

B R I A N J . B R A D Y & A S S O C I A T E S

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January 18, 2018

Mr. John Mura  
General Manager/CEO  
3111 Greenspot Road  
Highland, CA 92346

Subject: North Fork Water Company

Mr. Mura:

Brian J. Brady & Associates present this Summary Appraisal Report (“Report”) for the North Fork Water Company (“NFWC”) water system (“Utility”) as of January 31, 2018, located in Highland, California. This opinion of value was prepared for use by the NFWC for, among other purposes, establishing an opinion of the mutual water company’s stock value.

This is a summary appraisal report with back-up analyses and support information to be found in the report’s appendices.

As a precedent for developing the opinion of value, the Utility was evaluated using approaches which are recognized throughout the industry as required for consideration by the Uniform Standards of Professional Appraisal Practice (“USPAP”), 2016-2017 edition, including:

- Replacement Cost New Less Depreciation;
- Income; and
- Comparable Sales.

In each valuation approach, considerations and adjustments are made which are typically conducted, considered, and/or performed in the determination of fair market value. The applicable adjustments focus on providing existing and projected probable use of the assets. Each of the defined valuation approaches results in a separate and distinct finding which is reconciled and considered together with the other methods to formulate an opinion of value for the subject assets.

To arrive at a final opinion of value, the cost approach was weighted at approximately 40%, the income approach at approximately 30%, and the comparable sales approach at approximately 30%, for this special purpose property. The opinion of value presents my

opinion of the amount of money a knowledgeable buyer would pay and a knowledgeable seller would accept, both willing to enter into a transaction with the Utility in its present and probable use.

Utilities are special purpose properties with distinct characteristics. The subject assets, as part of a system, are an essential public utility of the area.

The results of the calculations and analyses performed in accordance with each applicable approach are detailed throughout the body of the Report and summarized as follows:

- Replacement Cost New Less Depreciation: \$ 5,818,000
- Income: \$ 3,043,000
- Comparable Sales: \$ 4,280,000

Considering the results provided above in conjunction with my prior experience and professional judgment, the opinion of the value of the NFWC utility system as of January 31, 2018 is: \$ \$4,524,000

On the question of the market value of a share NFWC stock, my analysis has determined it to be \$546.

I appreciate this opportunity to provide my services to you. Should you have any questions or need further assistance, please feel free to call.

Very truly yours,

A handwritten signature in cursive script that reads "Brian J. Brady".

Brian J. Brady, P.E.

## VALUATION CERTIFICATION

I certify that, to the best of my knowledge and belief, the statements of fact contained in this Report are true and correct.

I further certify that the reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are my personal, unbiased professional analyses, opinions and conclusions.

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

My compensation is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event.

My analyses, opinions, and conclusions were developed, and this Report has been prepared, in conformity with the requirements of the Code of Professional Ethics and the Uniform Standards of Professional Appraisal Practice of The Appraisal Foundation.

I have made a personal inspection of the property that are the subject of this Report. All of the above was relied upon for this Report.

Except as noted herein, no other person provided significant professional assistance to me for this Report.

Note that no land or easement appraisal has been conducted here and the results thereof may alter the opinions stated.

Note that this report was prepared for a specific use and no other use is authorized.



Brian J. Brady, P.E.  
CA Professional Engineer No. C23749

# SUMMARY APPRAISAL OF THE NORTH FORK WATER COMPANY

## TABLE OF CONTENTS

Transmittal Letter

Valuation Certification

### 1.0 INTRODUCTION

- 1.1 Project Scope and Authorization
- 1.2 Utility Identification
- 1.3 Ownership Interest
- 1.4 Purpose and Use of Appraisal
- 1.5 Effective Date of Appraisal
- 1.6 Type of Property
- 1.7 Specialty Property – An Ongoing Utility Business
- 1.8 Going Concern, Intangibles, and Other Items
- 1.9 Summary of Data Collection
- 1.10 Summary of Confirmation Activities
- 1.11 Summary of Reporting Measures
- 1.12 Assumptions and Limiting Conditions
- 1.13 Significant Assumptions
- 1.14 Process and Procedures Followed
- 1.15 Highest and Best Use
- 1.16 Appropriate Market Used
- 1.17 Exclusions
- 1.18 Client

### 2.0 DESCRIPTION OF WATER SYSTEM

- 2.1 Overview
- 2.2 Water Supply
- 2.3 State Water Project
- 2.4 Storage
- 2.5 Transmission/Distribution
- 2.6 Shareholder Services
- 2.7 Historic Water Deliveries
- 2.8 Regulatory Compliance

## 3.0 WATER RIGHTS

### 3.1 General

### 3.2 Quantification

### 3.3 Water Right Valuation

## 4.0 VALUATION METHODS

### 4.1 General

### 4.2 Cost Approach

#### 4.2.1 Depreciation Analysis

##### 4.2.1.1 Average Service Life Schedule

#### 4.2.2 Cost Determination

### 4.3 Income Approach

### 4.4 Comparable Sales Approach

### 4.5 Summary

## 5.0 COST APPROACH

### 5.1 Introduction

### 5.2 Replacement Cost Determination

### 5.3 Recommended Depreciation Schedule

### 5.4 Replacement Cost Analyses

#### 5.4.1 Water System

#### 5.4.2 Summary of RCNLD

### 5.5 Functional Depreciation

### 5.6 Replacement Cost New Less Depreciation

## 6.0 INCOME APPROACH

### 6.1 Introduction

### 6.2 Data Sources

### 6.3 Market Income Valuation Approaches

#### 6.3.1 Capitalization of Earnings

### 6.4 Income Approach Analysis

### 6.5 Value Indicated by the Income Approach

## 7.0 COMPARABLE SALES APPROACH

### 7.1 Introduction

### 7.2 Factors Influencing Utility Acquisitions

#### 7.2.1 System Assets

#### 7.2.2 Regulatory Compliance

#### 7.2.3 Competitive Market or Monopoly

- 7.2.4 Method of Acquisition
- 7.2.5 Context of Transaction
- 7.3 Market Summary
- 7.4 Comparable Sales Valuation

## 8.0 RECONCILIATION OF VALUATION APPROACHES

## 9.0 MUTUAL WATER COMPANY STOCK VALUATION

- 9.1 General
- 9.2 Valuation

## 10.0 VALUATION ADJUSTMENT

## REFERENCES

Bio/Resume

## SECTION 1.0 INTRODUCTION

### 1.1 Project Scope and Authorization

This is a Summary Appraisal Report (“Report”) of the North Fork Water Company (NFWC) water system (“Utility”). The Utility is a mutual water company that provides service to shareholders of San Bernardino County in the City of Highland, California. The General Manager/CEO of the NFWC has authorized Brian J. Brady and Associates to provide a valuation of the Utility.

### SCOPE OF WORK

As delineated in the June 26, 2017 Request for Proposals issued by NFWC the scope of work is as follows:

- 1) Summarize the condition of NFWC’s existing system using NFWC’s water system inventory and maps, photographs, field visits, inspection reports, and results of interviews with people familiar with existing water system equipment and operation.
- 2) Summarize NFWC’s assets and liabilities using: Appraiser’s summary of condition of existing system prepared under Task 1 above; property profiles and property appraiser reports (by others if applicable); NFWC summary of water rights; and documents uploaded to the NFWC DocShare site including Big Bear Watermaster reports showing Bear Valley Mutual Water Company’s deliveries to North Fork Canal; NFWC summary of water deliveries to shareholders; NFWC’s Articles of Incorporation, Bylaws and Rules of the Ditch; NFWC current shareholder roll; and NFWC current financial statement.
- 3) Determine the current value of NFWC on a per share basis. The NFWC valuation will be broken down into categories such as facilities, equipment, water rights, etc.
- 4) Prepare letter report containing Appraiser’s assumptions, sources of information, work product, summary of current value of the NFWC, the effective date and life of the valuation, and the process to adjust the valuation over time. Twelve (12) hard bound copies of the report are to be provided to NFWC as well as electronic files.
- 5) Adhere to appraisal practices as required to conform to the Uniform Standards of Professional Appraisal Practice (USPAP).
- 6) Prepare an Appraisal Summary Statement to assist NFWC staff in communicating the appraisal results to NFWC shareholders.
- 7) Maintain timely communication with the assigned NFWC staff.
- 8) Create files and maintain all records for a period of seven (7) years.

9) Attend NFWC Board, Committee and/or Shareholder meetings, when requested. Assume 1 meeting to review draft valuation findings with Board Committee, 1 Shareholder meeting, and 1 Board meeting.

## 1.2 Utility Identification

NFWC is a non-profit mutual water company located in Highland, California. There are currently a total of 26 NFWC shareholders (representing 7156 shares), with East Valley Water District (EVWD) owning 82.5% of the shares (7,156 total NFWC shares with 5,904 shares held by EVWD). EVWD manages the NFWC.

NFWC holds pre-1914 appropriative water rights to Santa Ana River water supplies in trust for its shareholders.

NFWC owns a water delivery system including 50% ownership interest in the North Fork Canal, as well as pipelines, diversion weir boxes and valves. The remaining 50% ownership interest is held by EVWD. The North Fork Canal is nearly 8 miles in length and runs in an east-west direction, beginning generally near the outlet (afterbay) of the Southern California Edison Santa Ana River #3 Hydroelectric Plant located at the Seven Oaks Dam and ending near the cross streets of Highland Avenue and Palm Avenue in Highland, California. The NFWC water system's transmission and distribution pipelines are primarily comprised of steel, ductile iron and reinforced concrete pipe and range in size between 12 and 48 inches in diameter.

NFWC's water system does not include any surface water storage reservoirs.

The NFWC water system receives water delivered by Bear Valley Mutual Water Company under agreements originally entered into in 1885 and affirmed by the January 17, 1977 stipulation and judgment entered by the San Bernardino Superior Court in *Big Bear Municipal Water District v. North Fork Water Company, et al.* NFWC delivers water to a total of approximately 12 connections serving shareholders and lessees of their shares. NFWC's Board of Directors establishes the amounts and schedules of its water deliveries to shareholders and their lessees.

The NFWC water system is not designed for domestic use, and water delivered by NFWC cannot be used for domestic purposes without treatment. The amount of water NFWC is entitled to receive under the 1885 agreements includes monthly distributions during the June-November time period totaling approximately 3,769 acre-feet per year, and one-quarter of the annual river flow during the period of December through May. NFWC has one class of shares. In order for shareholders to obtain water delivery, access to the North Fork Canal and an approved measuring device/weir is required. Most of NFWC's shareholders do not take water delivery from NFWC.



### 1.3 Ownership Interest

The assets are part of an ongoing system with facilities, permits, etc. and a going concern at the date of the appraisal. I have performed these services for the specified portion of property 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 assets, fee simple ownership of easement rights, water rights, water use allocation rights, any exclusive certificated area/franchise property rights, as well as other tangible and intangible assets. In other words, the fee simple value has been determined, without deduction for any liens or other encumbrances that may exist. Fee simple ownership is the most comprehensive type of ownership since the owner may dispose of the property in any manner they select. One possessing this property has no restrictions or limitations upon ownership except those imposed by governmental entities and those willfully created by agreement.

This appraisal does not contain a separate valuation of the land upon which contain the operating assets. For purposes of this Report, it is assumed the real estate easements (20 feet wide by approximately 8 miles long, equaling approximately 19 acres) were secured, without cost, in the initial construction of the open gravity masonry channel in the 1880s. There are no records to clarify this assumption. Therefore, no value has been assigned to easements. This is a significant assumption for the purpose of this Report and could affect an opinion of value for the Utility. If a real estate appraisal is performed, then the value found should be included in the total value.

### 1.4 Purpose and Use of Appraisal

The purpose of this appraisal is to provide the NFWC with the appraised value of the Utility. The use of the appraisal is intended to allow an opinion of value on the 7,156 issued shares of Mutual Water Company stock.

### 1.5 Effective Date of Appraisal

At the request of the client, the effective date of this appraisal is January 31, 2018, to coincide with the NFWC fiscal year-end, and is valid through July 31, 2018.

### 1.6 Type of Property

The Utility operates as a special purpose property permitted as a public water system. The system is provided the rights thereof by the State of California, and by contract, assemblage, and other means. Such properties have the configuration of a customer base and utilize the local natural resources via permit rights, etc. of the specific community that the facilities, operations, and management serve.

## 1.7 Specialty Property – An Ongoing Utility Business

**AN ONGOING UTILITY BUSINESS** The Utility includes assets, shareholders, its service area and all other attributes of a fully functioning utility business. The Utility has operated continuously since 1885. The utility system is considered a special purpose property. There are four (4) criteria which establish whether 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 raw, untreated water to mutual shareholders in Highland, California. The utility 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 those assets would continue to be substantially used for utility purposes and they would continue to be renewed, replaced and/or maintained for such purposes.

## 1.8 Going Concern, Intangibles, and Other Items

In the valuation of 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 shareholder base as part of an ongoing business 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.

## 1.9 Summary of Data Collection

Data collection on this assignment involved water system inventory and maps, photographs, field visits, inspection reports, and results of interviews with people familiar with existing water system equipment and operation and other public sources of information.

### 1.10 Summary of Confirmation Activities

A variety of analyses and surveys were used to confirm and/or cross-check the data and information provided. Calls, comparisons of reports, field inspections, records testing, and comparisons of source information were accomplished.

### 1.11 Summary of Reporting Measures

This Report is a Summary Appraisal Report with disclosures included.

### 1.12 Assumptions and Limiting Conditions

- a. No responsibility is assumed for legal matters, nor is any opinion on the title rendered herewith. I assume that the title to the property is good and marketable.
- b. All existing liens and encumbrances, if any, have been disregarded and the property appraised as though it was free and clear.
- c. The appraiser has made no survey of the property and, unless specifically stated, assumed there are not encroachments involved.
- d. The 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.
- e. 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.
- f. It is assumed that all applicable zoning and use regulations and restrictions have been complied with, unless a non-conformity has been stated, defined, and considered in this Report.
- g. 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.
- h. 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.

- i. Responsible ownership and competent property management are assumed.
- j. 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. I 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. I, however, did not search to detect such substances or conditions. The presence of substances such as asbestos, urea formaldehyde foam insulation, radon, or other 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.
- k. No responsibility is assumed for the absence or presence of any endangered species on this property. This appraisal assumes that there are no endangered species which would prevent, restrict, or adversely affect any development or improvement of this property.
- l. 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 statements, findings, opinion, value estimates, or conclusions contained herein if any of these studies require it.
- m. Certain data used in compiling this report was furnished from sources which I consider reliable; however, I do not guarantee the correctness of such data, although so far as possible, I have checked and/or verified the same and believe it to be accurate.
- n. I have accepted as correct and reliable all information provided by the owner and owner's counsel, or the owner'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.
- o. Since the date of value of the property is not an actual trial date, the appraiser reserves the right to consider and evaluate any additional value influencing data and/or other pertinent factors that might become available between the date of this Report and the date of trial if applicable, and to make any adjustments to the Report that may be required.

- p. Neither I, nor anyone employed by me, has any present or contemplated interest in the property appraised.
- q. 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 the client and in any event, only in its entirety and with proper qualification.
- r. 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.
- s. No other legal agreements, customer agreements, developer agreements or other utility-related agreements were disclosed or provided and therefore have not been included in this Report.
- t. It is assumed that any and all permits and easements can be transferred in the event of an acquisition with minimal effort.
- u. Acceptance of, and/or use of, this Report constitutes acceptance of the above conditions and assumptions.

#### 1.13 Significant Assumptions

The following significant assumptions were used in this work:

- a. For purposes of this Report, it is assumed the value of real estate easements is \$0,
- b. For purposes of this Report, the income approach conducted is as a not-for-profit entity,
- c. No major construction work is in progress, and no hypothecated corrective future construction activity is considered to be accomplished by the Utility,
- d. All assets are “as-is” without warranties or guarantees.

#### 1.14 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, Brian J. Brady, P.E. 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 Summary Appraisal Report.

#### 1.15 Highest and Best Use

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

#### 1.16 Appropriate Market Used

The appropriate market for the Utility is as a special purpose utility system providing for utility service in the public utility market.

#### 1.17 Exclusions

This appraisal has excluded the following aspects of the Utility and those aspects are not included in the Opinion of Value delineated herein: a. Utility's cash equivalents, accounts receivable and deferred tax assets; b. Assumption of liabilities of the Utility; c. Assets owned by other associated parties; and d. Activities, rights, and privileges of other associated parties. In other words, this appraisal is of the assets of the Utility.

#### 1.18 Client

The Client for this Report is the North Fork Water Company; Mr. John Mura, General Manager/CEO.

## SECTION 2.0 DESCRIPTION OF THE WATER FACILITIES

### 2.1 Overview

NFWC owns a 50% ownership interest in the North Fork Canal, a water supply system consisting of pipelines, sand boxes, diversion weir boxes and valves. The remaining 50% ownership interest is held by the East Valley Water District. The North Fork Canal is nearly 8 miles in length and runs in an east-west direction, beginning generally near the outlet (afterbay) of the Southern California Edison Santa Ana River #3 Hydroelectric Plant located at the Seven Oaks Dam and ending near the cross streets of Highland Avenue and Palm Avenue in Highland, California. While the original canal was principally constructed as a four-foot wide and four-foot deep open masonry channel, today the gravity system is a pipeline contained within the original confines of the channel. The NFWC water system's transmission and distribution pipelines are primarily comprised of steel, ductile iron or reinforced concrete pipe and range in size from 12 to 48 inches in diameter, with over two-thirds of the eight mile system being 36 inches.

### 2.2 Water Supply

NFVW holds pre-1914 appropriative water rights to Santa Ana River water supplies in trust for its shareholders.

The NFWC water system receives water delivered by Bear Valley Mutual Water Company (BVMWC) under agreements originally entered into in 1885 and affirmed by the January 17, 1977 stipulation and judgment entered by the San Bernardino Superior Court in *Big Bear Municipal Water District v. North Fork Water Company, et al.* NFWC delivers water to a total of approximately 12 connections serving shareholders and lessees of their shares. NFWC's Board of Directors establishes the amounts and schedules of its water deliveries to shareholders and their lessees.

### 2.3 State Water Project

As discussed later in Section 3.2, State Water Project (SWP) deliveries are available to the EVWD from the San Bernardino Valley Municipal Water District, which provides backup water supply to the EVWD and other water agencies throughout the San Bernardino Valley. Deliveries from the SWP purchased by EVWD can be supplied to the the North Fork Canal approximately one mile down gradient from the outlet (afterbay) of the Southern California Edison Santa Ana River #3 Hydroelectric Plant located at the Seven Oaks Dam

## 2.4 Storage

The North Fork Water Company canal/pipeline operates as a gravity system, with no storage facilities.

## 2.5 Transmission/Distribution

The water transmission/distribution system conveys raw water to 12 shareholder interests and currently contains approximately 42,363 linear feet of pipe ranging in size from 12 to 48 inches in diameter. The pipe is constructed of various materials including polyvinyl chloride (“PVC”), cast iron (“CIP”), reinforced concrete (“RCP”), and ductile iron (“DIP”). The following Table 2.5, below, provides a listing of the water transmission/distribution mains by size and type:

Table 2.5

Type	Size (inches)	Length (feet)
Cement Mortared Pipe (CMP)	48	1420.56
Ductile Iron Pipe (DIP)	16	1216.68
Ductile Iron Pipe (DIP)	30	2327.45
Ductile Iron Pipe (DIP)	36	13702.20
Polyvinyl Chloride (PVC)	12	481.68
Reinforced Concrete Pipe (RCP)	18	707.66
Reinforced Concrete Pipe (RCP)	27	458.66
Reinforced Concrete Pipe (RCP)	30	5034.46
Reinforced Concrete Pipe (RCP)	36	13992.45
Reinforced Concrete Pipe (RCP)	39	552.48
Riveted Steel (RS)	36	847.48
Steel (STL)	12	961.04
Steel (STL)	36	660.50
Totals		42363.3

## 2.6 Shareholder Services

Raw, untreated water from the transmission/distribution system is delivered by gravity to shareholders through turnout (weir) structures. There were originally 53 weirs. Currently, the system has a total of 13 operating delivery weirs serving 12 Shareholder interests. Deliveries are restricted to a schedule per shareholder of twice monthly.

## 2.7 Historic Water Deliveries

The amount of water NFWC is entitled to receive under the 1885 agreements includes



monthly distributions during the June-November time period totaling approximately 3,769 acre-feet per year and one-quarter of the annual river flow during the period of December through May. NFWC has one class of shares. In order for shareholders to obtain water delivery, access to the North Fork Canal and an approved measuring device/weir is required. A majority of NFWC's shareholders either do not request or are physically constrained from accepting water deliveries from NFWC.

## 2.8 Regulatory Compliance

Mutual water companies are organized under California Corporations Code 14300 and operate under a myriad of local/statewide/federal rules and regulations.

Mutual water companies are regulated by California's Water Code, Health and Safety Code and must abide by open meeting and records disclosure laws similar to many public water utilities.

In operating a public water system, mutual water companies are also subject to requirements imposed by the State Water Resources Control Board and local Regional Water Quality Control Boards.

The Corporations Code imposes numerous transparency requirements on mutual water companies. Mutual water companies are required to hold annual shareholders' meetings and, in general, to distribute copies of financial statements to shareholders every year. The Corporations Code also provides for the inspection of accounting books and records by shareholders.

## SECTION 3.0 WATER RIGHTS

### 3.1 General

As previously described, NFWC holds pre-1914 appropriative water rights to Santa Ana River water supplies in trust for its shareholders.

The NFWC water system receives water delivered by Bear Valley Mutual Water Company under agreements originally entered into in 1885 and affirmed by the January 17, 1977 stipulation and judgment entered by the San Bernardino Superior Court in *Big Bear Municipal Water District v. North Fork Water Company, et al.* On an annual basis, NFWC's Board of Directors establishes the amounts and schedules of its water deliveries to shareholders and their lessees.

The amount of water NFWC is entitled to receive under the 1885 agreements includes monthly distributions during the June-November time period totaling approximately 3,769 acre-feet per year, and one-quarter of the annual river flow during the period of

December through May.

Appropriative rights to surface water are rights to use water that is surplus to the needs of riparian owners and prior appropriators. Appropriative rights are based not on land ownership, but on actual diversion and use of water. They are rights of priority, in that, if the available surface water supply is insufficient to meet the needs of all appropriators, the one with the earliest priority date is entitled to satisfy his or her needs fully before those with later priority are entitled to any water.

An appropriative right may be established to use water for any reasonable, beneficial purpose on any land no matter where located, and to store water from one season for use in a later season, or from one year for use in subsequent years. Just as appropriative rights are gained by use, conversely, once acquired, they may be lost wholly or in part by five years' nonuse during a time when the water was physically available for use.

Prior to 1914, appropriative rights could be acquired simply by posting or filing a notice, and then diverting and using the water for reasonable, beneficial purposes (referred to as "pre-1914 water rights"). Since 1914, California statutory law has required that an application be filed and a permit obtained from a State agency, now the State Water Resources Control Board. The State Board has the discretion to decide whether unappropriated water exists, and whether the proposed use under the application is reasonable, beneficial and in the public interest. If the State Board finds affirmatively on these issues, it can issue a permit, and then, after the diversion and use facilities have been constructed and the water appropriated has been fully put to beneficial use within the time allowed, the State Board can issue a license confirming that the water right has been perfected by use for the amount used.

Under Water Code sections 5100 through 5108, the holder of an appropriative water right is required to file periodic statements with the State Board of diversion and use of water under the water right. In accordance with section 5101(e), NFWC meets this reporting requirement by diversions being submitted on its behalf by the Big Bear Watermaster.

### 3.2 Quantification

The agreement, dated May 23, 1895, between North Fork Water Company and Bear Valley Land and Water Company (now Bear Valley Mutual Water Company) provides for delivery of water to North Fork Water Company. As previously indicated, the amount of water NFWC is entitled to receive under the 1885 agreement includes monthly distributions during the June-November time period totaling approximately 3,769 acre-feet per year, and one-quarter of the annual river flow during the period of December through May.

Flows of one-quarter of the Santa Ana River, as measured on the river at a point described as "The Divide" from December to May of each year are highly variable, often zero. Based upon the recorded deliveries from the historical ten-year period (2007-2016),

the average annual deliveries are calculated to be 4,146 acre-feet (or 110% of the guaranteed deliveries).

In two of the approaches to value (cost and comparable sales) it is assumed that the utility is an ongoing business and not subject to dissolution; and therefore, the water rights cannot be separated from the operating assets and valued on the open market. Thus, in these valuation methods, the value of an acre-foot of NFWC pre-1914 water rights is determined by the cost of a substitute water supply. In this case that supply is determined to be State Water Project (SWP) water (purchased by EVWD).

The quality of NFWC water is highly variable, depending upon the time of year. Particularly with respect to turbidity, there are times during the year (e.g., influences from storm runoff) that EVWD operators divert the entire flow of the canal to replenishment spreading grounds near the headworks of the canal due to high turbidity, organic loading or trash content. During these periods EVWD purchases SWP substitute water to serve NFWC shareholders. In terms of NFWC water rights valuation, EVWD's decisions to institute the above procedure, and substitution to the canal water delivery quality should not be included in the value analysis.

### 3.3 Water Right Valuation

The NFWC includes assets, shareholders, its service area and all other attributes of a fully functioning utility business and has operated continuously since 1885. The function of this utility property is to supply raw, untreated water to mutual shareholders in Highland, California relying upon the company's pre-1914 water rights (held in trust for the benefit of its shareholders). The utility 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 those assets (including water rights) will continue to be substantially used for utility purposes and they will continue to be renewed, replaced and/or maintained for such purposes.

Therefore, in regard to water rights, this valuation cannot consider the selling off of the rights to the regional market. The rights value is determined as an integral part of the ongoing utility operation.

There are two sources of supply for the canal: 1) Santa Ana River rights, and 2) the SWP. In the absence of zero-cost water from the river, deliveries of SWP water are \$125 per acre-foot. Thus, the annual benefit of an acre-foot of water right is \$125. Since it has been reported by shareholders that additional filtering of canal water from the river is necessary before beneficial use, due to its higher turbidity levels, I have adjusted the annual benefit per acre-foot by 20% (or \$25). Total annual benefit of NFWC's water rights becomes \$414,600 (for an average of 4146 acre-feet).

## SECTION 4.0 VALUATION METHODS

### 4.1 General

The objective of this Report is to establish an opinion of the fair market value of the Utility. Fair market value assumes that both the buyer and the seller are aware of all relevant information and that neither party is under the compulsion to act. The method utilized herein to provide a basis for an opinion of value consists of the 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 utility system, including the physical conditions of the existing utility system, the cash flows anticipated to be generated by the utility system in the future, and finally, the 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 utility 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 Utility. The remainder of this section provides a general description of the valuation approaches utilized for the Report.

### 4.2 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 service 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 the replacement cost of utility assets. The reproduction cost is a duplication of exactly the same facilities (which in the case of the NFWC would entail replacing riveted steel with riveted steel). 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 the 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 Utility 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 Utility. 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 are adjusted based on the appropriate index.
5. The replacement unit prices and/or indices include the costs of all labor, material, and equipment directly related to specific items.
6. The replacement cost includes the costs associated with overhead and engineering fees incurred throughout the course of the project.

#### 4.2.1 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 usually unique to each utility.

##### 4.2.1.1 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 is utilized to obtain the ASL for the Utility assets under normal service, including proper maintenance and repair. I have incorporated ASLs being used by EVWD in this appraisal. The ASLs utilized in the replacement cost approach are shown in Section 5.3.

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

#### 4.2.2 Cost Determination

The use of construction cost indices in the determination of the estimated cost-new valuation is of primary significance. These construction cost indices are obtained from Engineering News Record.

#### 4.3 Income Approach

The income approach values a utility based on 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 total value based upon the use of an appropriate capitalization 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.

#### 4.4 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 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.

There are many factors that 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 Utility.

#### 4.5 Summary

In an effort to formulate an opinion of value for the Utility proposed to be 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 Utility. The resulting opinion of value is based upon the foregoing findings as well as professional experience.

## SECTION 5.0 COST APPROACH

### 5.1 Introduction

This section of the Report provides the opinion of value utilizing the Cost Approach for the Utility assets that are currently providing water utility services. The methodology selected for use in the cost approach valuation of the above Utility is replacement cost new less depreciation (RCNLD). This method is commonly utilized in the determination of value of public utilities. The primary reason for using the RCNLD method is the fact that most utilities are comprised of complex treatment, pumping, and piping networks with various service lives and years of installation. In order to address these technically complex facilities, the RCNLD method has been chosen for the cost approach for valuation.

### 5.2 Replacement Cost Determination

The replacement cost of this special purpose property in place and in-service is determined by calculating the construction cost of the same, equivalent or like-kind new facilities which the marketplace would install and deducting the various forms of depreciation. The determination of replacement assumes that replacing the Utility is one large project with inherent economies of scale which are represented in the determination of replacements costs.

Given that asset records provided for this valuation are summarized by year of acquisition only, with no specific detail on type of asset (i.e. pipeline, weir, headworks, etc.), several assumptions were necessary;

- Unless otherwise indicated, assets were assumed to be an integral component of the North Fork Canal, and, as such are considered to have a 50 Average Service Life.
- The average service life schedule of the EVWD was applied to assets not identified with the North Fork Canal.

Therefore, replacement costs are derived from aged operating asset records contained in the NFWC financial statements for 2016-2017. Aged assets were escalated to present day (2017) values using Engineering News Record construction indices (for Los Angeles region).

### 5.3 Recommended Depreciation Schedule

EVWD manages the NFWC operations under agreement. EVWD's policy regarding capital asset depreciation is as follows:



“Depreciation Method and Expected Useful Life of Assets - All depreciable assets are depreciated using the straight line method of depreciation. Depreciation begins in the year the capital asset was acquired. The estimated lives of acquired assets are assigned in the following manner:

- Source of Supply - 30 Years
- North Fork Canal - 50 Years
- Pumping Plant - 25 Years
- Treatment Plant - 50 Years
- Reservoir - 60 Years
- Tank - 50 Years
- Pipeline - 50 Years
- Meter - 30 Years
- Fire Hydrant Meters - 20 Years
- Building - 50 Years
- Land and Building Improvements - 15 Years
- General Equipment - 5 Years
- Vehicles - 5 Years
- Heavy Equipment and Vehicles - 10 Years”

Each Utility component has been assigned an average service life (as shown on Table 5.9, column 3). The depreciation has been taken on a straight-line basis utilizing the components and the average service lives.

#### 5.4 Replacement Cost Analyses

This Report includes the replacement cost analyses as conducted by Brian J. Brady, P.E. The quantities and inventory of assets were retained from the reports provided by the NFWC. Dr. Brady inspected the Utility on July 24, 2017. The results of the replacement cost new less physical depreciation determination are summarized in the following subsections.

##### 5.4.1 Water System

The water system facilities were constructed originally in 1885 as a gravity delivery system of concrete channel, tunnel and riveted steel flumes with sandboxes and turnout weirs. Since that time, the water system has been converted to a gravity pipeline, with a significant amount of construction during the 2008 to 2009 timeframe.

The extent of the water system assets is detailed in Table 5.6.

The new replacement cost value of these system assets is \$4,686,553. The total physical depreciation of these assets using the average service life schedule is \$1,854,213. The remaining replacement cost new less physical depreciation (RCNLD) is \$2,832,340.

#### 5.4.2 Summary of Replacement Cost New Less Physical Depreciation

As shown in Table 5.6, the replacement cost new less physical depreciation is \$2,832,340 for the water system. This shows that the utility assets have an approximate composite accumulated depreciation of 40% for water facilities.

#### 5.5 Functional Depreciation

Functional depreciation for system deficiencies (such as: major loss of operable delivery weirs, urban encroachment) and deferred maintenance is cured by the use of the replacement cost approach and by a deduction of 25% from the RCNLD determination.

#### 5.6 Replacement Cost New Less Depreciation

The summary of the replacement cost new less depreciation of property, plant and equipment is shown below:

**Table 5.6**  
**Property, Plant and Equipment**

1	2	3	4	5	6	7	8
Year Acquired	Balance @ January 31, 2017 (dollars)	Average Service Life (years)	Remaining Life 2018 (years)	RCN Factor (ENR)	RCN Value (dollars)	R.L. Depr. Factor	RCNLD Value (dollars)
1940	67,610	50	1	18.0	1,216,980	.05	60,849
1985	4,729	50	18	2.22	10,498	.36	3,779
1995	50,820	50	26	1.85	94,017	.52	48,889
1997	37,511	50	29	1.82	68,270	.58	39,597
1999	68,937	50	31	1.77	122,018	.62	75,651
2002	9,941	50	33	1.64	16,303	.66	10,760
2003	2,840	15	1	1.61	4,572	.07	320
2004	3,010	50	35	1.47	4,425	.70	3,097
2009	2,493,592	50	41	1.23	3,067,118	.82	2,515,037
2011	26,205	50	43	1.20	31,446	.86	27,044
2014	34,333	50	46	1.12	38,453	.92	35,377
2014	1,310	20	16	1.12	1,467	.80	1,174
2017	10,563	50	49	1.04	10,986	.98	10,766
Totals	2,811,401				4,686,553		2,832,340

- Column 1     Asset Year
- Column 2     Original Asset Cost
- Column 3     Average Service Life
- Column 4     Remaining Life (2018)\*
- Column 5     Engineering News Record Escalation Factor (1913 = 100)
- Column 6     Replacement Cost New (2017) (Column 2 x Column 5)
- Column 7     Remaining Life Factor (Column 4 / Column 3)
- Column 8     Replacement Cost New Less Depreciation

Applying the functional depreciation (25%) to the RCNLD total in the table above results in a property, plant and equipment value of \$2,124,255. For purposes of this valuation, 50% of the asset value, specifically \$1,062,128, represents the NFWC ownership interest.

The total RCNLD for the NFWC is equal to the value of the operating assets (property, plant and equipment of \$1,062,128) plus the present value of water rights of \$4,755,462 (see Section 7.4) resulting in \$5,817,590.

\* As of January 31, 2018 (NFWC annual fiscal year-end)

## SECTION 6.0 INCOME APPROACH

### 6.1 Introduction

The purpose of this section of the Report is to provide an indication of the fair market value of the Utility based on the income approach. In general, the income approach values the water system based on the available net cash flows generated from the ongoing operations. Historical financial and customer data is utilized together with certain pro forma adjustments in order to develop the projected operating results for the system and estimate future net cash flows available to the current owner (in the hands of the seller). The annual cash flows are then analyzed in relationship to an assumed required rate of return. Under this approach, the value of the system is assumed to be equal to the value of the future net cash flows available to the current owner, if such ownership is maintained throughout the projection period.

### 6.2 Data Sources

The analysis developed herein utilize data available to me. The information provided in such data sources has not been independently verified and for purposes of this analysis the information is assumed to be accurate and reliable. The income approach contained herein uses the annual reports for calendar years ended January 31, 2016 and January 31, 2017 as prepared by Van Lant & Frankhanel, Certified Public Accounts.

### 6.3 Market Income Valuation Approaches

The income approach generally measures the buyer's risk against the potential earnings of a company. Two methods are typically used to provide an indication of value – capitalization and discounting. Both methods use a formula to calculate the value of a company based on future profits. While capitalization uses a formula based on past performance, the discount formula takes into account the risk factors that would potentially be taken into account by the buyer. Given the financial data available for analysis, Capitalization of Earnings method was selected. A brief description of the Capitalization of Earning Method (“Cap Rate”) is shown below.

#### 6.3.1 Capitalization of Earnings

In its simplest form, the capitalization method basically divides the business expected annual earnings by an appropriate capitalization rate. The idea is that the business value is defined by the business earnings and the capitalization rate is used to relate the two. Capitalization rates provide a relatively non-complex tool to use for valuing property based on its current income and/or cash flow ability. A comparatively lower capitalization rate would indicate less risk associated with the investment (increasing

demand and value for the product), and a comparatively higher cap rate for a property might indicate more risk (reduced demand and value for the product). A Cap Rate approach to income valuation reflects a general market approach.

#### 6.4 Income Approach Analysis

In order to calculate a value for the Income Approach, the income to be evaluated must be identified. As discussed in the book “Valuing a Business: the Analysis and Appraisal of Closely Held Companies” by Shannon P. Pratt, et al, the income statement variables most often used to develop business value measures for an indication of the market value of invested capital are:

- Net sales (gross revenue less cost of goods sold (“GOCS”))
- Earnings before interest and taxes (“EBIT”)
- Earnings before depreciation, amortization, interest, and taxes (“EBITDA”)
- Net free cash flow available on invested capital

For purposes of the Income approach analysis presented herein, I have selected the EBITDA income streams to analyze, providing the highest level of stated income. The development of the income approach to valuation analysis required certain assumptions and considerations with regard to financial, economic, and operational conditions that may occur in the future. Although such assumptions and considerations are applied based on current and historical data pertaining to the Utility, to the extent that actual future conditions differ from those utilized herein, the results may vary from those in the analysis. The principal assumptions and considerations utilized in the income approach are summarized as follows:

1. Based on an historical review, the agricultural land irrigated with canal water has been largely converted to urban uses. Consequently, of the original 53 weir turnouts on the canal, only 13 weirs are still active, representing 12 shareholder interests. For purposes of these projections, I have assumed the number of shareholder connections annually will remain the same and, therefore, held connections constant over the projection period.
2. For the purpose of this analysis, it is assumed that the average annual deliveries will remain relatively constant throughout the projection period.
3. For the purpose of this analysis I assumed that the water system will operate as it has been under EVWD management.

4. Assessment increases over time are expected to, at minimum, average equal to increases in operating and maintenance (O&M) expenses; thereby generating constant net revenues (EBITDA).
5. For calculating capitalized earnings, a composite discount rate of 6.0 percent (6%) was assumed. The discount rate is based on the Utility being:
  - Owned and operated as a public, not-for-profit entity, equating to 5%
  - Additional business risk (older system, urbanization, potential smaller customer base), equating to 1%.

## 6.5 Value Indicated by the Income Approach

Based on current EBITDA, an income analysis using capitalized earnings was prepared for the water system of the Utility. The results of this analysis are:

Income Approach (Capitalization of Earnings): \$ 3,042,880

## SECTION 7.0 COMPARABLE SALES APPROACH

### 7.1 Introduction

The purpose of this market approach is to examine the history of water utility acquisitions and analyze the conditions under which the systems were acquired in an effort to arrive at an implied purchase price for the water system. The potential list of utility sales is narrowed down to those that are considered comparable to the subject system. In order to compare the different transactions, a variety of factors were considered.

### 7.2 Factors Influencing Utility Acquisitions

There are many factors involved in the agreement of an acquisition price for a utility system. The following is a discussion of several important factors that impact the acquisition price of utility systems.

#### 7.2.1 System Assets

Utility systems vary considerably in their size, physical condition (which is sometimes an indicator of age or level of maintenance provided), as well as the number and types of customers. All of the above are components that form the utility's assets to be transferred. It is common that knowledgeable buyers, as part of their due diligence, of utility systems look closely into these components prior to agreeing upon a purchase price. The

following areas regarding system assets are often considered in an evaluation:

- a. Type of service provided (water only, wastewater only, or both)
- b. Extent and physical characteristics of the utility systems and aggregate effective age of the system
- c. Water and/or wastewater treatment capacities
- d. Actual customers connected to the utility systems and their characteristics
- e. Type of sale (context of transaction)
- f. Location of the system

### 7.2.2 Regulatory Compliance

The extent and/or magnitude of litigation and the risk of loss associated with as well as fines or ordered corrective actions effect system pricing.

### 7.2.3 Competitive Market or Monopoly

The exclusivity of the service territories can be a major factor influencing an acquisition and the pricing of a utility. If a utility is granted either franchise rights that protect its service territories and make the utility a sole provider of utility services within such territories, the value may be substantially enhanced. However, if other private or public utilities can provide similar services in the same territories, the opposite effect may occur.

### 7.2.4 Method of Acquisition

The majority of the utility transactions occur through negotiations between interested buyers and motivated sellers.

### 7.2.5 Context of Transaction

It is important to consider the variance to the “industry standard” terms and conditions of the purchase and sale agreement. If special terms would create value, then adjustments are made.

### 7.3 Market Summary

There are no recent records of similar mutual water company sales to serve as a reference point. The market for the NFWC is, therefore, very limited based upon the following known constraints:

- The water deliveries to shareholders are completely within the service territory of EVWD. Therefore, NFWC, if sold to a third party other than EVWD, is not a protected monopoly
- Either by proportionality as a shareholder or provisions of the 1988 agreement with the Bear Valley Mutual Water Company (BVMWC), EVWD controls over 90% of the operating assets of the NFWC
- Besides EVWD, BVMWC is the most likely potential purchaser of NFWC, principally for the water rights
- With either EVWD or BVMWC, pricing of NFWC water rights (with adjustments for quality and variability) will likely be tied to the avoided cost of SWP water

### 7.4 Comparable Sales Valuation

As described in section 3.3, the annual benefit of water rights to 4146 acre-feet of Santa Ana River water, after adjusting for quality and variability, is \$414,600. Assuming a cost of capital of 6%, a 20-year stream of benefits yields a net present value (NPV) of \$4,755,462. However, at this NPV, both EVWD and BVMWC may be indifferent as to investing in the water rights versus buying SWP water. Further, BVMWC would likely see no value in the NFWC operating assets and EVWD would already have operating control.

A negotiated sale to either agency (assuming a negotiated 10% reduction in water rights NPV) would result in a sales price of \$4,279,916.

## SECTION 8.0

### RECONCILIATION OF VALUATION APPROACHES

The cost, income, and comparable sales approaches for the Utility are considered in this section. The numeric results for each approach are presented below (rounded to the nearest \$1,000):

Replacement Cost New Less Depreciation \$5,818,000  
Income \$ 3,043,000  
Comparable Sales \$ 4,280,000



The cost approach provides a specific valuation for the Utility. The asset listing provided, along with field observations, provide the basis for producing the cost approach. This approach includes the adjustments to the system and the loss of value from physical, functional, and external depreciation, when applicable. This approach includes the documented value/cost of assets as of January 31, 2017 and is an accurate representation of the complex, special purpose property. This approach considered the Utility values separately as described in Section 5. Using this approach, I have valued the combined Utility at \$5,818,000, and I have quantified the weight for this approach at approximately 40%. Presently, in the marketplace, the cost approach is not determinate of value, but rather is more a measure of asset surety.

The income approach values the Utility based on the available annual cash flows anticipated to be generated from the ongoing operation of the system analyzed in relationship to an assumed required rate of return, in the hands of the seller. I have valued the Utility at \$3,043,000 using this approach. I have quantified the weight of the income approach at 30%.

In the real-estate marketplace, comparable sales approach is more determinative of value. Due to the limited market and context of transactions included in this analysis, however, it is difficult to justify a more substantial weighting to this approach. Based on those data, I have included the sales comparison approach on this special purpose property at \$4,280,000. I have quantified the weight to be given the approach at approximately 30%. The comparable sales approach, therefore, has been weighted equal to the income approach for this Utility.

Considering the results provided above in conjunction with my prior experience and professional judgment, the opinion of the value of the NFWC water utility system assets as of January 31, 2018 is: \$4,524,000.

## SECTION 9

### MUTUAL WATER COMPANY STOCK VALUATION

#### 9.1 General

As previously noted, the NFWC is a non-profit mutual water company located in San Bernardino County and the city of Highland, California. The company was incorporated in 1885 and has perpetual existence. There are currently a total of 26 NFWC shareholders (representing 7156 shares), with East Valley Water District (EVWD) owning 82.5% of the shares (7,156 total NFWC shares with 5,904 shares held by EVWD). EVWD manages the NFWC under agreement.

NFWC holds pre-1914 appropriative water rights to Santa Ana River water supplies in trust for its shareholders.

There is one class of shares. Each shareholder is obligated currently for two annual assessments per share owned: 1) a \$25.00 operational assessment, and 2) an \$18.00 capital improvement assessment.

Shareholders have the following rights and obligations:

- Each shareholder has a right to the annual yield of the North Fork Canal proportionate to the number of shares held.
- Each shareholder must take the water allocation from an approved turnout (weir) on the canal.
- Each shareholder must take delivery two times per month as prescribed in the “Rules of the Ditch” dated April 4, 2017.
- Each shareholder delivery must be for a minimum of 10 miner’s inches in a 24-hour run (129,250 gallons).
- Shareholders unable to comply with the above forfeit their access to canal water.

Over the years, the agricultural land irrigated with canal water has been largely converted to urban uses. Consequently, of the original 53 weir turnouts on the canal, only 13 weirs are still active, representing 12 shareholder interests.

## 9.2 Valuation

As calculated in Section 3.3, the annual benefit to the NFWC utilizing the water rights to an average of 4146 acre-feet of the Santa Ana River equates to \$414,600. Breaking down the benefit on a per share basis produces an annual benefit of \$57.94, representing an annual supply benefit of .579 acre-feet.

Assuming a typical shareholder’s blended interest rate (combination of long term mortgage and short term personal credit rates) of 6%, and projecting the annual benefit for the next 10 to 20 years, yields a net present value, per share, of \$426.44 to \$664.57; or, an average of \$546 (rounded).

Since the Utility is an on-going business, the individual shareholder has no equity interest in the operating assets of the NFWC that can be monetized in the stock value, as it could if considering a “break up” value.

## SECTION 10.0 VALUATION ADJUSTMENT

As indicated in Section 1.5, this valuation is effective January 31, 2018; and, is valid for six months. Thereafter, valuation calculations will need to reflect any significant changes in the following data inputs:

- Substitute water (presumably SWP) price per acre-foot

- Changes in the rolling ten year average annual deliveries (in acre-feet) to shareholders from the North Fork Canal
- Changes in interest and capitalized earnings rates assumptions
- Engineering News Record cost indices (Los Angeles region)
- Most recent NFWC financials

## REFERENCES

### NFWC Governance Documents

DATE	DESCRIPTION
01/13/1885	Articles of Incorporation of North Fork Water Company (NFWC)
06/01/1915	Amended Articles of Incorporation of NFWC
05/07/1925	Second Amended Articles of Incorporation of NFWC
11/30/1931	Third Amended Articles of Incorporation of NFWC
1950	1950 NFWC Bylaws (redlined to show proposed 2013 Amendments)
2013	2013 NFWC Bylaws
2017	2017 NFWC Bylaws
1989-2009	North Fork Canal Rules of Operation (the “Rules of the Ditch”)
2017	Amended North Fork Canal Rules of Operation (the “Rules of the Ditch”)

### Deeds, Agreement and Judgments

DATE	DESCRIPTION
02/05/1885	Indenture between parties and NFWC re Interest and Water Rights
05/23/1885	Memorandum/Agreement between NFWC, Bear Valley Land and Water Company and owners of water in the North Fork Ditch of the Santa Ana River and Cram and Van Leuven Ditch re supply allowance, capacity, construction and management of water rights
06/27/1885	Supplemental Agreement between Bear Valley Land and Water Company and NFWC modifying Section 4 of Agreement
05/01/1895	Deed of Trust between Grantors (stockholders) & NFWC continuing 1885 trust deed until December 31, 1934
02/19/1925	Indenture between The Cram & Van Leuven Water Company and NFWC
10/11/1966	Joint Use Agreement between NFWC & Bear Valley Mutual Water Company and the State of California

07/22/1968	Consent to Common Use Agreement by NFWC & Bear Valley Mutual Water Company
05/03/1976	Cooperative Water Project Agreement - Santa Ana River - Mill Creek
01/18/1977	Stipulation and Judgment ( <i>Big Bear Municipal Water District v. North Fork Water Co.</i> )
01/27/1977	Agreement between NFWC & East San Bernardino County Water District re water rights
09/06/1977	Final Order of Condemnation – re San Bernardino Valley Municipal Water District v. North Fork Water Company, et al.
01/04/1982	Agreement between NFWC & Bear Valley Mutual Water Company agreeing to the establishment of required standards and conditions for changes requested or required to be made to the North Fork Canal by reason of land development
01/04/1982	Notice of Right of Easement – by NFWC and the Bear Valley Mutual Water Company
03/07/1988	Agreement for the Transfer of the North Fork Canal between East Valley Water District & Bear Valley Mutual Water Company
07/21/2004	Seven Oaks Accord
08/2005	Settlement Agreement – Among San Bernardino Valley Water Conservation District, San Bernardino Valley Municipal Water District and Western Municipal Water District adding SBVWC to the Seven Oaks Accord

### Water Deliveries

DATE	DESCRIPTION
2012-2016	Big Bear Watermaster Annual Report Tables
	NFWC Water Deliveries (2007 - 2017)

### Tax Bills

DATE	DESCRIPTION
2016	“Land” Tax Bills
2016	“Improvements” Tax Bill

**Other**

**2016-2017 NFWC Financial Statements**

**March 14, 2016 Power Point Presentation to NFWC Shareholders (Summary of NFWC Governance and Water Rights)**

Interview notes with EVWD staff

Interview notes with BVMWC staff

## **Brian J. Brady, P.E.**

Brian J. Brady has over 35 years of engineering and management experience in both the public and private sectors of western electric and water utilities. He maintains an independent management consulting practice, focusing on water resource assessment, asset valuation (including water rights) and strategic operations of water utilities.

Dr. Brady currently serves as General Manager of the Fallbrook Public Utility District (FPUD), and partners with Camp Pendleton Marine Base to develop critically needed local water supplies (Santa Margarita River Conjunctive Use Project). He also is a member of the Board of Directors of the San Diego County Water Authority.

From 2008-2011 he was the General Manager of the Imperial Irrigation District (IID), a water and power authority encompassing 6,500 square miles in southern California. IID is the largest irrigation district in the United States at 3.1 million acre-feet in annual deliveries, and is also the third largest public sector electric utility in California (1,000 MW peak demand.)

From 2003 to 2007, as General Manager of Rancho California Water District (RCWD), Dr. Brady directed the operations of the Temecula-based district's water, wastewater and reclamation divisions. Prior to Rancho California Water District, he served as general manager of the Water Replenishment District of Southern California (WRD), and was responsible for groundwater protection, enhancement and replenishment over a 400-square mile region of Los Angeles County.

From 1995 to 2000, he was Chairman and CEO of the Dominguez Water Company, an investor-owned utility in Long Beach, California. Under his leadership, Dominguez became the dominant broker of groundwater rights in Los Angeles County. Additionally, Dr. Brady led the expansion of Dominguez operations into Sonoma, Marin and Lake Counties in northern California through the negotiated purchases of private and mutual water systems.

He is past President of the Board of Directors of the Irvine Ranch Water District (IRWD), and a former board member of the Orange County Sanitation District (OCSD). Additionally, he has served as Governor Brown's appointee to the Colorado River Board of California.

Dr. Brady is a registered Civil Engineer, and earned his BSE degree in Water Resource Management from Loyola University of Los Angeles (now Loyola Marymount University)'s College of Engineering. His MBA, with an emphasis in Finance, is from the University of Southern California (USC)'s Marshall School of Business. He received his doctorate degree – an Ed.D with an emphasis in Organizational Leadership – from Pepperdine University's Graduate School of Education and Psychology.

# RESUME

**Brian J. Brady, P.E.**

## PROFESSIONAL EXPERIENCE

**Principal** **Brian J. Brady & Associates (2000 - present)**

Principal of an independent management consulting practice specializing in water resource assessment, asset valuation (including water rights) and strategic positioning of both public and private water utilities. Clients have included the Water Replenishment District of Southern California (WRD), the Inland Empire Utilities Agency, Chevron Texaco, University of Southern California, California Portland Cement, Vulcan Materials, Exxon Mobil, Municipal Water District of Orange County, the Central and West Basin Municipal Water Districts, Borrego Water District, Conaway Preservation Group and several private water utility investors.

**General Manager** **Fallbrook Public Utilities District (FPUD) (2011- present)**

Reporting to a five-member Board of Directors, responsible for operations of the Fallbrook Public Utility District (FPUD), which provides water, wastewater and reclamation services to north San Diego County. Partnering with Camp Pendleton Marine Base to develop critically needed local water supplies (Santa Margarita River Conjunctive Use Project). Member of the Santa Margarita River Watershed Watermaster Steering Committee. Represent the District on the Board of Directors of the San Diego County Water Authority; recently served as the Governor's appointee to the Colorado River Board of California.

**General Manager** **Imperial Irrigation District (IID) (2008- 2011)**

As the appointed CEO by a five-member elected board of directors, provided executive leadership to the IID electric and water operations within southern California's Imperial and Coachella Valleys. Annual operating and capital budgets exceed \$850 million, with a staff of 1,400. Responsible for implementing the landmark Qualification Settlement Agreement (QSA) among the IID, Metropolitan Water District and the San Diego Water Authority, and for spearheading major initiatives to develop renewable energy projects.

**General Manager** **Rancho California Water District (RCWD) (2003-2008)**

Reporting to a seven-member Board of Directors, was responsible for operations of the Temecula-based district's water, wastewater and reclamation divisions. Continued rapid expansion in the municipal, industrial and agricultural business segments during 2003-2004 fiscal year resulted in a nearly 14 percent increase in overall system demands. Lead an aggressive integrated water resources strategy to meet system build out forecasts. Managed the extraction and recharge operations of the Temecula Valley Groundwater Aquifer.



**Chairman, CEO****Dominguez Services Corporation (1995 - 2000)**

As authorized by the Company's Board of Directors, was responsible for overall corporate policy, strategy and operations of Dominguez Services Corporation's utility and non-utility business units. In the first thirty-six months with the Company, expanded water utility operations into northern California and increased unregulated water brokering and subsidiary operations. In the same period, the Company's market capitalization rose by more than 250%, and annual shareholder returns averaged 33%. In November of 1998, completed merger negotiations with California Water Service, attaining the highest asset valuation of any U.S. investor-owned water or gas utility at that time.

**Assistant General Manager****Public Utilities Department, City of Anaheim  
(1992-1995)**

Directed the operation of the City's electric utility, gross annual revenues of \$250 million. Responsible for electric integrated resource planning, acquisition and scheduling; demand side management; engineering functions; electric field construction; environmental services; commercial and industrial business development; and both electric and water system dispatch operations.

**Vice President and General Manager****Energy Services Inc. (1988-1992)**

Chief Operating Officer of a wholly owned subsidiary of Southern California Edison Company. Developed and positioned the operation to provide utility related services (pump/turbine/motor repair, engineering support, cogeneration operating services, utility R & D technology transfer, fuel oil storage leasing contracts, privatized maintenance services). Client base developed in the first three years of operation included over 200 companies in the U.S., Canada, Mexico and the Pacific Rim.

**Manager, Energy Management Southern California Edison Company (1983-1988)**

Developed and marketed new electric load management programs and electric rate options to industrial and commercial customers. Partnered with local governmental agencies in analyzing and economizing energy use. Responsible for developing and marketing end-use electro-technologies (the forerunner to Edison's "CTAC") to assist industrial and commercial customers in becoming more competitive in the marketplace.

**Manager of Valuation****Southern California Edison Company (1980-1983)**

Manager of department of engineers, accountants, and other technical staff providing economic, depreciation and cost of service studies; valuations and base data for rate cases. Served as expert rate case witness before federal and state regulatory commissions. As the company's Chief Valuation Engineer, certified to financial institutions the fair value of company operating assets and real estate for trust indenture purposes.

## **EDUCATION**

**Bachelor of Science in Engineering (BSE)** emphasis: Water Resource Management  
- Loyola University of Los Angeles College of Engineering (now Loyola Marymount University)

**Master of Business Administration (MBA)**, emphasis: Finance  
- University of Southern California Marshall School of Business

**Doctor of Education (Ed.D)**, emphasis: Organizational Leadership  
- Pepperdine University Graduate School of Education & Psychology  
Doctoral research: Skill development for appointed and elected water officials

### **Additional Graduate level studies:**

- Massachusetts Institute of Technology, Stanford University, Western Michigan University, United States International University

## **ELECTED AND APPOINTED OFFICES**

Board of Directors, San Diego County Water Authority – 2011-present

Board of Directors, Association of California Water Agencies – 2010 – 2011; 2016-present

Board of Directors , Colorado River Board of California – 2015-2017

Board of Directors, Park Water Company (The Carlyle Group) – 2013-2016

State Legislative Committee, Association of California Water Agencies – 2013-2015

Federal Affairs Committee, Association of California Water Agencies – 2013-2015

Executive Committee, California Transmission Planning Group – 2009-2011

Board of Governors, California Municipal Utilities Association – 2009-2011

Board of Directors, Large Public Power Council – 2008-2011

Board of Directors, Southern California Public Power Authority – 1992-1995; 2008-2011

Board of Directors, Irvine Ranch Water District – 1998-2004

Board of Directors, Orange County Sanitation District – 2001-2004

Board of Directors, National Public Projects Coalition – 2004-2008

Board of Directors, Association of Groundwater Agencies – 2000-2001

Board of Directors, National Association of Water Companies – 1997-2000

Executive Council, California Water Association – 1995-2000

## **OTHER CREDENTIALS**

Registered Civil Engineer, State of California

Member, Phi Delta Kappa (international honor society)