

**PARTIAL UTILITY TPP AND IP APPRAISAL OF  
CRYSTAL CLEAR WATER COMPANY – WATER SYSTEM**

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# Section 1

## SECTION 1 INTRODUCTION

### 1.1 PROJECT SCOPE AND AUTHORIZATION

This Partial Appraisal Report (“Report”) is of the Crystal Clear Water Company Utility System TPP and IP only, currently providing services within McHendry County Illinois.

### 1.2 UTILITY IDENTIFICATION

The water system is described in **Section 2**. The water company have active and operating systems and are permitted for operations by the IEPA and ICC.

### 1.3 OWNERSHIP INTEREST

For the report, the property to be valued is the TPP and IP (tangible personal property and intangible property) of the water system without land or exclusive easements as of the date of the valuation. We have performed these services for the entire TPP and IP in “fee simple” which includes all rights (the bundle of rights) that can be legally vested in an owner, subject to encumbrances whatever they may be. This fee simple ownership includes ownership of the TPP and IP with the water rights, water use allocation rights, any exclusive certificated area/franchise property rights, as well as other tangible real property and intangible property. Moreover, the fee simple value for the TPP and IP have been determined, without deduction for any liens or other encumbrances that may exist.

### 1.4 PURPOSE AND USE OF UTILITY APPRAISAL

The purpose of this Partial Utility Appraisal is to provide the Client with the appraisal of the TPP and IP portions of the water system. The use of the valuation is for the Client’s use and subsequently for AQUA in acquiring both systems. The users of the Report could include the Client AQUA, ICC, IEPA, attorneys, financial underwriters, bond rating agencies and insurers for the potential transaction.

## 1.5 IMPORTANT VALUATION DEFINITIONS

**Appraisal** (noun) – is the act or process of developing an opinion of value; an opinion of value (adjective) of or pertaining to appraising and related functions such as appraisal practice or appraisal services.<sup>1</sup>

**Client** – the party or parties who engage an appraiser (by employment or contract) in a specific assignment.<sup>2</sup>

**Easement** – an interest in real property that conveys use, but not ownership, of a portion of an owner’s property. <sup>3</sup>

**Fee Simple** – 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.<sup>4</sup>

**Highest and Best Use** (in appraising real property) – is the reasonably probable and legal use of vacant land or an approved property that is physically possible, appropriately supported, and financially feasible and that results in the highest value.<sup>5</sup>

**Hypothetical Condition** – is that is contrary to what exists but is supposed for the purpose of analysis.<sup>6</sup>

**Intended Use** – is the use or uses of an appraiser’s reported appraisal, appraisal review, or appraisal consulting assignment opinions and conclusions, as identified by the appraiser based on communication with the client at the time of the assignment.<sup>7</sup>

**Intended User** – the client and any other party as identified, by name or type, as users of the appraisal, appraisal review, or appraisal

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<sup>1</sup> Uniform Standards of Professional Appraisal Practice (“USPAP”), 2014-2015 Edition, Published by the Appraisal Foundation, page U-1

<sup>2</sup> Uniform Standards of Professional Appraisal Practice (“USPAP”), 2014-2015 Edition, Published by the Appraisal Foundation, page U-2

<sup>3</sup> The Dictionary of Real Estate Appraisal, 4<sup>th</sup> Edition, Published by the Appraisal Institute, page 90

<sup>4</sup> The Appraisal of Real Estate, 12<sup>th</sup> Edition, Published by the Appraisal Institute, page 68

<sup>5</sup> The Appraisal of Real Estate, 12<sup>th</sup> Edition, Published by the Appraisal Institute, page 305

<sup>6</sup> Uniform Standards of Professional Appraisal Practice, 2014-2015 Edition, Published by the Appraisal Foundation, page U-3

<sup>7</sup> Uniform Standards of Professional Appraisal Practice, 2014-2015 Edition, Published by the Appraisal Foundation, page U-3

consulting report by the appraiser on the basis of communication with the client at the time of the assignment.<sup>8</sup>

**Jurisdictional Exception** – an assignment condition that voids the force of a part or parts of Uniform Standards of Professional Appraisal Practice (USPAP), when compliance with part of parts of USPAP is contrary to law or public policy applicable to the assignment.<sup>9</sup>

**Larger Parcel** (in condemnation) – is the tract or tracts of land that are under the beneficial control of a single individual or entity and have the same, or an integrated, highest and best use. Elements for consideration by the appraiser in making a determination in the regard include contiguity, or proximity, as it bears on the highest and best use of the property, unit of ownership, and unity of highest and best use. The larger parcel is sometimes referred to as the “parent tract.”<sup>10</sup>

**Leased Fee Estate** – is a lessor’s, or landlord’s, interest with specified rights that include the right of use and occupancy conveyed by lease to others: the rights of the lessor (the leased fee owner) and the lessee (leaseholder) are specified by contract terms contained within the lease.<sup>11</sup>

**Market Value** – is the estimated amount for which a property should exchange on the date of valuation between a willing buyer and a willing seller in an arm’s length transaction after proper marketing wherein the parties had each acted knowledgeably, prudently, and without compulsion.<sup>12</sup>

**Remainder** (in condemnation) – is that portion of a larger parcel remaining in the ownership after a partial taking.<sup>13</sup>

**Replacement Cost New (“RCN”)** – the current cost of a similar new property having the nearest equivalent functionality as the property being appraised, as of a specific date.<sup>14</sup>

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<sup>8</sup> Uniform Standards of Professional Appraisal Practice, 2014-2015 Edition, Published by the Appraisal Foundation, page U-3

<sup>9</sup> Uniform Standards of Professional Appraisal Practice, 2014-2015 Edition, Published by the Appraisal Foundation, page U-3

<sup>10</sup> The Dictionary of Real Estate Appraisal, 4<sup>th</sup> Edition, Published by the Appraisal Institute, page 160

<sup>11</sup> The Appraisal of Real Estate, 12<sup>th</sup> Edition, Published by the Appraisal Institute, page 81

<sup>12</sup> International Valuation Standards, 2000 Edition, Published by the International Valuation Standards Committee, pages 92-93

<sup>13</sup> The Dictionary of Real Estate Appraisal, 4<sup>th</sup> Edition, Published by the Appraisal Institute, page 242  
Report\Section 1

**Reproduction Cost New** – the current cost of producing a new replica of a property with the same, or closely similar materials, as of a specific date.<sup>15</sup>

**Severance Damages** – is the diminution of the market value of the remainder area, in the case of a partial taking, which arises (a) by reason of the taking (severance), and/or (b) the construction of the improvements in the manner proposed.<sup>16</sup>

**Taking** – is the acquisition of a parcel of land through condemnation.<sup>17</sup>

**Value** – is the amount, relative worth, functionality, or importance of an item, which may or may not be equal to price or cost.<sup>18</sup>

## 1.6 EFFECTIVE DATE OF UTILITY APPRAISAL

The effective date of this Partial Utility Appraisal is September 17, 2015.

## 1.7 TYPE OF PROPERTY

The subject property is a special property. The water system is provided the rights thereof by the State of Illinois, and by contract, assemblage, and other means. Such properties have the configuration of the customer base and utilize the local natural resources for the provision of water service to the specific community that the facilities, operations, and management serve.

## 1.8 SPECIALTY PROPERTY – AN ONGOING UTILITY BUSINESS

The system includes assets, customers, its service area and all other attributes of a fully functioning utility business. The Utility is considered a special purpose

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<sup>14</sup> Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Second Edition, Published by American Society of Appraisers, page 585

<sup>15</sup> Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Second Edition, Published by American Society of Appraisers, page 585

<sup>16</sup> American Institute of Real Estate and the Society of Real Estate Appraisers. Real Estate Appraisal Terminology, rev. ed. Bryl N. Boyce, ed. (Cambridge, Mass: Ballinger Publishing Company, 1981), page 69

<sup>17</sup> The Dictionary of Real Estate Appraisal, 4<sup>th</sup> Edition, Published by the Appraisal Institute, Page 285

<sup>18</sup> Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Second Edition, Published by American Society of Appraisers, Page 594.

property. There are four (4) criteria, which establish whether a property should be considered special purpose property:

- a. Uniqueness;
- b. Property must be used for a special purpose;
- c. No widespread market for the type of property;
- d. The property's use must be economically feasible and reasonably expected to be replaced.

The function of this utility property is to supply potable water services in specific service areas. The System was specially built for the specific purposes for which it was designed, and continues to be used for those purposes.

There is no question that with the contemplated purchase or acquisition of the System's TPP and IP, that those facilities would continue to be substantially used for utility purposes and they would continue to be renewed, replaced and/or maintained for such purposes.

## 1.9 WATER RIGHTS

The company shall be transferring the water rights as part of the Asset Purchase Agreement (APA).

## 1.10 ONGOING BUSINESS

In the appraisal of the offered utility property using the cost approach, it must be recognized that the replacement cost new less depreciation (RCNLD) only represents the component of value of the physical assets. Those assets, however, are not idle, but are used to provide service within the service area to a customer base as part of an ongoing operation. In other words, the value of a "live" utility functioning as an ongoing business must be considered as part of an appraisal.

Any purchaser would acquire a utility system completely installed and operational with customers taking regular service and therefore, immediately derive revenues at the full complement of connected customers as well as purchase all permitted rights for water supply and operations and the future right to service the remainder of the service area. Similarly, if a purchaser were to construct, in a hypothetical situation, its own utility system, it would not have the ability to generate revenues from a full complement of customers or have the ongoing bundle of rights for this specific geographic area and would be required to successfully obtain permits to provide service and such permits could be contested.

#### 1.11 SUMMARY OF DATA COLLECTION

Data collection on this assignment involved records of HC and ESI as well as, records provided by the Owner, and AQUA including records which were disseminated by the water company, ICC, IEPA and other public sources of information.

#### 1.12 SUMMARY OF CONFIRMATION ACTIVITIES

A variety of analyses and surveys were used to confirm and/or cross-check the data and information provided. Limited calls, comparisons of reports and comparisons of source were accomplished.

#### 1.13 SUMMARY OF REPORTING MEASURES

The Report is a Partial Utility Appraisal, as an Appraisal Report of the TPP and IP with disclosures included.

#### 1.14 ASSUMPTIONS AND LIMITING CONDITIONS

- a. No responsibility is assumed for legal matters.
- b. The appraiser has made no survey of the property and, unless specifically stated, it is assumed there are no encroachments involved.
- c. Any sketches and maps in this Report are included to assist the reader in visualizing the property and are not necessarily to scale or depict all items above or below ground.
- d. It is assumed that the property is in full compliance with all applicable federal, state, and local environmental regulations and laws unless non-compliance is stated, defined, and considered in this Report.
- e. It is assumed that all applicable zoning and land use regulations and restrictions have been complied with, unless a non-conformity has been stated, defined, and considered in this Report.
- f. It is assumed that all required licenses, certificates of occupancy, consents, and other legislative or administrative authority from

any local, state, or national government or public entity or organization have been or can be obtained or renewed for any use on which the value estimate in this Report is based.

- g. Proposed improvements, if any, on or off-site, as well as any repairs required, are considered for purposes of this appraisal to be completed in a good and workmanlike manner.
- h. Responsible ownership and competent property management are assumed.
- i. It is assumed that there are no hidden or unapparent conditions of the property, soil, or structures which would render it more or less valuable.

Further, unless otherwise stated in this Report, the existence of hazardous material or any other environmental problems or conditions, which may or may not be present on the property, was not observed or disclosed. We have no knowledge of the existence of such materials or conditions on or in such close proximity that it would cause a loss in value. We, however, did not search to detect such substances or conditions. The presence of substances such as asbestos, ureaformaldehyde foam insulation, radon, or potentially hazardous materials which could have an adverse effect on the value of the property were not observed or detected in our inspections. The value estimate is predicated on the assumption that there is no such material or condition on or in the property that would cause a loss in value. No responsibility is assumed for any such conditions, or for any expertise or knowledge required to discover them.

- j. No responsibility is assumed for the absence or presence of any endangered species on this property. This appraisal assumed that there are no endangered species which would prevent, restrict, or adversely affect any development or improvement of this property.
- k. No impact studies and/or special market, or feasibility analysis or studies have been required or made unless otherwise specified. We reserve the right to alter, amend, revise, or rescind any of the statement, findings, opinion, value estimates, or conclusions contained herein if any unknown study requires it.

- l. Certain data used in compiling this report was furnished from sources which we consider reliable; however, we do not guarantee the correctness of such data, although so far as possible, we have checked and/or verified the same and believe the data to be accurate.
- m. We have accepted as correct and reliable all information provided by the Owner and Client, or the owner's Client's agents, which was used in the preparation of this Report. All data came from sources deemed reliable, but no liability is assumed for omissions or inaccuracies that subsequently may be disclosed in any data used in the completion of the appraisal.
- n. Neither I, nor anyone employed by me, has any present or contemplated interest in the property appraised.
- o. Possession of this Report, or copy thereof, does not carry with it the right of publication, nor may it be used for any purpose by anyone except for the client without the prior written consent of client and in any event, only in its entirety and with proper qualification.
- p. Neither all nor any part of the contents of this Report shall be conveyed to the public through advertising, public relations, news, sales, or other media without the written consent and approval of the author excepting appropriate Freedom of Information Act requests.
- q. Acceptance of, and/or use of, this Report constitutes acceptance of the above conditions and assumptions.
- r. No legal agreements, customer agreements, developer agreements or other utility-related agreements were disclosed or provided and therefore have not been included in this Report.
- s. It is assumed that any and all permits and easements can be transferred in the event of an acquisition with minimal effort.

#### 1.15 EXTRAORDINARY ASSUMPTIONS

The following significant assumptions were used in this work:

- a. HC did inspect the System. The Owner, Client, AQUA, and ESI were significant contributors as they provided photographs of the System as well as communicated their opinion of the general condition of the System. Both the AQUA and IEPA stated the system was in average condition. ESI also provided RCNLD information. To the extent that the inventory or the RCNLD differ, the results found therein would differ. My inspection was limited and the condition assessment was found to be fair condition for several components of the system also impacting my findings. I relied upon this information when forming my opinion of value. Used equipment has been incorporated and installed. The original 1950's building was extended vertically to accommodate the 66,000 gallon tank, that extension was performed in 2009. The tank (66,000 gal) appears to be used and reconditioned for the use. No auxiliary power or redundant high service pumping is provided.
- b. No construction work in progress and no hypothecated corrective future construction activity are considered in this Report.
- c. All assets are to be sold "as-is" without warranties or guarantees.

#### 1.16 PROCESS AND PROCEDURES FOLLOWED

The process utilized was confirming the valuation assignment, gathering the necessary information for the appraisal activities, conducting, evaluating and considering the cost approach under a replacement cost new less depreciation in continued use, the income approach, and finally the sales comparison approach. Following the determinations from each distinct approach, Mr. Hartman weighed the approaches utilizing his training, experience and knowledge of the market and the subject system. Following the weighting of the approaches, an Opinion of Value was determined and reported in this Appraisal Report.

#### 1.17 HIGHEST AND BEST USE

The highest and best use for the assets is a public water system. Note that the use of the System is a monopoly and creates a special purpose property and also has the characteristics of an essential use. Since the assets are specially designed / configured / constructed solely for the public water utility system use, no alternate highest and best use was considered.

#### 1.18 APPROPRIATE MARKET USED

The appropriate market for the system is as a special purpose utility system providing for utility service in the open utility market. The open utility marketplace does not limit the asset relative to the rate of return on rate base. Rather, it provides for the attributes of full and fair market value.

#### 1.19 EXCLUSIONS

This appraisal has excluded the following aspects of the subject System and those aspects are not included in the Opinion of Value delineated herein:

- a. Assumption of liabilities of each company;
- b. Assets owned by other associated parties; and
- c. Activities, rights, and privileges of other associated parties.

#### 1.20 DEPARTURES/SCOPE LIMITATIONS

This appraisal has no known departures or scope limitations.

#### 1.21 ASSUMED STANDARD TERMS AND CONDITIONS

The standard terms and conditions commonly used in the water industry are assumed for this appraisal. The purchase price would be as a cash purchase in U.S. Dollars at the time of closing. It is assumed that the property has sufficient time on the market for proper and complete disclosure and investigation by the marketplace. There are no limitations relative to exposure, financing, futures, prepaid or discounted connections, or other factors. We assume that no properties are vested or have prepaid capacity or discounted connections in any fashion whatsoever.

#### 1.22 CLIENT

The Client is Goodman Appraisal Consultants, LLC. AQUA Illinois is the purchaser and in certain portions of the Report may have been referenced as the Client, though they are the entity retaining the Client.

### 1.23 FAIR MARKET VALUE

The definition of Fair Market Value (FMV) is taken from the United States – IRS Publication 561 (4/2007) as follows “Fair Market Value (FMV) is the price that a property would sell for on the open market. It is the price that would be agreed on between a willing buyer and a willing seller, with neither being required to act, and both having reasonable knowledge of the relevant facts.” There are no known restrictions on this property other than those disclosed.

# Section 2

**SECTION 2  
DESCRIPTION OF THE UTILITY  
WATER COMPANY WATER SYSTEM**

2.1           GENERAL

The water company is located in McHenry County, Illinois; northwest of Chicago and close to Wisconsin.

The utility has only a water system. The system is supplied by two (2) on-site groundwater wells with free chlorine residuals and have basic disinfection as the level of treatment. There is only one (1) pressure zone and the 66,000 gallon low pressure standpipe tank to regulate the pressure in the system.

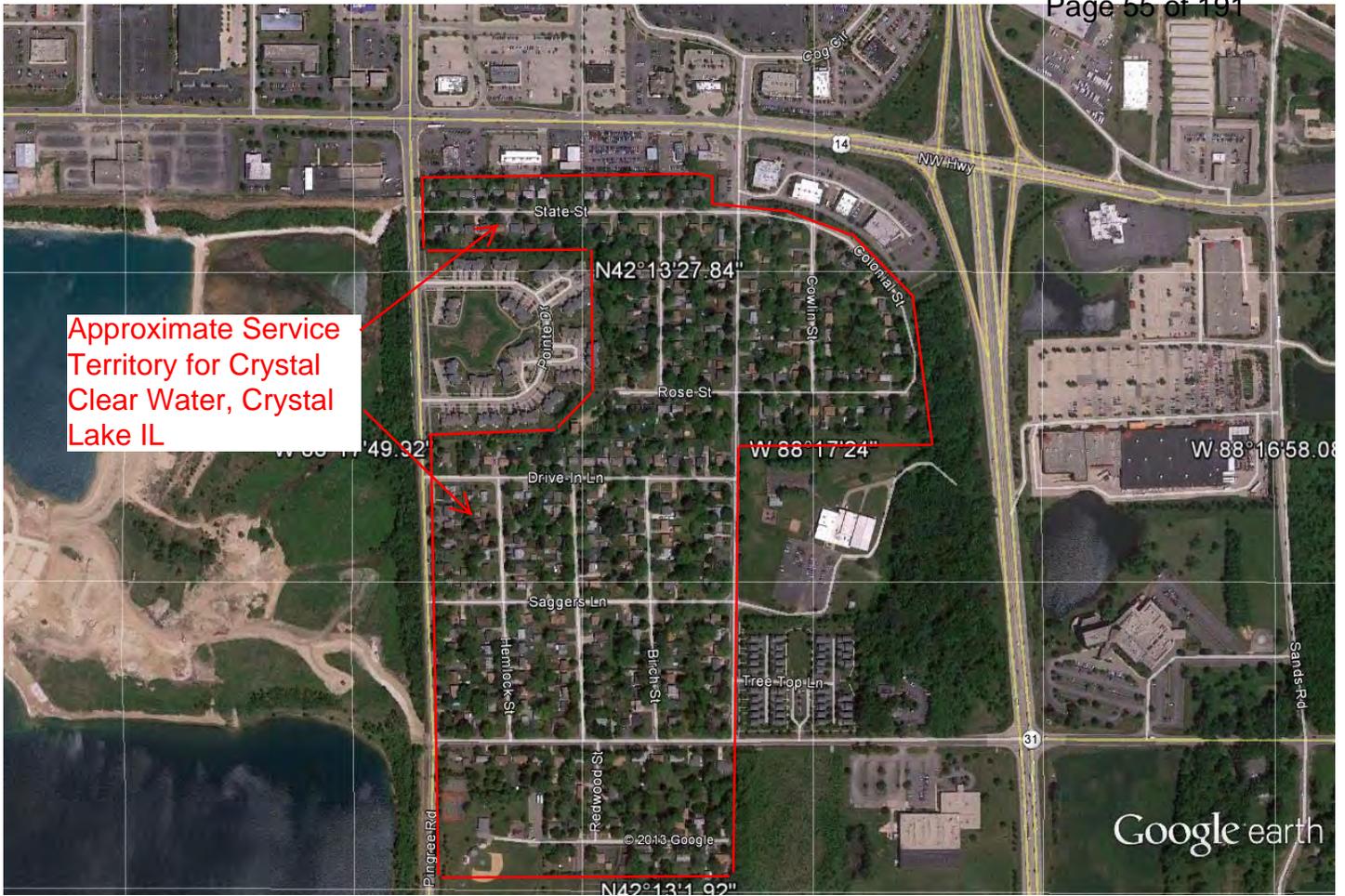
The system has two (2) wells, one as the primary and the other as a back-up. The #2 system use hydrofluorosilicic acid to fluoridate the disinfected water from the well.

The system does not have sufficient supply or storage to meet the ISO fire protection standards or adequate auxiliary power.

The system is regulated by the Illinois Commerce Commission (ICC) and by the Illinois Environmental Protection Agency (IEPA).

2.2           WATER SYSTEM FACILITIES

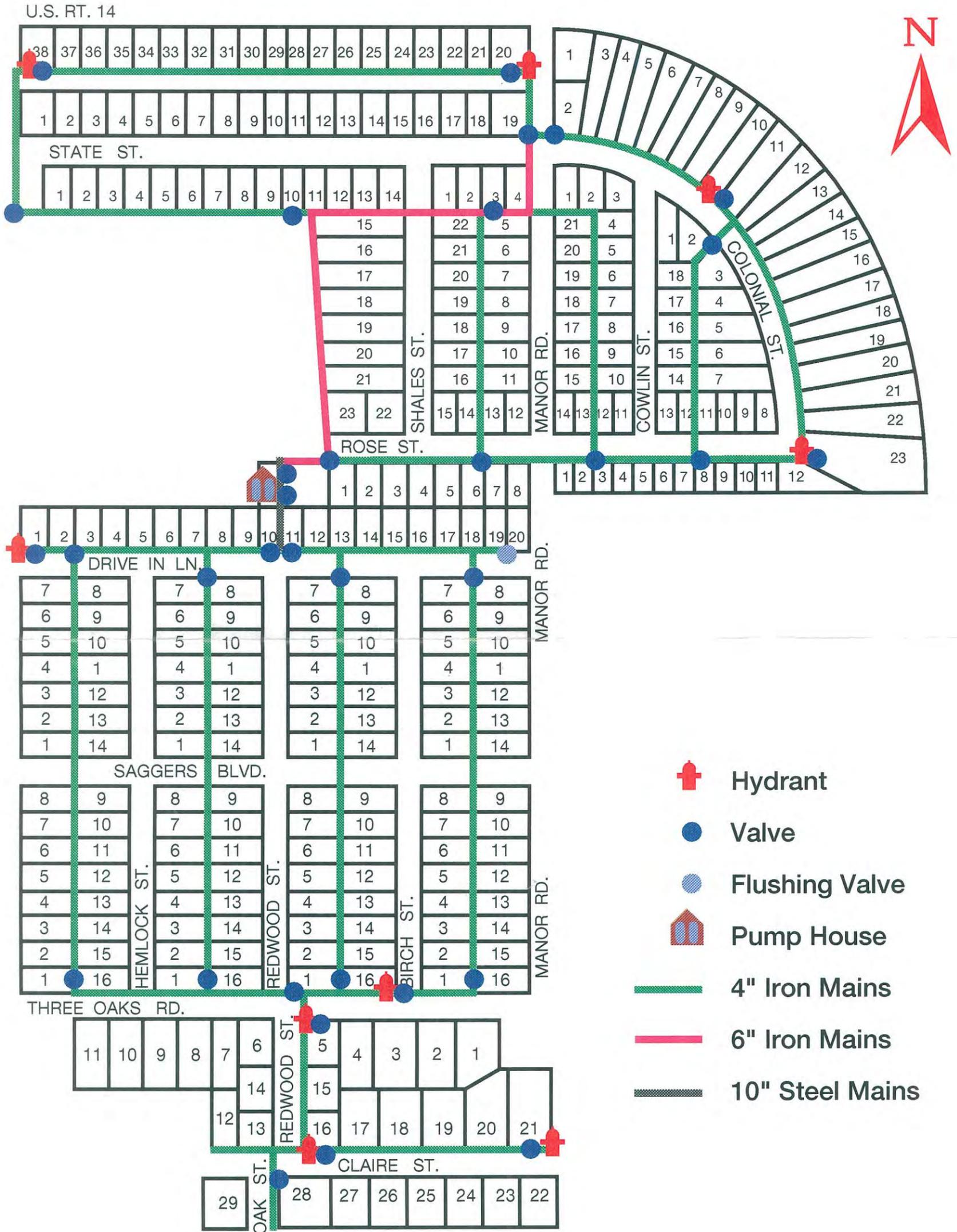
The Crystal Clear Water Company is bounded on the north by US Route 14, the east by Illinois Route 31, on the west by Pingree Road and on the south by Claire Street and the school. The location is shown on the following two maps.



Google earth



# Crystal Clear Water Company



The system has 293 connections, serving an estimated population of 846.

The system has the following:

- 293 services and meters;
- 15,150 LF 4" water main;
- 1,590 LF 6" water main;
- 360 LF 10" water main;
- 21 valves and one flushing valve;
- 9 hydrants;
- Well #1 – 512' depth, casing 271', into the dolomite aquifer producing 25 gpm;
- Well #2 – 275' depth, casing 263', into the sand and gravel aquifer producing 90 gpm;
- No emergency power;
- 200 gal pressure tank;
- 66,000 gallon low pressure standpipe;
- AADF approx. 64,000 gpd;
- Max. pressure 55 psi;
- Min. pressure 35 psi;
- Overall condition – Fair

See Appendix C for additional information.

# Section 3

## SECTION 3 VALUATION METHODS

### 3.1 GENERAL

The objective of this analysis is to establish an opinion of the fair market value of the System TPP and IP being acquired. Fair Market Value assumes that both the buyer and the seller are aware of all relevant information and the neither party is under the compulsion to act. The method utilized herein to provide a basis for an opinion of value consists of reconciliation of three approaches consisting of:

- i. the cost approach;
- ii. the income approach; and
- iii. the comparable sales approach.

These approaches analyze various aspects of the System, including the physical conditions of the existing System, the cash flows anticipated to be generated by the System in the future, and finally, transaction factors related to the acquisition of similar systems in the past. Even though none of these methods may be considered ideal on a stand-alone basis, since each evaluates a particular facet of the System, the consideration and relative weighting of all three provides valuable input when considering other factors and the use of judgment in determining the value of the System. The remainder of this section provides a general description of the valuation approaches utilized for the Report.

### 3.2 COST APPROACH

Replacement cost new less depreciation (RCNLD) is a cost approach method selected for this Report that is commonly utilized in the determination of estimated value in utilities and has been an accepted method in litigation cases involving the acquisition of utilities throughout the United States. The primary reason for this is the fact that most utilities are comprised of complex treatment, pumping, and piping networks which all have various services lives and different years of installation. In order to address these technically complex facilities, the RCNLD method has been developed.

There is a difference between the reproduction cost and replacement cost of utility assets. The reproduction cost is a duplication of exactly the same facilities. In contrast, the replacement cost is the provision of facilities that would be available today with their improved efficiencies and more effective cost utilizing the commercially available materials, equipment, etc. complete as one single project and obtaining the economy of scale thereof. The replacement cost method assumes that the most economical sequence of construction is utilized. This means that the cost

of restoration, impacts of conflicts, etc. are not included. In addition, only one (1) start up and shut down cost is included. Similarly, any premiums or overtime costs or special procurement mobilization/demobilization costs are not included other than for the single large economic construction project. The replacement cost approach excludes excess capital, which an investor would normally not pay for in the existing facilities. Rather, the approach is based upon the theory of substitution and the prevailing market concept that no investor would pay more than the cost to replace the same system with the same characteristics.

There are three (3) components to the overall depreciation taken in this approach. The first component of depreciation, and the first to be applied, is the physical depreciation of the asset. The second level is the functional obsolescence of the existing asset and is deducted from the replacement cost new less physical depreciation. The functional obsolescence is associated with the facilities themselves and is inherent to the System itself being derived from construction, configuration, operations, management, and administration. The final component in the method is for external obsolescence. External obsolescence accrues from all factors impacting the System. The impact of regulation, customer acceptance, historical rate and charge regulation or lack thereof, the ability to generate excess revenues sufficient to support the physical asset value, market conditions development conditions, and many other factors external to the system itself.

The RCNLD analysis is based upon the following assumptions:

1. All utility physical assets are designed, permitted and constructed in one continuous effort.
2. The construction activities are assumed to follow the same historical sequence as that followed in the service area. For example, water mains, gravity collection mains, force mains and manholes were assumed to be constructed before or simultaneously with the roads and driveways.
3. The engagement of general contractors, acting for the utility and under its supervision, utilizing current construction practices and procedures to replace the property in such a manner so as to achieve all efficiencies that these procedures and practices would allow.
4. The replacement unit prices from recent sources are adjusted based on the appropriate index.
5. The replacement unit prices include the costs of all labor, material, and equipment directly related to specific items.
6. The replacement cost includes the cost associated with overhead and engineering fees incurred throughout the course of the project. These costs

are presented as a percentage of the total construction costs of the replaced facilities and depreciated in the replacement cost analysis.

7. The replacement cost includes mobilization/demobilization, contract documents, and contractor risk and profit. These costs are presented as a percentage of the total construction costs of the replaced facilities and depreciated in the replacement cost analysis.

### 3.2.1 Depreciation Analysis

Depreciation is defined basically as the loss of value or worth of a property from all causes including those resulting from physical deterioration, functional obsolescence, and economic obsolescence. These causes and their effects are unique to each utility.

#### 3.2.1.1 Average Service Life (ASL) Schedule

The appropriate ASL schedule for valuation of any utility should consider manufacturers' anticipated service lives, maintenance of facilities, service lives of like components and the utility system as determined by field inspections. This information was utilized to obtain the ASL for the System assets under normal service, including proper maintenance and repair. The ASLs utilized in the replacement cost approach are shown in **Section 4** as developed by ESI.

The effects of both the level of maintenance performed on the System and the deficiencies of the System on the value of the assets are addressed later in this analysis. These effects are determined based on photos, discussion with Client staff, evaluation, and analyses of the utility assets which provide specific functions for the System. The impacts from lack of maintenance and observed deficiencies are then applied in the replacement cost analysis.

### 3.2.2 Cost Determination

The use of construction costs in the determination of the estimated cost-new valuation is of primary significance. These construction costs are obtained from several sources. A listing of the various sources used in the determination of costs is presented in **Section 4** as developed by ESI.

### 3.2.3 Indirect Cost Components and Percentages

The cost approach includes the costs associated with overhead incurred throughout the course of construction. These costs are presented as a percentage of the total construction costs of the replaced facilities. Engineering and other costs are depreciated, as they are associated with the assets in the replacement cost analysis.

### 3.3 INCOME APPROACH

The income approach values a utility based on the present value of the available cash flows anticipated to be generated in the future. The theory behind this particular approach is based upon the concept of converting the anticipated financial benefits of ownership in the future to an estimate of the present value in today's environment. Depending upon the circumstances surrounding each acquisition, the income stream may be based on the net operating revenues derived from existing and future growth as well as the value of capital contributions received from new system growth in the future.

Utilizing this approach, the net income for the utility is projected over a specific timeframe and subsequently expressed in terms of its value today based upon the use of an appropriate present value or discount factor. In order to reflect future financial and operational conditions as accurately as possible, this approach relies heavily on past and present financial data such as that found in audited financial statements and financial reports. Once the projection of net income available over the specified time period is determined, a reversion value of the assets is estimated in order to recognize the value of the system as an ongoing entity beyond this projected time period. This adjustment is based on the concept that the utility does not simply cease to exist at the end of the projection period. Rather, the assets of the system will still provide a means of generating revenue. As such, the reversion, or residual, value of the assets existing at the end of the projection period is included in the present value analysis. Finally, any other adjustments which may be appropriate are made based on the circumstances surrounding the particular acquisition. Such circumstances may include, but not be limited to, adjustments for capital deficiencies that may exist at the time of acquisition, deferred maintenance items, and similar requirements.

In general, the development of the income approach will include the following steps and decisions:

1. Determine the appropriate term to use for the projection period. Based on the individual circumstances, this period may change from acquisition to acquisition. For example, the anticipated remaining useful life of the physical assets may be used if adequate information exists for this determination.
2. Review relevant past and present financial and operating data available for the utility as it exists today. This will include sources of operating and capital revenues and expenses; transfers; depreciation (if appropriate); personnel and associated costs; historical customer growth and usage patterns; known and anticipated changes in future customer statistics; and similar factors.
3. Develop a customer and usage forecast corresponding to the project period chosen based on the review of past and present actual financial data and any known or anticipated changes in the future.

4. Develop a schedule of revenues and expenses for the projection period based on the customer forecast and current financial statistics of the system while reflecting applicable adjustment thereto pursuant to the ownership assumed in the analysis. In projecting the revenues and expenses, other adjustments may be necessary based on the assumption inherent in the particular analysis.
5. Determine any appropriate capital expenditures and/or capital expenditures which may be necessary as a result of new customer growth or capital improvement needs in the future. This facet of the cash flow analysis will depend on factors such as the remaining capacity in the existing system and the assumed customer forecast. Based on such assumptions, the inclusion of capital revenues and/or capital expenditures in the present value analysis may be appropriate.
6. Determine the applicable present value discount factor to be utilized in the analysis. This factor will vary depending on the ownership assumed in the future. For example, under a public ownership scenario, the current interest rate on long-term municipal utility revenue bonds may serve as the basis for the discount rate. Alternatively, if private ownership is assumed, the utility's current average cost of capital (or that of other similar utilities) may be used.
7. Apply the present value discount factor to the anticipated cash flows for the projection period.
8. Allow consideration of the reversion value of the assets in the last year of the analysis.
9. Make any other appropriate adjustments which may be necessary.

For this particular valuation, there are factors which diminish the importance of the income approach in the determination of value, such that the weight given to this approach is zero. This is discussed in **Section 5**, but as such, this approach is not applicable for this valuation

#### 3.4 COMPARABLE SALES APPROACH

The comparable sales approach to utility valuation assumes that knowledgeable buyers and sellers of water, wastewater and reclaimed utilities generally know the "Market" for such utility systems. The purpose of this market approach is to examine the history of water, wastewater and reclaimed utility acquisitions, and to analyze the conditions under which the systems were acquired in an effort to arrive at an implied purchase price for the subject system. Research has been conducted in order to gather a database of information regarding utility acquisitions. In order to

compare the different transactions, various financial, technical, legal, and customer service information was analyzed and adjusted. Moreover, discussions with the negotiators, buyers, and sellers are useful and informative to the analyses.

There are many factors which are involved in the determination of an acquisition price of a utility system. These factors create both similarities and differences between the transactions, which in essence, result in the formation of a well mixed market of utility sales. The comparable sales approach considers such factors and makes adjustments as necessary in order to arrive at an implied value for the subject system.

### 3.5 SUMMARY

In effort to formulate an opinion of value for the System assets being acquired, this Report considers three valuation approaches. The three valuation approaches include the; 1) cost approach; 2) income approach and 3) comparable sales approach. Each approach is independent and results in a separate and distinct finding. Such findings are subsequently weighted and considered together with other factors to formulate an opinion of value for the System assets being acquired. The resulting Partial Utility Appraisal is based upon the foregoing findings as well as professional experience.

# Section 4