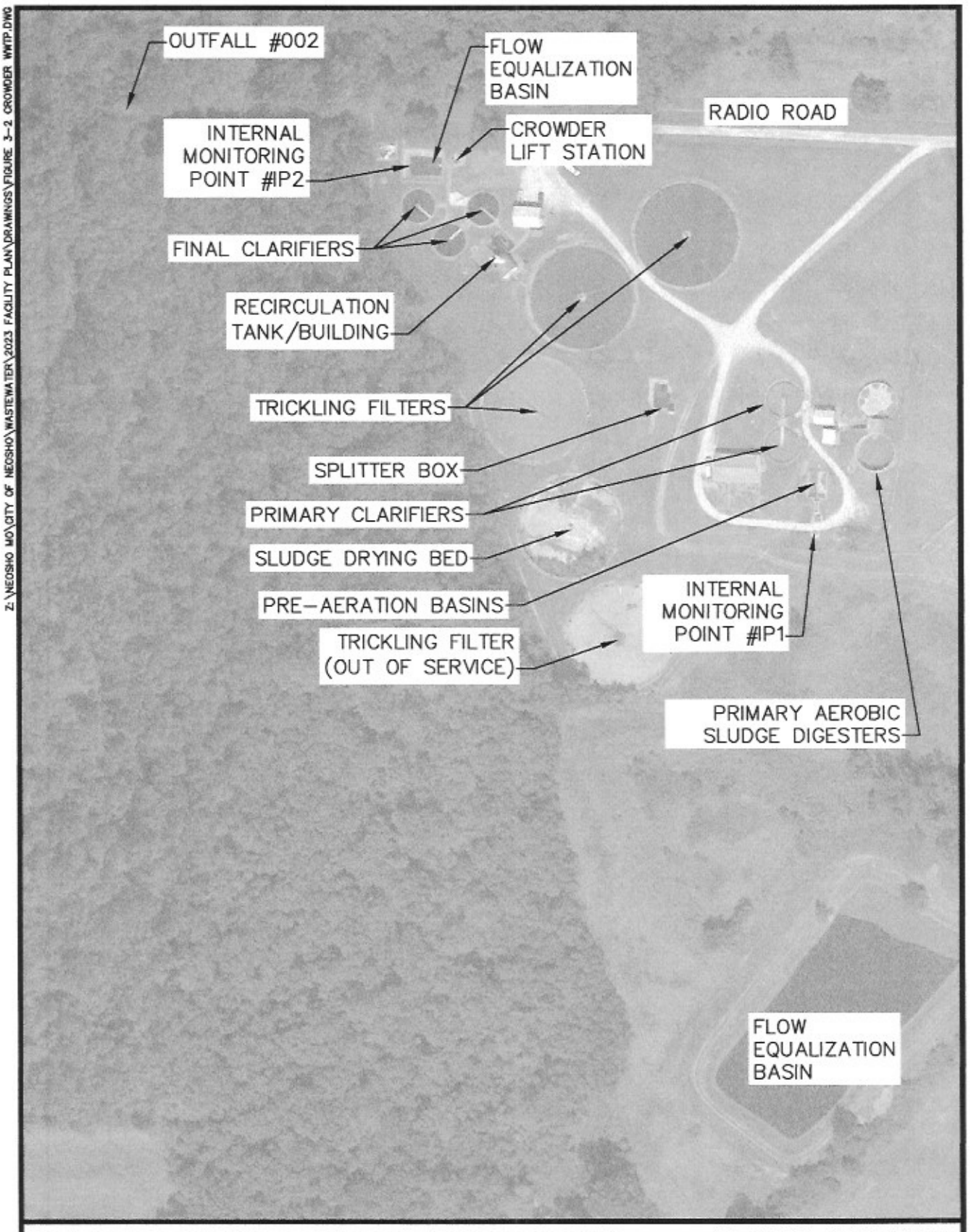


FIGURE 3-2. CROWDER WWTP EXISTING FACILITIES — NEOSHO, MISSOURI
SHOAL CREEK WWTP EVALUATION — MAY 2024

ALLGEIER, MARTIN and ASSOCIATES, INC
CONSULTING ENGINEERS and SURVEYORS
7231 EAST 24th STREET JOPLIN, MISSOURI 64804 (417) 680 - 7200

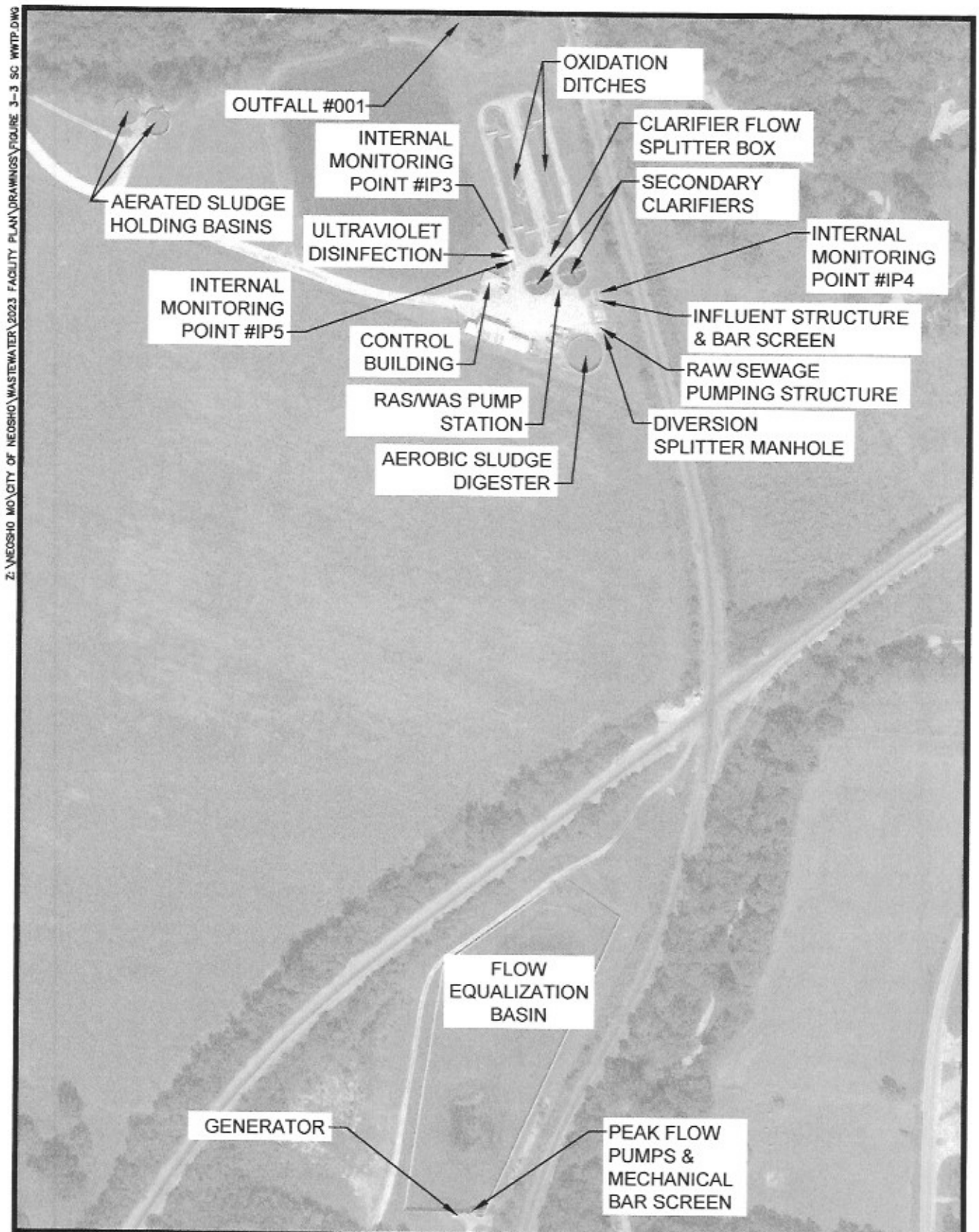
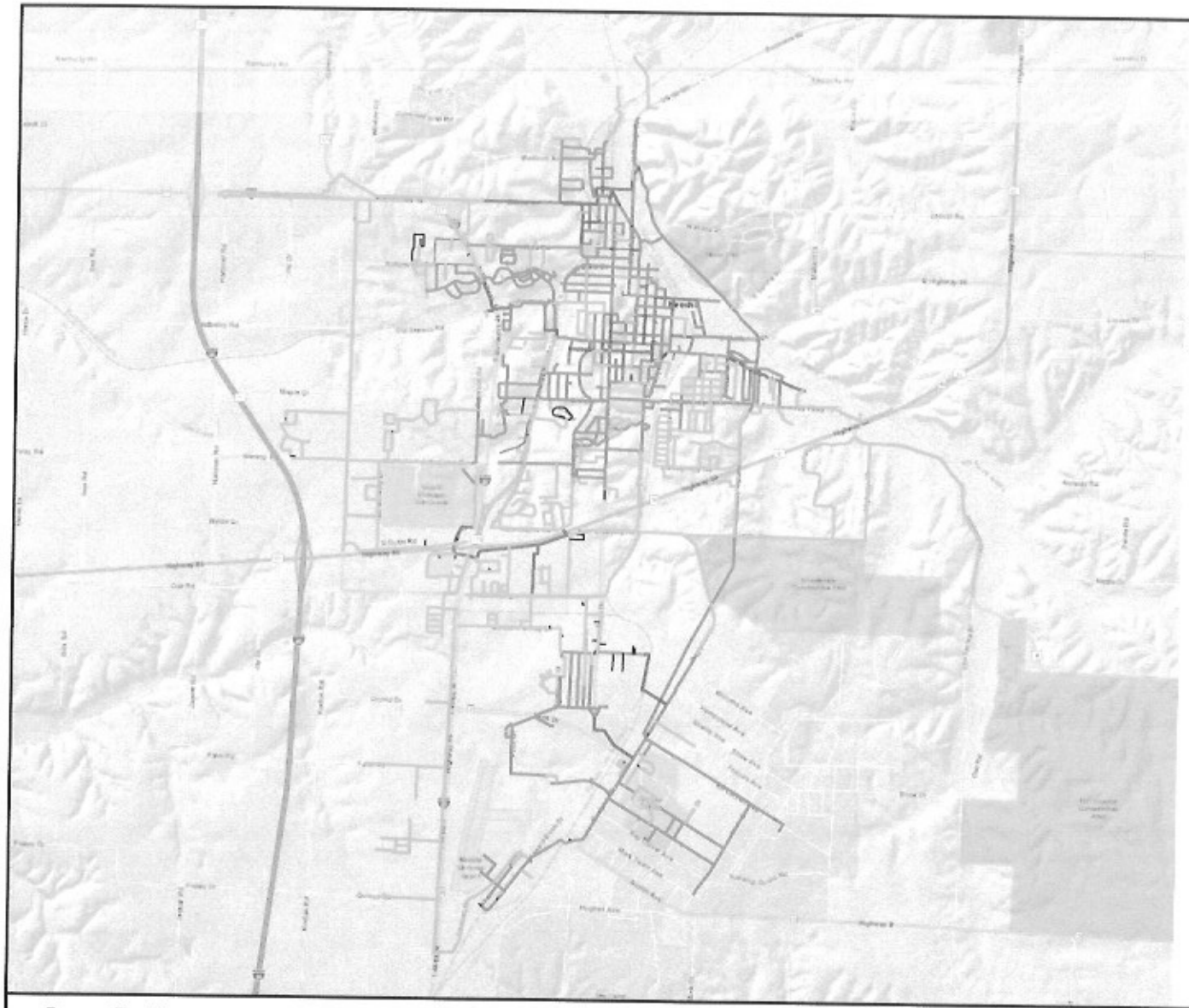


FIGURE 3-3. SHOAL CREEK WWTP EXISTING FACILITIES — NEOSHO, MISSOURI
SHOAL CREEK WWTP EVALUATION — MAY 2024

ALLGEIER, MARTIN and ASSOCIATES, INC
CONSULTING ENGINEERS and SURVEYORS
7231 EAST 24th STREET JOPLIN, MISSOURI 64804 (417) 680 - 7200



Legend

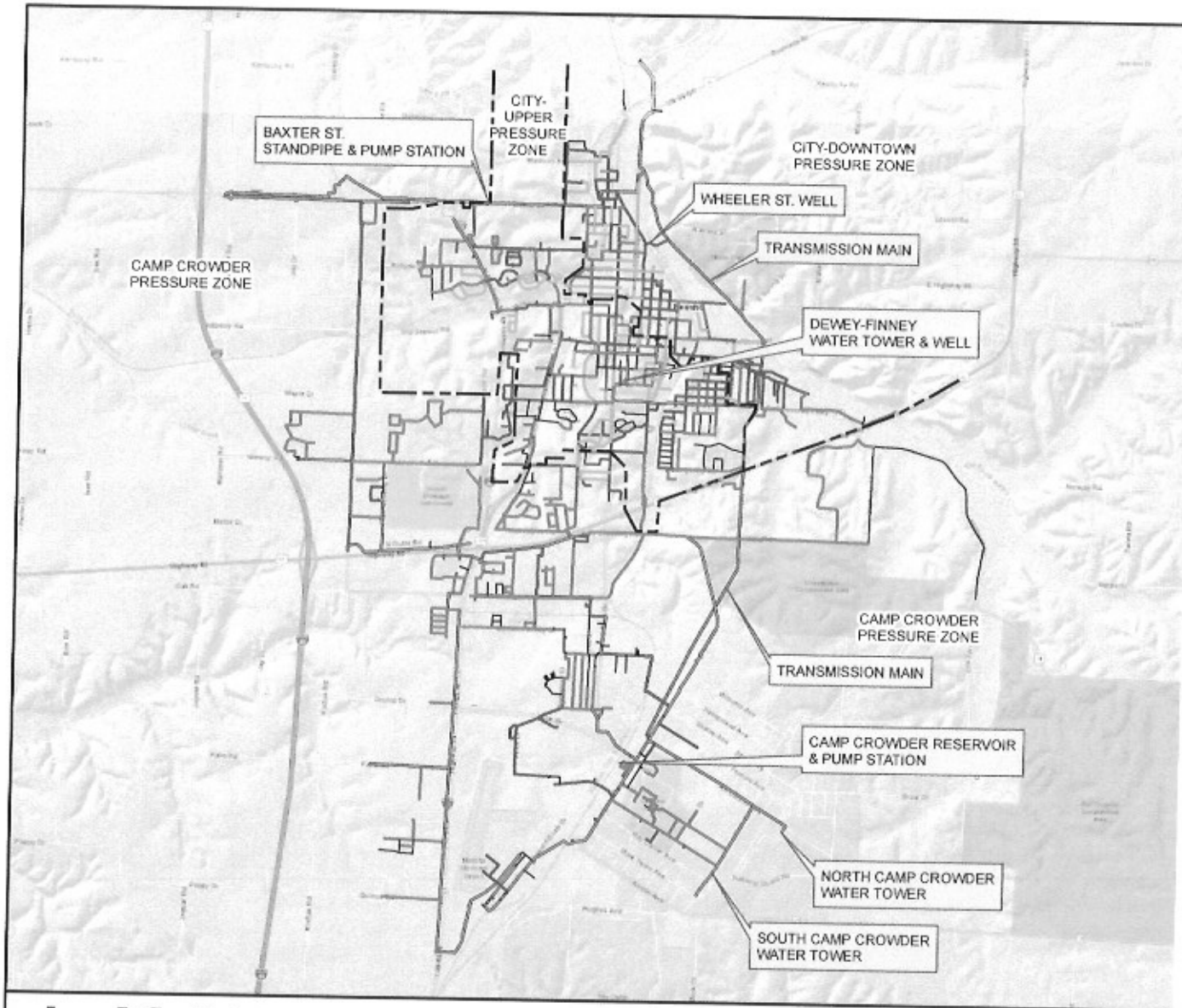
Existing Water Lines by Material

- PVC
- Cast Iron
- Ductile Iron
- Copper
- Galvanized Pipe
- Transite
- Unknown
- Other

WATER MAIN			
DIAMETER	PIPE LENGTH (ft)	% OF ZONE	% OF SYSTEM
TRANSMISSION MAINS			
PVC	364	1.2	0.0
CAST IRON	29,638	98.8	4.0
ZONE TOTAL	30,002	100.0	4.0
CAMP CROWDER ZONE			
PVC	251,992	69.7	33.6
CAST IRON	87,790	24.3	11.7
DUCTILE IRON	15,026	4.2	2.0
UNKNOWN	6,905	1.9	0.9
ZONE TOTAL	361,713	100.0	48.3
CITY-UPPER ZONE			
PVC	94,206	41.0	12.6
CAST IRON	104,501	45.4	13.9
DUCTILE IRON	18,779	8.2	2.5
TRANSITE	285	0.1	0.0
GALVANIZED	415	0.2	0.1
COPPER	285	0.1	0.0
UNKNOWN	11,537	5.0	1.5
ZONE TOTAL	230,008	100.0	30.7
CITY-DOWNTOWN ZONE			
PVC	23,894	18.7	3.2
CAST IRON	91,438	71.6	12.2
DUCTILE IRON	10,270	8.0	1.4
GALVANIZED	25	0.0	0.0
UNKNOWN	2,160	1.7	0.3
ZONE TOTAL	127,787	100.0	17.0
TOTAL	749,510		100.0

A M
Allgeier, Martin and Associates, Inc.
Consulting Engineers and Surveyors
7231 E. 24th Street Joplin, Mo. 64804

Existing Distribution System Pipe Materials
Exhibit 3



Legend

- Existing Pressure Boundary
- Unknown ø
- 1"ø
- 1 1/2"ø
- 2"ø
- 3"ø
- 4"ø
- 6"ø
- 8"ø
- 10"ø
- 12"ø
- 16"ø
- 20"ø

WATER MAIN			
DIAMETER	PIPE LENGTH (ft)	% OF ZONE	% OF SYSTEM
TRANSMISSION MAINS			
10"	1,048	3.5	0.1
20"	28,954	96.5	3.9
ZONE TOTAL	30,002	100.0	4.0
CAMP CROWDER ZONE			
UNKNOWN	42,781	11.8	5.7
2"	188	0.1	0.0
3"	16	0.0	0.0
4"	4,292	1.2	0.6
6"	37,792	10.4	5.0
8"	152,937	42.3	20.4
10"	3	0.0	0.0
12"	99,687	27.6	13.3
16"	23,636	6.5	3.2
20"	381	0.1	0.1
ZONE TOTAL	361,713	100.0	48.3
CITY-UPPER ZONE			
UNKNOWN	32,293	14.0	4.3
1"	285	0.1	0.0
1-1/2"	352	0.2	0.0
2"	63	0.0	0.0
4"	38,532	16.8	5.1
6"	55,811	24.3	7.4
8"	66,499	28.9	8.9
10"	8,536	3.7	1.1
12"	27,637	12.0	3.7
ZONE TOTAL	230,008	100.0	30.7
CITY-DOWNTOWN ZONE			
UNKNOWN	4,459	3.5	0.6
1"	172	0.1	0.0
2"	903	0.7	0.1
4"	32,570	25.5	4.3
6"	44,890	35.1	6.0
8"	31,931	25.0	4.3
10"	12,862	10.1	1.7
ZONE TOTAL	127,787	100.0	17.0
TOTAL	749,510		100.0

A M

Allgeier, Martin and Associates, Inc.
Consulting Engineers and Surveyors
7231 E. 24th Street Joplin, Mo. 64804

Existing Water System
Exhibit 2

5.0 SUMMARY OF MAJOR CAPITAL INVESTMENTS

The City of Neosho has made significant upgrades and improvements. Excluding maintenance, minor capital from rates (less than $50,000 per project), typical renewals and replacements, as well as major maintenance; the City has averaged approximately $1 million per year or more in capital improvements.

Table 4 presents the improvements documented in the City Clerk's records. HC has estimated certain improvements for which records were not yet available.

TABLE 4
CITY OF NEOSHO, MISSOURI
RECENT MAJOR CAPITAL INVESTMENTS

WATER

1) Rocky ramp at Dam (2022 Ave.)
   Original 1941 – Estimate $250,000

2) Water Loss Program (2022–2024)
   Estimated at $450,000

3) Water System Improvements – 2013 – Rosetta Construction, LLC
   $2,030,199 6-inch – 130 LF
   8-inch – 15,562 LF
   12-inch – 1,611 LF

4) TCE Contamination – 1996–1998
   Private Wells Off-line Connected to Central System
   8-inch – 67,260 LF
   12-inch – 27,480 LF
   200 Services – Estimated at $7,150,000

5) Kodiak Rd. Water Transmission – 2012
   16-inch Water Main – 14,000 LF – $851,337
   Rosetta Construction

6) WTP and HSPS – 2011–2013
   $4,508,899 – Ross Construction
   WTP Improvements, Upgrade Process, HSPS

WASTEWATER

1) Sewer System Rehab Program – (2010–2011)
   $1,047,665 – 8-inch of 19,390 LF
   Insuform Type Liner – 10-inch of 3,700 LF
   12-inch of 3,700 LF
   15-inch of 3,500 LF

2) Peak Flow Equalization Shoal Creek – (1/25/2010 to 12/2013)
   48-inch – $3,666,316

TABLE 4 (CONT.)
CITY OF NEOSHO, MISSOURI
RECENT MAJOR CAPITAL INVESTMENTS

3) Jay Street – (2004)
   Estimated at $1,500,000
   15-inch + 18 MH's = 4,900 LF
   12-inch + 11 MH's = 4,600 LF
   8-inch + 6 MH's = 2,000 LF
   6-inch FM = 3,278 LF
   Pump Station – 800 GPM

4) School North Connection Interceptor (2009–2011)
   $1,346,469
   8-inch – 800 LF
   24-inch – 2,700 LF
   30-inch – 2,400 LF
   36-inch – 1,000 LF

5) East Interceptor – $2,216,500
   36-inch – Approx. 13,000 LF

6) 1986 Construction of Shoal Creek Oxidation Ditch – $2,190,000

7) Modifications to Oxidation Ditches 2010 EST
   Archer – $387,100

8) Peak Flow, Equalization Basin and Pump Station
   Estimated at $1,000,000

9) Oak Ridge Sanitary Extension – 2015
   1,200 LF 8-inch – Estimated at $55,000

10) Wet Interceptor – 18-inch – Estimate 2012
    Archer – $548,100 Approx. 6,800 LF

11) Shoal Creek Improvements (CWIP) – 2024
    Estimated at $1,990,000

12) WWTP Sludge Facilities – 2021
    Estimated at $1,400,000

TABLE 4 (CONT.)
CITY OF NEOSHO, MISSOURI
RECENT MAJOR CAPITAL INVESTMENTS

Water Subtotal	- Approx.	$15,240,442
Wastewater Subtotal	- Approx.	$18,147,150
Total	**-**	**$33,387,592**
Rounded	**-**	**$33,400,000**

Say Approximately $1,000,000/year

6.0 FACILITIES APPARENT CONDITION

The reported apparent condition results from an initial inspection (observation only) conducted without testing, along with a review of certain data and reports provided by the City. I have classified the facilities into groups (e.g., water transmission/distribution) and assigned a condition class as defined below.

Definitions of Condition

Condition is a characteristic that can be determined only through observation. The subject of condition can be an area of disagreement. Several individuals could inspect an item of equipment and have differing descriptions as to its condition. The overall condition of an item group is presented in this valuation report. The set of terms and symbols are given below.

New (N) - This term describes new items that have not been used before.

Excellent (E) - This term describes those items that are in near-new condition and have had very little use.

Very Good (G) - This term describes an item of equipment in excellent condition capable of being used to its fully specified utilization for its designated purpose, without being modified and without requiring any repairs or abnormal maintenance at the time of inspection or within the foreseeable future.

Good (G) - This term describes those items of equipment which are in good operating condition. They may or may not have been modified or repaired and are capable of being used at or near their fully specified utilization.

Fair (F) - This term describes those items of equipment which, because of their condition, are being used at some point below their fully specified utilization because of the effects of age and/or application and require general repairs and some replacement of minor elements in the foreseeable future to raise them to be capable of being utilized to or near their original specifications.

Poor (P) - This term is used to describe those items of equipment which, because of their condition, can be used only at some point well below their fully specified utilization, and it is not possible to realize full capability in their current condition without extensive repairs and/or replacement of major elements in the near future.

Salvage (S) - This term is used to describe those items of equipment whose value remains in the whole property or a component of the whole property that has been retired from service.

Scrap (X) - This term is used to describe those items of equipment which are no longer serviceable, and which cannot be utilized to any practical degree regardless of the extent of the repairs or modifications to which they may be subjected. This condition applies to items of equipment which have been used for 100% of their useful life or which are 100% technologically or functionally obsolete and are no longer serviceable and have no value other than for their material content.

Table 5 provides a summary of the apparent condition determined for this report.

TABLE 5
CITY OF NEOSHO, MISSOURI
APPARENT CONDITION ASSESSMENT FOR
VARIOUS GROUPS OF FACILITIES

Group	Condition
Water	
Shoal Creek Raw Water Supply	Very Good
Wells	Good
Surface Water Treatment Plant	Scrap, Salvage, Poor, Very Good
Baxter Storage & Pumping	Very Good
Pressure Zone Valving Station & PSV's	Good
Standpipe & 2 EST's	Good
Transmission & Distribution	Poor/Fair
Hydrants	Fair/Good
Services & Meters	Poor/Fair
Wastewater	
Gravity Collection & Manholes Services	Poor/Fair
5 Pump Stations	3 Good, 1 New/Rebuilt Prior To Transfer Buffalo Creek Lift Station, 1 Needs Rebuilding
Force Mains	Good
2 Flow Equalization Facilities	Good
Crowder WWTP	Poor/Fair
Shoal Creek WWTP	Good/Some New
Outfalls	Good

7.0 REGULATORY COMPLIANCE

The wastewater plant's permit expired in 2022. The facility's effluent will most likely not meet future regulations without either requiring nutrient removal and other items as well as potential negotiations for an implementation schedule.

Water quality generally meets the current regulations; however, additional promulgated requirements may not be met without further treatment.

8.0 UTILITY REPLACEMENT SCHEDULE

AM's rate study included replacement schedules for water, wastewater, and vehicles for the 2024–2043 period.

Water replacements totaled approximately $25,500,000. Wastewater replacements totaled approximately $21,500,000.

In summary, the projected replacements over the next 20 years exceed the major capital improvements made in the past 40 years.

The following pages present the Appendices of the AM Rate Study that summarize the above information.

APPENDIX C - WATER UTILITY REPLACEMENT SCHEDULE AND REPLACEMENT FUND ANNUAL ANNUITY

WATER UTILITY REPLACEMENT SCHEDULE

This appendix contains a replacement schedule that was developed to determine the amount of revenue needed to fund the Replacement Account. The replacement schedule lists the major equipment in the drinking water system, the estimated dates when the equipment will have to be replaced, and the estimated cost of replacement (based on today's cost) over the useful life of the drinking water system. The replacement dates and costs shown are estimates; the actual replacement dates and costs could be significantly different from those shown. If the actual replacement expenses differ significantly from those listed in the replacement schedule, the funding of the Replacement Account shall be adjusted accordingly. The Replacement Fund Calculation includes factors for inflation and interest. These should be adjusted to reflect actual interest and inflation rates.

Year	Replacement Item	Cost Per Item	Yearly Total
2024	Unit #254 International 10 Wheel Dump Truck	$220,000.00	
	Unit #205 C3500	$60,000.00	
	Water Study Recommendations (Priority Improvements)	$1,265,823.00	
			$1,545,823.00
2025	Water Study Recommendations (Priority Improvements)	$1,265,823.00	
			$1,265,823.00
2026	Water Study Recommendations (Priority Improvements)	$1,265,823.00	
			$1,265,823.00
2027	Unit #208 F350 4 Door	$63,000.00	
	Unit #237 John Deere 310SJ Backhoe	$160,000.00	
	Water Study Recommendations (Priority Improvements)	$1,265,823.00	
			$1,488,823.00
2028	Water Study Recommendations (Priority Improvements)	$1,265,823.00	
			$1,265,823.00
2029	Unit #201 F150	$39,000.00	
	Water Study Recommendations (Phase 2 Improvements)	$1,245,322.00	
			$1,284,322.00
2030	Unit #204 F350	$62,550.00	
	Water Study Recommendations (Phase 2 Improvements)	$1,245,322.00	
			$1,307,872.00
2031	Unit #200 F150	$39,000.00	
	Water Study Recommendations (Phase 2 Improvements)	$1,245,322.00	
			$1,284,322.00
2032	Water Study Recommendations (Phase 2 Improvements)	$1,245,322.00	
			$1,245,322.00
2033	Unit #203 F150	$39,000.00	
	Unit #206 F150	$39,000.00	
	Water Study Recommendations (Phase 2 Improvements)	$1,245,322.00	
			$1,323,322.00
2034	Unit #207 F350 Ext. Cab	$63,000.00	
	Unit #233 Case 580 Backhoe	$160,000.00	
	Water Study Recommendations (Phase 3 Improvements)	$1,163,935.00	
			$1,386,935.00
2035	Unit #232 International 6 Wheel Dump Truck	$185,000.00	
	Water Study Recommendations (Phase 3 Improvements)	$1,163,935.00	
			$1,348,935.00
2036	Water Study Recommendations (Phase 3 Improvements)	$1,163,935.00	
			$1,163,935.00
2037	Water Study Recommendations (Phase 3 Improvements)	$1,163,935.00	
			$1,163,935.00

2038	Water Study Recommendations (Phase 3 Improvements)	$1,163,935.00	
			$1,163,935.00
2039	Unit #235 John Deere 333G Track Loader	$78,000.00	
	Water Study Recommendations (Phase 4 Improvements)	$1,161,377.00	
			$1,239,377.00
2040	Unit #238 John Deere 35G Mini Excavator	$66,000.00	
	Water Study Recommendations (Phase 4 Improvements)	$1,161,377.00	
			$1,227,377.00
2041	Water Study Recommendations (Phase 4 Improvements)	$1,161,377.00	
			$1,161,377.00
2042	Water Study Recommendations (Phase 4 Improvements)	$1,161,377.00	
			$1,161,377.00
2043	Water Study Recommendations (Phase 4 Improvements)	$1,161,377.00	
			$1,161,377.00
		Total	$25,455,835.00

APPENDIX E - SANITARY SEWER UTILITY REPLACEMENT SCHEDULE AND REPLACEMENT FUND ANNUAL ANNUITY

SANITARY SEWER REPLACEMENT SCHEDULE

This appendix contains a replacement schedule that was developed to determine the amount of revenue needed to fund the Replacement Account. The replacement schedule lists the major equipment in the wastewater system, the estimated dates when the equipment will have to be replaced, and the estimated cost of replacement (based on today's cost) over the useful life of the wastewater system. The replacement dates and costs shown are estimates; the actual replacement dates and costs could be significantly different from those shown. If the actual replacement expenses differ significantly from those listed in the replacement schedule, the funding of the Replacement Account shall be adjusted accordingly. The Replacement Fund Calculation includes factors for inflation and interest. These should be adjusted to reflect actual interest and inflation rates.

Year	Replacement Item	Cost Per Item	Yearly Total
2024	Buffalo Creek Lift Station Improvements	$1,000,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
			$1,525,000.00
2025	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Jay Lift Station Pump Replacement	$75,000.00	
			$1,100,000.00
2026	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Crowder Mini Lift Station	$50,000.00	
			$1,075,000.00
2027	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Lift Station Pump Replacement	$50,000.00	
			$1,075,000.00
2028	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Lift Station Pump Replacement	$50,000.00	
			$1,075,000.00
2029	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Lift Station Pump Replacement	$50,000.00	
			$1,075,000.00

2030	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Lift Station Pump Replacement	$50,000.00	
			$1,075,000.00
2031	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$250,000.00	
	Wastewater Capital Equipment	$25,000.00	
			$775,000.00
2032	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
			$1,025,000.00
2033	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
			$1,025,000.00
2034	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Buffalo Creek Lift Station Pump Replacement	$100,000.00	
			$1,125,000.00
2035	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Jay Lift Station Pump Replacement	$75,000.00	
			$1,100,000.00
2036	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Crowder Mini Lift Station	$50,000.00	
			$1,075,000.00
2037	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Lift Station Pump Replacement	$50,000.00	
			$1,075,000.00
2038	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Lift Station Pump Replacement	$50,000.00	
			$1,075,000.00
2039	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Lift Station Pump Replacement	$50,000.00	
			$1,075,000.00

2040	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
	Lift Station Pump Replacement	$50,000.00	
			$1,075,000.00
2041	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
			$1,025,000.00
2042	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
			$1,025,000.00
2043	Collection System Line Replacement	$500,000.00	
	Rehabilitation (CIPP, MH Lining, etc.)	$500,000.00	
	Wastewater Capital Equipment	$25,000.00	
			$1,025,000.00
		Total	$21,500,000.00

APPENDIX C - WATER UTILITY REPLACEMENT SCHEDULE AND REPLACEMENT FUND ANNUAL ANNUITY

WATER DISTRIBUTION VEHICLE REPLACEMENT SCHEDULE

Unit #	Year	Description	Model	VIN	Mileage	Replacement Cost	Expected Service Life	Replacement Year
200	2016	F150	1/2 Ton 4x4	1FTMF1EF2GKE78261	83,674	**$39,000.00**	15 years	**2031**
201	2014	F150	1/2 Ton 4x4	1FTMF1EMXEKD69624	116451	**$39,000.00**	15 years	**2029**
203	2018	F150	1/2 Ton 4X4	1FTMF1EB4JKD60443	57,844	**$39,000.00**	15 years	**2033**
204	2015	F350 Extended	1 Ton 2X4	1FD8X3G61FEC27294	92,367	**$62,550.00**	15 years	**2030**
205	2009	C3500	1 Ton 2X4	1GBJC74K69E105582	165,789	**$60,000.00**	15 years	**2024**
206	2018	F150	1/2 Ton 4X4	1FTMF1EP5HKE24883	67,193	**$39,000.00**	15 years	**2033**
207	2019	F350 Ext. Cab	1 Ton 4X4	1FD8X3HT5KEC44338	33,994	**$63,000.00**	15 years	**2034**
208	2012	F350 4 Door	1 Ton 4X4	1FD8W3H62CEC14020	152,382	**$63,000.00**	15 years	**2027**
232	2015	International	6 Wheel Dump Trk.	1HTWDAAR1FH526331	27,458	**$185,000.00**	20 years	**2035**
233	2014	Case 580	Backhoe	JJGN58SNPEL705751	3340 HRS	**$160,000.00**	20 years	**2034**
254	2002	International	10 Wheel Dump Trk.	1HTGCADTX2H542245	unknown	**$220,000.00**	20 years	**2022**
237	2007	John Deere	310SJ Backhoe	T0310SJ158462	5647hrs	**$160,000.00**	20 years	**2027**
238	2020	John Deere 35G	Mini Ex.	1FF0350XJLK290302	895hrs	**$66,000.00**	20 years	**2040**
235	2019	John Deere 333G	Track Loader		775hrs	**$78,000.00**	20 years	**2039**

- Although water storage is adequate when considering fire flow supply, points in the distribution system supply as little as 600 gpm with system pressures reaching 20 psi (considering only water lines 6" in diameter and larger).

In order to reduce water loss in the system, it's recommended that an aggressive water line replacement program be undertaken. Preliminary water supplied vs water sold data provided by the City seems to indicate that a large percentage of water loss is occurring in the City-Upper pressure zone. Additionally, repair and maintenance activities have centered on the older cast iron water mains throughout the City. It's recommended that the City begin to prioritize the replacement of cast iron water lines in the City-Upper pressure zone. The recommended improvements have been divided into the following four phases of construction to be completed over the next 20-years.

Priority Improvements

- City-Upper pressure zone water line replacements (already identified water lines that have reached the end of their service life and require continual repair and maintenance).
- Reconfigure City-Upper and City-Downtown pressure zone boundary to eliminate a high-pressure area.

Estimated Project Cost: $6,329,113.94

Phase 2 Improvements (5 to 10 Years)

- City-Upper pressure zone 6" diameter cast iron water line replacements.
- Dewey-Finney Water Tower Exterior Recoat
- Baxter Street Standpipe Interior Recoat

Estimated Project Cost: $6,226,610

Phase 3 Improvements (10 to 15 Years)

- City-Upper pressure zone 4" diameter cast iron water line replacements.
- Proposed 400,000-gallon Water Tower to replace one of the aging Camp Crowder water towers.

Estimated Project Cost: $5,819,673

Phase 4 Improvements (15 to 20 Years)

- City-Upper pressure zone 8" and 10" diameter water line replacements.
- Proposed 400,000-gallon Water Tower to replace the remaining Camp Crowder water tower.

Estimated Project Cost: $5,806,885

A map of these recommendations can be found on the following Exhibit 1. Further information on the evaluation of the City's water system and how these recommendations were determined are contained in the remainder of this report.

Certainly, these recommended water line replacement projects can be interchanged with other areas of the community if additional water usage verses supplied data reveals the need. Additionally, if water loss is reduced significantly after the completion of the priority water line replacement project, other areas may be in more need for replacement those recommended in Phases 2 through 4.

Lastly, the City should keep a close eye on the condition of the 20" diameter water transmission main and the 12" diameter South Street water main and valve structure. Although these lines don't currently exhibit the need for replacement, they have a very high consequence of failure. Failure of these lines would

leave most, if not all City customers without water service during a repair. A more detailed evaluation of these two water facilities and their replacement costs may be warranted.

VI. RECOMMENDATIONS

It's clear throughout this report that the City of Neosho must make improvements to their water system. As stated previously, without a reduction in water loss the City's existing water supply capabilities won't be able to meet the growing water demands of the community. Although the City has been actively identifying and repairing water line leaks, it's recommended that a more aggressive approach of replacing large sections of water lines be undertaken.

Recent analysis by City personnel has identified the City-Upper pressure zone as having the largest water loss. Initial replacement efforts shall be focused on cast iron water line within this zone. Although the ultimate recommendation would be to replace all cast iron water lines, the costs are prohibitive, and the improvements must be spread out over many years to lessen the impact on user rates. The priority improvements should focus on cast iron water lines with known maintenance and repair issues. As funding allows, the City should continue to prioritize the replacement of the remaining cast iron water lines until an impact on water loss is achieved.

In addition to the priority water line replacements, the existing City-Upper and City-Lower pressure zone boundary should be modified to reduce high pressure areas. Specifically, the area from north to south between Park Street and South Street and from east to west between Freeman Road and Benton Ave should be addressed. Eliminating this high-pressure (>100 psi) area will also result in a reduction in water loss. The following priority water system improvements (see Exhibit 1) should constitute an immediate water system project aimed at reducing water loss.

TABLE 20 – RECOMMENDED PRIORITY WATER SYSTEM IMPROVEMENTS

Priority City-Upper Pressure Zone Water Line Replacements	$4,839,950
Reconfigure Pressure Zone Boundary	173,500
Construction Subtotal	$5,013,450
Contingency (10%)	501,345
Engineering Design Phase Services	410,900
Engineering Construction Phase Services	140,000
*Resident Project Representation Services	260,000
Estimated Initial Project Cost	$6,325,695

*Resident project representation services have been estimated to be on a part time basis for 24 months.

As funding allows, and unless other high priority water loss areas are identified, it's recommended that the City continue to replace cast iron water lines in the City-Upper pressure zone. After completion of the priority water system improvements, there remains nearly 35,000 lineal feet of 6" cast iron water lines to be replaced. Additionally, the Dewey-Finney water tower and Baxter Steet standpipe will both need exterior or interior tower recoats within the next 10 years.

TABLE 21 – RECOMMENDED PHASE 2 WATER SYSTEM IMPROVEMENTS (5 TO 10 YEARS)

City-Upper Pressure Zone 6" Water Line Replacements	$4,622,100
Dewey-Finney Water Tower Exterior Tower Recoat	195,000
Baxter Street Standpipe Interior Recoat	165,000
Construction Subtotal	$4,982,100
Contingency (10%)	498,210
Engineering Design Phase Services	408,800
Engineering Construction Phase Services	139,500
*Resident Project Representation Services	198,000
Estimated Initial Project Cost	$6,226,610

*Resident project representation services have been estimated to be on a part time basis for 18 months.

The recommended third phase of water system improvements should include the continued replacement of cast iron water lines within the City-Upper pressure zone. Replacement of these lines should continue unless other significant areas of water loss are identified through City investigative efforts. Additionally, it's anticipated that this project would be completed sometime in the next 10 to 15 years. This would make the aging Camp Crowder Water Towers nearly 95 years old. It's further recommended during this phase that one of the existing Camp Crowder Water Towers be replaced.

TABLE 22 – RECOMMENDED PHASE 3 WATER SYSTEM IMPROVEMENTS (10 TO 15 YEARS)

City-Upper Pressure Zone 4" Water Line Replacements	$2,697,248
Proposed 400,000-gallon Water Tower	1,945,000
Construction Subtotal	$4,642,248
Contingency (10%)	464,225
Engineering Design Phase Services	385,200
Engineering Construction Phase Services	130,000
*Resident Project Representation Services	198,000
Estimated Initial Project Cost	$5,819,673

*Resident project representation services have been estimated to be on a part time basis for 18 months.

The final recommendation within this report addresses the remaining 8" and 10" diameter cast iron water lines in the City-Upper pressure zone. Similar to the previous phase three recommendation, the replacement of the remaining Camp Crowder water tower should also be included in this future phase four project.

TABLE 23 – RECOMMENDED PHASE 4 WATER SYSTEM IMPROVEMENTS (15 TO 20 YEARS)

City-Upper Pressure Zone 8" and 10" Water Line Replacements	$2,686,350
Proposed 400,000-gallon Water Tower	1,945,000
Construction Subtotal	$4,631,350
Contingency (10%)	463,135
Engineering Design Phase Services	384,400
Engineering Construction Phase Services	130,000
*Resident Project Representation Services	198,000
Estimated Initial Project Cost	$5,806,885

*Resident project representation services have been estimated to be on a part time basis for 18 months.

9.0 REPLACEMENT COST LESS ENGINEERING DEPRECIATION

9.1 General

The replacement cost new is generally the proper starting point for developing an opinion of value using the cost approach. Replacement cost is the current cost of a similar new property having the nearest equivalent utility as the property being appraised. In using the cost approach, the subject property is reviewed to determine the most likely property that could actually replace it. The replacement property would be the most economical new property that could replace the service provided by the subject.

The most efficient sequence of construction involves implementing the project all at once and applying the appropriate economies of scale.

9.2 Premise of Value

The premise of value is Fair Market Value in Continued Use (FMVICU)

FMVICU is the estimated amount, expressed in terms of money, that may reasonably be expected for a property in an exchange between a willing buyer and a willing seller, with equity to both, neither under any compulsion to buy or sell, and other fully aware of all relevant facts, including installation, as of a specific date, and assuming the business earnings support the value reported. This amount includes all normal direct and indirect costs, such as installation and other assembling costs to make the property fully operational.

This report is only the supporting Engineering Report as a component of the Appraiser's overall determination of the above.

9.3 Indirect Costs

Indirect costs in this report are included in the unit prices for the various items. These indirect costs encompass engineering, testing, professional fees, administrative costs, accounting, legal fees, financing, insurance, security, and startup training. No abnormal costs are included. The total of these costs is presented as a percentage of the construction costs. That percentage is eighteen (18%) percent for Neosho. See Table 6 for the breakdown summary.

9.4 Average Service Lives Used

Table 7 presents the wastewater and water average service lives used for Neosho.

Application of these values are using 2024 less for example 1986 (Original Construction Date) Shoal Creek Oxidation Ditches at $2,190,000 creates a physical depreciation of 38 years/45 years ASL or 84.4% leaving 15.6% good. Since the 15.6% is less than the 20%

good for facilities still in beneficial use, a 20% good factor becomes applied. This step results in $2,190,000 x 0.2 = $438,000. Then the ENRCCI rates are applied 13,632/4,295 = 3.17. The result of this method is $1,388,460, rounded to $1,390,000.

9.5 Escalation to Report Date

Table 8 presents the ENRCCI values for 1969 through October 28, 2024. To the extent the construction dates are known, then an age escalation analysis is performed for the facility to the effective date of October 28, 2024.

TABLE 6
INDIRECT COSTS AS A PERCENTAGE OF CONSTRUCTION COST

Description	Percentage (1)
Legal	1.0%
Insurances, etc.	0.5%
Licenses, Permits, and Fees	1.0%
Accounting	0.5%
Engineering, Surveying, Construction Management, Testing, Technical Services, O&M Manual, Start-up, and Certification	8.0% (2)
Financing	6.0% (3)
Administration, Overhead, Planning, etc.	1.0%
Total	**18.0%**

Notes: (1) Otherwise stated from market review of total project costs without premiums or interveners or special services.
(2) ASCE MOP 45 and ASCE curves.
(3) Assumes financing @ 6.0% for 2 years (Midpoint convention).

TABLE 7
CITY OF NEOSHO, MISSOURI
AVERAGE SERVICE LIVES
WASTEWATER AND WATER FACILITIES

Item	ASL (Years)
Wastewater	
Manholes	75
4" Services	65
Flow Equalization Basins	45
Wastewater Treatment Plants	45
8" Gravity	75
10" Gravity	75
12" Gravity	75
15" Gravity	80
18" Gravity	80
24" Gravity	80
30" Gravity	85
36" Gravity	85
48" Gravity	90
10" Force Main	75
16" Force Main	80
Outfalls	80
Lift/Pumping Stations (Composite)	50
Land, Fee Simple	By Others
Easements	91 By Others
Tools, Equipment, Appurtenances (Estimate)	15
Instrumentation (Estimate)	15
Water	
Raw Water	70
Meters	25
Water Services	70
1" Water Main	65
1 1/2" Water Main	65
2" Water Main	65
3" Water Main	65
4" Water Main	70
6" Water Main	70
8" Water Main	75
10" Water Main	80
12" Water Main	85
16" Water Main	85

TABLE 7 (CONT.)
CITY OF NEOSHO, MISSOURI
AVERAGE SERVICE LIVES
WASTEWATER AND WATER FACILITIES

Item	ASL (Years)
20" Water Main	85
Wells	60
Water Plant (Composite)	55
Water Storage (Composite) Ground	50
Hydrants	70
Elevated Storage Tanks	80
Pressure Zone Diversion Valves	50

TABLE 8
ESCALATION INDICES

Year	ENR Construction Cost Index Value
1969	1,269
1970	1,381
1971	1,581
1972	1,753
1973	1,895
1982	3,535
1983	4,066
1984	4,146
1985	4,195
1986	4,295
1987	4,406
1988	4,519
1989	4,615
1990	4,732
1991	4,835
1992	4,985
1993	5,210
1994	5,408
1995	5,471
1996	5,620
1997	5,826
1998	5,920
1999	6,059
2000	6,221
2001	6,343
2002	6,538
2003	6,694
2004	7,115
2005	7,446

TABLE 8 (CONT.)
ESCALATION INDICES

Year	ENR Construction Cost Index Value
2006	7,751
2007	7,966
2008	8,310
2009	8,570
2010	8,802
2011	9,066
2012	9,313
2013	9,547
2014	9,699
2015	10,039
2016	10,498
2017	10,702
2018	11,180
2019	11,381
2020	11,628
2021	12,550
2022	13,175
2023	13,511
2024	13,632
	As of 10/28/2024

Source: ENR October 28, 2024

9.6 Replacement Cost Market

The other method for the analysis is to review the recent construction costs of similar facilities where available. Basic secondary treatment oxidation ditches are still being constructed. Using the basic base cost of $8.76/gallon for 3,000,000 gallons results in an RCN of $26,280,000 x 0.2 (20% good) = $5,256,000.

Note that the more recent market information is not skewed by the 38-year timeline and includes typically specific major capital improvements; therefore, it is used in the analysis. The estimate is then updated by the major capital investments made for that specific facility to attain the Replacement Cost New Less Depreciation (RCNLD).

9.7 Rounding of Valuation Amount

Table 9 presents the rounding guidelines according to ASA. Applying these guidelines to the above result yields $5,260,000.

The American Society of Appraisers (ASA) has developed valuation guidelines for methodologies that include rounding of valuation amounts. The rounding utilized in this report complies with ASA guidelines and is shown in Table 9.

TABLE 9
ROUNDING OF VALUATION AMOUNTS

Amount Determined	Rounded to Nearest
$0 to $2,000	$10
$2,001 to $20,000	$100
$20,001 to $500,000	$1,000
$500,001 to $10,000,000	$10,000
Over $10,000,000	$100,000

Source: ASA guidelines

9.8 Water System Replacement Cost New Less Depreciation (Engineering Only)

Table 10 presents a summary of the analyses resulting in the Replacement Cost New Less Physical Depreciation.

Table 11 presents the adjustments made to Table 10 to arrive at the Water Replacement Cost New Less (Engineering) Depreciation. The result of this work is $25,600,000 for the water system. The appraisers will make various adjustments and determinations prior to arriving at the cost approach component for a fair market value opinion.

Please see the Caveats in Section 10 for certain insights.

9.9 Wastewater System Replacement Cost New Less Depreciation (Engineering Only)

Table 12 presents a summary of the analyses resulting in the Replacement Cost New Less Physical Depreciation.

Table 13 presents the adjustments made to Table 12 to arrive at the Wastewater Replacement Cost New Less (Engineering) Depreciation. The result of this work is $41,500,000 for the wastewater system.

TABLE 10
CITY OF NEOSHO, MISSOURI
REPLACEMENT COST NEW LESS PHYSICAL DEPRECIATION
WATER SYSTEM

Description	Extent	Unit Cost ($)	Replacement Cost New ($)	Depreciation % Good	RCNLPD ($)
Intake & P.S.	1 - LS	510,000	510,000	67	342,000
24" Raw Water TM	1,900 LF	251.00/LF	477,000	20	95,000
Surface Water TP	3.0 MGD	5.16/GAL	15,480 *	46	7,121,000
GSR's	3.69 MG	2.41/GAL	8,893,000	42	3,735,000
EST's	1.25 MG	4.25/GAL	5,313,000	29	1,541,000
3 Wells - 2 Active	815 GPM	730/GPM	596,000	20	119,000
Service Lines & Meters	5,552	944/EA	5,241,000	41	2,149,000
Hydrants (Active)	771	1,980/EA	1,527,000	31	473,000
1" - 2" Water Mains	6,273 LF	16.90/LF	106,000	25	27,000
3" - 4" Water Mains	89,479 LF	35.20/LF	3,150,000	27	850,000
6" Water Mains	146,795 LF	49.10/LF	7,208,000	28	2,018,000
8" Water Mains	310,268	66.60/LF	20,664,000	29	5,993,000
10" Water Mains	21,637	88.50/LF	1,915,000	28	536,000
12" Water Mains	127,592	95.00/LF	12,121,000	35	4,242,000
16" Water Mains	23,612	140.20/LF	3,310,000	45	1,490,000
20" Water Mains	28,960	190.80/LF	5,526,000	35	1,934,000
				Water Total RCNLPD:	**$32,665,000**

*** Engineer confirmed after publication that value should be 15,480,000**

TABLE 11
CITY OF NEOSHO, MISSOURI
REPLACEMENT COST NEW LESS DEPRECIATION
WATER SYSTEM

Description		Amount
1.	Replacement Cost New Less Physical Depreciation (Table 10)	$ 32,665,000
2.	Appurtenances	877,000
3.	Admin, Financial, Records, Etc.	585,000
4.	Land	By Others
5.	Easements	By Others
6.	Leases	By Others
7.	Functional Obsolescence	(2,572,000)
8.	External Engineering Obsolescence	(3,654,000)
9.	Going Concern	1,169,000
	Total Water RCNLD :	**$ 29,070,000**
	Rounded :	**$ 29,100,000**

TABLE 12
CITY OF NEOSHO, MISSOURI
REPLACEMENT COST NEW LESS PHYSICAL DEPRECIATION
WASTEWATER SYSTEM [1]

Description	Extent	Average Unit Cost ($)	Replacement Cost New ($)	Depreciation % Good	RCNLPD ($)
8"Gravity Main	453,024 LF	60.84/LF	27,544,000	27	7,437,000
10"Gravity Main	34,400 LF	81.50/LF	2,800,000	28	784,000
12"Gravity Main	11,900 LF	94.80/LF	1,128,000	40	451,000
15"Gravity Main	40,900 LF	100.00/LF	4,090,000	37	1,513,000
18"Gravity Main	4,400 LF	160.00/LF	704,000	41	289,000
24"Gravity Main	4,400 LF	248.00/LF	1,091,000	35	382,000
30"Gravity Main	4,400 LF	290.00/LF	1,276,000	42	536,000
36"Gravity Main	14,000 LF	326.00/LF	4,564,000	80	3,651,000
48"Gravity Main	9,300 LF	400.00/LF	3,720,000	80	2,976,000
10"Force Main	9,000 LF	88.50/LF	797,000	75	598,000
16"Force Main	37,500 LF	140.20/LF	4,258,000 *	77	4,049,000
Pump Stations	5	750,000	3,750,000	48	1,800,000
Crowder WWTP **	3.0 MGD FF	6.96/GAL	20,880,000	29	6,055,000
Shoal Creek WWTP	3.0 MGD CMAS	8.76/GAL	26,280,000	70	18,396,000
Services [2] ***	5,552	1,410/EA	7,828,000	31	2,427,000
Manholes	1,123	2,840/EA	3,189,000	27	861,000
Flow Equalization	18.2 MG	0.44/GAL	8,008,000	46	3,684,000
Flow Equalization P.S. & Appurt.	3	LS	1,100,000	46	506,000
Outfalls	5	LS	1,420,000	20	284,000
				Wastewater Total RCNLPD:	**$56,679,000**
				Wastewater Total RCNLPD Rounded:	**$56,700,000**

[1] Approximately 10% of the gravity has been lined.
[2] From City GIS.

***Engineer confirmed after publication that value was transposed from 5,257,500**
****See Page 24 of the appraisal document in reference to the value of Crowder WWTP**
*****Engineer confirmed after publication that the City of Nesoho only owns that portion of the service that is within public right-of-way or public easement.**

TABLE 13
CITY OF NEOSHO, MISSOURI
REPLACEMENT COST NEW LESS DEPRECIATION
WASTEWATER SYSTEM

Description		Amount
1.	Replacement Cost New Less Physical Depreciation (Table 12)	$ 56,700,000
2.	Appurtenances	1,108,000
3.	Admin, Financial, Records, Etc.	628,000
4.	Land	By Others
5.	Easements	By Others
6.	Leases	By Others
7.	Functional Obsolescence	(10,180,000)
8.	External Engineering Obsolescence	(7,673,000)
9.	Going Concern	2,143,000
	Total Wastewater RCNLD :	**$ 42,726,000**
	Engineering Rounded Wastewater :	**$ 42,700,000**

TABLE 14
CITY OF NEOSHO, MISSOURI
REPLACEMENT COST NEW LESS DEPRECIATION
WATER AND WASTEWATER SYSTEMS

Description	**Amount**
1. Water System	$ 29,100,000
2. Wastewater System	$ 42,700,000
Total :	**$ 71,800,000**

The appraisers will make various adjustments and determinations prior to arriving at the cost approach component for a fair market value opinion.

9.10 Disclosures

The following disclosures are made:

1) The water loss percentage is much higher than normal. A buyer would make downward adjustments to the cost approach to align with normal water system characteristics.
2) The WTP is a composite of outdated components, components that would normally have been replaced, and newer components supplementing the above. A buyer would assess the present inefficiencies, future non-compliance with promulgated regulations, and the source protection needs.
3) The water distribution system and customer services require significant renewals and replacements, as shown herein, or more, as it is difficult to assess the needs accurately.
4) The Crowder trickling filter WWTP will most likely be decommissioned. If the parties agree to this need, the wastewater RCNLD would likely be reduced by approximately $10 million.
5) There are likely many future costs that may or may not be approved into the rate base. A downward adjustment for this risk would be a major consideration.

10.0 CAVEAT

The Engineer's Report relied on data and reports provided by the City. It was outside of HC's scope to verify, alter, or recreate assessments, develop a comprehensive water and wastewater plan, or determine the most efficient means and methods to operate the Neosho utility.

This property is old, includes failing facilities, and will most likely require substantial future investment.

Very truly yours,

Hartman Consultants, LLC

Gerald C. Hartman
Missouri P.E. #2019007004
Board Certified Environmental Engineer – #88-10034 (Water & Wastewater)
ASA Public Utilities #7542

APPENDIX

State of Missouri

Missouri Department of Commerce and Insurance
Division of Professional Registration
Board for Architects, Engineers, Land Surveyors & Landscape Architects

Professional Engineer

VALID THROUGH DECEMBER 31, 2025
ORIGINAL CERTIFICATE/LICENSE NO. 2019007004

GERALD C. HARTMAN
637 N PARK AVE #5
WINTER PARK FL 32789
USA

EXECUTIVE DIRECTOR

DIVISION DIRECTOR

Gerald C. Hartman, PE, BCEE, ASA

Education

M.S. Duke University, 1976

B.S. Duke University, 1975

Registrations/Certifications

Arizona No. 28939

Colorado No. 31200

Florida No. 27703

Georgia No. 17597

Illinois No. 062-053100

Indiana No. 10100292

Iowa No. P25166

Kentucky No. 22463

Louisiana No. 30816

Maine No. 10395

Maryland No. 12410

Mississippi No. 12717

Missouri No. 2019007004

Nebraska No. E-12868

Nevada No. 20259

New Mexico No. 15990

New York No. 088623-1

North Carolina EIT No. A03351

North Carolina No. 15264

Ohio No. 70152

Pennsylvania No. 38216

South Carolina 15389

Tennessee No. 105550

Virginia No. 131184

W. Virginia No. 21803

Washington No. 53433

Wisconsin 32971-6

NCEES National P.E. No. 20481

American Society of Appraisers Accredited Senior Appraiser No. 7542

BCEE from American Academy Certificate No. 88-10034

Professional Summary

Management Consulting/Appraisal/Expert Testimony

Mr. Hartman is an experienced utility engineer and appraiser specializing in utilities and systems. He is a qualified rate, fee and charge studies expert witness in the area of utility system valuation and financing, facility siting, certification/service area/franchises and formation/creation, management and acquisition projects. Mr. Hartman is accepted in various Federal Courts, Circuit Courts, Division of Administrative Hearings, Public Service Commissions, arbitration, and quasi-judicial hearings conducted by cities and counties, as a technical expert witness in the areas of utility systems (water, wastewater, stormwater, solid waste, gas and electric), certification/service area/franchises, facility planning, utility conveyance, transmission and distribution, utility resources, utility treatment, engineering, permitting and regulations, utility system design and construction, and utility systems valuation (water, wastewater, stormwater, solid waste, gas, and electric systems), costing and damages.

Professional Experience

Machinery and Technical Specialties, ASA – Public Utilities

Public Utilities Appraisal Specialty Certified, ASA

Tangible Personal Property – VAB, Magistrate
Orange County, FL (2009 and 2010)

Tangible Personal Property – Special Magistrate Osceola County, FL (2011, 2012, and 2013/2014) Hendry County, FL (2012 and 2013/2014)

Financial Reports

Mr. Hartman has been involved in over 300 capital charge, impact fee, connection of and installation charge studies involving water, wastewater and fire service for various utilities. He also has participated in over 150 user rate adjustment reports. Mr. Hartman assisted in the development of over 70 revenue bond issues, 20 short-term bank loan systems, 10 general obligation bonds, numerous grant/loan programs, numerous capacity sale programs, and 20 privatization programs. Mr. Hartman has been involved in over $3 billion in utility bond and commercial loan financings for water and wastewater utility, and over $4 billion in utility grants, matching funding, cost-sharing; SRF loans and Federal Loans (R.D., etc.), assessments and CIAC programs.

Utility Appraisals, Valuations and Evaluations

Mr. Hartman has been involved in over 600 utility negotiations, appraisals, fairness opinions and review appraisals, and has been a qualified expert witness by the courts with regard to utility arbitrations and condemnation cases. He has participated in the valuation of numerous utility systems. His experience includes:

Skills

Management Consulting
Utility System Valuation
Expert Witness Services
Rates, Fees, and Charges
Funding and Financing
Utility Certifications, Franchises, Service Areas
Economic Evaluations
Creditworthiness Analysis
Fairness Opinions
Water/Wastewater Systems Appraisals
Electric System Appraisals

Relevant Training/Courses

Numerous AWRA, AWWA, ASCE, WEF, AASE, ASA, NSPE, PE Seminars, Courses, Ethics, Continuing Education (multiple states) USPAP Exams 2003, 2005, 2010/10, 2015, 2017

ASA ME201, ME202, ME203, ME204 Mach. & Technical Specialties, BV201 Public Utilities, PP201.

ASA Public Utilities Specialty Designation Exam Parts I, II, and III Numerous Technical Appraisal Courses/Exams in personal property (tangible & intangible), business valuation, and other areas Appraisal Review & Management ARM 201 and 204

Average Service Life and Effective Age Depreciation Terminal Value Taxation/IRS Valuation

Year	Project	Party Represented
2024	Cresent City S/D	Owner
2024	Seminole County Water & Sewer	Owner
2024	Wildwood Water	Owner
2024	ESAD Enterprises	Buyer
2024	Red River Authority - Preston	Buyer
2024	Severn Water Company	Buyer
2024	Johnson County PWSD #3	Buyer
2024	TCU	Owner
2024	Everette Square, ES Water, Montgomery Place	Buyer
2024	Dril-Quip Water & Wastewater	Buyer
2024	Palm Beach Aggregates Phase 1	Seller
2024	Lafourche Parish Government – Five Surplus Assets App.	Owner
2024	Wedgefield Phase 3 Water & Sewer	Buyer
2024	Cape Charles Water & Sewer	Buyer
2024	Inlet Beach Water & Sewer	Owner
2024	Massanutten Public Services	Owner
2024	Grove Land Reservoir & Stormwater Treatment Area	Owner
2023	Odessa Wastewater System	Buyer
2023	Duke Energy	Buyer
2023	Avalon Park/Volusia	Owner
2023	City of Wolfforth	Buyer
2023	City of Mounds	Buyer
2023	Greenville Wastewater	Owner
2023	Camp Grove	Buyer
2023	Centerstar/Carver Springs	Owner
2023	Kewanee Water & Wastewater	Buyer
2023	Vandalia Water & Wastewater	Buyer
2023	Docket 54646	PUC-Texas
2023	Docket 54720	PUC-Texas
2023	Silvis Heights Water Corp	Buyer
2023	Mt. Vernon Assoc. Water	Buyer
2023	Granite City RWWTP	Buyer
2023	TCU W&WW	Seller
2023	NC Force Mains	Buyer
2023	Blue Granite Water Company	Buyer & Seller
2023	Cape Charles Water & Wastewater	Buyer
2023	Thompson Water and Construction	Buyer
2023	Palm Beach Valuation of Phase 2	Seller
2023	Dockett 49859	PUC-Texas
2023	Dockett 53559	PUC-Texas
2022	Blue Granite (W&WW)	Buyer
2022	Acadia Parish / Cleco	Parish
2022	Ascension Parish (2)	Parish
2022	Hardee Authority	Authority
2022	Triton Utility	Buyer
2022	Big Cajun II	Point Coupe Parish
2022	East Moline	Buyer
2022	Granite City Regional WWTP	Buyer
2022	Woodland Oaks	Buyer

Affiliations

American Society of Appraisers

American Society of Civil Engineers

American Water Works Association

Florida Engineering Society

National Society of Professional Engineers

Water and Environment Federation

Year	Project	Party Represented
2022	West Pottsgrove	Buyer
2022	Butler Area Sewer Authority	Buyer
2022	Bahl Water Company	Buyer
2022	Douglas Utility Co.	PUC-Texas
2022	CS Water Corp	PUC-Texas
2022	Sneads Ferry (WW)	Owner
2022	Currituck (W&S)	Bank
2022	Vero Damages	City
2022	Baldwin Sewer	Buyer
2022	Thompson W.C.	PUC-Texas
2022	North Beach (W&S)	Owner
2022	Webb Creek (S)	Owner
2022	Docket 53329	PUC-Texas
2022	Tymber Creek (W&WW)	Seller
2022	North Peninsula (WW)	Seller
2022	Wedgefield (W&WW)	County
2022	Orange Tree Utility Co. (W&WW)	Owner
2022	Villa Grove (W&WW)	Owner
2022	MESD (WW)	Buyer
2022	Butler Area Sewer Authority	Buyer
2022	Bahl Water Company	Buyer
2022	Douglas Utility Co.	PUC-Texas
2022	CS Water Corp	PUC-Texas
2022	Sneads Ferry (WW)	Owner
2022	Currituck (W&S)	Bank
2022	Vero Damages	City
2022	Baldwin Sewer	Buyer
2022	Thompson W.C.	PUC-Texas
2022	North Beach (W&S)	Owner
2022	Webb Creek (S)	Owner
2022	Docket 53329	PUC-Texas
2022	Tymber Creek (W&WW)	Seller
2022	North Peninsula (WW)	Seller
2022	Orange Tree Utility Co. (W&WW)	Owner
2022	Villa Grove (W&WW)	Owner
2022	Sun River	Seller
2022	Woodstock #2 (W, WW & IW)	F.O
2022	Mahomet (W&WW)	Buyer
2022	Gibson City (W&WW)	City
2022	Hardin (W&WW)	Buyer
2022	Four Seasons (W&WW)	Buyer
2022	Royal Oaks (W&WW)	Buyer
2022	McDonald/Meadows (W&WW)	Buyer
2022	Carowood (W&WW)	Buyer
2022	Carteret County Water (W)	Buyer
2022	Foxwood (W&WW)	Buyer
2022	Bay Laurel WTP #3 (W)	Buyer/Seller
2022	Parakett (W&WW)	Owner

Year	Project	Party Represented
2022	Village of Tolono (W&WW)	Owner
2022	Zeman Homes (W&WW)	Buyer
2022	Allied Utility Services (WW)	Owner
2022	Mountain Aire (W&WW)	Buyer
2022	Rosiclaire (W&WW)	Buyer
2022	Severn (W)	Buyer
2022	Port Barrington Shores	Buyer
2022	Southgate	Owner
2021	Towamancin (WW)	Buyer
2021	Quadvest (W)	Buyer
2021	Troy (W&WW)	Buyer
2021	City of Beaver Falls (WW)	Buyer
2021	Concho Rural Water (W)	Buyer
2021	Citrus Park (W&WW)	Seller
2021	Town of Belleair	Town
2021	Village of Broadlands	Village
2021	City of Gibson	City
2021	Vero Beach	City
2021	D&E/APG	Buyer
2021	Woodstock	Owner
2021	Grenelefe (#1)	Town
2021	River Ranch (W&WW)	Town
2021	Bayou Cove	Parish
2021	Aquarina	Owner
2021	GOCSI (Both)	Owner
2021	Grey Oaks Comm. Serv., Inc.	Owner
2021	City of Wachula/Hardee County (Both)	City/County
2021	City of Greenville Collection System (Both)	City
2021	Lake Wylie (Subject System) (Both)	Owner/County
2021	Wedgefield Phase 2	Buyer
2021	Gold Coast (WC)	Owner
2021	Ascension Parish (WW)	Owner/Parish
2021	City of Pulaski (W&WW)	City
2020	Laurens County/Greenville (Both)	Buyer/Seller
2020	OTUC (W&WW)	Owner
2020	TCHOA/TCU (W&WW)	Owner
2020	Mormon Lake (WC)	Owner
2020	Peeple-S Valley (WC)	Owner
2020	Flagstaff Ranch (WC)	Owner
2020	Citrus Park (W&WW)	Owner
2020	City of Villa Grove (W&WW)	City
2020	Xcel Boulder (Elect.)	Owner
2020	Acadia Parrish Cleco (Elect.)	APTA
2020	Indiana (Confidential)	Buyer
2020	New Mexico (Confidential)	Buyer
2020	City of Jerseyville (W&WW)	Buyer
2020	Four Lakes Water	Buyer
2020	Oakbrook Water	Buyer
2020	Town of Waverly	Buyer
2020	NPUC	Seller
2020	West Cost (Confidential)	Seller
2020	THISCD W&WW	District
2020	Village of Indiantown (W&WW)	Village
2019	Grey Oaks Community Services, Inc IQU Halstatt	Seller
2019	Saluda County Water and Sewer Authority (WWTP)	Authority
2019	Village of Bourbonnais (WW)	Buyer
2019	City of Rosiclare (W&WW)	Buyer

Year	Project	Party Represented
2019	Village of Leonore Water System	Buyer
2019	Hypoluxo Water System	Buyer/Seller
2019	JEA-JCC (Review) - (W, WW, Chilled, Elect.)	JCC
2019	Village of Livingston (W&WW)	Buyer
2019	Village of Worden (W&WW)	Buyer
2019	City of Granite City Wastewater Collection Systems	Buyer
2019	Village of Godfrey (WW)	Buyer
2019	Blue Grass (WW)	Buyer
2019	Village of Godfrey (WW)	Buyer
2019	Blue Grass (WW)	Buyer
2019	LeClaire (WW)	Buyer
2019	Village of Oakbrook (W)	Buyer
2019	Village of Hinckley (W&WW)	Buyer
2019	Wedgefield Phase 1 (W&WW)	County
2019	Lockport Township (W&WW)	Seller
2019	Village of Andalusia (W&WW)	Buyer
2019	Village of Sidney, IL #2 (W)	Seller/Buyer
2019	Sandy Springs Water	City
2018	Black Bear Water Co.	Owner
2018	Rockwell Utilities (W&WW)	Buyer
2018	Village of Avon (W&WW)	Buyer
2018	Granite City Wastewater Treatment Plant	Buyer
2018	City of Alton (WW)	Buyer
2018	Village of Sidney, IL #1	Seller
2018	Village of Godfrey, IL	Buyer
2018	Village of Shilo, IL	Buyer
2018	Village of Grant Park, IL	Buyer
2018	Village of Odell, IL	Buyer
2018	Village of Glasford, IL	Buyer
2018	JEA Value Consulting (W,WW,Electric & Chilled Water)	JCC
2018	Marion Utilities, Inc. Value Consulting	Owner
2018	Wrightsville Beach Well Acquisition	City/Owner
2017	Grand Tower Energy Center 1/1/2016, IL	County
2017	Turner Shoals Hydroelectric G.S., NC	Buyer
2017	Tymber Creek Utilities (W&WW)	Seller
2017	Village of Thomasboro, IL	Buyer
2017	I-20 (Condemnation), SC	Seller
2017	IL Alton (WW)	Buyer
2017	IL Manteno (WW)	Buyer
2017	City of Farmington, IL (W)	Buyer
2017	IL Jerseyville (W&WW)	Buyer
2017	Skyline, IL (W&WW)	Seller
2017	Claremont, CA (W)	Seller
2017	Village of Peotone, IL (W&WW)	Village/Buyer
2017	Village of Tolono, IL (W&WW)	Owner
2017	OTUC IRS Donation, FL (Transfer)	Owner
2017	Eight (8) Illinois Villages/Cities (Consideration/Negotiations)	Buyers/Sellers
2017	Sundale Utilities, IL	Buyer
2017	ARM Electric (Confidential)	Owner
2017	FHMPWS Cottage Hills, IL	Buyer
2017	Village of Fisher (W&WW)	Village
2016	York County, SC (Transmission)	County
2016	Condemnation Electric – SECO (T&D)	Buyer
2016	North and West Ormond Utility	Buyer/Seller
2016	Gold Coast Utility Authority	Buyer/Seller
2016	Rainbow (MWD, CA W, WW)	District
2016	Lake Adger WR & IM, NC – Water Supply Value	County
2016	7 Systems Jefferson County West Virginia	Authority
2016	Cauley Creek WRF (IRS)	Seller

Year	Project	Party Represented
2016	Village of Sadorus – IAWC (2)	Buyer/Seller
2016	Bushell Electric (Arbitration) (T&D)	City
2016	Celina SA	Buyer
2016	OTUC W&WW Systems (Partial)	Owner
2015	City of Fairbanks 8 MGD/22 MGD WRF	Buyer
2015	Village of Ransom Water System	Buyer
2015	Vulcan/Fla Rock 1/1/2011	ACPA
2015	Crystal Clear Water Company	Buyer
2015	5-Service Areas Mustang SUD & 1 (W)	City Consultant
2015	Bayou Cove Peaking Power Plant 1/1/2014 TPP	Parish
2015	Bayou Cove Peaking Power Plant 1/1/2013 ARM-TPP	Parish
2015	Peoples (Condemnation)	Owner
2015	Kessler AFB	Private
2015	Eglin AFB	Private
2015	Eastwood Manor	Private
2015	NUNDA Utilities	Private
2015	Manalapan/Hypoluxo	City
2015	Royal Manor (W&WW)	City
2015	BH Waste Management Co.	Bank
2015	O'Fallon Utilities, Value Consulting	Private
2015	Mt. Vernon Utilities, Value Consulting	Private
2015	Tupelo/Verona (w)	Both Cities
2015	Rolling Oaks Utilities	Bank
2015	Village of Arthur	Village
2015	MS Water System Annex	City
2015	KWRU – Wastewater Utility	Owner
2015	New River Light & Power (Electric)	Owner
2015	Bayou Cove Peaking Power Plant 1/1/2015 TPP Appraisal	Parish
2014	Citrus County/Duke Energy 1/1/13 TPP	County
2014	Minto Prop./SID (W&WW&RU)	District
2014	North Maine Utilities Transaction Adv. F.O.	Village
2014	Eastlake W&WW (Condemn)	County
2014	Mooresville Water (Condemn) ARM	Attorney
2014	Heritage Hills (W&WW) (NY) to Corix	Owner
2014	Cauley Creek WRF	Owner
2013	Tega Cay (W&WW)	Both
2013	Harrison, Ohio (W)	City
2013	North Lee Rural Water Association, Tupelo, MS (Partial)	City
2013	NPUC (Cost/Comp) (WW)	Bank
2013	Progress Energy Florida (Citrus County) TPP 1/1/12	County
2013	Village of Oakwood (W&WW)	Village
2013	Richmond Generation Station (Review)	City
2013	Peru Generation Station (Review)	City
2013	Dover, Delaware Electric System	City
2013	Eglin Air Force Base	Proposer
2013	Duke Energy (Citrus County) TPP Electric #1, 2, 4, 5	County
2013	Duke Energy (Citrus County) TPP Electric #3	County
2012	Beverly Hills Waste Management	Owner

Year	Project	Party Represented
2012	Town of Belleair (Partial)	Town
2012	Orchid Springs Utilities	City
2012	Tymber Creek Utilities – Stock Transfer	Owner(s)
2012	Senoia Water System	County
2012	Peoples of Balstrop – (Condemnation)	Owner
2011	On Top of the World Communities Water, Wastewater, and Reuse System – Marion County, Florida (Bay Laurel Center Community Development District)	District
2011	Pine Island Utility System	Owner
2011	Town of Franklinton (W&WW/County)	Both
2011	Kill Devil Hills Wastewater Treatment Plant	Bank
2011	Chesapeake Electric Utility – Marianna, Florida	City
2011	City of South Daytona Electric Utility	City
2011	City of Vero Beach (W&WW, & Reuse)	City
2011	City of Vero Beach Electric Utility	City
2010	Fearington Utilities	Owner
2010	Rolling Oaks Water and Wastewater System, Beverly Hills Waste Management System (SW)	Owner/Bank
2010	Liberty Water – Tall Timbers (WW) (Condemn) System	Owner
2010	Heritage Hills (WS), NY - City	Owner
2010	Waterside Villages of Currituck (WTP), NC	District
2010	City of Griffin Water System Assets, GA	Water Authority
2010	Tindall Hammock Irrigation and Soil Conservation District Water/Wastewater System	District
2010	Town of Indian River Shores Water and Sewer System Assets	Town
2010	Thunder Enterprises, Inc. Water System Assets, AL (Condemnation)	Owner
2010	City of Vero Beach Water and Sewer System Assets, Town of Indian River Shores (Partial)	City
2010	Golden Beach (W&WW) Assets	City
2009	Aquarina (W&WW)	2009
2009	Cocoa Beach (Electric)	2009
2009	Fruitland Park (Electric)	2009
2008	Nags Head, Monterey Shores, Currituck Sewer, Corollo #1 & #2	2008
2008	Park Water Company	2008
2008	Crooked Lake Sewerage Company	City
2008	Vanguard Wastewater System	City
2008	Louisiana Land and Water Company	Owner
2008	Sandy Creek (W&WW)	County
2008	Bayside (W&WW)	County
2008	Fern Crest Utilities, Inc.	Buyer
2008	Turnpike Utilities, LLC – W/S North Carolina (IRS)	Owner
2008	Service Management Systems, Inc.	Bank
2008	Slash Creek Utility System	Owner
2008	Kill Devil Hills Utility Company	Owner
2008	Orchid Springs Utilities	City
2008	City of North Miami Beach – Utilities	Owner
2007	I-20 System South Carolina	Owner
2007	Marion Utilities, Sunshine Utilities and Windstream Uti.	County
2007	Gulf Coast Electric Cooperative	County

Year	Project	Party Represented
2007	Pine Island Currituck Sewer	Owner
2007	Pine Island Water System	Owner
2007	Intercoastal Utilities	Owner
2006	Donaldsonville/Peoples Utilities (Condemn)	Owner
2006	MSM Utilities, Inc.	Owner
2006	Jasmine Lakes and Palm Terrace	City
2006	Oak Centre	County
2006	Silver Oaks Estates	County
2006	Regal Woods	County
2006	Willow Oaks	County
2006	Gulf State Community Bank – Utility Holdings	Bank
2006	South 40, Citrus Park and Raven Hill	County
2006	Holiday Utility Company, Inc.	Bank
2006	Loch Harbor (W&WW)	Owner
2005	Lake Wales Utility Company	Bank
2005	Pennichuck Water Company (Nashua)	City
2005	K.W. Resort Utilities, Inc.	Owner
2005	Water Management Services, Inc.	Owner
2005	Village of Royal Palm Beach, Palm Beach Co.	Village
2005	Town and Country Utility Co.	Buyer
2005	Utilities, Inc. (Partial) (Condemnation)	Owner
2005	Bald Head Island Utilities, Inc.	Village
2005	Burkim Enterprises, Inc. (Condemnation)	Owner
2005	Lyman Utilities, Inc. Harrison County, MS (Condemnation)	Owner
2004	Quail Meadow Utility Company	County
2004	Matanzas Shores	County
2004	El Dorado Utilities, NM (Condemnation)	Owner
2004	Philo, Illinois – AIWC	Village
2004	Meredith Manor	County
2004	Lake Harriet Estates	County
2004	Lake Brantley	County
2004	Fern Park	County
2004	Druid Hills	County
2004	Dol Ray Manor	County
2004	Apple Valley	County
2004	Kingsway Utility Area (IRS)	Both
2004	Lake Suzy Utilities (Water Portion)	County
2004	Sanibel Bayous Wastewater Corporation	City
2004	Ocean City Utilities	FCURIA/County
2004	People's Water of Donaldsonville, LA (Condemnation)	Owner
2003	Harmony Homes	County
2003	Florida Central Commerce Park	County
2003	Chuluota	County
2003	District 3C (Miramar Portion)	City
2003	Lincoln Utilities/Indiana Water Service (UI)	Owner
2003	Gibsonia Estates	City
2003	Lake Gibson Estates	City
2003	Jungle Den Utilities	Association
2003	Holiday Haven Utilities	Association
2003	Salt Springs	County
2003	Smyrna Villas	County
2003	Citrus Park	County

Year	Project	Party Represented
2003	Spruce Creek South	County
2003	Longwood Franchise (Electric)	City
2003	Casselberry Franchise (Electric)	City
2003	Apopka Franchise (Electric)	City
2003	Winter Park Acquisition (Electric)	City
2003	Stonecrest/Steeplechase	County
2003	Marion Oaks	County
2003	Kingswood Utilities	County
2003	Oakwood Utilities	County
2003	Sunny Hills Utilities	Confidential
2003	Interlachen Lake/Park Manor	Confidential
2003	Tomoka/Twin Rivers	Confidential
2003	Beacon Hills	Buyer
2003	Pine Ridge Estates	City
2003	Lake Ajay Estates	City
2003	Buenaventura Lakes	City
2002	Lelani Heights Utilities	County
2002	Fisherman Haven Utilities	County
2002	Fox Run Utilities, Inc.	County
2002	Florida Public Utilities (Condemnation)	City
2002	AquaSource – LSU	County
2002	Park Place Utility Company, GA	Owner
2002	Kingsway Utility System	Owner/County
2002	Pennichuck Water Company, NH (Nashua)	City
2002	Pasco County – 2 Systems	County
2002	Marion Consolidation – 10 Systems	County
2002	Sugarmill (Condemnation)	UCCNSB
2002	Deltona (Condemnation)	Owner
2002	Palm Coast	FCURIA
2002	Bald Head Island Utilities, NC	Village
2002	White's Creek – Lincolnshire, SC (Condemnation)	Owner
2002	Bluebird Utilities, Tupelo, MS	NFP
2001	Shady Oaks	County
2001	Davie/Sunrise	City
2001	Lindale Utilities	County
2001-2002	Due Diligence – 260 systems (VA, NC, SC)	Buyer
2001	Aquarina	Owner
2001	Intercoastal Utilities	County
2001	Beverly Beach	City
2001	Citrus County Utility Consolidation Plan (Numerous)	County
2001	Pasco County Utility Acquisition Plan (Numerous)	County
2001	Skylake Utilities	City
2001	Town of Lauderdale-By-The-Sea	Town
2001	John Knox Village	City
2001	Silver Springs Regional	County
2001	DeSoto Countywide FWSC Franchise and Assets	County
2001	Zellwood Station Co-Op	Co-Op

Year	Project	Party Represented
2001	Palm Cay	County
2000	The Great Outdoors	Owner
2000	Destin Water Users	City
2000	Dundee Wastewater (Partial)	City
2000	Polk City Water	City
2000	A.P. Utilities (2 Systems)	County
2000	CGD Utilities	Bank
2000	Aqua-Lake Gibson Utilities	City
2000	Bartelt Enterprises, Ltd. (2 Systems)	Owner
2000	49 'Ner Water System, Tucson, AZ (Condemnation)	Owner
2000	Stock Island Wastewater and Reuse System	Owner
1999	Osceola Power Station (Electric)	Owner
1999	Okeelanta Power Station (Electric)	Owner
1999	Del Webb (3 Systems)	County
1999	Destin Water Users Co-Op	City
1999	O&S Water Company	City
1999	Rolling Springs Water Company	County
1999	ORCA Water & Solid Waste	Authority
1999	Marianna Shores Water and Wastewater	City
1999	Mount Olive Utilities	City
1999	AP Utilities (3 Systems)	County
1999	Tangerine Water Association	City
1999	IRI Golf Water System, AZ (Condemnation)	Investor
1999	South Lake Utilities	City
1999	Garlits to Marion County	County
1999	Rampart Utilities	County
1999	Dobo System, Hanover County, NC	County
1999	Polk City/City of Lakeland	Lakeland
1999	St. Lucie West CDD	City
1998	Golf and Lake Estates	City
1998	Sanibel Bayous/E.P.C.	City
1998	Tega Cay Utility Company, SC	City
1998	Marlboro Meadows, MD (Condemnation)	Owner
1998	Sugarmill Water and Wastewater/Volusia County (Condemnation)	UCCNSB
1998	SunStates Utilities, Inc.	Owner
1998	Town of Hope Mills/FPWC, NC	Town
1998	River Hills, SC	County
1998	Town of Palm Beach	Town
1998	K.W. Utilities, Inc.	Buyer
1998	Orange Grove Utility Company, MS (Condemnation #2)	Owner
1998	Garden Grove Water Company	City
1998	Sanlando Utilities, Inc.	County
1997	Holiday Heights, Daetwyller Shores, Conway, Westmont	County
1997	Golden Ocala (W&WW)	County
1997	Sunshine Utilities	County
1997	Bradfield Farms Utility, NC	Owner
1997	Palmetto Utility Corporation	Owner
1997	A.P. Utilities	County
1997	Village of Royal Palm Beach – City of WPB	Village
1997	Jasmine Lake Utilities Corporation	Lender
1997	Village Water Ltd., FL	Owner
1997	N.C. System – CMUD (3 Systems)	Owner
1997	Courtyards of Broward	City
1997	Miami Springs	City
1997	Widefield Homes Water Company, CO (IRS)	Company
1997	Peoples Water System	ECUA
1997	Rolling Green, GA	County
1996	Keystone Heights	City
1996	Keystone Club Estates	City
1996	Lakeview Villas	City
1996	Geneva Lakes	City
1996	Landen Sewer System, CMUD, NC	Company
1996	Citizens Utilities, AZ – Bullhead City	City
1996	Widefield Water and Sanitation, CO	District
1996	Consolidation Program Game Plan	County
1996	Marion Oaks	County
1996	Cayuga Water System, GA	Authority

Year	Project	Party Represented
1996	Glendale Water System, GA	Authority
1996	LeHigh Acres, GA (W&WW)	Authority
1996	Lindrick Services Company	Company
1996	Carolina Blythe Utility, NC	City
1996	Ocean Reef R.O. WTPs	NKL
1995	Sanibel Bayous	City
1995	Rotunda West Utilities	Investor
1995	Palm Coast Utility Corporation	ITT
1995	Sunshine State Parkway	Company
1995	Orange Grove Utilities, Inc., Gulfport, MS	Company
1995	Georgia Utilities, Peachtree, GA (Condemnation)	City
1995	Beacon Hills Utilities	Company
1995	Woodmere Utilities	Company
1995	Springhill Utilities	Company
1995	Okeechobee Utility Authority	OUA
1995	Okeechobee Beach Water Association	OUA
1995	City of Okeechobee	OUA
1995	Mad Hatter Utilities, Inc.	Company
1994	GDU – Port St. Lucie (W&WW) (Franchise/Condemnation)	City
1994	Eastern Regional Water Treatment Plant	Owner
1994	St. Lucie County Utilities	City
1994	Heater of Seabrook, SC (Condemnation)	Company
1994	Placid Lake Utilities, Inc.	Company
1994	Ocean Reef Club Solid (W&WW)	ORCA
1994	South Bay Utilities, Inc.	Company
1994	Kensington Park Utilities, Inc.	Company
1993	Taylor Woodrow, Sarasota Cnty (Condemnation)	Taylor Woodrow
1993	Atlantic Utilities, Sarasota Cnty (Condemnation)	Company
1993	Alafaya Utilities, Inc.	Bank
1993	Anden Group Wastewater System, PA	Company
1993	West Charlotte Utilities, Inc.	District
1993	Rolling Oaks (SW)	Owner
1993	Sanlando Utilities, Inc.	Investor
1993	Venice Gardens Utilities	Company
1993	River Park Water System	SSU/Allete
1991	Sanibel – Sanibel Sewer System, Ltd.	City
1991	St. Augustine Shores, St. Johns County (Condemnation)	SSU/Allete
1991	Remington Forest, St. Johns County	SSU/Allete
1991	Palm Valley, St. Johns County	SSU/Allete
1992	Fox Run Utility System	County
1992	Uddo Landfill (SW) (Condemnation)	Owner
1992	Martin Downs Utilities, Inc.	County
1992	Leilani Heights	County
1992	River Park Water and Sewer	SSU/Allete
1992	Sebastian – GDU Water and Sewer	City
1991	Sanibel – Sanibel Sewer System, Ltd.	City
1991	St. Augustine Shores, St. Johns County (Condemnation)	SSU/Allete
1991	Remington Forest, St. Johns County	SSU/Allete
1991	Palm Valley, St. Johns County	SSU/Allete
1991	Federal Bankruptcy – Lehigh Acres	Topeka/Allete
1991	Meadowoods Utilities, Regional Utility District #1	Investor
1991	Kensington Park Utilities, Reg. Utility District #1	Investor
1991	Industrial Park, Orange City	City
1991	Country Village, Orange City	City
1991	John Know Village, Orange City	City
1991	Land O'Lakes, Orange City	City
1991	Sanibel – Sanibel Sewer System, Ltd.	City
1991	Hershel Heights, Hillsborough County	SSU/Allete
1990	Orange-Osceola Utilities, Osceola County	County

Year	Project	Party Represented
1990	Morningside East and West, Osceola County	County
1990	Magnolia Valley Services, Inc., New Port Richey	City
1990	West Lakeland Industrial, City of Lakeland	City
1990	Highlands County Landfill (Condemnation)	Owner
1990	Venice Gardens Utilities, Sarasota County	SSU/Allete
1990	South Hutchinson Services, St. Lucie County	SHS
1990	Indian River Utilities, Inc.	City
1990	Coraci Landfill (SW) (Condemnation)	Owner
1990	Terra Mar Utility Company	City
1989	Seminole Utility Company, Winter Springs	Topeka/Allete
1989	North Hutchinson Svcs., Inc., St. Lucie County	NHS
1989	Sugarmill Utility Company (Condemnation)	UCCNSB
1989	Ocean Reef Club, Inc., ORCA	Company
1989	Prima Vista Utility Company, City of Ocoee	PVUC
1989	Deltona Utilities, Volusia County	SSU
1989	Poinciana Utilities, Inc., Jack Parker Corporation	JPC
1989	Julington Creek	Investor
1988	Twin County Utilities	Company
1988	Burnt Store Utilities	Company
1988	Deep Creek Utilities	Company
1988	North Beach Water Co., Indian River County	NBWC
1988	Bent Pine Utility Company, Indian River County	BPUC
1988	Country Club Village, SSU	CCV
1987	Sugarmill Utility Co., Florida Land Corporation	FLC
1987	N. Orlando Water & Sewer Co., Winter Springs	NOWSCO
1987	Osceola Services Company, FCS (NFP)	OSC
1987	Orange City Water Company, Orange City	City
1987	West Volusia Utility Company, Orange City	City
1987	Seacoast Utilities, Inc., Florida Land Corporation	FLC
1987	Utilities Commission, City of New Smyrna Beach (partial SA/Assets) (Electric) - FPL	Commission

and numerous other utility valuations in the 1976-1987 period.

Utility Management Consulting

Mr. Hartman has been involved in utility transfers from public, not-for-profit, district, investor-owned, and other entities to cities, counties, not-for-profit corporations, districts, and private investors. He has been involved in staffing, budget preparation, asset classification, form and standards preparation, utility policies and procedures manuals/training, customer development programs, standard customer agreements, capacity sales, and other programs. Mr. Hartman has been involved in over 100 interlocal agreements with respect to service area, capacity, service, emergency interconnects, back-up or other interconnects, rates, charges, service conditions, ownership, bonding and other matters.

Additionally, Mr. Hartman has assisted in the formation of newly certificated utilities, newly created utility departments for cities and counties, new regional water supply authorities, new district utilities, and other utility formations. Mr. Hartman has assisted in utility reserve areas for the Cities of Haines City, Sanibel, Lakeland, St. Cloud, Winter Haven, Bartow, Palm Bay, Orange City, and many others. He has participated in the certification of many utilities such as ECFS, Malabar Woods, B&C Water Resources, Inc., Farmton Water Resources, Inc. and many others; and certification disputes such as Windstream, Intercoastal Dulay Utilities, FWSC/ITT, and others and served as service area certification staff of the regulatory for St. Johns County; i.e., Intercoastal, etc.; as service area transfer/certification staff of the regulatory for Flagler County; i.e., Palm Coast to FWSC. He has served as a local County regulatory staff professional in Collier, Citrus, Hernando, Flagler and St. Johns Counties, as well as elsewhere. Mr. Hartman also provided technical assistance to many utility service area agreements such as Winter Haven/Lake Wales/Haines City, etc. and North Miami Beach – MDWASD and others. For over 30 years, Mr. Hartman has been a professional assisting in the resolution of utility issues.

Utility Finance, Rates, Fees and Charges

Mr. Hartman has been involved in hundreds of capital charge, impact fee, and installation charge studies involving water, wastewater, stormwater, solid waste, gas and electric service for various entities and at the rate regulatory commissions. He also has participated in hundreds of user rate adjustment reports. Since 1976, Mr. Hartman assisted in the development of over 50 revenue bond issues, 20 short-term bank loan systems, 2 general obligation bonds, 26 grant/loan programs, 10 capacity sale programs, and 20 privatization programs. He has been involved in over hundreds of utility acquisition/utility appraisals for acquisition and is a qualified expert witness with regard to utility rates and charges, and utility negotiation, arbitration and condemnation cases. A few of his rate, charge and bond projects include:

- UCNSB – Revenue Bond Issue, 2020
- City of Polk City – City Revenue Bonds, 2017
- City of Polk City, 2014/2015/2020
- City of Fellsmere W&WW Rates, 2017
- City of Fort Meade Stormwater Rates, 2017
- Bay County Revenue Bond Issue Series, 2015
- City of Fort Meade Wastewater Study, 2015
- City of Fellsmere Stormwater, 2015

+ City of Pleasant Prairie – WPSC, 2014
+ City of Tega Cay SCPSC, 2013/2014
+ NPUC Cert. Expansion – FPSC, 2015
+ Oakwood – ICC, 2014
+ Village of Bald Head Island – NCPUC, 2010
+ City of Polk City, 2014/2015
+ City of Dunnellon Rate Surcharge Case, 2014
+ City of Dunnellon Impact Fee Case, 2013
+ City of Fernandina Beach, Impact Fee Case and Bond Issue City of Fernandina Beach, Revenue Bond Issue, 2013
+ City of North Miami Beach Water and Wastewater Rate, Fee and Charge Study, 2013
+ City of North Miami Beach $65 Million Water Revenue Bond Issue, 2012
+ DeKalb County Revenue Bond Issue $373 Million Series, 2011
+ Polk City Services 2010 - $10 Million Revenue Bond Issue
+ Bay Laurel Services 2011 - $45 Million Revenue Bond Issue
+ Bay County Water Rate, Charge and Fee Study, Wholesale and Retail, 2013
+ Bay County Wastewater Rate, Charge and Fee Study, AWT and Retail, 2013
+ Bucks County – City of Philadelphia Wholesale Utility Services Analysis, 2011
+ Timber Creek FPSC Utility Rates and Charges, 2011 and 2012
+ Polk City Water and Wastewater Rate, Fee and Charge Study, 2010
+ Lake Worth Wholesale Charges Analysis for 7 entities, 2012
+ THISCD Water and Wastewater Rate, Fee and Charge Study, 2012
+ City of Ft. Meade Water and Wastewater Rate, Fee and Charge Study, 2013
+ City of Ft. Meade Stormwater Rate Study, 2012
+ City of Ft. Myers Beach Water/Wastewater Rate, Fee and Charge Study, 2013
+ Dunnellon Rate and Surcharge Review, 2012/2013
+ Bay Laurel Center Community Development District – Water, Wastewater and Reclaimed Water Rate Study, Line Charge Study, and Miscellaneous Charge Study, 2010
+ Skyland Utilities, LLC – FPSC, 2009
+ Bluefield Utilities, LLC – FPSC, 2009
+ Grove Land Utilities, LLC – FPSC, 2009
+ Tindall Hammock Irrigation and Soil Conservation District – Water and Wastewater Rate and Charge Study, 2008

+ Bay County – Wholesale Rate Study and Impact Fee Study – 2007
+ Flagler County – Impact Fee Analysis, 2005
+ Flagler County – Base Facility Charge Analysis, 2005
+ Marion County – Silver Springs Regional – Water/Wastewater Revenue Sufficiency, 2004
+ Beverly Beach – Water and Wastewater System, 2004
+ Village of Bald Head Island – Water and Wastewater Rate Sufficiency, 2004 - NCPUC
+ Farmton Water Resources, Inc. – FPSC, 2004
+ B&W Water Resources, Inc. – FPSC, 2004
+ Marion County – Stonecrest, Marion Oaks, Spruce Creek, Salt Springs
+ Lincoln Utilities/UI – IURC, 2003
+ South Forty, Smyral Villas – Rate Integration/Phasing Program, 2003
+ City of North Miami Beach – Water and Wastewater Adjustment, 2003
+ City of Fernandina Beach – Water and Wastewater Rate Study, 2002
+ St. Johns County – St. Johns Water Co. Rates, 2003
+ St. Johns County – Intercoastal Rates, 2001
+ Nashua, NH – Pennichuck Water Co., 2002
+ City of Deltona – Water and Wastewater, 2002
+ Town of Lauderdale By-The-Sea, 2001
+ FCURA – Palm Coast Rates, Certification, 2000
+ Marion County – Pine Run, Oak Run, A.P. Utilities – Rate Integration, 2000
+ City of North Miami Beach – Revenue Sufficiency Analysis, 2000
+ North Key Largo Utility Authority, 2000
+ Port St. Lucie – St. Lucie West – CDD, 1999
+ Hanover County – Water and Wastewater, 1999
+ UCCNSB/Sugarmill, 1999
+ Town of Hope Mills, 1998
+ Town of Palm Beach, 1998
+ City of Winter Haven, 1998
+ Palmetto Resources, Inc. – Raw Water, Reuse, Water, and Wastewater, 1997 FPSC
+ City of Miami Springs – Analysis, 1997

+ Widefield – Water and Wastewater, 1997
+ Bullhead City – Citizen, 1997 - ACC
+ Bullhead City – Wastewater, 1996
+ Marion County, 1996
+ Utilities Commission, City of New Smyrna Beach – Water/Wastewater Rate Study, 1995
+ Okeechobee Utility Authority - Rate and Charge Study, 1995
+ Southern States - Statewide Rate Case, 1995
+ Lee County - Rates and Charges, 1995
+ Venice - Reuse Rate Study, 1994
+ Utilities Commission, City of New Smyrna Beach - Capital Charge Study, 1996
+ Port St. Lucie - Water, Gas and Wastewater Rates, 1994
+ Port St. Lucie - Capital Charge Study, 1995
+ Bullhead City - Assessment Study, 1996
+ Englewood - Assessment Study, 1996
+ Sanibel - Capacity Sale Study, 1995
+ City of New Port Richey - Rate and Charge Study, 1995
+ Acme Improv. District, Wellington, Florida - Water/Wastewater Studies, 1994
+ Charlotte County, Florida - Water/Wastewater Studies; Rotunda West Rate Case, 1993
+ Clay County, Florida - Water/Wastewater Studies, 1992
+ City of Deerfield Beach, Florida - Water/Wastewater Studies, 1992
+ City of Dunedin, Florida - Water/Wastewater Studies, 1991
+ Englewood Water District, Florida - Water/Wastewater Studies, 1993
+ City of Green Cove Springs, Florida - Water/Wastewater Studies, 1991
+ Hernando County, Florida - Water/Wastewater Studies, 1992
+ City of Lakeland, Florida - Water Studies, 1976-89
+ Martin County, Florida - Water/Wastewater Studies, 1993
+ City of Naples, Florida - Water/Wastewater and Solid Waste Studies, 1992/94
+ City of New Port Richey, Florida - Water/Wastewater Studies, 1994
+ City of North Port, Florida - Water/Wastewater Studies, 1992
+ City of Orange City, Florida - Water/Wastewater Studies, 1985-94

- City of Palm Bay, Florida - Water/Wastewater Studies, 1985-94
- City of Panama City Beach, Florida - Water/Wastewater Studies, 1993
- City of Sanibel, Florida - Water and Reuse Studies, 1988-94
- Southern States Utilities Inc., Florida - Water/Wastewater Studies and Statewide Rate Cases, 1991/93, FPSC
- City of Tamarac, Florida - Water/Wastewater Studies, 1993
- Utilities Commission, City of New Smyrna Beach, Florida - Water/Wastewater and Reuse Studies, 1992/94
- Volusia County, Florida - Solid Waste Studies, 1989
- City of West Palm Beach, Florida - Water/Wastewater/Reuse Studies, 1993/94
- City of Sebastian, Florida - Water/Wastewater Studies, 1993
- City of Tarpon Springs, Florida - Water/Wastewater Studies, 1994
- City of Miami Springs, Florida - Water/Wastewater/Solid Waste Studies, 1994
- City of Edgewater, Florida - Water/Wastewater/Solid Waste Studies, 1987-90
- City of Venice, Florida - Reuse Studies, 1994
- City of Port St. Lucie - Water/Wastewater Studies, 1994
- Ocean Reef Club, Monroe County, Florida - Wastewater Studies, 1994
- Placid Lakes Utilities Inc., Florida - Water/Wastewater Studies, 1994
- Old Overtown-Liberty Park, Birmingham, Alabama - Wastewater Studies, 1994
- Bullhead City, Arizona - Wastewater Studies, 1994
- Lehigh Utilities Inc., Lee County, Florida - Florida Public Service Commission Rate Cases for Water, Wastewater and Reuse, 1993
- Marco Island and Marco Shores Utilities Inc., Collier County, Florida – 1993 - FPSC
- Florida Public Service Commission Rate Cases for Water, Wastewater and Reuse, 1993
- Venice Gardens Utilities Inc., Sarasota County, Florida - Rate Cases for Water, Wastewater and Reuse, 1989/91/93
- Mid-Clay and Clay Utilities Inc., Clay County, Florida -Water/Wastewater Studies, 1993

Several expert witness assignments including Palm Bay vs. Melbourne; Tequesta vs. Jupiter; Town of Palm Beach vs. City of West Palm Beach; City of Sunrise vs. Davie; Kissimmee vs. Complete Interiors; and others.

Economic Evaluations/Credit Worthiness Analyses

Credit Worthiness Analysis for Drinking Water State Revolving Fund (1999) – Florida Department of Environmental Regulation

Credit Rating Reviews (1980-2000) – for numerous investor-owned utilities; many city-owned utilities (Winter Haven, Port St. Lucie, Miramar, Tamarac, Palm Bay, North Port, etc.); many county-owned utilities; several not-for-profit utilities; and utility authorities (OUA, etc.)

Financial Feasibility and Engineer's Revenue Bond Reports (1980-2000) – for over $2 billion of water and/or wastewater bonds for some fifty (50) entities in the Southeast United States including Clay, Lee, Hernando, Martin, and other counties; Lakeland, West Palm Beach, Miramar, Tamarac, Panama City Beach, Winter Haven, Naples, North Port, Palm Bay, Port St. Lucie, New Port Richey, Clermont, Orange City, Deerfield Beach, Sanibel, City of Peachtree City, Widefield, and many other cities; Lee County Industrial Development Authority, Englewood Water District, and other utilities.

Privatization Procurement and Analysis for many water and wastewater systems including Sanibel, Town of Palm Beach, Temple Terrace, Palm Bay, Widefield, Bullhead City and sever others.

Service Areas and Negotiations

Mr. Hartman has participated in over thirty-five (35) service area formations, Chapter 25 F.S. certifications, Chapter 180.02 reserve areas, authority creations, and interlocal service area agreements including Lakeland, Haines City, Bartow, Winter Haven, Sanibel, St. Cloud, Palm Bay, SBWA, ECFS, MWUC, Edgewater, Orange City, UCCNSB, Port St. Lucie, Martin County, OUA, NKLUA, DDUA, and many others. Mr. Hartman has been a primary negotiator for interlocal service agreements regarding capacity, joint-use, bulk service, retail service, contract operations and many others for entities such as the Town of Palm Beach, Miramar, Lauderdale-By- The-Sea, North Miami Beach, Collier County, Marion County, St. Johns County, JEA and many others.

Expert Testimony

Mr. Hartman has been accepted in various Circuit Courts, Florida Division of Administrative Hearings, Florida Public Service Commission, arbitration, and quasi- judicial hearings conducted by cities and counties, as a technical expert witness in the areas of electric systems, solid waste systems, stormwater systems, gas systems, wastewater systems and/or biosolids facilities, water supply, facility planning, water resources, water treatment, water quality engineering, water system design and construction, wastewater collection, wastewater transmission, wastewater treatment, effluent/reclaimed water use, sludge processing and disposal, costing, damages, rates/charges, service and service areas, and utility systems valuation and utility systems valuation. Recently, Mr. Hartman has been an expert witness on utility condemnation, utility arbitration, water rates and use permitting DOAH case, utility rate setting DOAH case, service area and utility service civil case, City of Atlanta Water Treatment Plant Construction, City of Milwaukee Cryptosporidium, Jupiter vs. Tequesta Water Contract Services, Winter Park electric, Okeelanta/Osceola Power Plants, UCCNSB and many other condemnation cases. Mr. Hartman has been an expert witness in permitting and regulatory cases.

Mr. Hartman has given oral testimony on some 200 occasions over the past 38 years. He has assisted in the resolution of a similar number of matters without formal testimony.

Publications / Presentations

Papers/Presentations (Since 1994)

2019 "Exploring Options for Cost Savings - Optimization and Equity Recapture"
By Clifton Parker and Gerald C. Hartman, April 3-5, 2019
VRA – Governor's Infrastructure Conference

2016 "What Special Masters are Looking For"
By Gerald C. Hartman and Dr. L. Golicz, December 10, 2015
FC – IAAO – TPP Conference

2015 "Perspectives for Utility Sales – (City/Co./Auth./NFP/CDD)"
By Gerald C. Hartman, August 26, 2015
Philadelphia, PA - Business Seminar

2015 "Water Privatization and the Systems Viability Act Legislation"
Gerald C. Hartman, et al., 102nd
Illinois Municipal League Annual Conference
September 18, 2015

2014 Hartman, G.C. and Hollis, Tara L. "Financial Forces Impacting Small Utility Systems." 2014 Indiana Section AWWA Conference, February 2014.

2013 Hartman, G.C. "Stormwater Reuse/Water Harvesting", Fl. Water & Environment Association, January 24, 2013.

2012 Hartman G.C., T.L. Hollis "Optimization of Utility Performance", Florida-CFOA.

2008 Hartman, G.C., Hollis, Tara L. and Isaacs, Tony W. "Discussion of Outside City Utility Rate Surcharge." Special Meeting – Various Municipality Leaders in State of Florida (Hosted by the City of North Miami Beach and the City of North Miami). October 28, 2008.

2007 Hartman, G.C. and Wanielista, M. P. "Stormwater Reuse: The Utility Business Practice." 9th Biennial Conference on Stormwater Research & Watershed Management. May 2, 2007.

2005 Wanielista, Marty and G.C. Hartman, "Regional Stormwater Facilities", Stormwater Management for Highways Transportation Research Board TRB AFB60, July 12, 2005.

2004 Hartman, G.C., D. Cooper, N. Eckloff and R. Anderson, "Water," The Bond Buyer's Sixth Southeast Public Finance Conference, February 23, 2004.

2003 Hartman, G.C., "Utility Valuation," Wake Forest University Law School Seminar Series, February 6-8, 2003.

2003 Hartman, G.C., H.E. Schmidt, Jr. and M.S. Davis, "Biosolids Application in Rural DeSoto County, Florida," WEF/AWWA/CWEA Joint Residuals and Biosolids Management Conference, February 19-22,2003.

2003 Hartman, G.C. and Dr. M. Wanielista, "Irrigation Quality Water – Examples and Design Considerations," ASCE Conference, April 4, 2003.

2003 Hartman, G.C., M.A. Rynning and V. Hargray, "Assessing the Water Demands of Commercial Customer," WEF Volume 6, No. 4, July/August 2003 – Utility Executive.

2002 Hartman, G.C., M. Sloan, N.J. Gassman, and D.M. Lee, "Developing a Framework to Balance Needs for Consumptive Use and Natural Systems with Water Resources Availability," WEF Watershed 2002 Specialty Conference, February 23-27, 2002.

2000 Hartman, G.C., M.A. Rynning, and V. Hargray, "Assessment of Commercial Customer Water Impacts," AWWA 2000.

1999 Hartman, G.C. contributing author, Chapter 14B, Nichols on Eminent Domain, RCNLD Valuation of Public Utilities, March 1999 Edition, Release No. 48.

1998 Hartman, G.C., "In-House, Outsourcing and the Not-for-Profit Utilities Option," Florida Government Finance Officers Association (FGFOA) Conference, March 27, 1998.

1998 Hartman, G.C. and D.P. Dufresne, "Understanding Groundwater Mounds – A Key to Successful Design, Operation and Maintenance of Rapid Infiltration Basins," April 4-7, 1998, FWWA/WET/FPCOA Joint Meeting.

1998 Hartman, G.C. and Seth Lehman, "Financing Water Utilities – Acquisition and Privatization Projects," AWWA Annual Conference, June 24, 1998.

1997 Hartman, G.C., Seth Lehman, "Financing Utility Acquisitions," AWWA/WEF Joint Management Conference, February 1997.

1997 Hartman, G.C., B.V. Breedlove, "Water: Where It Comes From and Where It Goes," FRT & G/FDEP Conference, September 1997.

1997 Hartman, G.C., W.D. Wagner, T.A. Cloud, and R.C. Copeland, "Outsourcing Programs in Seminole County," AWWA/WEF/FPCOA Conference, November 1997.

1997 Hartman, G.C., M.B. Alvarez, J.R. Voorhees, and G.L. Basham, "Using Color as an Indicator to Comply with the Proposed D/DBP Rule," AWWA, Water Quality Technology Conference, November 1997.

1996 Hartman, G.C., M.A. Rynning, and R.A. Terrero, "5-Year Reserve Capacity – Can Customers Afford the Cost?" FSASCE Annual Meeting, 1996.

1996 Hartman, G.C., T.A. Cloud, and M.B. Alvarez, "Innovations in Water and Wastewater Technology," Florida Quality Cities, August 1996.

1995 Hartman, G.C. and R.C. Copeland, "Utility Acquisitions – Practices, Pitfalls and Management," AWWA Annual Conference, 1995.

1995 Hartman, G.C., "Safe Drinking Water Act," and "Stormwater Utilities," FLC Annual Meeting, 1995.

1994 Hartman, G.C. and R.J. Ori, "Water and Wastewater Utility Acquisition," AWWA National Management Specialty Conference, 1994.

Books

Hartman, G.C., *Utility Management and Finance*, (presently under contractual preparation with Lewis Publishing Company/CRC Press).

Vesilind, P.A., Hartman, G.C., Skene, E.T., *Sludge Management and Disposal for the Practicing Engineer*; Lewis Publishers, Inc.; Chelsea, Michigan; 1986, 1988, 1991

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Certification Number: 88-10034

Docket No. W-100, Sub 60A List of Utility Valuation Experts Accepted by the North Carolina Utilities Commission

Updated on October 7, 2021

Line No.	Expert Name	Licenses	Company	Address	Phone	Email	Order Date
1	Gerald C. Hartman	PE, ASA, BCEE	Hartman Consultants, LLC	637 North Park Avenue, Winter Park, Florida 32789	407-341-0970	gerry@hartmanconsultant.com	April 23, 2021
2	Dylan W. D'Ascendis	CVA, CRRA	ScottMadden Management Consultants, ScottMadden, Inc.	1900 West Park Drive, Suite 250, Westborough, Massachusetts 01581	609-680-8695	ddascendis@scottmadden.com	April 23, 2021
3	John Mastacchio	ASA, CFA, PE	Raftelis Financial Consultants, Inc.	227 West Trade Street, Suite 1400, Charlotte, North Carolina 28202	407-961-6702	N/A-contact Steven McDonald	April 23, 2021
4	Steven McDonald	CVA	Raftelis Financial Consultants, Inc.	228 West Trade Street, Suite 1400, Charlotte, North Carolina 28202	407-961-6702	smcdonald@raftelis.com	April 23, 2021
5	Mike Lane	ASA	NewGen Strategies & Solutions, LLC	112 Westwood Place Suite 165 Brentwood, TN 37027	615-970-7875	mlane@newgenstrategies.net	October 7, 2021
6	Zachary Wright	ASA	NewGen Strategies & Solutions, LLC	112 Westwood Place Suite 165 Brentwood, TN 37027	615-645-4846	zwright@newgenstrategies.net	October 6, 2021
7	Nancy Heller Hughes	ASA, CDP	NewGen Strategies & Solutions, LLC	112 Westwood Place Suite 165 Brentwood, TN 37027	425-605-5332	nhughes@newgenstrategies.net	October 6, 2021
8	Grant Rabon	ASA	NewGen Strategies & Solutions, LLC	112 Westwood Place Suite 165 Brentwood, TN 37027	512-900-8232	grabon@newgenstrategies.net	October 6, 2021
9	Harold Walker, III	CRRA	Gannett Fleming Valuation and Rate Consultants, LLC	1010 Adams Avenue, Audubon, Pennsylvania 19403-2402	610-783-3875	hwalker@gfnet.com	October 6, 2021
10	Joseph Batis	MAI, AI-GRS, R/W-AC	Utility Valuation Experts, Inc.	313 N. Chicago Street, Joliet, Illinois 60432	888-416-3797	joe@utilityvaluationexperts.com	October 6, 2021
	Note: This UVE list will be updated each time when the Commission accepts or removes a Utility Valuation Expert by a future order of the Commission.						

Issued in Accordance with Authority Granted by the North Carolina Utilities Commission in Docket No. W-100, Sub 60A, on this the 7th day of October, 2021

Public Utility Commission of Texas

Memorandum

TO: Interested Parties

FROM: Heidi Graham, Infrastructure Division

DATE: March 2, 2022

RE: **Project No. 49818, List of Experts Qualified to Conduct Economic Valuations under Texas Water Code § 13.305 and 16 Texas Administrative Code § 24.238(c)**

Texas Water Code § 13.305(b) and the Commission's associated rule, 16 Texas Administrative Code § 24.238(c), require the Commission to maintain a list of utility valuation experts qualified to determine the fair market value of a selling utility or the facilities to be sold for which the Commission has received notice under those statutory and rule sections. The current list is contained in the following table:

No.	Name	Address	Phone	Email
1	Zak Wright	NewGen Strategies & Solutions 112 Westwood Pl, Ste 165 Brentwood, TN 370271	O: (615) 645-4846 M: (615) 477-6737	zwright@newgenstrategies.net
2	Grant Rabon	NewGen Strategies & Solutions 8140 North Mopac Expressway Ste 1-240 Austin, TX 78759	O: (512) 900-8232 M: (512) 565-0123	grabon@newgenstrategies.net
3	Michael Lane	NewGen Strategies & Solutions 112 Westwood Place, Ste 165 Brentwood, TN 37027	O: (615) 970-7875 M: (615) 218-1509	mlane@newgenstrategies.net
4	Nancy Heller Hughes	NewGen Strategies & Solutions 20014 SE 19th St Sammamish, WA 98075	O: (425) 605-5332 M: (425) 922-2287	nhughes@newgenstrategies.net
5	Bret Fenner	B&D Environmental 200 Harbor Circle Georgetown, Texas 78633	(512) 917-7541	bretfenner@yahoo.com
6	Kyle Schroeder	Texas Values (Appraisal Services) 500 6th St San Antonio, TX 78215	(210) 545-1533	kyle@texasvalues.com

No.	Name	Address	Phone	Email
7	Arthur L. Schwertz	Valbridge Property Advisors 2030 Dickory Ave, Ste 200 New Orleans, LA 70123	(504) 541-5101	aschwertz@valbridge.com
8	Robbie Wilson	Advance Appraisal Group 13901 Midway Rd, Ste 102-210 Dallas, TX 75244	(469) 569-3595	rwilson@advanceappraisalgroup.com
9	Joseph Batis	Utility Valuation Experts, Inc. 313 N Chicago St Joliet, IL 60432	(888) 416-3797	joe@utilityvaluationexperts.com
10	Anthony Festa	Cushman & Wakefield of New Jersey, LLC One Meadowlands Plaza, 7th Flr. East Rutherford, NJ 07073	O: (201) 508-5271 M: (201) 803-0702	anthony.festa@cushwake.com
11	J. Fernando Sosa	Cushman & Wakefield, Inc. 225 W Wacker Rd, Ste 2800 Chicago, IL 60606	(312) 338-7852 M: (310) 508-6524	fernando.sosa@cushwake.com
12	Gregory E. Scheig	Vantage Point Advisors, Inc. 180 State St, Ste 225 Southlake, TX 76092	(214) 254-4801	gscheig@vpadvisors.com
13	Steven McDonald	Raftelis 341 N Maitland Ave, Ste 300 Maitland, FL 32751	(407) 961-6705	smcdonald@raftelis.com
14	John Mastracchio	Raftelis 40 British American Blvd, 2nd Flr Latham, NY 12110	(518) 391-8944 O: (407) 961-6705 M: (407) 450-5545	jmastracchio@raftelis.com
15	Dylan D'Ascendis	ScottMadden, Inc. 1900 West Park Dr, Ste 250 Westborough, MA 01581	(609) 680-8695	ddascendis@scottmadden.com
16	Matthew Howard	ScottMadden, Inc. 1900 West Park Dr, Ste 250 Westborough, MA 01581	(508) 202-7924 (847) 732-4714	mhoward@scottmadden.com
17	Gerald C. Hartman	Hartman Consultants, LLC 637 North Park Ave Winter Park, FL 32789	(407) 341-0970 Fax (407) 909-9882	gerry@hartmanconsultant.com

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List of Approved Licensed Appraisers

List of Approved Licensed Appraisers

5 records found

Company Name	Name	Address	Phone	Email	FileName | ExpiryDate
Hartman Consultants, LLC	Gerald Hartman	1580 Bryan Avenue, Winter Park, FL 32789	407-341-0970	gerryhartman61@icloud.com,gerry@hartmanconsultant.com	ASA Certification - Hartman.pdf | 8/15/2026 Gerald C. Hartman-Florida PSC Utility Appraisers List.pdf |
Raftelis Financial Consultants, Inc.	Steven McDonald	341 North Maitland Avenue, Suite 300, Maitland, FL 32751	407-450-5545	smcdonald@raftelis.com	CVA Certification -McDonald.pdf | 12/31/2024 McDonald FPSC Qualification Letter 2024.04.26.pdf |
Mosaic Property Valuations	Arthur Schwertz	2030 Dickory Avenue, Suite 200, New Orleans, LA 70123	504-541-5101	aschwertz@mosaicvaluations.com	ASA Certification - Schwertz.pdf | 11/30/2024 CV for Arthur Schwertz - Mosaic.pdf |
MR Valuation Consulting, LLC	Mark Rodriguez	5 Professional Circle, Suite 208, Colts Neck, NJ 07722	732-780-6010	MRodriguez@MRValuation.com	Mark_Rodriguez_Request_To_Be_Approved_Appraiser_Rule_25-30.0372.pdf | ASA Certification - Rodriguez.pdf | 5/18/2025
Stout	Gregory Scheig	180 State Street, Suite 225, Southlake, TX 76092	214-254-4801	gscheig@stout.com	AICPA License - Scheig.pdf | 8/31/2025 GScheig_Utility.pdf |

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