



RAINBOW MUNICIPAL WATER DISTRICT

APPRAISAL REPORT

Appraisal of the Water and Wastewater Systems Owned by Rainbow Municipal Water District

Effective Date and Fair Market Value as of: May 19, 2016

Report Date: July 13, 2016

Prepared by:



Hartman Consultants, LLC



July 13, 2016
WFS # 160180.00 and HC #16008.00

Ms. Sherry R. Kirkpatrick, P.E.
District Engineering Manager
Rainbow Municipal Water District
3707 Old Highway 395
Fallbrook, CA 92028

**RE: Appraisal of the Rainbow Municipal Water District
Water and Wastewater Systems
Effective Date of 5/19/2016**

Dear Ms. Kirkpatrick:

This letter transmits to you the Appraisal of the Rainbow Municipal Water District (RMWD) Water and Wastewater Systems (Utility or System).

The purpose of this appraisal is to provide RMWD the fair market value (FMV) of the real and tangible personal property owned by the RMWD. This report is a source document for the Capacity Fee Study to be provided by Willdan Financial Services (Willdan) to RMWD.

The premise of value is fair market value (FMV) in use as defined by the United States Internal Revenue Service. Generally, the FMV is the amount a willing buyer will pay and a willing seller will sell the subject property, neither under compulsion to act.

The users of this Report includes RMWD management/engineering and Willdan.

The effective date is the last date of inspection of the property which is May 19, 2016. The FMV stated is as of that date.

This Report conforms to the requirements of the Uniform Standards for Professional Appraisal Practice (USPAP) as issued by The Appraisal Foundation and as authorized by the United States Congress.

All three (3) standard approaches to the value were considered. Those approaches are the cost, income and comparable sales approaches as described in **Section 3**. The cost approach was found to be the most credible and was given the most weight in the reconciliation analysis. The income approach was found not to be applicable or an indicator of FMV due to the not-for-profit delegated governmental nature of the RMWD. The comparable sales found required adjustments for the configuration and extent of the RMWD property and for the customer mix and characteristics. Nonetheless, these sales were used as a check/verification and given a minor amount of weight in the reconciliation of the approaches.

The results of the analysis performed are:

<u>Approach</u>	<u>Water</u>	<u>Wastewater</u>	<u>Total</u>
1. Cost	\$396 Million	\$44 Million	\$440 Million
2. Income	N/A	N/A	N/A
3. Comparable Sales	\$393 Million	\$39 Million	\$ 432 Million

The cost approach analysis can be found in **Section 4**.

Section 6 presents the summary of the comparable utility sales analysis as a national marketplace with the adjustments used.

Section 7 presents the reconciliation of the appraisal approaches and the opinions of value for the wastewater system, the water system and the combined utility.

The Appendices provide supporting information presented as follows:

Appendix “A” provides the RMWD/Willdan agreed use of the tax assessor’s estimate of the fair market value for the real property as adjusted.

Appendix “B” provides the condition assessment and inspection information as well as a photo disc.

Appendix “C” provides the warehouse/yard inventory listing with cost at original cost.

Appendix “D” provides the rolling stock, trucks, equipment, etc. listing at market/blue book or trade values.

Appendix “E” provides cost back-up materials.

Appendix “F” is the supporting documents used listing.

Appendix “G” is the summary of the comparable sales materials.

Appendix “H” is the Appraisers Certification, Accreditations, and Resumes.

My findings and opinions of FMV as of 5/19/2016 are:

RMWD Water System
\$396,000,000
(Three Hundred and Ninety Six Million Dollars)

RMWD Wastewater System
\$43,000,000
(Forty Three Million Dollars)

RMWD Utility
\$439,000,000
(Four Hundred and Thirty Nine Million Dollars)

If you have any questions concerning the above, please do not hesitate to call.

Very truly yours,

Willdan Financial Services

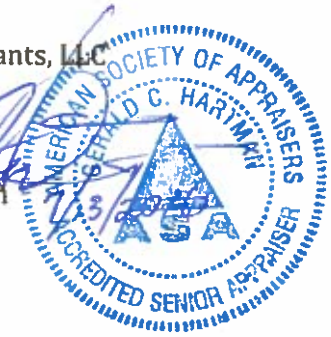


Tara L. Hollis, CPA, MBA

Hartman Consultants, LLC



Gerald C. Hartman
BCEE #88-10034
ASA #7542



Attachments

LOT - 3

Comprehensive. Innovative. Trusted.



Table of Contents

Table of Contents

SECTION 1:	INTRODUCTION	1
SECTION 2:	DESCRIPTION OF RAINBOW MUNICIPAL WATER DISTRICT PROPERTY	13
SECTION 3:	VALUATION METHODS	15
SECTION 4:	COST APPROACH	21
SECTION 5:	INCOME APPROACH	32
SECTION 6:	MARKET APPROACH (COMPARABLE SALES).....	33
SECTION 7:	RECONCILITATION OF VALUATION APPROACH	47
	USPAP CHECKLIST	49

APPENDICES

APPENDIX A:	LAND AND GENERAL PLANT
APPENDIX B:	INSPECTION AND CONDITION ASSESSMENT RAINBOW MUNICIPAL WATER DISTRICT WATER AND SEWER SYSTEMS
APPENDIX C:	INVENTORY LISTING
APPENDIX D:	LARGE AND SMALL EQUIPMENT, TOOLS, FLEET
APPENDIX E:	COST BACK-UP MATERIALS
APPENDIX F:	REFERENCES AND ACKNOWLEDGEMENTS
APPENDIX G:	COMPARABLE SALES BACKUP
APPENDIX H:	APPRAISERS CERTIFICATION, ACCREDITATION, REACCREDITATION AND RESUMES

LIST OF TABLES

Table 4-1	Replacement Cost Approach – Water, Wastewater & Other Assets Summary
Table 6-1	RMWD Meter Counts by Class
Table 6-2	Industry Meter Equivalents
Table 6-3	RMWD Non-Agricultural Customers ERCs
Table 6-4	RMWD Agricultural Customers ERCs
Table 6-5	ENR Average Year Construction Cost Index (CCI) For the Market Period
Table 6-6	Selected Water and Wastewater Transactions
Table 6-7	Calculated Price Per ERC – Water Systems
Table 6-8	Calculated Price Per ERC – Wastewater Systems
Table 6-9	Wastewater System ERCs
Table 6-10	Summary of Market Analysis Findings

LIST OF SCHEDULES

Schedule 4-1	Replacement Cost Approach – Water Storage Facilities
Schedule 4-2	Replacement Cost Approach – Water Booster Pump Stations
Schedule 4-3	Replacement Cost Approach – Water Pressure Regulating Stations
Schedule 4-4	Replacement Cost Approach – Water Transmission & Distribution Mains
Schedule 4-5	Replacement Cost Approach – Water Connections, Meters & Services
Schedule 4-6	Replacement Cost Approach – Water Summary
Schedule 4-7	Replacement Cost Approach – Wastewater Conveyance Mains
Schedule 4-8	Replacement Cost Approach – Wastewater Pump Stations
Schedule 4-9	Replacement Cost Approach – Wastewater Force Mains
Schedule 4-10	Replacement Cost Approach – Wastewater Laterals
Schedule 4-11	Replacement Cost Approach – Wastewater Summary
Schedule 4-12	Replacement Cost Approach – Other Assets - Large & Small Equipment
Schedule 4-13	Replacement Cost Approach – Other Assets - Fleet

Section 1

SECTION 1: INTRODUCTION

1.1 PROJECT SCOPE AND AUTHORIZATION

This Appraisal Report (“Report”) is of the Rainbow Municipal Water District (“RMWD”), in the Fallbrook, Rainbow, Rainbow Height area near Temecula, California, and was requested by RMWD Management and Board of Directors. The facilities were constructed to provide water, fire protection, agricultural supply and wastewater services for the RMWD customers.

1.2 OWNERSHIP INTEREST

The assets are part of the ongoing utility system with facilities, permits, etc. and a going concern at the effective date of the appraisal. We 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 all of the property, fee simple ownership of certain real property, operational rights, water rights, and raw wastewater conveyance rights/permits. 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 which were willfully created by agreement.

1.3 PURPOSE AND USE OF APPRAISAL

The purpose of this appraisal is to provide the RMWD with the appraised fair market value of the Utility. Presently, the Utility is on-line and actively serving customers. This assignment assumes the hypothetical buyer will use the facility professionals and those authorized by RMWD. The users of this Report include the RMWD Management and the District Board.

1.4 IMPORTANT VALUATION DEFINITIONS

Appraisal (noun) – 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.¹

Client – the party or parties who engage, by employment of contract, an appraiser in a specific assignment.²

Cost – the amount required to create, produce, or obtain a property.³

Easement – an interest in real property that transfers use, but not ownership, of a portion of an owner’s property.⁴

Extraordinary Assumption – an assumption, directly related to a specific assignment, as of the effective date of the assignment results, which, if found to be false, could alter the appraiser’s opinion or conclusions.⁵

Fee Simple - 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.⁶

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, legally permissible, appropriately supported, financially feasible and that results in the highest value.⁷

Hypothetical Condition – a condition, directly related to a specific assignment, which is contrary to what is known by the appraiser to exist on the effective date of the assignment results, but is used for the purpose of analysis.⁸

¹ Uniform Standards of Professional Appraisal Practice (“USPAP”), 2016-2017 Edition, Published by the Appraisal Foundation, page 1 (lines 8-10)

² Ibid, page 2 (line 50)

³ Ibid, page 2 (line 57)

⁴ The Appraisal of Real Estate, 12th Edition, Published by the Appraisal Institute, page 71

⁵ Uniform Standards of Professional Appraisal Practice, (“USPAP”) 2016-2017 Edition, page 3 (lines 67-69)

⁶ The Appraisal of Real Estate, 12th Edition, Published by the Appraisal Institute, page 69

⁷ Ibid, page 305

⁸ USPAP, 2016-2017 Edition, Published by the Appraisal Foundation, page 3, (lines 75-77)

Intended Use – 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.⁹

Intended User - the client and any other party as identified, by name or type, as users of the appraisal, appraisal review, or appraisal consulting report by the appraiser on the basis of communication with the client at the time of the assignment.¹⁰

Jurisdictional Exception – an assignment condition established by applicable law regulation, which precludes an appraiser from complying with a part of Uniform Standards of Professional Appraisal Practice (USPAP).¹¹

Leased Fee Interest – 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.¹²

Market Value - a type of value, stated as an opinion, that presumes the transfer of a property (i.e., a right of ownership or bundle of such rights), as of a certain date, under specific conditions set forth in the definition of the term identified by the appraiser as applicable in an appraisal.¹³

Market Value (noun) – 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.¹⁴

Regulated Industry – industry that is regulated by government to a significant extent.

Replacement Cost New (“RCN”) – the current cost of a similar new property having the nearest equivalent utility as the property being appraised, as of a specific date.¹⁵

⁹ *Ibid*, page 3, (lines 84-86)

¹⁰ *Ibid*, page 3 (lines 87-89)

¹¹ *Ibid*, page 3 (lines 91-91)

¹² The Appraisal of Real Estate, 12th Edition, Published by the Appraisal Institute, page 81

¹³ USPAP, 2016-2017 Edition, Published by the Appraisal Foundation, page 3 (lines 92-94)

¹⁴ International Valuation Standards, 2000 Edition, Published by the International Valuation Standards Committee, pages 92-93

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

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.¹⁶

Appraisal Report – a written report prepared under Standards Rule 2-2(a) or 8-2(a) of a Complete or Limited Appraisal performed under STANDARD 1 or STANDARD 7.¹⁷

Taking – is the acquisition of a parcel of land (or other property) through condemnation.¹⁸

Value – is the amount, relative worth, functionality, or importance of an item, which may or may not be equal to price or cost.¹⁹

¹⁶ *Ibid*

¹⁷ USPAP, 2016-2017 Edition, Published by the Appraisal Foundation, pages AO-11, pages 98-99

¹⁸ The Dictionary of Real Estate Appraisal, 4th Edition, Published by the Appraisal Institute, Page 285

¹⁹ Valuing Machinery and Equipment: The Fundamentals of Appraising Machinery and Technical Assets, Second Edition, Published by American Society of Appraisers, Page 594.

1.5 EFFECTIVE DATE OF APPRAISAL

The effective date of appraisal is May 19, 2016.

1.6 TYPE OF PROPERTY

The owner owns a special purpose property permitted as a public water and wastewater 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. for the specific community that the facilities, operations, and management serve.

1.7 SPECIALTY PROPERTY – AN ONGOING UTILITY BUSINESS

The Utility includes assets, customers, its service area and all other attributes of a fully functioning utility business. The Utility 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; and
- d. The property's use must be economically feasible and reasonably expected to be replaced.

The function of this utility property is to connect to the San Diego County Water Authority (SDCWA) to store, pressurize and convey water and to collect and transmit wastewater (Oceanside) to a specific service area. 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 with any purchase or acquisition of the Utility, the majority of 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 INTANGIBLE PROPERTY

In the valuation of utility property using the cost approach, it must be recognized that the replacement cost new of the facilities less depreciation of the same only represents the component of value of the physical assets. These assets, however, are in use and not idle, and are used to provide service within the service area to a customer 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 this appraisal in the cost approach. By agreement and practice, the water rights derived from the SDCWA are paid separately and are not included in this report.

Any purchaser would acquire a utility system completely installed and operational with customers who historically were and are assumed to in the future be 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 wastewater 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. These considerations are included in the cost approach delineated herein.

1.9 SUMMARY OF DATA COLLECTION

Data collection on this assignment involved records of RMWD, State of California, supplier quotations, construction market costs, reliance on Willdan for real property, HC reference library and Hartman Consultants, LLC. information and other 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 an Appraisal Report with disclosures included.

1.12 EXTRAORDINARY ASSUMPTIONS

- a. No responsibility is assumed for legal matters, nor is any opinion on the title rendered herewith. We 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 land 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. The improvements on or off-site are considered for purposes of this appraisal to be completed in a good and workmanlike manner.
- i. Furnishings, mobile equipment, tools, or business furniture and utility management items indicated and typically considered as part of real estate and/or major personal property item have been aggregated and valued.
- j. Responsible ownership and competent property management are assumed.
- k. It is assumed that there are no hidden or unapparent conditions of the property, soils, faults 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.

- l. 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.

- m. 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 of these studies require it.
- n. 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.
- o. We have accepted as correct and reliable all information provided by the owner, 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.
- p. Since the effective 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 effective date of this Report and the date of trial if applicable, and to make any adjustments to the Report that may be required.
- q. Neither I, nor anyone employed by me, has any present or contemplated interest in the property appraised.
- r. 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 Willdan and Hartman Consultants, LLC and in any event, only in its entirety and with proper qualification.
- s. 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 Willdan and Hartman Consultants, LLC excepting appropriate legal requirements.
- t. Acceptance of, and/or use of, this Report constitutes acceptance of the above conditions and assumptions.
- u. 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. It is assumed such agreements are renewable and/or transferable.
- v. It is assumed that any and all permits and easements can be transferred in the event of an acquisition with minimal effort and are renewable.

- w. All assets are to be valued “as-is” without warranties or guarantees.
- x. The facilities/equipment are in good working order.
- y. All of the equipment inspected was functional.
- z. All equipment will operate at their nameplate or nominal design capacity as a functional system meeting all federal, state and local regulations at such capacity.
- aa. No damage has occurred which has not been repaired.
- bb. An experienced and trained work force for the management and operations of these facilities is in place with sufficient records and standard operating procedures for the proper operations and maintenance of the facilities.
- cc. The structures, AIA features, buildings and basins and appurtenances are in good condition without defect.
- dd. There are no regulatory non-compliance issues.
- ee. Ownership is full fee simple without encroachments or other party interests.
- ff. All permits, rights and privileges are in place for on-going operations of both the water and wastewater systems.

1.13 HYPOTHETICAL CONDITIONS

The following hypothetical conditions were used in this work:

- a. No major construction work is in progress, and no corrective construction activity is considered to be accomplished by the Utility from 5/19/2016 through 7/13/2016.
- b. All property owned by the RMWD are owned fee simple without claims by others. If any claim exists and is realized, then that portion of the assets will be sold at fair market value to the claimant.
- c. No property damage has occurred in the 5/19/2016 to 7/13/2016 period.
- d. The existing legal documents/agreements/assurances/representations /obligations of the RMWD are or will be satisfied.
- e. That no other party has an interest in the property that would affect the value.

- f. That the facility will operate as a utility with an on-going business enterprise.
- g. That the condition of the property has not changed from 5/19/2016 to 7/13/2016.
- h. That there have been no additions or retirements from the property from 5/19/2016 to 7/13/2016.
- i. No discounts for fractional ownership are applied.

1.14 EFFECT OF EXTRAORDINARY ASSUMPTIONS AND HYPOTHETICAL CONDITIONS

The effects of the Extraordinary Assumptions and Hypothetical Conditions are to value a potential transaction with a not-for-profit entity. Presently, the facilities are operating. Due to the nature of the special purpose property which is fixed and non-portable, and the location of the property within the RMWD water and wastewater service area, the highest and best use of the property cannot be attained without the assumed transaction. To the extent that an extraordinary assumption or hypothetical condition is not true, then the value would be lessened in the correction cost of the defect or increased by the super-adequacy of the situation.

1.15 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.

1.16 HIGHEST AND BEST USE

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

1.17 APPROPRIATE MARKET USED

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

1.18 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 reserve funds, investment cash equivalents, accounts receivable and other customer or utility derivatives of operations;
- b. Assumption of liabilities of the Utility;
- c. Property owned by other associated parties; and
- d. Activities, rights, and privileges of other associated parties.

In other words, this appraisal is of all of the property of the Utility only.

1.19 DEPARTURES/SCOPE LIMITATIONS

This appraisal has no known departures or scope limitations.

1.20 ASSUMED TERMS AND CONDITIONS

The standard terms and conditions commonly used in the wastewater industry are assumed for this appraisal. The purchase price would be as a cash and/or donation purchase in U.S. Dollars at the time of closing. 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.

The standard terms and conditions assumed are listed below:

- Purchase Price, as Cash at Closing, Paid by Buyer
- Bill of Sale Provided by Seller
- Satisfaction of Liens, Encumbrances or Title Problems to Obtain Free and Clear Title by Seller
- Easement, Land Rights, or Other Utility Rights Transferred by Seller
- Regulatory Conduct and Compliance to Maintain Permits without Deficiency
- Transfer of all Necessary Agreements to Buyer
- Vendor Invoices, Materials, Supplies as Incurred up to Closing Paid by Seller

- Inventory of Consumables at Closing at Appropriate Levels for Continuous Operations
- Inspection of all Closing Documents
- Consideration for Performance and Penalty or Resolution of Non-performance
- Verification of Proper Authorization to Bind a Party
- Conduct After Agreement and Before Closing not to Diminish Value or Hamper Operations
- Seller Keeps Existing Funds, Restricted Funds and Satisfies Debt and Lien Obligations
- “As-is” Type of Transaction
- Rolling Stock, Movable Equipment, Laboratory Equipment, Tools and Accessories or Appurtenances Included in Sale
- Closing Date, Time, Place and Procedures within the exposure time of 2 years
- No Outstanding Litigation
- Assistance in Petitions or Transfer, No Objections, Contractual Extent and Type of Cooperation
- Payment of Representative Fees and Costs as Incurred by Each Party
- Payment of Documentary Stamps, Recording Costs by Buyer
- Payment of Title Search and Policy by Buyer
- Construction Work in Progress Payment to Seller of Actual Costs up to Transfer Date; if any and an increase of the purchase price for CWIP and a decrease of the purchase price for retirements.

1.21 CLIENT

The Client is Rainbow Municipal Water District located in Fallbrook, CA.

1.22 ADDITIONAL ITEMS

For the purpose of this Report, the following additional items warrant attention of the reader.

- a. Fair Market Value (FMV) is the price that 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.
- b. Since this property is a special purpose property, it is restricted to its permitted use as a public utility. No other restrictions are contemplated.

Section 2

SECTION 2: DESCRIPTION OF RAINBOW MUNICIPAL WATER DISTRICT PROPERTY

2.1 GENERAL

The RMWD is located in northern San Diego County along the 15 Freeway with Old 395 Highway and 76 as major roadways. The District is in the Rainbow, Pala, Bonsal, Camp Pendleton and Fallbrook area. It is north of Escondido and south of Temecula.

The overall service area is shown on **Figure 1**. The water service area is shown on **Figure 2**. The wastewater service area is shown on **Figure 3**.

2.2 WATER SYSTEM

There are fourteen (14) water storage tanks all in good condition or new condition located in the RMWD as shown on **Figure 4**, described in **Schedule 4-1** and shown in **Appendix "B"**. There are four (4) reservoirs, three (3) with covers and one without a cover (Beck) and held for future use as shown or described in **Section 4** and **Appendix "B"**. The reservoirs are in average to good condition.

The water pumping stations are located on **Figure 5**. The pumping stations, tanks and reservoirs are used to maintain the twelve (12) water pressure zones established in RMWD as shown on **Figure 6**. The pumping stations are in fair to good condition.

The water transmission/distribution system is expansive with over one million linear feet of pipe. This system is shown on **Figure 7**. There is only a minor amount of water loss in the system. The Atkins hydraulic analyses indicated good "C" (friction) factors. These two facts indicate that the water transmission/distribution system is in good condition.

2.3 WASTEWATER SYSTEM

The wastewater conveyance system is more limited than the water system. It generally parallels the San Luis Rey River and the tributaries where development has occurred. This conveyance system discharges into the Oceanside wastewater system for treatment and reclaimed water production. The wastewater conveyance system has two areas of significant inflow/infiltration, though generally the system is in good condition. **Figure 8** presents the wastewater conveyance system.

Wastewater Lift Station (LS) #1 is shown on **Figure 9**. LS #2 – Stallion lift station pumps the RMWD

flows through a force main system to the wastewater conveyance main interconnecting with Oceanside wastewater system.

Figure 10 shows LS #3 is near the Administration Building and pumps to the 24" PVC main along highway 76 as shown on **Figure 11**. The LS #4 system is shown on **Figure 12**. The LS #5 system is shown on **Figure 13**. The LS #6 system is shown on **Figure 14**. The condition of the wastewater lift stations is presented in **Appendix "B"**.

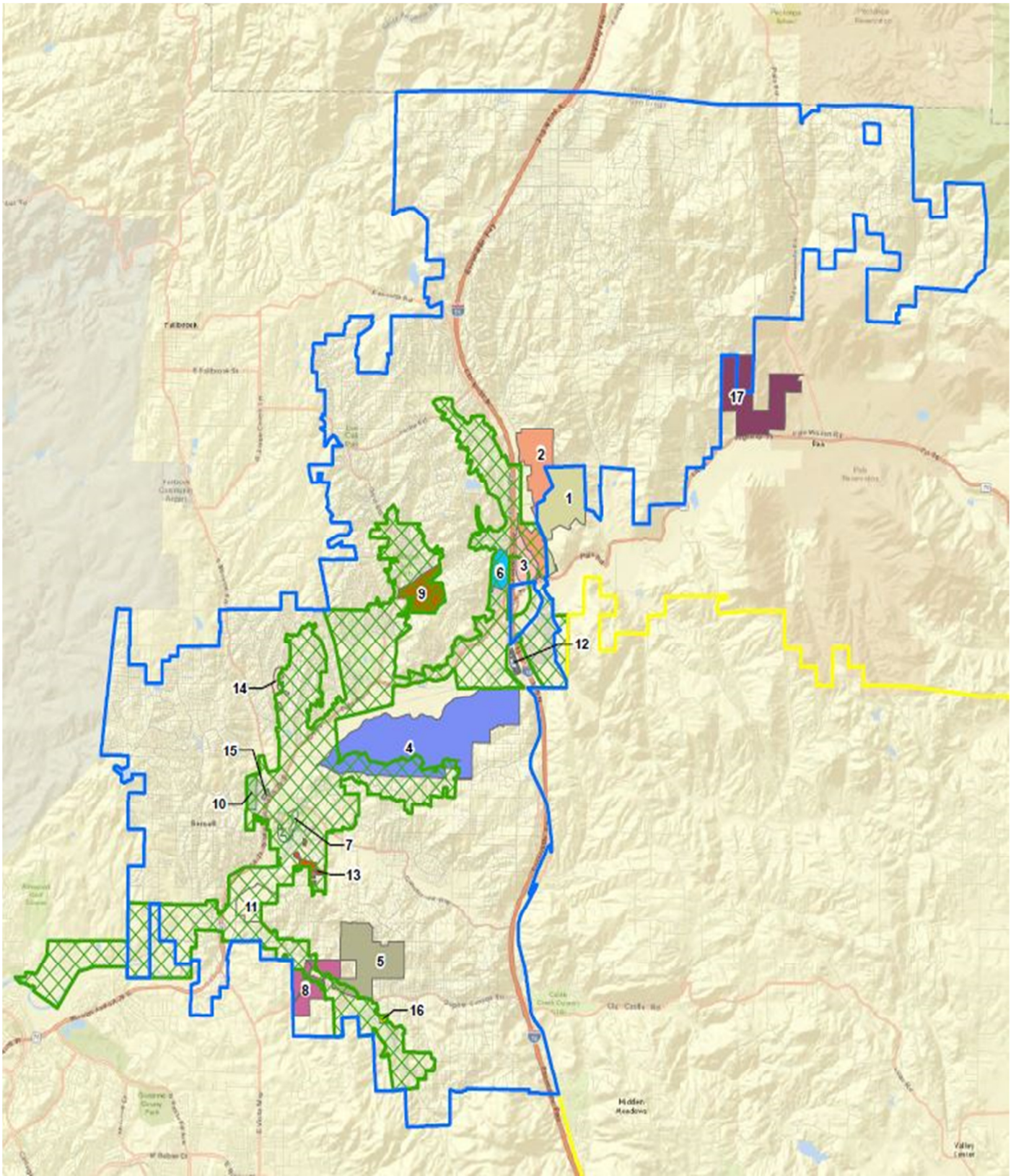
The wastewater force main system is relatively short and is shown on **Figure 15**.

The water system annual average daily flow is approximately 17.2 million gallons per day (MGD) or 19,700 acre feet/yr.

The wastewater system annual average daily flow (AADF) is approximately 0.7 MGD.

The extent and magnitude of the property is reflected in **Section 4** and with additional information in the Appendix.

RMWD is a water and wastewater utility with an exclusive service area and serving some 20,000 water ERCs water and some 4,000 wastewater ERCs.

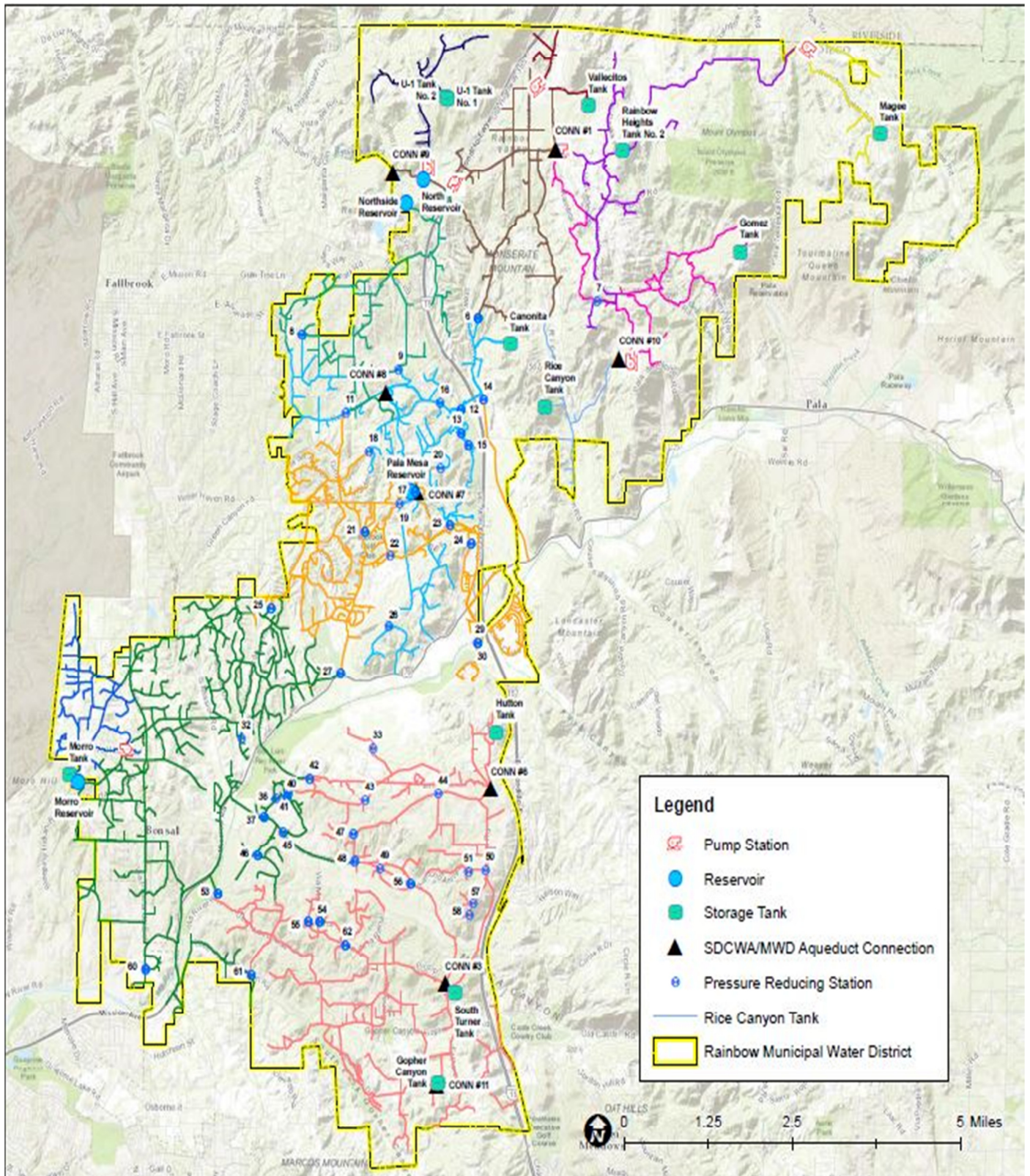


Overall Service Area

Gerald C. Hartman, PE, BCEE, ASA
 Hartman Consultants, LLC

Rainbow Municipal Water District

Figure 1

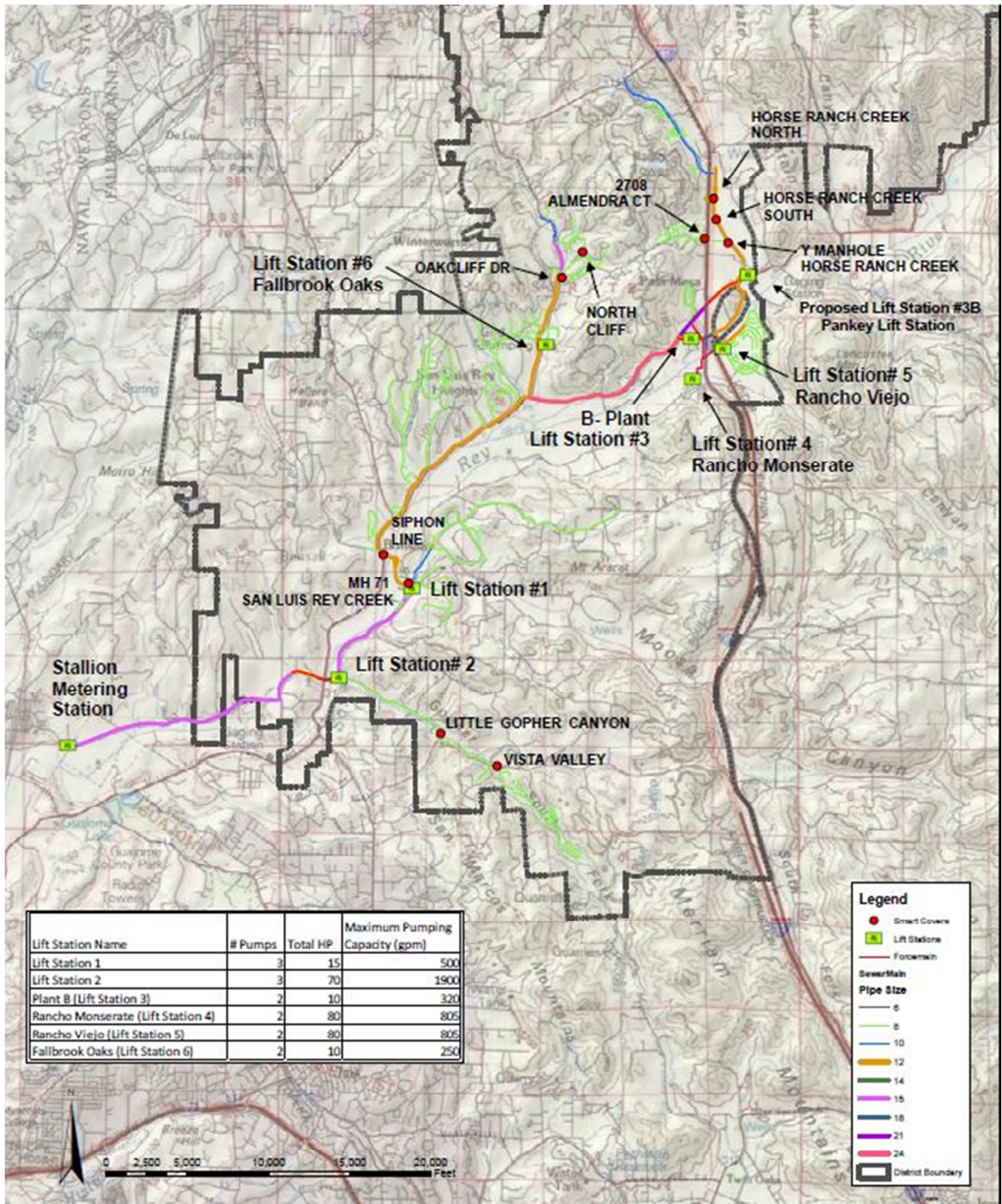


Water Service Area

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

Rainbow Municipal Water District

Figure 2

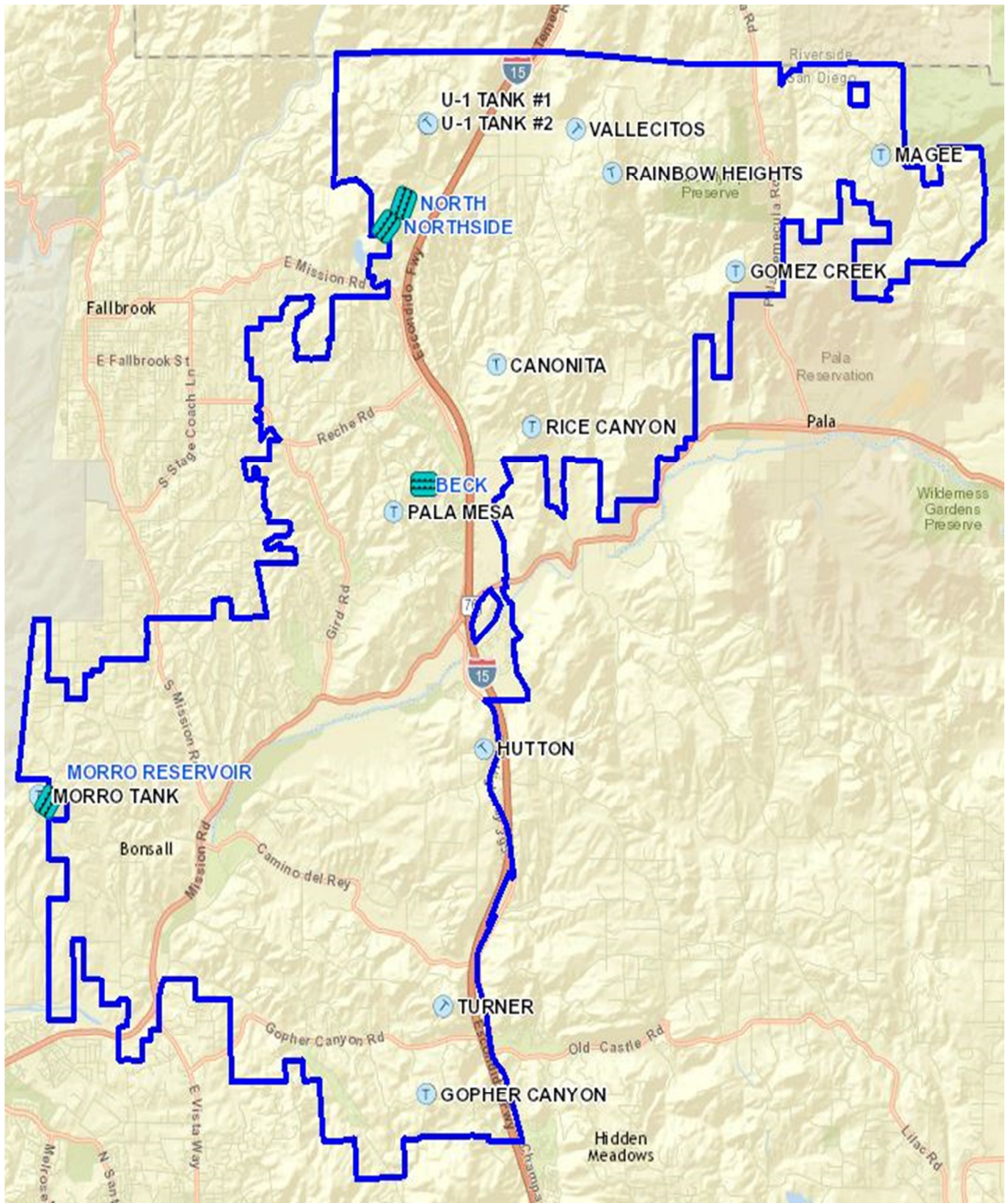


Wastewater Service Area

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

Rainbow Municipal Water District

Figure 3

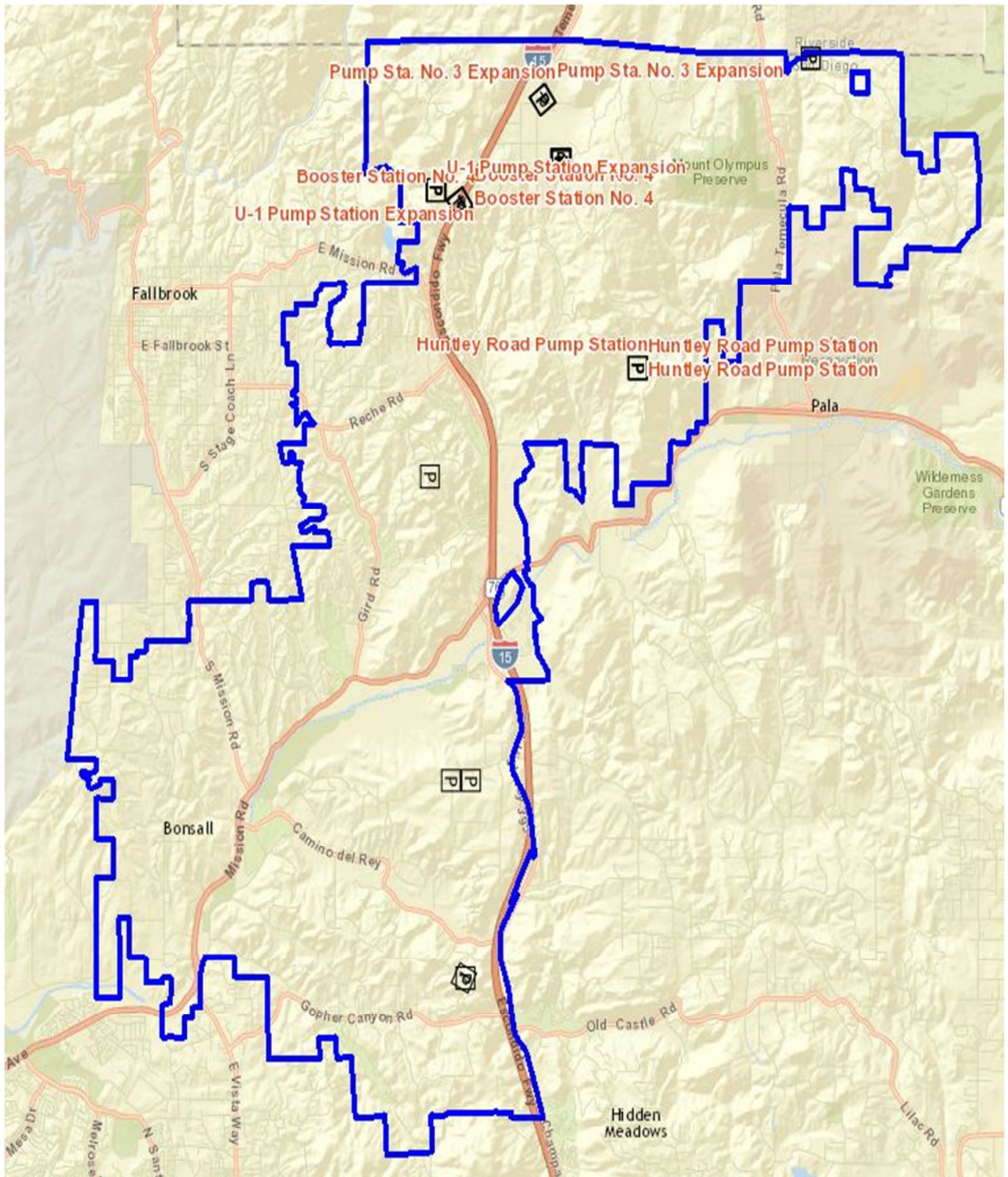


Water Storage Tanks & Reservoirs

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
4**

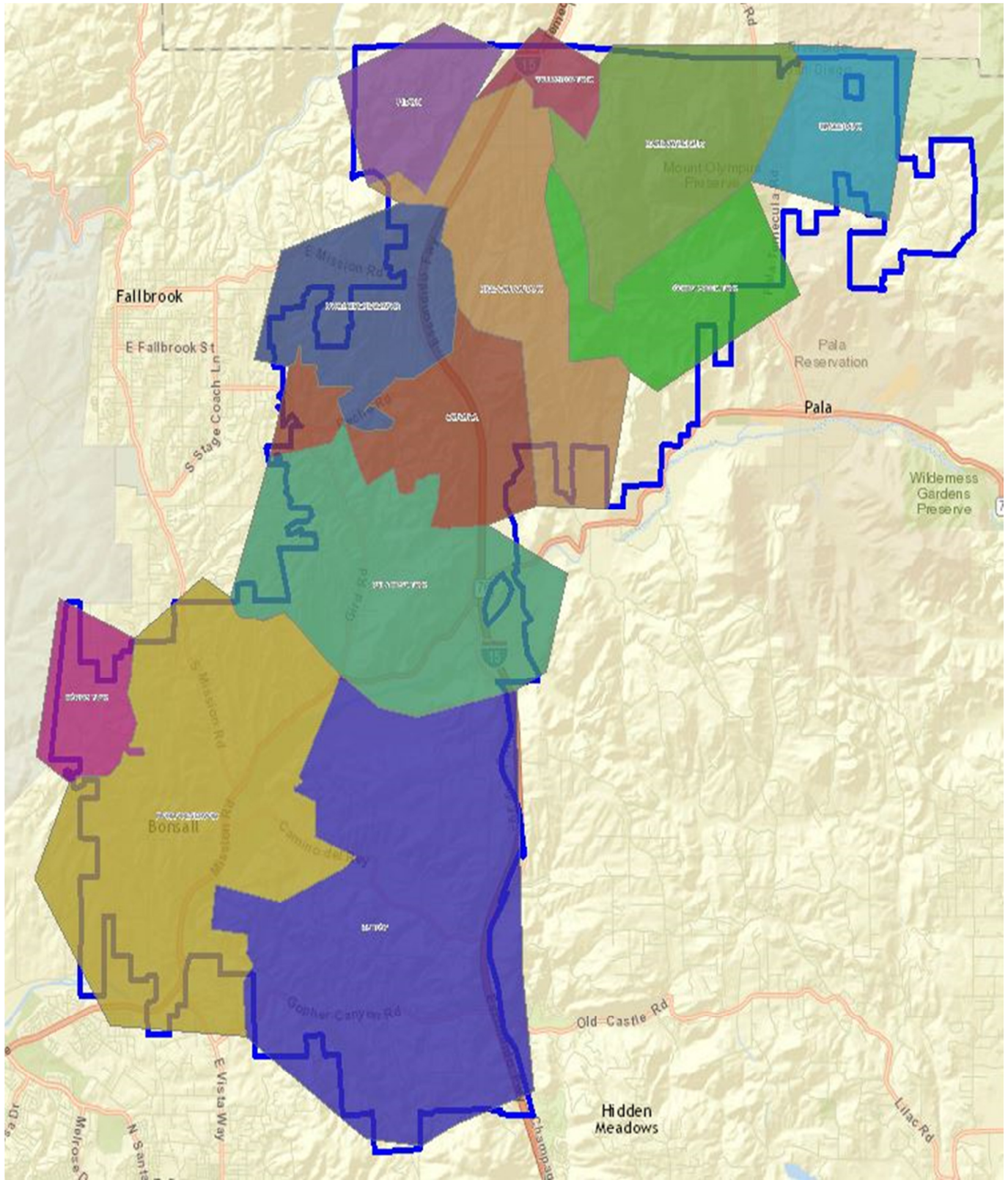


Water Pump Stations

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
5**

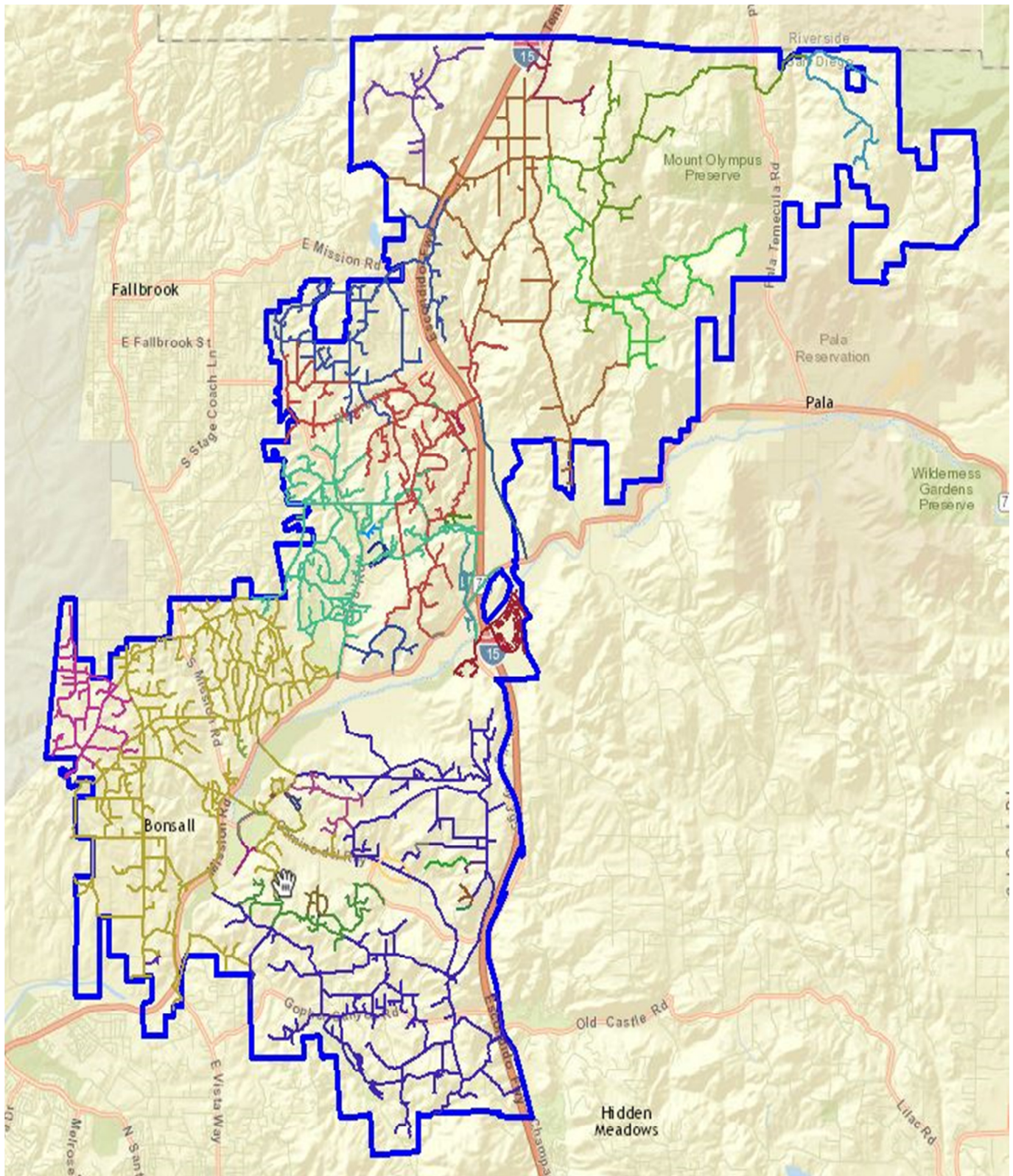


Water Pressure Zones

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
6**

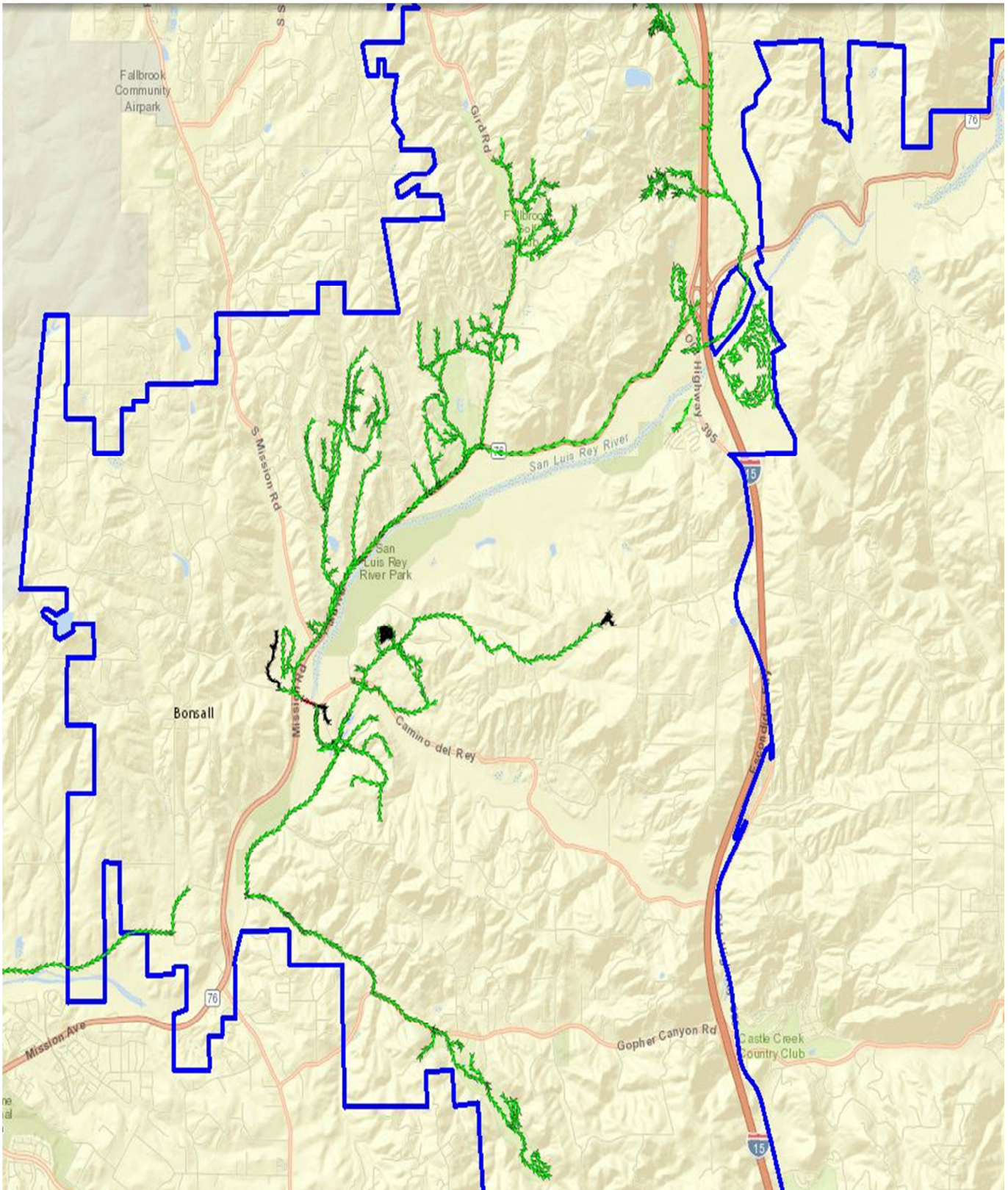


Water Distribution System

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

Rainbow Municipal Water District

Figure 7

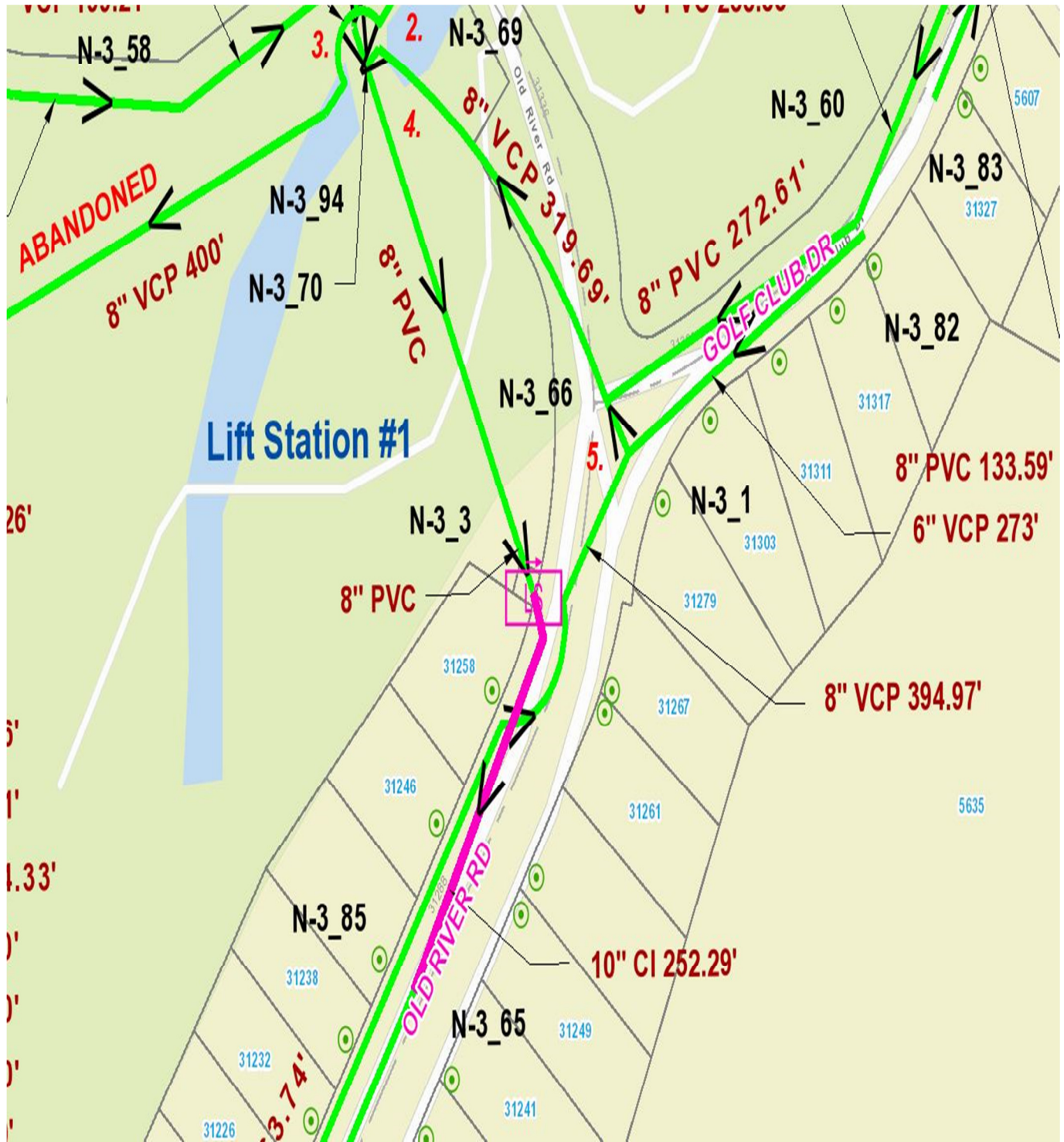


Wastewater Conveyance System

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
8**

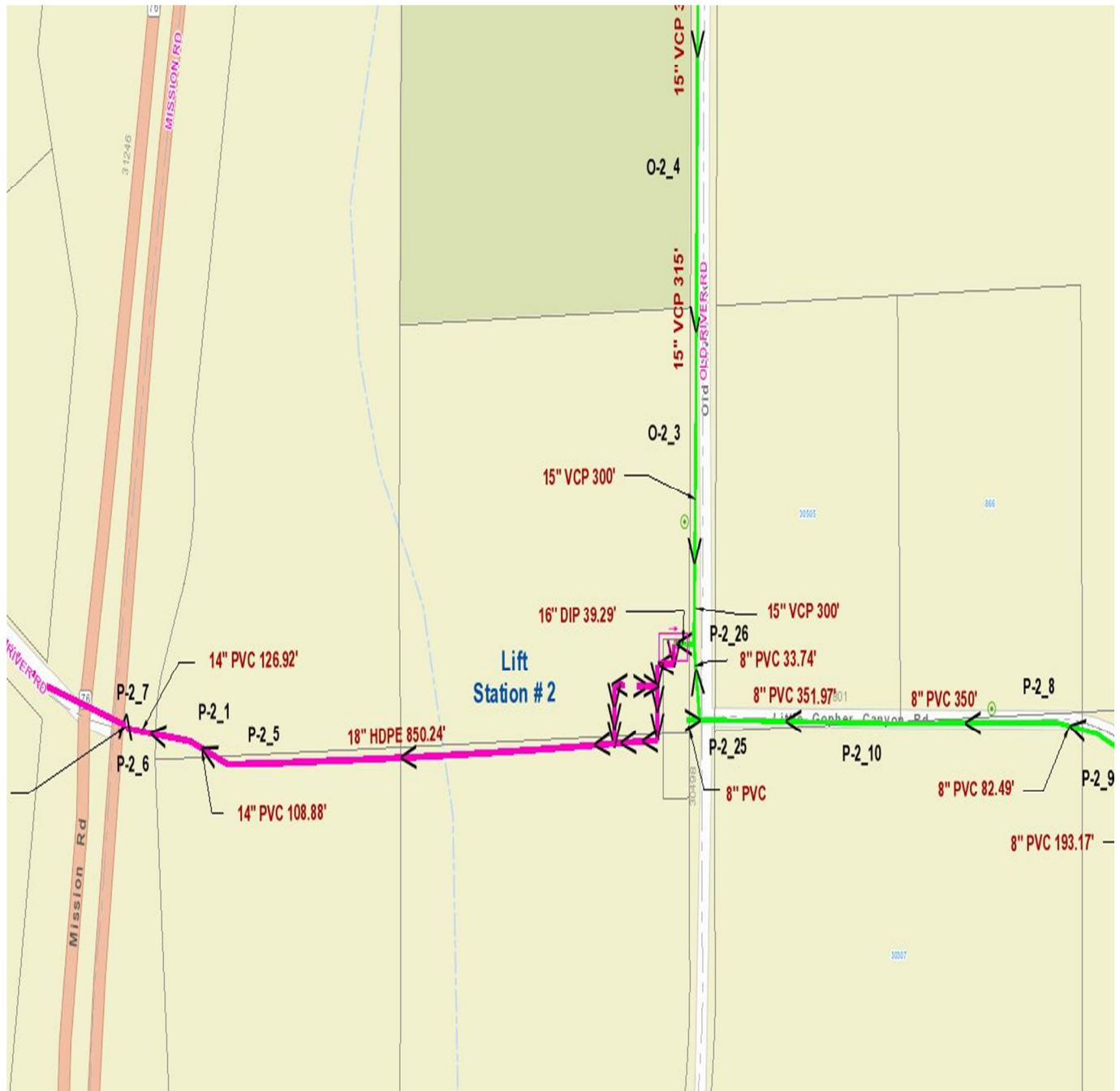


Wastewater Lift Station #1 Area

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
9**

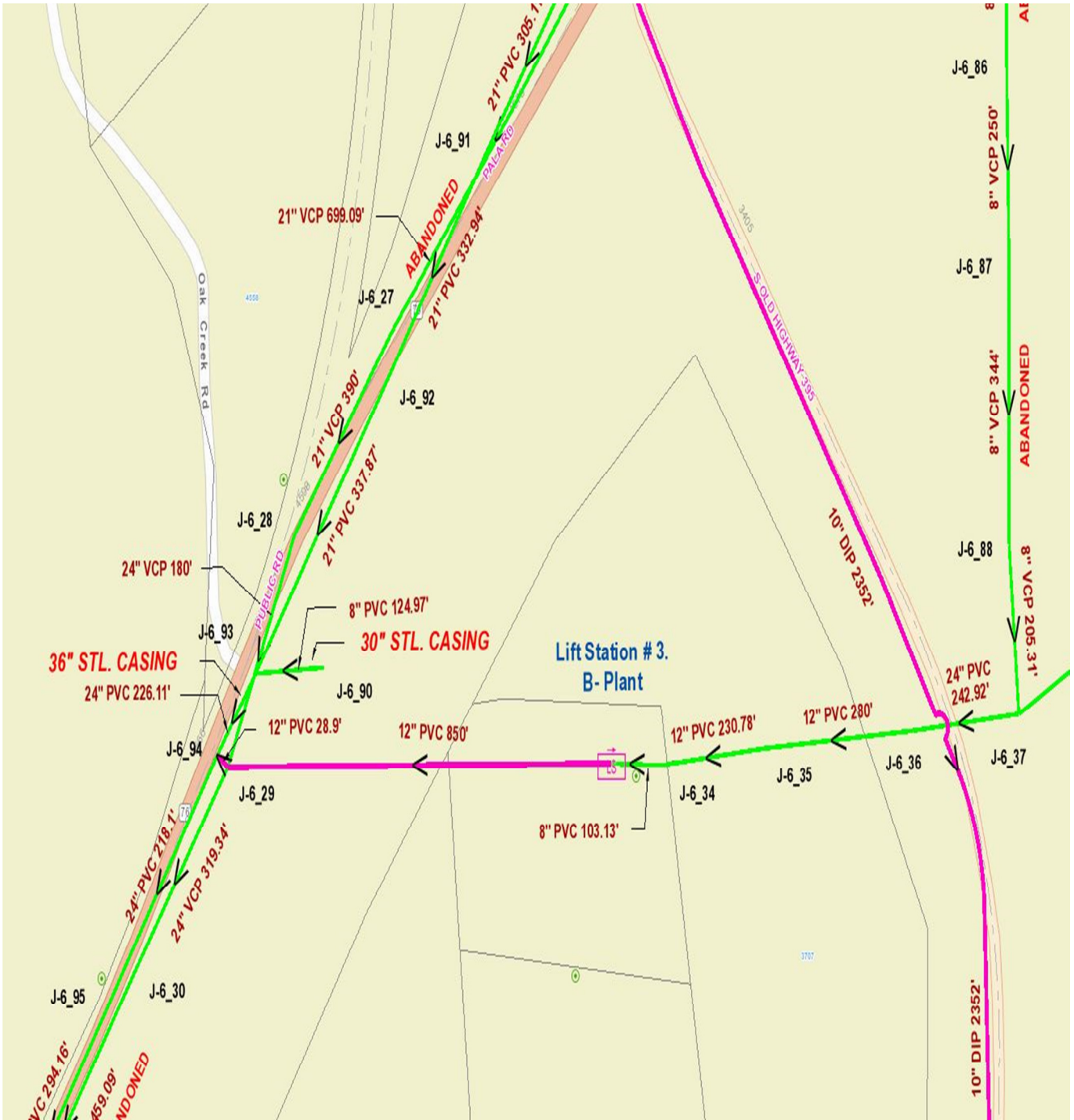


Wastewater Lift Station #2 Area

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
10**

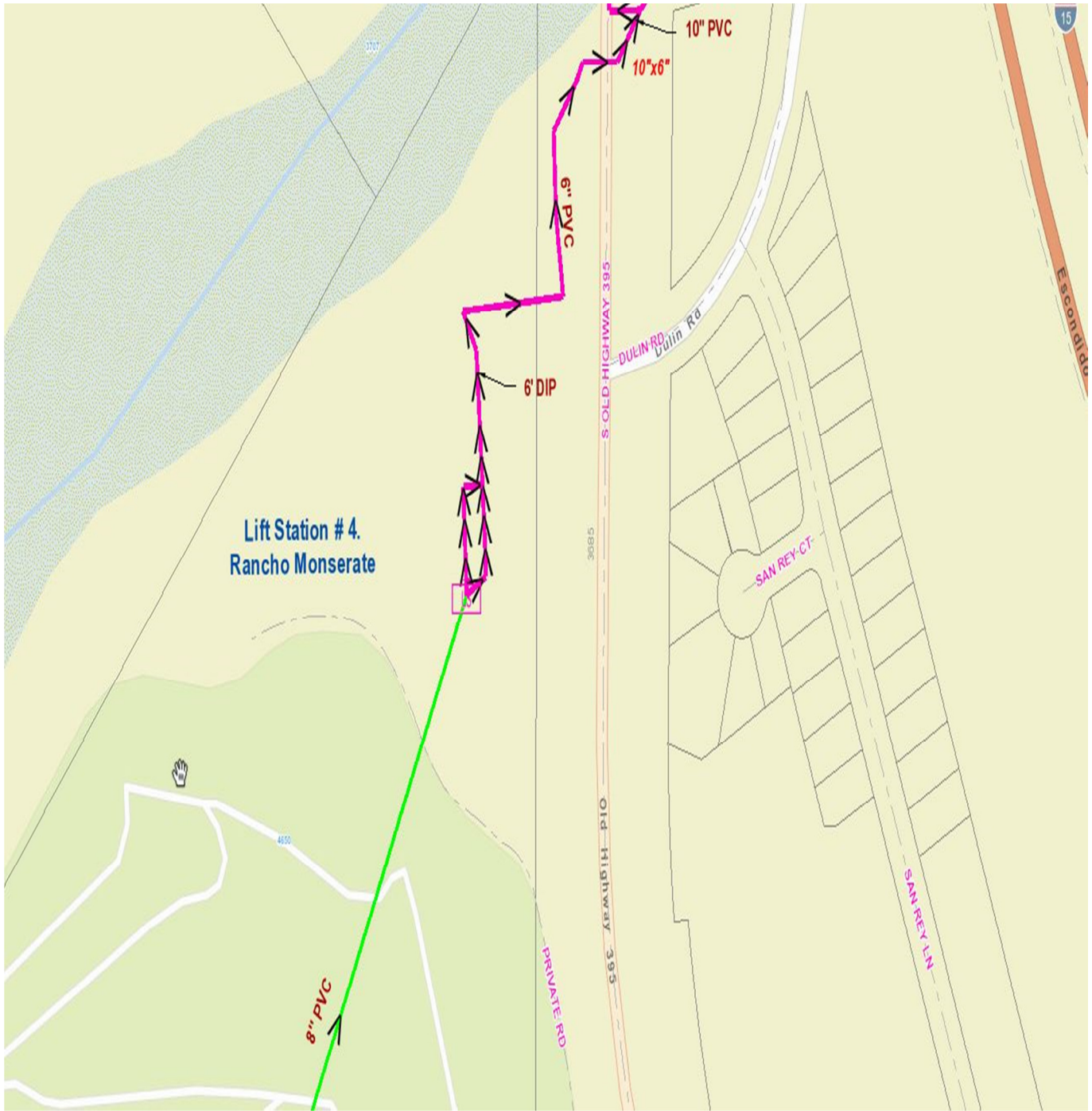


Wastewater Lift Station #3 Area

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

Rainbow Municipal Water
District

Figure
11

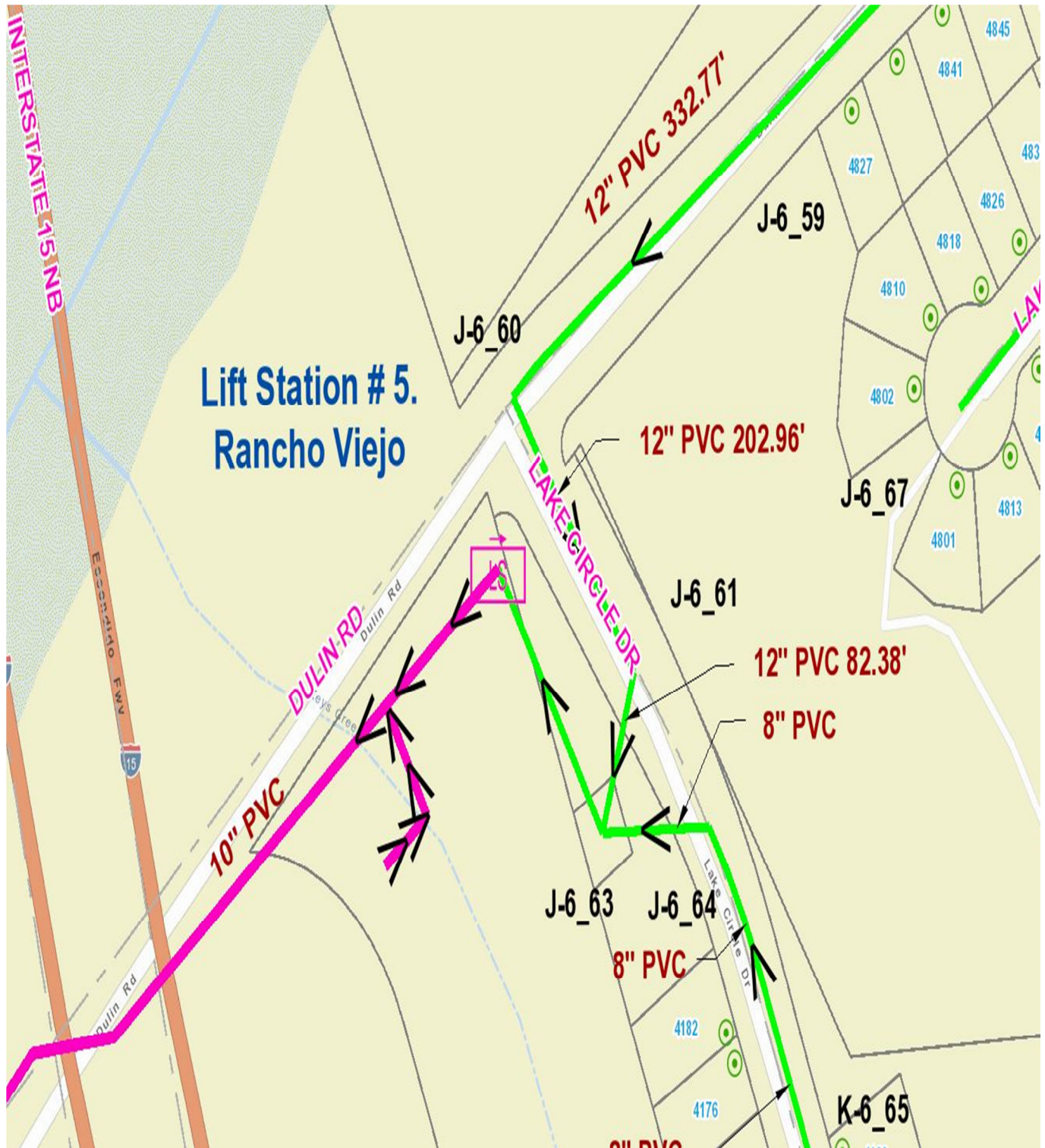


Wastewater Lift Station #4 Area

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
12**

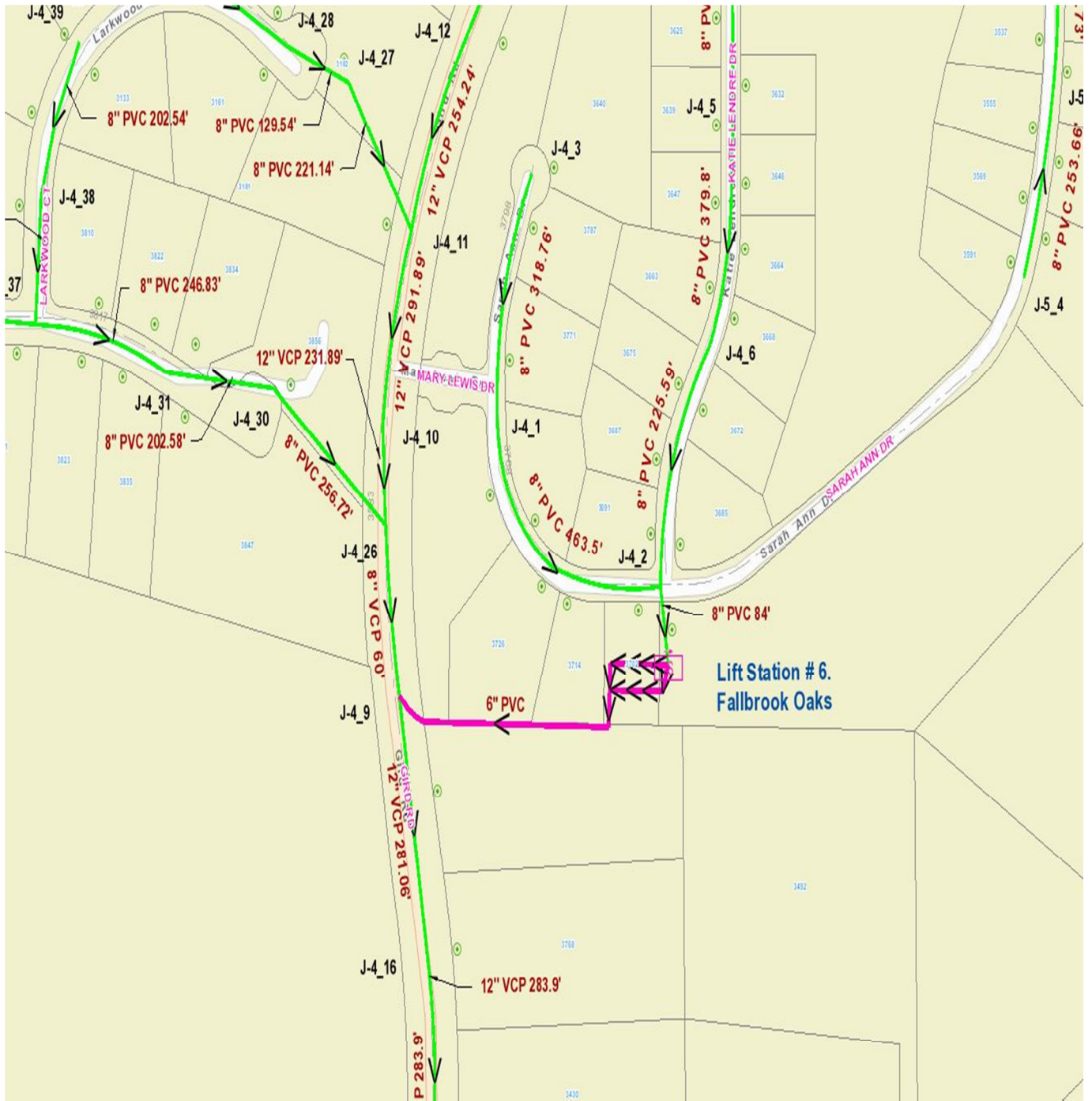


Wastewater Lift Station #5 Area

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
13**

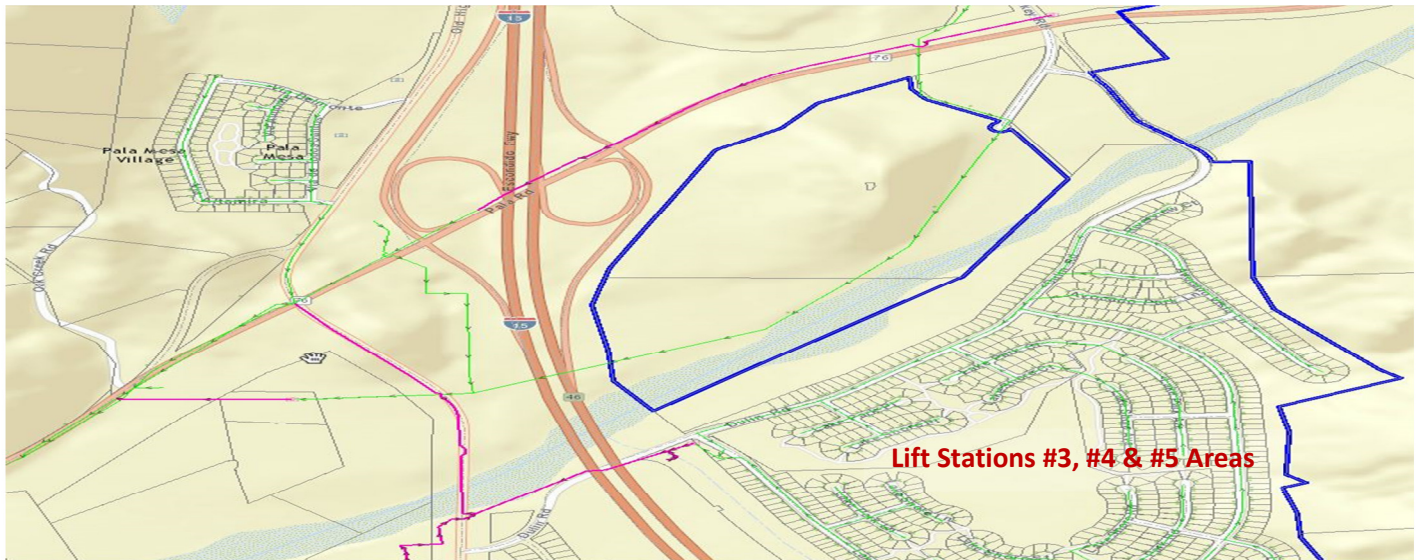


Wastewater Lift Station #6 Area

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
14**



Wastewater Force Main System

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

Rainbow Municipal Water
District

Figure
15

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 Tangible Personal Property (TPP) and without the going concern and without all intangibles such as water rights, etc. 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 the cost approach method selected for this Report and is commonly utilized in the determination of 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 systems involving, 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. 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 the purchaser 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.
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**.

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.

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**.

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, and 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.

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 Utility Appraisal is based upon the foregoing findings as well as professional experience.

Section 4

SECTION 4: COST APPROACH

4.1 INTRODUCTION

This section of the Report presents the opinion of value utilizing the Cost Approach for the property assets that are currently providing utility services for RMWD. The methodology selected for use in the cost approach valuation of the above property is replacement cost new less depreciation (RCNLD). This method is commonly utilized in the determination of value of public utilities and has been an accepted method with regard to value for several court cases involving the acquisition of utilities throughout the United States. The primary reason for using the RCNLD method is the fact that most utilities are comprised of complex connection pressure regulation, pumping, and piping and storage 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.

4.2 REPLACEMENT COST DETERMINATION

The replacement cost of this special purpose property in place and in-service is determined by calculating the construction cost new 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 System is one (1) large project with inherent economies of scale which are represented in the determination of replacements costs. The replacement costs used are derived from a variety of sources. Those sources include:

- (a) Actual construction costs of projects from HC records;
- (b) Dodge Room (LA) Bid Pricing;
- (c) Calls to contractors for estimates of prices, including those direct cost components which are generally described herein;
- (d) RMWD Data;
- (e) Prior engineering, planning and technical reports prepared for RMWD;
- (f) San Diego County unit prices;
- (g) Municipal unit prices;
- (h) Other water district unit prices;
- (i) Calls to manufacturers for material prices as well as for their experiences associated with the installation of their equipment;
- (j) Bid Pricing where applicable;
- (k) Where not available from other sources we used the:
 - (i). Various construction cost estimating manuals such as the RS Means Cost Data (RS) and/or the Engineering News Record (ENR) Cost Indices/Information for various components; and

- (ii). Capacity ratios as necessary to interpolate to a needed equivalent facility from two (2) comparable bids of slightly differing size.

A brief summary of the above is presented in **Appendix “E”**.

The various direct cost components that are included in the unit prices include:

<u>Item No.</u>	<u>Description</u>
1	Replacement Cost of the Item
2	Sales Taxes, as Applicable
3	Freight
4	Rigging and Moving, as Applicable
5	General Electrical Item Related
6	Item Foundation or Fixture
7	Item Piping Connection to Value of Plant Piping, as Applicable
8	Debugging, as Applicable
9	Item Operation and Maintenance (O&M) Manual
10	Start-Up
11	Labor and Cost for Construction Equipment/Machinery/Tools/Specials Necessary for Installation Complete
12	Indirect Costs @ 18%

The data obtained from the above sources have been summarized and included within the analyses that we have provided. Additionally, construction work in progress is not valued and is considered as part of the standard terms and conditions of a utility transaction. This includes active developer projects which have yet to be dedicated and accepted by RMWD as of 5/19/2016.

The American Society of Appraisers (ASA), in their Principals of Valuation courses involving the machinery and technical specialties which include the specific provision for public utilities, have developed valuation guidelines. Through their courses titled ME 201, 202, 203, and 204 for machinery and equipment valuation, the methodology is summarized. These guidelines provide for the rounding of valuation amounts. This report is compliant with the Uniform Standards of Professional Appraisal Practice, 2016-2017 Edition. The rounding pursuant to ASA guidelines are shown below.

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

Source: ASA guidelines

4.3 RECOMMENDED DEPRECIATION SCHEDULE

Each System component has been assigned an average service life. HC is adopting an aggregate and weighted depreciation schedules shown below:

Item	ASL (Years)
• Steel Tanks (Storage)	75
• Composite Prestressed Concrete Ground Storage Tanks	75
• Floating Covers for Reservoirs	30
• Concrete Reservoirs (Floating Covers)	75
• Concrete Slabs Reservoir	75
• Water Booster Pumping Stations (Composite)	55
• Water Pressure Regulating Stations	45
• Water Transmission and Distribution Mains	100
• Water Meters	25
• Water Services/Connections	80
• Wastewater Conveyance Mains	85
• Wastewater Pump Stations	35
• Wastewater Force Mains DIP	100
• Wastewater Force Mains RVC/HDPE	75
• Wastewater Laterals	100

4.4 INDIRECT COST COMPONENTS

The indirect cost components included in this analysis are legal costs; insurance costs and other related insurance items; licenses, permits, and fees; technical services; financing; and overhead costs. These costs are typically shown as a percentage of the asset. This is customary and typical for the industry. Note that the ASCE Manual of Practice No. 45 and the American Institute of

Consulting Engineers curves are utilized for the technical service aspects. Also note that it is assumed that the Client’s assumed interest rate on financing is 3% for four (4) years with a midpoint convention cost of 6% allocated to the indirect cost. The percentages shown are typical and provide for the total indirect cost for the project at 18% as shown below:

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

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

4.5 REPLACEMENT COST ANALYSES

This Report includes the replacement cost analyses as conducted by Mr. Gerald C. Hartman, BCEE, ASA, P.E and by A.T. Gawad, P.E. The quantities and inventory of assets were provided by RMWD. HC personnel did inspect the property. The Client was a significant contributor to this effort. Willdan documented the above ground facilities with photographs a summary of which are shown in **Appendix “B”**.

The results of the replacement cost new less physical depreciation determination are summarized in the following sub-sections.

4.5.1 WATER STORAGE FACILITIES

RMWD has significant and very well maintained water storage facilities as described in **Section 2** and inspected in **Appendix “B”** with photo documentation. RMWD has contracted with a tank maintenance contractor specialist to keep the existing facilities in very good condition.

There are eighteen (18) storage locations of which two (2) are currently not in use (property held for future use) and one (Beck Reservoir) planned for a conversion of use to a reclaimed water storage facility

The estimated replacement cost new is \$174,820,000 or \$175 million rounded as shown on **Schedule 4-1**. We have found that the cumulative depreciation of these properties is approximately \$88,600,000 or almost 51%. The replacement cost new less depreciation (RCNLD) was found to be \$86,200,000 as of the effective date (5/19/2016) of this Report.

4.5.2 WATER BOOSTER PUMP STATIONS

There are seven (7) water booster pump stations which are critical to the transfer of water between pressure zones and for storage refilling operations. These facilities appear to be well maintained, yet experience the highest level of wear of the water system excluding customer meters. Varying demands and changing conditions cause a wide range of operating integration requirements than typically found in a municipal water system. **Schedule 4-2** presents the economy of scale (one project) replacement cost new like facilities at \$4,055,000, rounded to \$4,060,000. Generally, these facilities have more frequent renewals, replacements and major maintenance which is funded in the operating budget from rate recovery on an annual basis. We have found the effective level of depreciation to be at 46%, though the remaining life is shorter than the storage facilities addressed in the previous section.

The depreciation cost for this group of property is \$1,880,000 rounded. The RCNLD was found to be \$2,170,000 rounded.

4.5.3 WATER PRESSURE REGULATING STATIONS (PRS)

For the purposes of the Report fifty-three (53) water pressure regulating stations were valued. They have varying types and configurations and levels of security (fencing, bollards, etc.). Most recently inspected was a self-contained hatch covered type which was recently under construction in the April 2015 – May 2016 period by Engineer Fluid Systems, Inc. in the Olive Hill area. These two (2) newest PRS’s were not included in the estimates provided. As more PRS’s are built, the number and the RCNLD will increase. These stations are necessary to reduce the working pressure on local residential or other customer systems which may experience 200 to 300+/- pounds per square inch (PSI) without pressure regulation.

Schedule 4-3 presents the water pressure regulating stations. If all constructed at once with the storage and water transmission (tapping costs, etc. are excluded due to the principal of substitution) the replacement cost found was \$3,320,000. These facilities were found to be approximately forty-six percent (46%) depreciated. The RCNLD was found to be \$1,790,000.

4.5.4 WATER TRANSMISSION AND DISTRIBUTION MAINS

This group of assets is the most extensive group owned by RMWD. Over 1,704,000 linear feet of main exist and some additional facilities (such as Olive Hill and other developments) have added more facilities. The planned and/or projected developments within and desiring service from RMWD will add more property to the system. In addition, the planned capital improvements, to the extent they are implemented will further enlarge the property owned by RMWD in all grouping of property.

Schedule 4-4 presents the summary of the analyses for the water transmission and distribution mains property grouping. The replacement cost new is \$344 million. The average service lives are the longest of all property groups. We have found in this area of California in the more mountainous systems with steel pipe and similar quality water, mains over 100 years old and in very good condition. Determination of the effective age of the existing transmission mains requires cutting out sections, detailed pipe wall inspection and analysis, and potentially metallurgy comparisons which are all outside the scope of this work. Without that work, standard engineering pipe age/life estimates which terminate at 100 years for tangible personal property are used. It is most probable that the level of actual depreciation is overstated, yet was found to be 31%. This group of property has the longest remaining service lives of those in the RMWD systems.

The depreciation cost was found to be 31% or \$107,000,000. The resulting RCNLD is \$237,000,000 rounded.

4.5.5 WATER CONNECTIONS, METERS AND SERVICES

This grouping of property involves the water connections to the San Diego County Water Authority, the connections from the RMWD water transmission and distribution system to the customer and the RMWD customer meter arrangement/configuration.

We have allocated the functional obsolescence (depreciation) and external (economic) obsolescence (depreciation) primarily on the meter ASL reducing it to 25 years.

Pipe is pipe and has been used for water conveyance for some 2,500 years, though the materials, construction means methods have changed. No functional or external obsolescence was found in the other property groupings.

Schedule 4-5 summarizes the RCNLD analyses performed for this property grouping. The replacement cost new is \$81,700,000. The level of depreciation was found to be approximately 39% or \$31,800,000. The RCNLD was found to be \$49,900,000.

4.5.6 WATER SYSTEM SUMMARY

The Water system is summarized on **Schedule 4-6**. The water system facilities replacement cost new (principal of substitution with economy of scale construction) was found to be \$608,000,000. The level of depreciation cost new from all sources was found to be \$231,000,000 or approximately 38%. The resulting RCNLD is \$377,000,000 or \$377 million dollars.

4.5.7 WASTEWATER CONVEYANCE MAINS

There are three major types of wastewater conveyance mains. The first is the local collection system either discharging into a wastewater lift station or gravity transmission system. The second is the gravity transmission system which discharges into the regional Stallion wastewater lift station #2 or a repumping lift station. The third is the Oceanside – RMWD transmission system.

Schedule 4-7 presents our costing of these systems. The replacement cost new is \$51,500,000. The level of depreciation applied is approximately 37% resulting in a cost for depreciation of \$19,300,000, as rounded. The RCNLD was found to be \$32,200,000.

This is the largest of the four (4) wastewater property groups. Only two areas exhibited high inflow/infiltration. All systems have some level of inflow/infiltration. For the extent of the RMWD system, the level is moderate and not commanding a price reduction from a willing buyer.

4.5.8 WASTEWATER LIFT/PUMP STATIONS

There are six (6) wastewater lift stations in the system. They have relatively short force main systems which discharge into the wastewater conveyance system.

There are three (3) developer type package “can” stations either by Smith & Loveless or Gorman Rupp. There is a Meyers grinder type submersible (smallest station). There are two (2) more modern Flygt submersible stations, the largest being the Stallion 1,900 gpm lift station #2 which has amenity structures grouped with the general plant structures.

The replacement cost new (as all submersibles) is shown on **Schedule 4-8** and was found to be \$1,765,000. The level of depreciation was found to be 37% or \$661,000 (rounded). The resulting RCNLD is \$1,100,000 (rounded).

4.5.9 WASTEWATER FORCE MAINS

The minor amount of wastewater force mains are shown on **Schedule 4-9**.

The replacement cost new is \$1,750,000 (rounded). The level of depreciation is 32% or \$560,000 (rounded). The resulting RCNLD is \$1,190,000.

4.5.10 WASTEWATER LATERALS

There is a wide range of service connections to the gravity conveyance system. Chimney connections, dual/wye connections, single connections, dual service connections, etc. of a variety of type length, etc. We grouped these into an average cost and distributed the age proportionally to the companion water system.

Schedule 4-10 summarizes the wastewater lateral analysis performed. The replacement cost is \$11,000,000. The level of depreciation is 32%. The resulting RCNLD is \$7,500,000 (rounded).

4.5.11 WASTEWATER SYSTEM SUMMARY

Schedule 4-11 presents the wastewater system RCNLD summary.

The estimated replacement cost new is \$66,000,000 (rounded).

The level of depreciation is approximately 36%. The cost of depreciation is \$24,000,000 (rounded).

The resulting RCNLD for the RMWD wastewater system is \$42,000,000.

4.5.12 INVENTORY COST

RMWD operates a warehouse and has laydown areas and other storage areas for the utility inventory used in the system.

The inventory is as provided by RMWD and valued at the book or original cost also provided by RMWD. This work can be found in **Appendix "C"**.

The total amount of inventory reported is \$924,998 or \$925,000 rounded.

4.5.13 LARGE AND SMALL EQUIPMENT

The large and small equipment grouping is valued at the used market for portable equipment. There is no depreciation since the amounts are the trade levels found near the effective date for the description, age, and assumed average condition of such equipment.

Schedule 4-12 provides the summary of the findings for this grouping of property. The amount totaled \$907,000 (rounded).

4.5.14 FLEET

The RMWD fleet would be a grouped sale of used vehicles, trucks, etc. We used Kelly Blue Book of Construction Equipment Auction House values that were current to the effective date of the appraisal. Again, no depreciation is applied. The values determined are grouped trade amounts in the current market. The Fleet is summarized on **Schedule 4-13**. The amount is \$763,300 or \$760,000 (rounded).

4.5.15 RAW LAND

The land values are shown in **Appendix "A"** as **Schedule A-1**. The land value was found to be \$6,200,000 (rounded). Some of the land shown is a super-adequacy or excess.

4.5.16 LAND IMPROVEMENTS / GENERAL PLANT

The land improvements include the:

- (a) Morro Disinfection/Combined or Free Chlorination Facility
- (b) Stallion Amenities (bathroom building, etc.)
- (c) RMWD Administration Building
- (d) Fixed Auxiliary Power Installations
- (e) Bathroom Trailer
- (f) Engineering Trailer
- (g) Operations Building
- (h) Warehouse Building
- (i) Fuel Station
- (j) Shop(s)
- (k) Maintenance Building(s)
- (l) Garage Structures
- (m) Site Work, Paving and Security at Administration Building
- (n) SCADA System
- (o) Telecommunications
- (p) Office Equipment, Furnishings, Fixtures, Computers, etc.

(q) Building Contents (non-consumable) used in the operations, management, and administration of the District.

We have excluded the non-functional admin location package WWTP, and other non-functional or scrap items in our opinion from our analysis.

The above were accomplished as general estimates and/or market type due diligence without specific appraisals of each general plant or land improvement item.

The estimate is approximately \$12,000,000 rounded. For an IOU utility with 8,000 water and 4,000 wastewater connections, the market level is roughly \$3,000,000. The super-adequacy is estimated at \$9,000,000 (yet the full amount is necessary for the location specific extent, configuration, characteristics and location of the systems).

4.5.17 SUMMARY OF RCNLD

The summary of the RCNLD for RMWD is shown on **Table 4-1**.

Due to the fact that this report use is for connection/capital charge support, no intangible values are incorporated.

Going concern is the difference between a “live plant” and a “dead plant”. This item can include as many as twenty-one (21) categories of intangible value. There are two methods of attaining an opinion on this portion of intangible value. One is the appraiser’s estimate within the typical range of 5% to 25% (see Nichols on Eminent Domain) and the other is the buildup method of estimates of cost or value for the twenty-one or smaller categories of applicable intangible going concern value. Our estimate is 19.7% for the RMWD system specifically.

Table 4-1
Rainbow Municipal Water District
 Replacement Cost Approach
 Water, Wastewater & Other Assets
Summary

<u>No.</u>	<u>Description of Assets</u>	<u>Amount</u>
1	Water System	\$607,551,165
2	Wastewater System	\$66,008,973
3	Subtotal Systems	\$673,560,138
4	Physical, Functional and External	\$(230,804,544) water
5	Depreciation Water and Wastewater	\$(23,989,541) wastewater
6	Inventory	\$924,998
7	Large and Small Equipment	\$907,109
8	Fleet	\$763,300
9	Net Utility	\$421,361,460
10	Going Concern at 19.7%	Not Applied
11	Land and General Plant	\$18,200,000
12	RCNLD Total	\$440,000,000

The other major intangible values are the various rights and privileges of the utility. In California a major intangible value is for the needed water rights for operations. Again, this grouping of intangible value is not included in this Report.

The finding of the RCNLD of the RMWD without intangible value, a modified real property value, and full tangible personal property value is:

\$440,000,000

(Four Hundred and Forty Million Dollars)

The financing plan delineated in this Infrastructure Financing Plan is based on the best information available regarding the scope, timing, and value of future development. However, given the time horizon for the entire EIFD development and the conceptual nature of some of the planned developments, actual values may be different than the projections contained herein.

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Storage Facilities

No.	Description ⁽¹⁾	Pressure Zone	Capacity (MG)	Type	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
1	Magee Tank	Magee	3.0	Welded Steel	\$5,400,000	\$5,400,000	1983	33	75	44.00%	\$2,376,000	\$3,024,000
2	Rainbow Heights Tank No. 1(1)	Rainbow Heights	0.9	Welded Steel	\$1,950,000	\$1,950,000	1950	66	75	88.00%	\$1,716,000	\$234,000
3	Rainbow Heights Tank No. 2	Rainbow Heights	4.0	Welded Steel	\$6,300,000	\$6,300,000	1981	35	75	46.67%	\$2,940,000	\$3,360,000
4	Gomez Tank	Gomez	3.5	Welded Steel	\$5,850,000	\$5,850,000	1985	31	75	41.33%	\$2,418,000	\$3,432,000
5	U-1 Tank No. 1(1)	U-1	0.6	Welded Steel	\$1,700,000	\$1,700,000	1963	53	75	70.67%	\$1,201,333	\$498,667
6	U-1 Tank No. 2	U-1	1.5	Welded Steel	\$3,200,000	\$3,200,000	1980	36	75	48.00%	\$1,536,000	\$1,664,000
7	Vallecitos Tank	Vallecitos	0.4	Bolted Steel	\$1,100,000	\$1,100,000	1983	33	75	44.00%	\$484,000	\$616,000
8	Northside Reservoir Cover	Northside	22.8	Floating Fabric	\$2,100,000	\$2,100,000	2010	6	30	20.00%	\$420,000	\$1,680,000
8	Northside Reservoir	Northside	22.8	Concrete	\$9,800,000	\$9,800,000	1963	53	75	70.67%	\$6,925,333	\$2,874,667
9	North Reservoir Cover	North	7.8	Floating Fabric	\$800,000	\$800,000	2011	5	30	16.67%	\$133,333	\$666,667
9	North Reservoir	North	7.8	Concrete	\$7,700,000	\$7,700,000	1956	60	75	80.00%	\$6,160,000	\$1,540,000
10	Rice Canyon Tank	North	4.0	Welded Steel	\$6,300,000	\$6,300,000	1980	36	75	48.00%	\$3,024,000	\$3,276,000
11	Canonita Tank	Canonita	6.0	Welded Steel	\$7,820,000	\$7,820,000	1969	47	75	62.67%	\$4,900,533	\$2,919,467
12	Gopher Canyon Tank	South	4.0	Welded Steel	\$6,300,000	\$6,300,000	1975	41	75	54.67%	\$3,444,000	\$2,856,000
13	Hutton Tank	South	4.0	Welded Steel	\$6,300,000	\$6,300,000	1987	29	75	38.67%	\$2,436,000	\$3,864,000
14	South (Turner) Tank	South	4.0	Welded Steel	\$6,300,000	\$6,300,000	1989	27	75	36.00%	\$2,268,000	\$4,032,000
15	Beck Reservoir(1)	Pala Mesa	203.7	Concrete slabs	\$30,000,000	\$30,000,000	1982	34	75	45.33%	\$13,600,000	\$16,400,000
16	Pala Mesa Tank	Pala Mesa	6.0	Composite Cement	\$8,800,000	\$8,800,000	2012	4	75	5.33%	\$469,333	\$8,330,667
17	Morro Tank	Morro Tank	4.0	Welded Steel	\$6,300,000	\$6,300,000	1967	49	75	65.33%	\$4,116,000	\$2,184,000
18	Morro Reservoir Cover	Morro Res	151.5	Floating Fabric	\$5,300,000	\$5,300,000	2012	4	30	13.33%	\$706,667	\$4,593,333
18	Morro Reservoir	Morro Res	151.5	Concrete	\$45,500,000	\$45,500,000	1971	45	75	60.00%	\$27,300,000	\$18,200,000
Total Storage Facilities						\$174,820,000				50.67%	\$88,574,533	\$86,245,467

Notes:

- 1 The assets quantities, sizes, materials and year in service were documented from available reports, drawings and other information provided.
- 2 Cost new to replace per bid tabs and contractor / manufacturer quotes including engineering, permitting, material, labor, installation, site preparation, etc. and all assets built at the same time with economy of purchase.
- 3 Average service lives are based on recommended depreciation schedules.

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Booster Pump Stations

No.	Description ⁽¹⁾	Capacity (gpm)	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Composite		Est. Comp. ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
					Year in Service	Age as of 2016				
1	PS #1 - Rainbow Heights	3,509	\$990,000	\$990,000	2001	15	55	27.27%	\$270,000	\$720,000
2	PS #2 - U-1	1,615	\$485,000	\$485,000	1980	36	55	65.45%	\$317,455	\$167,545
3	PS #3 - Vallecitos	679	\$315,000	\$315,000	1983	33	55	60.00%	\$189,000	\$126,000
4	PS #4 - Northside	6,296	\$810,000	\$810,000	1999	17	55	30.91%	\$250,364	\$559,636
5	PS #5 - Morro Hills	3,455	\$555,000	\$555,000	1982	34	55	61.82%	\$343,091	\$211,909
6	PS #6 - Huntley Gomez	4,552	\$625,000	\$625,000	1985	31	55	56.36%	\$352,273	\$272,727
7	PS #7 - Magee	1,398	\$275,000	\$275,000	1984	32	55	58.18%	\$160,000	\$115,000
Total Booster Pump Stations				\$4,055,000				46.42%	\$1,882,182	\$2,172,818

Notes:

- 1 The assets quantities, sizes, materials and year in service were documented from available reports, drawings and other information provided.
- 2 Cost new to replace per bid tabs and contractor / manufacturer quotes including engineering, permitting, material, labor, installation, site preparation, etc. and all assets built at the same time with economy of purchase.
- 3 Average service lives are based on recommended depreciation schedules.

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Pressure Regulating Stations

No.	Description ⁽¹⁾	PRV / PSV Size (inch)	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
1	Magee PS	12,8,2	\$114,400	\$114,400	2001	15	45	33.33%	\$38,133	\$76,267
2	U1 PS	6	\$35,100	\$35,100	1995	21	45	46.67%	\$16,380	\$18,720
3	PS 4	6	\$35,100	\$35,100	1999	17	45	37.78%	\$13,260	\$21,840
4	PS 1 North	8	\$52,000	\$52,000	2001	15	45	33.33%	\$17,333	\$34,667
5	PS 1 South	6	\$35,100	\$35,100	2001	15	45	33.33%	\$11,700	\$23,400
6	Stewart Canyon	8	\$52,000	\$52,000	1995	21	45	46.67%	\$24,267	\$27,733
7	Moon Ridge	8	\$52,000	\$52,000	1987	29	45	64.44%	\$33,511	\$18,489
8	Los Alisos	6 & 2	\$62,400	\$62,400	1989	27	45	60.00%	\$37,440	\$24,960
9	Garret Ranch	8	\$52,000	\$52,000	2002	14	45	31.11%	\$16,178	\$35,822
10	Huntly PS	8 & 2	\$74,100	\$74,100	1985	31	45	68.89%	\$51,047	\$23,053
11	Reche (Atkins)	14 & 4	\$104,000	\$104,000	1995	21	45	46.67%	\$48,533	\$55,467
12	Pala Lake North	8 & 2	\$74,100	\$74,100	1989	27	45	60.00%	\$44,460	\$29,640
13	Pala Lake South	8 & 2	\$74,100	\$74,100	1995	21	45	46.67%	\$34,580	\$39,520
14	Horse Ranch Creek Rd	8 & 2	\$74,100	\$74,100	1995	21	45	46.67%	\$34,580	\$39,520
15	Pala Mesa Condos	6 & 2	\$62,400	\$62,400	1982	34	45	75.56%	\$47,147	\$15,253
16	Pala Mesa Greens	8 & 2	\$74,100	\$74,100	1982	34	45	75.56%	\$55,987	\$18,113
17	Wilt & Citrus	2 to 12	\$89,700	\$89,700	2003	13	45	28.89%	\$25,913	\$63,787
18	Canonita	10	\$67,600	\$67,600	1995	21	45	46.67%	\$31,547	\$36,053
19	Laketree East	8	\$52,000	\$52,000	2002	14	45	31.11%	\$16,178	\$35,822
20	Laketree West	6 & 2	\$62,400	\$62,400	1995	21	45	46.67%	\$29,120	\$33,280
21	Oakcliff	8 & 2 1/2	\$76,700	\$76,700	2001	15	45	33.33%	\$25,567	\$51,133
22	Daisy Lane	8 & 2 1/2	\$76,700	\$76,700	1989	27	45	60.00%	\$46,020	\$30,680
23	U-4	8 & 4	\$83,200	\$83,200	1995	21	45	46.67%	\$38,827	\$44,373
24	Esterlina	8 & 4	\$83,200	\$83,200	1995	21	45	46.67%	\$38,827	\$44,373
25	Fire Road	6	\$35,100	\$35,100	2002	14	45	31.11%	\$10,920	\$24,180

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Pressure Regulating Stations

No.	Description ⁽¹⁾	PRV / PSV Size (inch)	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
26	76 & Gird Road	8 & 4	\$83,200	\$83,200	1987	29	45	64.44%	\$53,618	\$29,582
27	Rancho Monserate "W"	10 & 2	\$81,900	\$81,900	1995	21	45	46.67%	\$38,220	\$43,680
28	Rancho Monserate "E"	10 & 2	\$81,900	\$81,900	1995	21	45	46.67%	\$38,220	\$43,680
29	Sweetgrass	6 & 2 1/2	\$70,200	\$70,200	2001	15	45	33.33%	\$23,400	\$46,800
30	Vessels Rch	8 & 2	\$74,100	\$74,100	1989	27	45	60.00%	\$44,460	\$29,640
31	Ascot Park Estates	8 & 2	\$74,100	\$74,100	1995	21	45	46.67%	\$34,580	\$39,520
32	Villas Fore	6 & 2	\$62,400	\$62,400	1989	27	45	60.00%	\$37,440	\$24,960
33	Bonsall Park	2 to 3	\$31,200	\$31,200	1995	21	45	46.67%	\$14,560	\$16,640
34	The Heights (condos)	4 to 4	\$42,900	\$42,900	2002	14	45	31.11%	\$13,347	\$29,553
35	Via Casitas	6 & 2	\$62,400	\$62,400	2002	14	45	31.11%	\$19,413	\$42,987
36	Los Casitas	8 & 2 1/2	\$76,700	\$76,700	1987	29	45	64.44%	\$49,429	\$27,271
37	W. Lilac	8 & 4	\$83,200	\$83,200	2001	15	45	33.33%	\$27,733	\$55,467
38	SLR Downs/Via Casitas	6 & 3	\$58,500	\$58,500	2003	13	45	28.89%	\$16,900	\$41,600
39	Lake Vista (SLR)	8 & 2	\$74,100	\$74,100	1995	21	45	46.67%	\$34,580	\$39,520
40	Cottontail Ln	6	\$35,100	\$35,100	1995	21	45	46.67%	\$16,380	\$18,720
41	Camino Del Rey	8 & 4	\$83,200	\$83,200	1995	21	45	46.67%	\$38,827	\$44,373
42	Via Mariposa West	4	\$26,000	\$26,000	1987	29	45	64.44%	\$16,756	\$9,244
43	Tres Amigos "E"	6	\$35,100	\$35,100	2001	15	45	33.33%	\$11,700	\$23,400
44	Tres Amigos "W"	6	\$35,100	\$35,100	2003	13	45	28.89%	\$10,140	\$24,960
45	N-N Dentro De Lomas	8 & 4	\$83,200	\$83,200	1995	21	45	46.67%	\$38,827	\$44,373
46	Villa Medici	8 & 2 1/2	\$76,700	\$76,700	2002	14	45	31.11%	\$23,862	\$52,838
47	Villa Toscana	8 & 2	\$74,100	\$74,100	1995	21	45	46.67%	\$34,580	\$39,520
48	Via Mariposa East	4 & 2	\$33,800	\$33,800	1995	21	45	46.67%	\$15,773	\$18,027

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Pressure Regulating Stations

No.	Description ⁽¹⁾	PRV / PSV Size (inch)	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
49	Hutton	4	\$26,000	\$26,000	2002	14	45	31.11%	\$8,089	\$17,911
50	Trendal	4	\$26,000	\$26,000	1995	21	45	46.67%	\$12,133	\$13,867
51	Holly Lane	4 & 2	\$33,800	\$33,800	1995	21	45	46.67%	\$15,773	\$18,027
52	Sagewood Road	6 & 3	\$58,500	\$58,500	1995	21	45	46.67%	\$27,300	\$31,200
53	Moosa Crest	8 & 4	\$83,200	\$83,200	2002	14	45	31.11%	\$25,884	\$57,316
Total Water Regulating Stations				\$3,320,200				46.06%	\$1,529,378	\$1,790,822

Notes:

- 1 The assets quantities, sizes, materials and year in service were documented from available reports, drawings and other information provided.
- 2 Cost new to replace per bid tabs and contractor / manufacturer quotes including engineering, permitting, material, labor, installation, site preparation, etc. and all assets built at the same time with economy of purchase.
- 3 Average service lives are based on recommended depreciation schedules.

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Transmission & Distribution Mains

No.	Description ⁽¹⁾	Total Length (LF)	Dist. (%)	Distributed Length (LF)	Material	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Avg. Year In Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
1	4-Inch	23,760	6%	1,426	CI	\$165	\$235,224	1965	51	100	51.00%	\$119,964	\$115,260
2	6-Inch	343,728	6%	20,624	CI	\$175	\$3,609,144	1965	51	100	51.00%	\$1,840,663	\$1,768,481
3	8-Inch	605,616	6%	36,337	DIP	\$180	\$6,540,653	1965	51	100	51.00%	\$3,335,733	\$3,204,920
4	10-Inch	93,456	6%	5,607	DIP	\$190	\$1,065,398	1965	51	100	51.00%	\$543,353	\$522,045
5	12-Inch	222,816	6%	13,369	DIP	\$200	\$2,673,792	1965	51	100	51.00%	\$1,363,634	\$1,310,158
6	14-Inch	107,184	6%	6,431	DIP	\$240	\$1,543,450	1965	51	100	51.00%	\$787,159	\$756,290
7	16-Inch	142,560	6%	8,554	DIP	\$250	\$2,138,400	1965	51	100	51.00%	\$1,090,584	\$1,047,816
8	18-Inch	61,776	6%	3,707	DIP	\$260	\$963,706	1965	51	100	51.00%	\$491,490	\$472,216
9	20-Inch	57,552	6%	3,453	DIP	\$280	\$966,874	1965	51	100	51.00%	\$493,106	\$473,768
10	22-Inch	5,280	6%	317	DIP	\$295	\$93,456	1965	51	100	51.00%	\$47,663	\$45,793
11	24-Inch	30,624	6%	1,837	DIP	\$310	\$569,606	1965	51	100	51.00%	\$290,499	\$279,107
12	27-Inch	1,584	6%	95	DIP	\$325	\$30,888	1965	51	100	51.00%	\$15,753	\$15,135
13	30-Inch	3,168	6%	190	DIP	\$350	\$66,528	1965	51	100	51.00%	\$33,929	\$32,599
14	36-Inch	2,112	6%	127	DIP	\$380	\$48,154	1965	51	100	51.00%	\$24,558	\$23,595
15	42-Inch	3,168	6%	190	DIP	\$400	\$76,032	1965	51	100	51.00%	\$38,776	\$37,256
16	4-Inch	23,760	36%	8,554	CI	\$165	\$1,411,344	1975	41	100	41.00%	\$578,651	\$832,693
17	6-Inch	343,728	36%	123,742	CI	\$175	\$21,654,864	1975	41	100	41.00%	\$8,878,494	\$12,776,370
18	8-Inch	605,616	36%	218,022	DIP	\$180	\$39,243,917	1975	41	100	41.00%	\$16,090,006	\$23,153,911
19	10-Inch	93,456	36%	33,644	DIP	\$190	\$6,392,390	1975	41	100	41.00%	\$2,620,880	\$3,771,510
20	12-Inch	222,816	36%	80,214	DIP	\$200	\$16,042,752	1975	41	100	41.00%	\$6,577,528	\$9,465,224
21	14-Inch	107,184	36%	38,586	DIP	\$240	\$9,260,698	1975	41	100	41.00%	\$3,796,886	\$5,463,812
22	16-Inch	142,560	36%	51,322	DIP	\$250	\$12,830,400	1975	41	100	41.00%	\$5,260,464	\$7,569,936
23	18-Inch	61,776	36%	22,239	DIP	\$260	\$5,782,234	1975	41	100	41.00%	\$2,370,716	\$3,411,518
24	20-Inch	57,552	36%	20,719	DIP	\$280	\$5,801,242	1975	41	100	41.00%	\$2,378,509	\$3,422,733
25	22-Inch	5,280	36%	1,901	DIP	\$295	\$560,736	1975	41	100	41.00%	\$229,902	\$330,834

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Transmission & Distribution Mains

No.	Description ⁽¹⁾	Total Length (LF)	Dist. (%)	Distributed Length (LF)	Material	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Avg. Year In Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
26	24-Inch	30,624	36%	11,025	DIP	\$310	\$3,417,638	1975	41	100	41.00%	\$1,401,232	\$2,016,407
27	27-Inch	1,584	36%	570	DIP	\$325	\$185,328	1975	41	100	41.00%	\$75,984	\$109,344
28	30-Inch	3,168	36%	1,140	DIP	\$350	\$399,168	1975	41	100	41.00%	\$163,659	\$235,509
29	36-Inch	2,112	36%	760	DIP	\$380	\$288,922	1975	41	100	41.00%	\$118,458	\$170,464
30	42-Inch	3,168	36%	1,140	DIP	\$400	\$456,192	1975	41	100	41.00%	\$187,039	\$269,153
31	4-Inch	23,760	30%	7,128	CI	\$165	\$1,176,120	1985	31	100	31.00%	\$364,597	\$811,523
32	6-Inch	343,728	30%	103,118	CI	\$175	\$18,045,720	1985	31	100	31.00%	\$5,594,173	\$12,451,547
33	8-Inch	605,616	30%	181,685	DIP	\$180	\$32,703,264	1985	31	100	31.00%	\$10,138,012	\$22,565,252
34	10-Inch	93,456	30%	28,037	DIP	\$190	\$5,326,992	1985	31	100	31.00%	\$1,651,368	\$3,675,624
35	12-Inch	222,816	30%	66,845	DIP	\$200	\$13,368,960	1985	31	100	31.00%	\$4,144,378	\$9,224,582
36	14-Inch	107,184	30%	32,155	DIP	\$240	\$7,717,248	1985	31	100	31.00%	\$2,392,347	\$5,324,901
37	16-Inch	142,560	30%	42,768	DIP	\$250	\$10,692,000	1985	31	100	31.00%	\$3,314,520	\$7,377,480
38	18-Inch	61,776	30%	18,533	DIP	\$260	\$4,818,528	1985	31	100	31.00%	\$1,493,744	\$3,324,784
39	20-Inch	57,552	30%	17,266	DIP	\$280	\$4,834,368	1985	31	100	31.00%	\$1,498,654	\$3,335,714
40	22-Inch	5,280	30%	1,584	DIP	\$295	\$467,280	1985	31	100	31.00%	\$144,857	\$322,423
41	24-Inch	30,624	30%	9,187	DIP	\$310	\$2,848,032	1985	31	100	31.00%	\$882,890	\$1,965,142
42	27-Inch	1,584	30%	475	DIP	\$325	\$154,440	1985	31	100	31.00%	\$47,876	\$106,564
43	30-Inch	3,168	30%	950	DIP	\$350	\$332,640	1985	31	100	31.00%	\$103,118	\$229,522
44	36-Inch	2,112	30%	634	DIP	\$380	\$240,768	1985	31	100	31.00%	\$74,638	\$166,130
45	42-Inch	3,168	30%	950	DIP	\$400	\$380,160	1985	31	100	31.00%	\$117,850	\$262,310
46	4-Inch	23,760	11%	2,614	CI	\$165	\$431,244	1995	21	100	21.00%	\$90,561	\$340,683
47	6-Inch	343,728	11%	37,810	CI	\$175	\$6,616,764	1995	21	100	21.00%	\$1,389,520	\$5,227,244
48	8-Inch	605,616	11%	66,618	DIP	\$180	\$11,991,197	1995	21	100	21.00%	\$2,518,151	\$9,473,045
49	10-Inch	93,456	11%	10,280	DIP	\$190	\$1,953,230	1995	21	100	21.00%	\$410,178	\$1,543,052
50	12-Inch	222,816	11%	24,510	DIP	\$200	\$4,901,952	1995	21	100	21.00%	\$1,029,410	\$3,872,542

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Transmission & Distribution Mains

No.	Description ⁽¹⁾	Total Length (LF)	Dist. (%)	Distributed Length (LF)	Material	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Avg. Year In Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
51	14-Inch	107,184	11%	11,790	DIP	\$240	\$2,829,658	1995	21	100	21.00%	\$594,228	\$2,235,430
52	16-Inch	142,560	11%	15,682	DIP	\$250	\$3,920,400	1995	21	100	21.00%	\$823,284	\$3,097,116
53	18-Inch	61,776	11%	6,795	DIP	\$260	\$1,766,794	1995	21	100	21.00%	\$371,027	\$1,395,767
54	20-Inch	57,552	11%	6,331	DIP	\$280	\$1,772,602	1995	21	100	21.00%	\$372,246	\$1,400,355
55	22-Inch	5,280	11%	581	DIP	\$295	\$171,336	1995	21	100	21.00%	\$35,981	\$135,355
56	24-Inch	30,624	11%	3,369	DIP	\$310	\$1,044,278	1995	21	100	21.00%	\$219,298	\$824,980
57	27-Inch	1,584	11%	174	DIP	\$325	\$56,628	1995	21	100	21.00%	\$11,892	\$44,736
58	30-Inch	3,168	11%	348	DIP	\$350	\$121,968	1995	21	100	21.00%	\$25,613	\$96,355
59	36-Inch	2,112	11%	232	DIP	\$380	\$88,282	1995	21	100	21.00%	\$18,539	\$69,742
60	42-Inch	3,168	11%	348	DIP	\$400	\$139,392	1995	21	100	21.00%	\$29,272	\$110,120
61	4-Inch	23,760	15%	3,564	CI	\$165	\$588,060	2005	11	100	11.00%	\$64,687	\$523,373
62	6-Inch	343,728	15%	51,559	CI	\$175	\$9,022,860	2005	11	100	11.00%	\$992,515	\$8,030,345
63	8-Inch	605,616	15%	90,842	DIP	\$180	\$16,351,632	2005	11	100	11.00%	\$1,798,680	\$14,552,952
64	10-Inch	93,456	15%	14,018	DIP	\$190	\$2,663,496	2005	11	100	11.00%	\$292,985	\$2,370,511
65	12-Inch	222,816	15%	33,422	DIP	\$200	\$6,684,480	2005	11	100	11.00%	\$735,293	\$5,949,187
66	14-Inch	107,184	15%	16,078	DIP	\$240	\$3,858,624	2005	11	100	11.00%	\$424,449	\$3,434,175
67	16-Inch	142,560	15%	21,384	DIP	\$250	\$5,346,000	2005	11	100	11.00%	\$588,060	\$4,757,940
68	18-Inch	61,776	15%	9,266	DIP	\$260	\$2,409,264	2005	11	100	11.00%	\$265,019	\$2,144,245
69	20-Inch	57,552	15%	8,633	DIP	\$280	\$2,417,184	2005	11	100	11.00%	\$265,890	\$2,151,294
70	22-Inch	5,280	15%	792	DIP	\$295	\$233,640	2005	11	100	11.00%	\$25,700	\$207,940
71	24-Inch	30,624	15%	4,594	DIP	\$310	\$1,424,016	2005	11	100	11.00%	\$156,642	\$1,267,374
72	27-Inch	1,584	15%	238	DIP	\$325	\$77,220	2005	11	100	11.00%	\$8,494	\$68,726
73	30-Inch	3,168	15%	475	DIP	\$350	\$166,320	2005	11	100	11.00%	\$18,295	\$148,025
74	36-Inch	2,112	15%	317	DIP	\$380	\$120,384	2005	11	100	11.00%	\$13,242	\$107,142
75	42-Inch	3,168	15%	475	DIP	\$400	\$190,080	2005	11	100	11.00%	\$20,909	\$169,171

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Transmission & Distribution Mains

No.	Description ⁽¹⁾	Total Length (LF)	Dist. (%)	Distributed Length (LF)	Material	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Avg. Year In Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
76	4-Inch	23,760	2%	475	CI	\$165	\$78,408	2013	3	100	3.00%	\$2,352	\$76,056
77	6-Inch	343,728	2%	6,875	CI	\$175	\$1,203,048	2013	3	100	3.00%	\$36,091	\$1,166,957
78	8-Inch	605,616	2%	12,112	DIP	\$180	\$2,180,218	2013	3	100	3.00%	\$65,407	\$2,114,811
79	10-Inch	93,456	2%	1,869	DIP	\$190	\$355,133	2013	3	100	3.00%	\$10,654	\$344,479
80	12-Inch	222,816	2%	4,456	DIP	\$200	\$891,264	2013	3	100	3.00%	\$26,738	\$864,526
81	14-Inch	107,184	2%	2,144	DIP	\$240	\$514,483	2013	3	100	3.00%	\$15,434	\$499,049
82	16-Inch	142,560	2%	2,851	DIP	\$250	\$712,800	2013	3	100	3.00%	\$21,384	\$691,416
83	18-Inch	61,776	2%	1,236	DIP	\$260	\$321,235	2013	3	100	3.00%	\$9,637	\$311,598
84	20-Inch	57,552	2%	1,151	DIP	\$280	\$322,291	2013	3	100	3.00%	\$9,669	\$312,622
85	22-Inch	5,280	2%	106	DIP	\$295	\$31,152	2013	3	100	3.00%	\$935	\$30,217
86	24-Inch	30,624	2%	612	DIP	\$310	\$189,869	2013	3	100	3.00%	\$5,696	\$184,173
87	27-Inch	1,584	2%	32	DIP	\$325	\$10,296	2013	3	100	3.00%	\$309	\$9,987
88	30-Inch	3,168	2%	63	DIP	\$350	\$22,176	2013	3	100	3.00%	\$665	\$21,511
89	36-Inch	2,112	2%	42	DIP	\$380	\$16,051	2013	3	100	3.00%	\$482	\$15,570
90	42-Inch	3,168	2%	63	DIP	\$400	\$25,344	2013	3	100	3.00%	\$760	\$24,584
91	Total Water Transmission & Distribution	1,704,384					\$343,688,400				31.14%	\$107,024,568	\$236,663,832

Notes:

- 1 The assets quantities, sizes, materials and year in service were documented from available reports, drawings and other information provided.
- 2 Cost new to replace per bid tabs and contractor / manufacturer quotes including engineering, permitting, material, labor, installation, site preparation, etc. and all assets built at the same time with economy of purchase.
- 3 Average service lives are based on recommended depreciation schedules.

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Connections, Meters & Services

No.	Description ⁽¹⁾	Total No. / Length (LF)	Dist. (%)	Distributed No. / Length (LF)	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
Meters												
1	5/8 Inch	219	6%	13	\$115	\$1,511	1965	51	100	51.00%	\$771	\$740
2	3/4 Inch	2,521	6%	151	\$130	\$19,664	1965	51	100	51.00%	\$10,029	\$9,635
3	1 Inch	3,484	6%	209	\$360	\$75,254	1965	51	100	51.00%	\$38,380	\$36,875
4	1 1/2 Inch	589	6%	35	\$400	\$14,136	1965	51	100	51.00%	\$7,209	\$6,927
5	2 Inch	451	6%	27	\$850	\$23,001	1965	51	100	51.00%	\$11,731	\$11,270
6	3 Inch	33	6%	2	\$1,150	\$2,277	1965	51	100	51.00%	\$1,161	\$1,116
7	4 Inch	14	6%	1	\$1,600	\$1,344	1965	51	100	51.00%	\$685	\$659
8	5/8 Inch	219	36%	79	\$115	\$9,067	1975	41	100	41.00%	\$3,717	\$5,349
9	3/4 Inch	2,521	36%	908	\$130	\$117,983	1975	41	100	41.00%	\$48,373	\$69,610
10	1 Inch	3,484	36%	1,254	\$360	\$451,526	1975	41	100	41.00%	\$185,126	\$266,401
11	1 1/2 Inch	589	36%	212	\$400	\$84,816	1975	41	100	41.00%	\$34,775	\$50,041
12	2 Inch	451	36%	162	\$850	\$138,006	1975	41	100	41.00%	\$56,582	\$81,424
13	3 Inch	33	36%	12	\$1,150	\$13,662	1975	41	100	41.00%	\$5,601	\$8,061
14	4 Inch	14	36%	5	\$1,600	\$8,064	1975	41	100	41.00%	\$3,306	\$4,758
15	5/8 Inch	219	30%	66	\$115	\$7,556	1985	31	100	31.00%	\$2,342	\$5,213
16	3/4 Inch	2,521	30%	756	\$130	\$98,319	1985	31	100	31.00%	\$30,479	\$67,840
17	1 Inch	3,484	30%	1,045	\$360	\$376,272	1985	31	100	31.00%	\$116,644	\$259,628
18	1 1/2 Inch	589	30%	177	\$400	\$70,680	1985	31	100	31.00%	\$21,911	\$48,769
19	2 Inch	451	30%	135	\$850	\$115,005	1985	31	100	31.00%	\$35,652	\$79,353
20	3 Inch	33	30%	10	\$1,150	\$11,385	1985	31	100	31.00%	\$3,529	\$7,856
21	4 Inch	14	30%	4	\$1,600	\$6,720	1985	31	100	31.00%	\$2,083	\$4,637
22	5/8 Inch	219	11%	24	\$115	\$2,770	1995	21	100	21.00%	\$582	\$2,189
23	3/4 Inch	2,521	11%	277	\$130	\$36,050	1995	21	100	21.00%	\$7,571	\$28,480
24	1 Inch	3,484	11%	383	\$360	\$137,966	1995	21	100	21.00%	\$28,973	\$108,993
25	1 1/2 Inch	589	11%	65	\$400	\$25,916	1995	21	100	21.00%	\$5,442	\$20,474

Rainbow Municipal Water District

Replacement Cost Approach

Water System

Water Connections, Meters & Services

No.	Description ⁽¹⁾	Total No. / Length (LF)	Dist. (%)	Distributed No. / Length (LF)	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
26	2 Inch	451	11%	50	\$850	\$42,169	1995	21	100	21.00%	\$8,855	\$33,313
27	3 Inch	33	11%	4	\$1,150	\$4,175	1995	21	100	21.00%	\$877	\$3,298
28	4 Inch	14	11%	2	\$1,600	\$2,464	1995	21	100	21.00%	\$517	\$1,947
29	6 Inch	1	100%	1	\$2,230	\$2,230	1995	21	100	21.00%	\$468	\$1,762
30	5/8 Inch	219	15%	33	\$115	\$3,778	2005	11	100	11.00%	\$416	\$3,362
31	3/4 Inch	2,521	15%	378	\$130	\$49,160	2005	11	100	11.00%	\$5,408	\$43,752
32	1 Inch	3,484	15%	523	\$360	\$188,136	2005	11	100	11.00%	\$20,695	\$167,441
33	1 1/2 Inch	589	15%	88	\$400	\$35,340	2005	11	100	11.00%	\$3,887	\$31,453
34	2 Inch	451	15%	68	\$850	\$57,503	2005	11	100	11.00%	\$6,325	\$51,177
35	3 Inch	33	15%	5	\$1,150	\$5,693	2005	11	100	11.00%	\$626	\$5,066
36	4 Inch	14	15%	2	\$1,600	\$3,360	2005	11	100	11.00%	\$370	\$2,990
37	5/8 Inch	219	2%	4	\$115	\$504	2013	3	100	3.00%	\$15	\$489
38	3/4 Inch	2,521	2%	50	\$130	\$6,555	2013	3	100	3.00%	\$197	\$6,358
39	1 Inch	3,484	2%	70	\$360	\$25,085	2013	3	100	3.00%	\$753	\$24,332
40	1 1/2 Inch	589	2%	12	\$400	\$4,712	2013	3	100	3.00%	\$141	\$4,571
41	2 Inch	451	2%	9	\$850	\$7,667	2013	3	100	3.00%	\$230	\$7,437
42	3 Inch	33	2%	1	\$1,150	\$759	2013	3	100	3.00%	\$23	\$736
Services / Connections												
43	1 Inch	10,950	6%	657	\$110	\$72,270	1965	51	100	51.00%	\$36,858	\$35,412
44	1 1/2 Inch	126,050	6%	7,563	\$115	\$869,745	1965	51	100	51.00%	\$443,570	\$426,175
45	2 Inch	261,300	6%	15,678	\$140	\$2,194,920	1965	51	100	51.00%	\$1,119,409	\$1,075,511
46	4 Inch	58,900	6%	3,534	\$180	\$636,120	1965	51	100	51.00%	\$324,421	\$311,699
47	4 Inch	90,200	6%	5,412	\$180	\$974,160	1965	51	100	51.00%	\$496,822	\$477,338
48	6 Inch	8,250	6%	495	\$200	\$99,000	1965	51	100	51.00%	\$50,490	\$48,510
49	8 Inch	4,200	6%	252	\$215	\$54,180	1965	51	100	51.00%	\$27,632	\$26,548
50	1 Inch	10,950	36%	3,942	\$110	\$433,620	1975	41	100	41.00%	\$177,784	\$255,836

Rainbow Municipal Water District

Replacement Cost Approach

Water System

Water Connections, Meters & Services

No.	Description ⁽¹⁾	Total No. / Length (LF)	Dist. (%)	Distributed No. / Length (LF)	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
51	1 1/2 Inch	126,050	36%	45,378	\$115	\$5,218,470	1975	41	100	41.00%	\$2,139,573	\$3,078,897
52	2 Inch	261,300	36%	94,068	\$140	\$13,169,520	1975	41	100	41.00%	\$5,399,503	\$7,770,017
53	4 Inch	58,900	36%	21,204	\$180	\$3,816,720	1975	41	100	41.00%	\$1,564,855	\$2,251,865
54	4 Inch	90,200	36%	32,472	\$180	\$5,844,960	1975	41	100	41.00%	\$2,396,434	\$3,448,526
55	6 Inch	8,250	36%	2,970	\$200	\$594,000	1975	41	100	41.00%	\$243,540	\$350,460
56	8 Inch	4,200	36%	1,512	\$215	\$325,080	1975	41	100	41.00%	\$133,283	\$191,797
57	1 Inch	10,950	30%	3,285	\$110	\$361,350	1985	31	100	31.00%	\$112,019	\$249,332
58	1 1/2 Inch	126,050	30%	37,815	\$115	\$4,348,725	1985	31	100	31.00%	\$1,348,105	\$3,000,620
59	2 Inch	261,300	30%	78,390	\$140	\$10,974,600	1985	31	100	31.00%	\$3,402,126	\$7,572,474
60	4 Inch	58,900	30%	17,670	\$180	\$3,180,600	1985	31	100	31.00%	\$985,986	\$2,194,614
61	4 Inch	90,200	30%	27,060	\$180	\$4,870,800	1985	31	100	31.00%	\$1,509,948	\$3,360,852
62	6 Inch	8,250	30%	2,475	\$200	\$495,000	1985	31	100	31.00%	\$153,450	\$341,550
63	8 Inch	4,200	30%	1,260	\$215	\$270,900	1985	31	100	31.00%	\$83,979	\$186,921
64	1 Inch	10,950	11%	1,205	\$110	\$132,495	1995	21	100	21.00%	\$27,824	\$104,671
65	1 1/2 Inch	126,050	11%	13,866	\$115	\$1,594,533	1995	21	100	21.00%	\$334,852	\$1,259,681
66	2 Inch	261,300	11%	28,743	\$140	\$4,024,020	1995	21	100	21.00%	\$845,044	\$3,178,976
67	4 Inch	58,900	11%	6,479	\$180	\$1,166,220	1995	21	100	21.00%	\$244,906	\$921,314
68	4 Inch	90,200	11%	9,922	\$180	\$1,785,960	1995	21	100	21.00%	\$375,052	\$1,410,908
69	6 Inch	8,250	11%	908	\$200	\$181,500	1995	21	100	21.00%	\$38,115	\$143,385
70	8 Inch	4,200	11%	462	\$215	\$99,330	1995	21	100	21.00%	\$20,859	\$78,471
71	10 Inch	500	11%	55	\$225	\$12,375	1995	21	100	21.00%	\$2,599	\$9,776
72	1 Inch	10,950	15%	1,643	\$110	\$180,675	2005	11	100	11.00%	\$19,874	\$160,801
73	1 1/2 Inch	126,050	15%	18,908	\$115	\$2,174,363	2005	11	100	11.00%	\$239,180	\$1,935,183
74	2 Inch	261,300	15%	39,195	\$140	\$5,487,300	2005	11	100	11.00%	\$603,603	\$4,883,697
75	4 Inch	58,900	15%	8,835	\$180	\$1,590,300	2005	11	100	11.00%	\$174,933	\$1,415,367
76	4 Inch	90,200	15%	13,530	\$180	\$2,435,400	2005	11	100	11.00%	\$267,894	\$2,167,506

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Water Connections, Meters & Services

No.	Description ⁽¹⁾	Total No. / Length (LF)	Dist. (%)	Distributed No. / Length (LF)	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
77	6 Inch	8,250	15%	1,238	\$200	\$247,500	2005	11	100	11.00%	\$27,225	\$220,275
78	8 Inch	4,200	15%	630	\$215	\$135,450	2005	11	100	11.00%	\$14,900	\$120,551
79	1 Inch	10,950	2%	219	\$110	\$24,090	2013	3	100	3.00%	\$723	\$23,367
80	1 1/2 Inch	126,050	2%	2,521	\$115	\$289,915	2013	3	100	3.00%	\$8,697	\$281,218
81	2 Inch	261,300	2%	5,226	\$140	\$731,640	2013	3	100	3.00%	\$21,949	\$709,691
82	4 Inch	58,900	2%	1,178	\$180	\$212,040	2013	3	100	3.00%	\$6,361	\$205,679
83	4 Inch	90,200	2%	1,804	\$180	\$324,720	2013	3	100	3.00%	\$9,742	\$314,978
84	6 Inch	8,250	2%	165	\$200	\$33,000	2013	3	100	3.00%	\$990	\$32,010
85	Total Meters, Services & Connections					\$81,667,565				31.14%	\$25,435,107	\$56,232,458

Notes:

- 1 The assets quantities, sizes, materials and year in service were documented from available reports, drawings and other information provided.
- 2 Cost new to replace per bid tabs and contractor / manufacturer quotes including engineering, permitting, material, labor, installation, site preparation, etc. and all assets built at the same time with economy of purchase.
- 3 Average service lives are based on recommended depreciation schedules.

Rainbow Municipal Water District
Replacement Cost Approach

Water System
Summary

No.	Description of Assets	Estimated Total Cost New	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
1	Water Storage Facilities	\$174,820,000	50.67%	\$88,574,533	\$86,245,467
2	Water Booster Pump Stations	\$4,055,000	46.42%	\$1,882,182	\$2,172,818
3	Water Pressure Regulating Stations	\$3,320,200	46.06%	\$1,529,378	\$1,790,822
4	Water Transmission & Distribution Mains	\$343,688,400	31.14%	\$107,024,568	\$236,663,832
5	Water Connections, Meters & Services	\$81,667,565	31.14%	\$25,435,107	\$56,232,458
6	TOTAL WATER SYSTEM	\$607,551,165	36.94%	\$224,445,768	\$383,105,397

Rainbow Municipal Water District
Replacement Cost Approach

Wastewater System
Wastewater Conveyance Mains

No.	Description ⁽¹⁾	Total Length (LF)	Dist. (%)	Distributed Length (LF)	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
1	6-Inch	1,123	6.00%	67	\$132.76	\$8,946	1965	51	84	60.71%	\$5,431	\$3,514
2	8-Inch	199,703	6.00%	11,982	\$166.25	\$1,992,037	1965	51	84	60.71%	\$1,209,451	\$782,586
3	10-Inch	13,397	6.00%	804	\$175.83	\$141,338	1965	51	84	60.71%	\$85,813	\$55,526
4	12-Inch	40,593	6.00%	2,436	\$182.92	\$445,508	1965	51	84	60.71%	\$270,487	\$175,021
5	15-Inch	25,794	6.00%	1,548	\$190.00	\$294,052	1965	51	84	60.71%	\$178,531	\$115,520
6	18-Inch	689	6.00%	41	\$214.17	\$8,854	1965	51	84	60.71%	\$5,375	\$3,478
7	21-Inch	2,183	6.00%	131	\$234.17	\$30,671	1965	51	84	60.71%	\$18,622	\$12,049
8	24-Inch	11,300	6.00%	678	\$248.33	\$168,370	1965	51	84	60.71%	\$102,225	\$66,145
9	6-Inch	1,123	37.52%	421	\$132.76	\$55,940	1975	41	86	47.67%	\$26,669	\$29,271
10	8-Inch	199,703	37.52%	74,929	\$166.25	\$12,456,874	1975	41	86	47.67%	\$5,938,742	\$6,518,132
11	10-Inch	13,397	37.52%	5,027	\$175.83	\$883,836	1975	41	86	47.67%	\$421,364	\$462,472
12	12-Inch	40,593	37.52%	15,230	\$182.92	\$2,785,911	1975	41	86	47.67%	\$1,328,167	\$1,457,744
13	15-Inch	25,794	37.52%	9,678	\$190.00	\$1,838,803	1975	41	86	47.67%	\$876,638	\$962,164
14	18-Inch	689	37.52%	259	\$214.17	\$55,365	1975	41	86	47.67%	\$26,395	\$28,970
15	21-Inch	2,183	37.52%	819	\$234.17	\$191,797	1975	41	86	47.67%	\$91,438	\$100,359
16	24-Inch	11,300	37.52%	4,240	\$248.33	\$1,052,874	1975	41	86	47.67%	\$501,951	\$550,922
17	6-Inch	1,123	30.51%	343	\$132.76	\$45,488	1985	31	100	31.00%	\$14,101	\$31,387
18	8-Inch	199,703	30.51%	60,929	\$166.25	\$10,129,510	1985	31	100	31.00%	\$3,140,148	\$6,989,362
19	10-Inch	13,397	30.51%	4,087	\$175.83	\$718,706	1985	31	100	31.00%	\$222,799	\$495,907
20	12-Inch	40,593	30.51%	12,385	\$182.92	\$2,265,409	1985	31	100	31.00%	\$702,277	\$1,563,132
21	15-Inch	25,794	30.51%	7,870	\$190.00	\$1,495,252	1985	31	100	31.00%	\$463,528	\$1,031,724
22	18-Inch	689	30.51%	210	\$214.17	\$45,021	1985	31	100	31.00%	\$13,956	\$31,064
23	21-Inch	2,183	30.51%	666	\$234.17	\$155,963	1985	31	100	31.00%	\$48,348	\$107,614
24	24-Inch	11,300	30.51%	3,448	\$248.33	\$856,161	1985	31	100	31.00%	\$265,410	\$590,751
25	6-Inch	1,123	10.67%	120	\$132.76	\$15,908	1995	21	100	21.00%	\$3,341	\$12,568
26	8-Inch	199,703	10.67%	21,308	\$166.25	\$3,542,507	1995	21	100	21.00%	\$743,926	\$2,798,580
27	10-Inch	13,397	10.67%	1,429	\$175.83	\$251,347	1995	21	100	21.00%	\$52,783	\$198,564
28	12-Inch	40,593	10.67%	4,331	\$182.92	\$792,262	1995	21	100	21.00%	\$166,375	\$625,887
29	15-Inch	25,794	10.67%	2,752	\$190.00	\$522,922	1995	21	100	21.00%	\$109,814	\$413,108
30	18-Inch	689	10.67%	74	\$214.17	\$15,745	1995	21	100	21.00%	\$3,306	\$12,438
31	21-Inch	2,183	10.67%	233	\$234.17	\$54,544	1995	21	100	21.00%	\$11,454	\$43,089
32	24-Inch	11,300	10.67%	1,206	\$248.33	\$299,418	1995	21	100	21.00%	\$62,878	\$236,540
33	6-Inch	1,123	15.11%	170	\$132.76	\$22,528	2005	11	100	11.00%	\$2,478	\$20,050
34	8-Inch	199,703	15.11%	30,175	\$166.25	\$5,016,614	2005	11	100	11.00%	\$551,828	\$4,464,787
35	10-Inch	13,397	15.11%	2,024	\$175.83	\$355,937	2005	11	100	11.00%	\$39,153	\$316,784

Rainbow Municipal Water District
Replacement Cost Approach

Wastewater System
Wastewater Conveyance Mains

No.	Description ⁽¹⁾	Total Length (LF)	Dist. (%)	Distributed Length (LF)	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
36	12-Inch	40,593	15.11%	6,134	\$182.92	\$1,121,938	2005	11	100	11.00%	\$123,413	\$998,525
37	15-Inch	25,794	15.11%	3,897	\$190.00	\$740,520	2005	11	100	11.00%	\$81,457	\$659,063
38	18-Inch	689	15.11%	104	\$214.17	\$22,296	2005	11	100	11.00%	\$2,453	\$19,844
39	21-Inch	2,183	15.11%	330	\$234.17	\$77,240	2005	11	100	11.00%	\$8,496	\$68,744
40	24-Inch	11,300	15.11%	1,707	\$248.33	\$424,012	2005	11	100	11.00%	\$46,641	\$377,370
41	8-Inch	199,703	0.19%	387	\$166.25	\$64,411	2013	3	100	3.00%	\$1,932	\$62,479
42	10-Inch	13,397	0.19%	25	\$175.83	\$4,476	2013	3	100	3.00%	\$134	\$4,341
43	12-Inch	40,593	0.19%	77	\$182.92	\$14,108	2013	3	100	3.00%	\$423	\$13,685
44	15-Inch	25,794	0.19%	49	\$190.00	\$9,312	2013	3	100	3.00%	\$279	\$9,032
45	24-Inch	11,300	0.19%	21	\$248.33	\$5,332	2013	3	100	3.00%	\$160	\$5,172
Total Conveyance Mains				294,782		\$51,496,061				34.90%	\$17,970,594	\$33,525,467

Notes:

- 1 The assets quantities, distribution by size and year in service were documented from available reports, drawings and other information provided. Number of sanitary manholes was not available.
- 2 Cost new to replace gravity mains and manholes per bid tabs and contractor / manufacturer quotes including engineering, permitting, material, labor, installation, site preparation, etc. and all assets built at the same time with economy of purchase.
- 3 Average service lives are based on recommended depreciation schedules.

Rainbow Municipal Water District

Replacement Cost Approach

Wastewater System

Wastewater Pump Stations

No.	Description ⁽¹⁾	Manufacture	No. of Pumps	Pump Capacity (Ea)	Replacement Unit Cost ⁽²⁾	Estimated Total Cost New	Effective Year In Service	Age as of 2016	Estimated Service Life ⁽³⁾	Composite	Depreciation Cost	Total Cost New Less Depreciation
										Depreciation %		
1	Lift Station #1-31250 Old River Rd	Smith & Loveless	3	500	\$200,000	\$200,000	1991	25	35	71.43%	\$142,857	\$57,143
2	Lift Station #2-30516 Old River Rd	Flygt	3	1,900	\$910,000	\$910,000	2011	5	35	14.29%	\$130,000	\$780,000
3	Lift Station #3-3707 Old Highway 395	Smith & Loveless	2	320	\$130,000	\$130,000	1990	26	35	74.29%	\$96,571	\$33,429
4	Lift Station #4-211 ½ Manzano Street	Flygt	2	320	\$170,000	\$170,000	2012	4	35	11.43%	\$19,429	\$150,571
5	Lift Station #5-4198 Lake Circle Drive	Gorman Rupp	2	805	\$215,000	\$215,000	1990	26	35	74.29%	\$159,714	\$55,286
6	Lift Station #6-3690 Sara Ann Drive	Myers	2	250	\$140,000	\$140,000	1988	28	35	80.00%	\$112,000	\$28,000
7	TOTAL PUMP STATIONS					\$1,765,000				37.43%	\$660,571	\$1,104,429

Notes:

- 1 The asset quantities and year in service were documented from available reports, drawings and other information provided. Effective year in service considers the renewal and replacement program of the assets.
- 2 Cost new to replace per bid tabs and contractor / manufacturer quotes including engineering, permitting, material, labor, installation, site preparation, etc. and all assets built at the same time with economy of purchase.
- 3 Average (blended) service lives are based on recommended depreciation schedules of each major component of the asset.

Rainbow Municipal Water District

Replacement Cost Approach

Wastewater System

Wastewater Force Mains

No.	Description ⁽¹⁾	Total Length (LF)	Material	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
Lift Station 1											
1	10-Inch	252	CI	\$150.00	\$37,800	1991	25	100	25.00%	\$9,450	\$28,350
Lift Station 2											
2	12-Inch	2,950	PVC	\$175.00	\$516,250	1980	36	75	48.00%	\$247,800	\$268,450
3	14-Inch	236	PVC	\$182.00	\$42,952	1990	26	75	34.67%	\$14,890	\$28,062
4	18-Inch	850	HDPE	\$200.00	\$170,000	2011	5	75	6.67%	\$11,333	\$158,667
Plant B - Lift Station 3											
5	10-Inch	850	PVC	\$135.00	\$114,750	1990	26	75	34.67%	\$39,780	\$74,970
Rancho Monserate - Lift Station 4											
6	6-Inch	696	DIP	\$135.00	\$93,960	2012	4	100	4.00%	\$3,758	\$90,202
7	6-Inch	1,044	PVC	\$125.00	\$130,500	1990	26	75	34.67%	\$45,240	\$85,260
Rancho Viejo - Lift Station 5											
8	10-Inch	2,352	DIP	\$150.00	\$352,800	1990	26	100	26.00%	\$91,728	\$261,072
9	10-Inch	1,492	PVC	\$135.00	\$201,420	1990	26	75	34.67%	\$69,826	\$131,594
Fallbrook Oaks - Lift Station 6											
10	6-Inch	648	DIP	\$135.00	\$87,480	1988	28	100	28.00%	\$24,494	\$62,986
11	Total Force Mains	11,370			\$1,747,912				31.94%	\$558,300	\$1,189,612

Notes:

- 1 The assets quantities, sizes, materials and year in service were documented from available reports, drawings and other information provided.
- 2 Cost new to replace per bid tabs and contractor / manufacturer quotes including engineering, permitting, material, labor, installation, site preparation, etc. and all assets built at the same time with economy of purchase.
- 3 Average service lives are based on recommended depreciation schedules.

Rainbow Municipal Water District
Replacement Cost Approach

Wastewater System
Wastewater Laterals

No.	Description ⁽¹⁾	Total Number	Dist. (%)	Distributed Number	Estimated Unit Cost ⁽²⁾	Estimated Total Cost New	Year in Service	Age as of 2016	Estimated ASL (Yr) ⁽³⁾	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
1	4-Inch Lateral	4,000	6.00%	240	\$2,750	\$660,000	1965	51	100	51.00%	\$336,600	\$323,400
2	4-Inch Lateral	4,000	37.52%	1,501	\$2,750	\$4,127,200	1975	41	100	41.00%	\$1,692,152	\$2,435,048
3	4-Inch Lateral	4,000	30.51%	1,220	\$2,750	\$3,356,100	1985	31	100	31.00%	\$1,040,391	\$2,315,709
4	4-Inch Lateral	4,000	10.67%	427	\$2,750	\$1,173,700	1995	21	100	21.00%	\$246,477	\$927,223
5	4-Inch Lateral	4,000	15.11%	604	\$2,750	\$1,662,100	2005	11	100	11.00%	\$182,831	\$1,479,269
6	4-Inch Lateral	4,000	0.19%	8	\$2,750	\$20,900	2013	3	100	3.00%	\$627	\$20,273
7	Total Wastewater laterals					\$11,000,000				31.81%	\$3,499,078	\$7,500,922

Notes:

- 1 The assets quantities, distribution by size and year in service were documented from available reports, drawings and other information provided. Number of sanitary manholes was not available.
- 2 Cost new to replace per bid tabs and contractor / manufacturer quotes including engineering, permitting, material, labor, installation, site preparation, etc. and all assets built at the same time with economy of purchase.
- 3 Average service lives are based on recommended depreciation schedules.

Rainbow Municipal Water District

Replacement Cost Approach

Wastewater System

Summary

No.	Description of Assets	Estimated Total Cost New	Depreciation %	Depreciation Cost	Total Cost New Less Depreciation
1	Pump Stations	\$1,765,000	37.43%	\$660,571	\$1,104,429
2	Conveyance Mains	\$51,496,061	34.90%	\$17,970,594	\$33,525,467
3	Force Mains	\$1,747,912	31.94%	\$558,300	\$1,189,612
4	Services / Laterals	\$11,000,000	31.81%	\$3,499,078	\$7,500,922
5	TOTAL WASTEWATER SYSTEM	\$66,008,973	34.37%	\$22,688,543	\$43,320,430

Rainbow Municipal Water District**Replacement Cost Approach****Other System Assets
Large & Small Equipment**

No.	Description	RMWD I.D.	Serial No.	Estimated Unit Cost	Year in Service
Large Equipment					
1	446B CAT Backhoe	101		\$45,000	2016
2	Sheepsfoot	101A	None	\$30,000	2016
3	36" Bucket	101B	None	\$4,500	2016
4	580SK Case Backhoe	102	121-446	\$20,000	2016
5	24" Bucket	102A	None	\$4,000	2016
6	18" Bucket	102B	None	\$3,600	2016
7	12" Bucket	102C	None	\$3,000	2016
8	Sheepsfoot Adapter	102D	None	\$7,000	2016
9	570 LXT Skiploader	103	JJG0225767	\$26,000	2016
10	Bobcat 763	104	ID #512229919	\$19,000	2016
11	Backhoe Attachment	104A	584101024	\$4,000	2016
12	Broom	104B	714410269	\$2,000	2016
13	Trencher	104C	705100307	\$3,000	2016
14	420F CAT Backhoe	105	C7N11639F2F04907	\$100,781	2016
15	International Carrier Loadrunner Trailer - Emergency CL2 Trailer (2007) / GVW - 1,400	110	4RACS12197K018396	\$5,000	2016
16	Trailer for 446B, Big Tex & #71	111	4K8HX262411870469	\$14,700	2016
17	Zieman Trailer 2725 SPL for 580SK (2004)	112	1ZCE36A2942P25748	\$13,981	2016
18	Zieman Trailer 1165 for Bobcat (1998)	114	1ZCE23E27WZP19591	\$4,500	2016
19	Wells Cargo Box Trailer, Water Emergency Response Trailer	115	1WC200G20Y7005618	\$7,000	2016
20	Aztec Box Trailer, Wastewater Emergency Response Trailer (2002)	116	42BSUZ0013F000222	\$4,600	2016
21	Carson Utility Trailer	117	4HXL5081X6C115443	\$1,506	2016
22	Military Type Utility Trailer (Asphalt Trailer)	118		\$45,000	2016
23	Highline Circle Box Trailer, Portable Hose	119	1K9551022K1045259	\$2,500	2016
24	Water Emergency Trailer (2007)	120	4RACS12197K018396	\$6,000	2016
25	Apache Trailer, Single Wheel, Black (6/5/08)	125	VIN 5JRUE08118C201316	\$1,429	2016
26	Cement Mixer, Canoga, Model #113BG4	126	0000446	\$750	2016
27	Trailer w/200 gal. trailer sprayer (2009)	127		\$3,201	2016
28	Portable Pump Station (on Ronco Dual A Utility Trailer)	128	1R9UE2022AV252011	\$122,093	2016
29	Reservoir Cover Wash Down Trailer - SDCUS (2012)	129	4A6UC12263B1017109	\$81,497	2016
30	Trailer (Ronco Utility) - Meter Services	130	1R9UE0813CV252005	\$1,078	2016
31	John Deer 6" trash pump w/trailer (2015)	130	PE4045R978745	\$34,600	2016

Rainbow Municipal Water District Replacement Cost Approach

Other System Assets Large & Small Equipment

No.	Description	RMWD I.D.	Serial No.	Estimated Unit Cost	Year in Service
32	Sullair Compressor	131	004-132150	\$8,000	2016
33	Ingersoll Rand Compressor - #p100WD	132		\$3,000	2016
34	Lincoln Welder	133	A-711453	\$1,500	2016
35	Lincoln Welder - SA250 - #23	134	U1980706603	\$3,500	2016
36	Lincoln Welder - SA250 - #24	135	U1950701811	\$3,500	2016
37	Millermatic 35 (TIG) - Stock 057436-01-3	136	JG097662	\$1,000	2016
38	Miller Trailblazer #302 Welder (2007) - Gas Engine Kohler CH20	137	LH370102Q	\$2,500	2016
39	Whisper Watt MQ Power 220 KW mobile generator (2008)	140	PE6068L029652	\$70,000	2016
40	Cummins Power Command 125 KW: District's Back-up Generator (2004); Model #GTA8.3G1	141	46431937	\$57,902	2016
41	Ingersoll Rand Light Tower - se416603	142	212151U825	\$4,000	2016
42	Ingersoll Rand Light Tower	143	212149U825	\$4,000	2016
43	Eclipse Arrow Board	144	9506B444	\$2,500	2016
44	Wanco Arrow Board	145	WTSP55LSAC	\$4,500	2016
45	Husky Hauler Port-a-Potty	150	1M0061210RA0091	\$2,000	2016
46	Husky Hauler Port-a-Potty	151	1F9BU112X6E305006	\$2,000	2016
47	Husky Hauler Port-a-Potty	152	1M9SS1211RA969010	\$2,000	2016
48	Husky Hauler Port-a-Potty	153	1M9SS10112A069002	\$2,000	2016
49	Husky Hauler Port-a-Potty	154		\$7,354	2016
50	Boat Trailer	156	11BPNB08AP11M21039	\$3,200	2016
51	Inflatable Boat, Model #AA3804D3M	157	KR-USA11353L203	\$1,200	2016
52	Warehouse Forklift, Model #NSP22	170	INSP15123	\$3,000	2016
53	Minnkota Enoura			\$800	2016
54	Wachs Value Machine - TM-7 - #31		03-2291	\$600	2016
55	Wachs Trav-L-Val 300		3306911081	\$500	2016
56	Total Large Equipment			\$811,873	

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Large & Small Equipment

No.	Description	RMWD I.D.	Serial No.	Estimated Unit Cost	Year in Service
Small Equipment					
57	(Compactor) DS 70 Wacker Diesel, Model #L48V4	201	5694402	\$4,000	2016
58	1 Inch Pump Subaru, Model #PKV101	28 P	120401170	\$350	2016
59	(Compactor) BS 500 Wacker 2 stroke	202	755002184	\$3,500	2016
60	(Compactor) DS 72Y Wacker Diesel	203	720952343T	\$3,600	2016
61	(Compactor) DS 72Y Wacker Diesel	204	781754395	\$3,600	2016
62	Honda Weed Trimmer: HHT35S, 4-Stroke Gas	205	GCAMT1773945	\$600	2016
63	Honda Weed Trimmer: HHT35S, 4-Stroke Gas	206	GCAMT2282354	\$600	2016
64	2013 Mutiquip, MTX-70HD Honda GX-100 Wacker	207	251614W5021	\$3,400	2016
65	2013 Multiquip, QP-3TH Honda Pump GX-240 Pump	208	3TH22566	\$1,600	2016
66	(Pump) Honda 2" or 1 1/2", WD 20X	209		\$1,200	2016
67	(Pump) Wacker 2" , PT 2A	210	672006779	\$1,300	2016
68	(Pump) Wacker 3" , PT 3	211	672910830	\$1,500	2016
69	(Pump)Wacker 3" , PT 3A	212	672910819	\$1,650	2016
70	(Pump) Teel 1" , IV287B	214		\$150	2016
71	(Pump) Multiquip 2" Submersible, Model #ST2005T	215		\$500	2016
72	Wacker 2" Submersible Pump	216		\$400	2016
73	Wacker 2" Submersible Pump	217		\$400	2016
74	Honda GX25 1" Pump, 4-stroke	219	GCART-1117394	\$500	2016
75	Koshin Honda 1", 1 HP Portable Trash Pump; Model SHE-25L; Honda GX-25 Engine; Engine Model W3	220	150101044 Engine SN: GCART- 1301249	\$434	2016
76	Multiquip 3" Trash Pump	221	3TH-26921	\$850	2016
77	Honda Generator, EM5000S	230	GC05-2368279	\$1,200	2016
78	Honda Generator, EM5000S	231	GC05-2368282	\$1,200	2016
79	Coleman Generator, PM0401853.02	232	95821154	\$400	2016
80	Powermate 1850 - Same as one above	233		\$400	2016
81	Honda Generator, EM5000S	234	GC05-2368279	\$1,200	2016
82	Honda Generator		GC05-1219182	\$1,200	2016
83	Honda Generator EU1000	235	1041603	\$800	2016
84	Honda Generator Ex 650	237		\$300	2016
85	Honda Generator EX1000	238	1179873	\$200	2016
86	WW Trailer Gensets	239		\$150	2016
87	Honda Generator GC 160	240		\$40	2016
88	Honda Generator	241	1172468	\$1,200	2016

Rainbow Municipal Water District Replacement Cost Approach

Other System Assets Large & Small Equipment

No.	Description	RMWD I.D.	Serial No.	Estimated Unit Cost	Year in Service
89	Honda Generator	242	1176589	\$1,200	2016
90	Honda Generator EXL8000, Engine #030244	243	1014274774	\$1,369	2016
91	Honda Generator EU1000	243W	EZGA1176588	\$800	2016
92	Industrial Air Compressor, CTA5090412GNE Honda Engine GC	244	L33410742A	\$500	2016
93	Industrial Air Compressor, CTA5090412GNE Honda Engine GC	245	L33410740A	\$500	2016
94	Industrial Air Compressor, CTA5090412GNE Honda Engine GC	246	L33410739A	\$500	2016
95	Pacific TEK Vac Kohler Engine, CH730S OO40	247		\$2,300	2016
96	Pacific TEK Vac Kohler Engine, CH15S SPEC 44502	248	3712816211	\$2,400	2016
97	Industrial Air Compressor, CTA5090412GNE Honda Engine GC	249	M03210301A	\$500	2016
98	Stanley Hydraulic Unit HP1	250	None	\$2,500	2016
99	MK Asphalt Saw	251		\$150	2016
100	Stanley Hydraulic breaker	252	None	\$600	2016
101	Stanley Hydraulic Chipping Hammer	253	None	\$1,000	2016
102	Stanley Hydraulic Impact ID04	254	None	\$600	2016
103	Stanley Hydraulic Chop Saw	255	None	\$700	2016
104	Stanley Hydraulic Breaker BR 72	256	None	\$650	2016
105	Mini Collings (Hot Tap Machine)	257	6945	\$1,000	2016
106	Mini Collings (Hot Tap Machine)	258	None	\$1,000	2016
107	Wheeler Rex (Hot Tap Machine)	259	None	\$1,200	2016
108	Mini Collings (Hot Tap Machine) CL-12 Large	260		\$1,300	2016
109	Mini Collings 1600 Series Asphalt Saw	261		\$750	2016
110	Hurco Ripcord Blower RIP18H	290	RIP18H	\$500	2016
111	Rothenberger Pipe Threader	300	51046	\$2,300	2016
112	Husqvarna 39R Clearing Saw	301		\$600	2016
113	Husqvarna 125R Clearing Saw	302		\$600	2016
114	Husqvarna 51/55 Chain Saw	303		\$750	2016
115	Stihl MS 250C Chain Saw	304	282684593	\$650	2016
116	Husqvarna 326L 968057203 Weed trimmer; 2 stroke oil mix/g	305	05 4200 432	\$400	2016
117	Stihl Chain Saw MS201T	306	176603696	\$450	2016
118	Stihl TS 420 Chop Saw	308	None	\$800	2016
119	Stihl Cut Off Saw	309		\$650	2016
120	Stihl TS 420 Chop Saw	310	170271193	\$750	2016
121	Ground Hog Auger	312	GC02-365331	\$800	2016
122	Copper Crimper (Enerpac)	313		\$80	2016

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Large & Small Equipment

No.	Description	RMWD I.D.	Serial No.	Estimated Unit Cost	Year in Service
123	Excell Pressure Washer	314	2655032749	\$200	2016
124	Mustang Pipe Crimper PS-62A	315	022041	\$1,300	2016
125	Safety Boy Flange Spreader	316	None	\$450	2016
126	Weed Trimmer	318	HAGA 1038974	\$359	2016
127	Ciaasons Air Compressor	399	920816	\$400	2016
128	Shop Air Compressor, Ingersoll Rand	400	5009741	\$1,800	2016
129	Beck Reservoir Compressor	401		\$120	2016
130	Rigid Mechanic's Portable Air Compressor, Caft	402	1483501	\$500	2016
131	Pallet Jack	420	1NSP15123	\$3,000	2016
132	Caterpillar Forklift P6000	421	AT113F00813	\$5,000	2016
133	Kohler Pressure Washer MAG 16	422	3129250051	\$500	2016
134	Mechanic's Tools	450		\$200	2016
135	Dayton Fan	455	K554XPFS-7378	\$100	2016
136	Blower Echo ES 211			\$50	2016
137	Bits 10" 6" 4" 2"			\$75	2016
138	Rigid Freeze Machine SF 2500		1218830	\$3,000	2016
139	Shindaiwa Hedger			\$250	2016
140	Husbuarna Chain Saw 55			\$300	2016
141	Stihl Chain Saw M5290			\$300	2016
142	Rigid Freeze Machine SF 2500		1212653	\$3,000	2016
143	Wheeler Snap Cutter			\$400	2016
144	Portable Pneumatic Car Lift		3129250051	\$70	2016
145	Stihl Trimmer FS250		None	\$250	2016
146	Banding Clamp Signode			\$150	2016
147	Gold AC Locator in Case			\$800	2016
148	Gold AC Locator in Case		9107011A	\$800	2016
149	Marking Paint Stripper		None	\$50	2016
150	Plumbing Snake		None	\$250	2016
151	Portable Light Stand		None	\$90	2016
152	Portable Light Signup in Case		None	\$30	2016
153	Portable Light in Case		None	\$90	2016
154	Portable Light in Case		None	\$90	2016
155	Portable Light in Case		None	\$90	2016
156	Duke Backflow Tester		None	\$1,200	2016

Rainbow Municipal Water District
Replacement Cost Approach

Other System Assets
Large & Small Equipment

No.	Description	RMWD I.D.	Serial No.	Estimated Unit Cost	Year in Service
157	Diffuser			\$50	2016
158	Pollard Diffuser			\$50	2016
159	Coleman Heater, Propane 5085-751			\$70	2016
160	Dayton Heater, Propane		011957032	\$50	2016
161	Lietz Automatic Level and Stand - Eng.		238888	\$80	2016
162	Bosch 3/4" Roto Hammer		3490278	\$50	2016
163	Bosch 3/4" Roto Hammer			\$50	2016
164	Wild Transit - Eng.		230693	\$300	2016
165	Total Small Equipment			\$95,237	
166	Total Large & Small Equipment			\$907,109	

Schedule 4-13

Rainbow Municipal Water District
Replacement Cost Approach

Other System Assets
Fleet

No.	Description	LICENSE #	VIN/SN	Current Unit Cost	Year in Service	Age as of 2016
1	FORD, SUPER DUTY, W/HYDRAULIC LIFT	377156	2FDLF47G2PCA21369	\$4,000	1993	23
2	FREIGHTLINER, FL-112, DUMP TRUCK	1081503	1FVHBGA871HJ19620	\$12,000	2001	15
3	CHEVROLET, 3500 (WELDER)	1138719	1G8JK34G43E125084	\$14,000	2003	13
4	CHEVROLET, SILVERADO 3500 HD, AUTO CRANE	1150716	1GBJC34G53E245392	\$14,500	2003	13
5	CHEVROLET, C2500, UTILITY TRUCK	1957578	1GBHC24U73E231685	\$15,000	2003	13
6	CHEVROLET, SILVERADO 1500, PICK-UP TRUCK	1150709	1GCEC14V63Z240940	\$12,000	2003	13
7	CHEVROLET SILVERADO 2500HD	1335060	1GBHC24U33E232526	\$12,500	2003	13
8	CHEVROLET, SILVERADO, PICK-UP TRUCK	1138711	1GCEC14X43Z120314	\$13,000	2003	13
9	CHEVROLET SILVERADO 1500, PICK-UP TRUCK	1182255	1GCEC14V54Z211950	\$12,000	2004	12
10	INTERNATIONAL 7500/HT5701	1187175	1HTWPAZR85J153887	\$14,000	2004	12
11	VAC-CON SEWER TRUCK	1182401	2F2AATAK64AL90876	\$18,600	2004	12
12	CHEVROLET 3/4 TON PICK-UP TRUCK	1182338	1GBHC24U15E101789	\$19,200	2005	11
13	PASSENGER VAN	1184670	1GAGG25U451158000	\$12,000	2005	11
14	CHEVROLET UT TRAILBLAZER	1272033	1GNDT13S972263184	\$14,500	2007	9
15	CHEVROLET, SILVERADO 1500 4WD REGULAR CAB	1270277	1GCEK14C57Z597601	\$21,500	2007	9
16	CHEVROLET, SILVERADO 2500, PICK-UP TRUCK	1236448	1GBHK24K17E560261	\$23,000	2007	9
17	CHEVROLET, SILVERADO 2500, PICK-UP TRUCK	1236447	1GBHK24K27E559748	\$23,000	2007	9
18	FORD F-150 4X4 EXTRA CAB	1287016	1FTRX14W78FB81405	\$17,000	2008	8
19	FORD F-150 4X4 EXTRA CAB	1287014	1FTRX14W98FB81406	\$17,000	2008	8
20	FORD F-150 4X4 EXTRA CAB	1287015	1FTRX14W58FB81404	\$17,000	2008	8
21	FORD, F550 , 4X2 REGULAR CHASSIS CAB	1258070	1FDAF56R08EC00876	\$25,000	2008	8
22	FORD F-550 SUPER DUTY DIESEL	1276203	1FDAF57R78EC60281	\$22,000	2008	8
23	FORD F-350 SUPER DUTY DIESEL	1244732	1FDWF34R28ED33751	\$22,000	2008	8
24	FORD F-450 SUPER DUTY DIESEL	1335357	1FDUF4GT2BEC30308	\$22,000	2011	5
25	FORD, SUPER DUTY F450 TRUCK, W/AUTO CRANE	1335356	1FD0W4GT5BEC64872	\$25,000	2011	5
26	CHEVROLET 1500, PICK-UP TRUCK	1335542	1GCNKPEA8DZ290208	\$19,000	2013	3
27	CHEVROLET 1500, PICK-UP TRUCK	1335541	1GCNKPEAXDZ291649	\$19,000	2013	3
28	CHEVROLET 2500 HD	1425577	1GB0CVCG5DF158743	\$40,000	2013	3
29	CHEVROLET SILVERADO 1500 REG CAB, 4-WHEEL DRIVE	1425581	1GCNKPEH3EZ202549	\$20,000	2014	2
30	CHEVROLET SILVERADO 1500 REG CAB, 4-WHEEL DRIVE	1425580	1GCNKPEH4EZ197717	\$20,000	2014	2
31	VACTOR 2100 PLUS, TANDEM AXLE EXTRA HEAVY TRUCK	N/A		\$20,000	2014	2
32	CHEVROLET SILVERADO 1500 4WD EXTRA CAB	1444871	1GCVKPEH9FZ180252	\$24,000	2015	1
33	CHEVROLET, SILVERADO 1500, 4x4 DOUBLE CAB P/U	1398565	1GCVKPEHFXZ403267	\$26,000	2015	1

Rainbow Municipal Water District
Replacement Cost Approach

Other System Assets
Fleet

No.	Description	LICENSE #	VIN/SN	Current Unit Cost	Year in Service	Age as of 2016
34	CHEVROLET, SILVERADO 1500, 4x4 DOUBLE CAB P/U	1398564	1GCVKPEH4FZ401921	\$26,000	2015	1
35	CHEVROLET, SILVERADO 2500, PICK-UP TRUCK	1448756	16B0KUEG2FZ508843	\$27,000	2015	1
36	CHEVROLET, SILVERADO 1500, 4x4 DOUBLE CAB P/U	1398566	1GCVKPEH3FZ405250	\$26,000	2015	1
37	FORD EXPLORER	1397921	1FM5K7B83FGA55307	\$35,000	2015	1
38	FORD F550 SUPER DUTY XL 4 WD		1FDUF5HT3BEB33033	\$39,500	2016	0
Total Fleet				\$763,300		

Section 5

SECTION 5: INCOME APPROACH

The RMWD is a not-for-profit California exempt entity with delegated governmental authority. As a not-for-profit, there are no operating return on equity (rate base) or return of equity or accelerated depreciation, or regulatory assessment fee or tax revenues within the RMWD rate structure to capitalize, or project into the future and discount the future cash flows. The contributions in aid of construction (CIAC) agreed to be paid or property contributed for the inducement of service has no margin or profit involved. Such CIAC does increase the value of RMWD in the cost approach, but does not represent a cash flow to capitalize.

Therefore, though considered, the income approach is not applicable to this property's FMV.

Section 6

SECTION 6: MARKET APPROACH (COMPARABLE SALES)

6.1 GENERAL

Water and wastewater utilities are purchased and sold throughout the United States. The market is nationwide with adjustments to the specific state, attributes of the system, value of water rights and other factors. For the RMWD systems, we have deleted (a) water rights values from the analysis as well as (b) marginal expansion costs of plant (water plant and wastewater plant) and (c) going concern. We have included adjustments for super-adequacies for the (a) fire storage system, (b) agricultural service system as well as (c) general plant capabilities.

The FMV IRS definition from Publication 561 states “Fair market value (FMV) is the price the 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.” Therefore, (1) franchise options to purchase under specified terms and conditions; (2) condemnations/eminent domain circumstances; (3) bankruptcy or reorganization proceedings; (4) regulated private investor-owned utilities (IOU); nor (5) other hardship/compulsion/regulated/emergency condition sales are included in the set of sales used.

As a special purpose property, there are unique characteristics and configuration requirements which require the appraiser’s best efforts to adjust for the ascertain a reliable result.

The RMWD property has not been purchased or sold in the past ten (10) years. There are no historical sales of this property to be discussed, distinguished and/or compared to this analysis.

To the appraiser’s knowledge and belief, there have been no offers for sale (no listing or market entry RFP or RFQ) and no offers for purchase of the RMWD property at FMV.

It is my opinion that the proper exposure time for the RMWD property is two (2) years.

The number of meters for RMWD is taken from the “Potable Water Cost of Service Study” by Raftelis Financial Consultants, Inc. dated 11/10/2015 as found in Table D-1: Meter Counts by Class. **Table 6-1** summarizes this information:

**Table 6-1
RMWD METER COUNTS BY CLASS**

<u>Meter Size</u>	<u>SFR</u>	<u>MFR</u>	<u>Comm</u>	<u>Ag</u>	<u>TSAWR Dom</u>	<u>TSAWR Comm</u>	<u>Institutional</u>	<u>Total</u>
5/8"	208	---	1	8	1	1	---	219
3/4"	2,116	4	26	265	97	9	4	2,521
1"	1,896	39	79	821	573	72	4	3,484
1 ½"	127	10	26	135	210	76	5	589
2"	51	34	26	97	144	94	5	451
3"	3	---	6	7	6	10	1	33
4"	---	3	3	4	1	3	---	14
6"	---	---	---	1	---	---	---	1

The nationwide industry for purchasing utilities considers the following of meter equivalents by meter size to attain the equivalent residential connection (ERC) amount used as a value metric as shown on **Table 6-2**.

**Table 6-2
INDUSTRY METER EQUIVALENTS**

<u>Meter Size</u>	<u>Meter Type</u>	<u>Equivalency Factor</u>
5/8"	Displacement	1.0
3/4"	Displacement	1.5
1"	Displacement	2.5
1 ½"	Displacement or Turbine	5.0
2"	Displacement, Compound or Turbine	8.0
3"	Displacement	15.0
3"	Compound	16.0
3"	Turbine	17.5
4"	Displacement or Compound	25.0
4"	Turbine	30.0
6"	Turbine	62.5

Due to the consumption per unit variance between agricultural use and non-agricultural use, the equivalency of each are distinguished below on **Table 6-3**.

Table 6-3
RMWD NON-AGRICULTURAL CUSTOMER ERCS

<u>Meter Size</u>	<u>Factor</u>	<u>Number</u>	<u>ERCs</u>
5/8"	1.0	211	211
3/4"	1.5	2,256	3,384
1"	2.5	2,663	6,658
1 ½"	5.0	454	2,270
2"	8.0	354	2,832
3"	16.0	26	416
4"	25.0	10	250
		5,974	16,021

Similarly, for agricultural customers the equivalency analysis is as shown on **Table 6-4**.

Table 6-4
RMWD AGRICULTURAL CUSTOMER ERCS

<u>Meter Size</u>	<u>Factor</u>	<u>Number</u>	<u>ERCs</u>
5/8"	1.0	8	8
3/4"	1.5	265	398
1"	2.5	821	2,053
1 ½"	5.0	135	675
2"	8.0	97	776
3"	17.5	7	123
4"	30.0	4	120
6"	62.5	1	63
		1,338	4,216

6.2 ADJUSTMENTS FROM THE MARKET

RMWD has characteristics which require market adjustment. The 2015 total water use was 19,163 Acre Feet (AF) or 17.1 MGD – AADF.

A. Fire Storage and Drought Storage

Normal water storage requirements vary from the minimum 10 States standard one-day average daily flow (ADF) to the preferred 2.0 x AADF for system non-emergency needs or supply reduction needs. This amount is 34.2 million gallons (MG).

The market growth reserve would be a like amount (approximately 12,000 connections/meters of various sizes for the build-out of the water system) resulting in an additional 34 MG. The total storage reserves then becomes 68.2 MG.

The storage available (3 facilities not in use) for all uses is 431.7 MG. The average depreciated value per MG of storage was found to be \$199,781/MG (\$200,000/MG) (See **Schedule 4-1**). The total storage of 431.7 MG less 68.2 MG multiplied by \$200,000/MG resulted in a storage adjustment of \$72,700,000. Applying the same ratios to water booster pump stations and pressure regulating stations (\$2.17 million and \$1.79 million) results in an adjustment for these items of \$3.33 million (See **Schedules 4-2 and 4-3**).

The transmission/conveyance adjustment is derived from the proportional distributed conveyance costs as initially summarized in **Schedule 4-4**. That proportional super-adequacy for pipelines is \$140,000,000.

B. General Plant

The super-adequacy of the District Complex, inventory, large and small equipment, and fleet are a general adjustment allocable proportionately to the water and wastewater systems.

From **Appendix "C"** – Inventory (as provided by RMWD warehouse) of \$924,997.75 (Say \$925,000); **Schedule 4-12** Large and Small Equipment of \$907,109 (Say \$907,000); **Schedule 4-13** Fleet of \$763,300 (Say \$763,000) we derive a subtotal of \$2,595,000 (Say \$2,600,000).

The administration building with the non-consumable contents allocated to the same; the engineering trailer and contents operations building and SCADA control system and contents; mechanical shop; maintenance; electrical shop and maintenance; garages; auxiliary power; outside AC convenience trailer; pole barns; laydowns areas; site improvements to upper area; site improvements less non-functional old WWTP to lower "Riverside" area; warehouse without inventory; gas pumps and refueling station; security/access systems; and other attachments and fixtures without the value of the raw land total of \$6,443,900 (Say \$6,400,000).

The sum of the above allocable general plant super adequacy utility plant property without land is \$9,000,000. See **Tables A-2 and A-3**.

Willdan has used the County tax records for an indication of raw land (unimproved) value. The result of this work is approximately an excess or super adequacy \$1,000,000 for the administration complex upper (3707 Old Highway 395) and lower (“Riverside”) area. Note, the above is not a real property FMV appraisal pursuant to USPAP and is not intended to be.

Combining the above results in the general plant super adequacy adjustment of \$10,000,000.

C. Date of Transaction Escalation

As special purpose property, in water and wastewater cases, various courts have permitted the consideration of other utility properties (not the subject) adjusted to the subject up to ten (10) years in time. Generally, it is preferred to have a shorted historical transactional date to the present (three (3) to five (5) years from the present). Sales older than ten (10) years have been rejected as having no probative value or too distant in circumstances not being relevant to the effective date.

Adjustments are usually necessary to bring the sales to the effective date and subject property characteristics.

The more adjustments needed usually renders the sales less and less reliable.

A sale of the subject property should be discussed at a minimum. If a sale is within a reasonable and applicable time period, then that sale should be analyzed (2016-2017 USPAP-AO-24 and Rule 7-5). Typically, that time period for special purpose property is longer than the minimum standard of three (3) years for real estate.

Table 6-5 presents the ENR (Engineering News Record) average year Construction Cost Index (CCI) for the market analysis. The CCI is used due to the heavy reliance of the utility industry on utility costs and the recovery of such costs.

Table 6-5
ENR AVERAGE YEAR CONSTRUCTION COST INDEX (CCI)
FOR THE MARKET PERIOD

<u>Year</u>	<u>ENR CCI</u>	<u>Escalation Factor</u>
Effective Date	10,337	1.00
2015	10,025	1.03
2014	9,806	1.05
2013	9,547	1.08
2012	9,308	1.11
2011	9,070	1.14
2010	8,799	1.18
2009	8,570	1.21
2008	8,310	1.24
2007	7,966	1.30
2006	7,751	1.33

6.3 SELECTED TRANSACTIONS

The selected transactions are listed below in **Table 6-6**.

Table 6-6
SELECTED WATER AND WASTEWATER TRANSACTIONS
(ESCALATED AND WITHOUT WATER RIGHTS VALUED)

<u>ID No.</u>	<u>Seller</u>	<u>Purchaser</u>	(\$ X 1,000)	
			<u>Water P.P.</u>	<u>Wastewater P.P</u>
1	Village Royal Palm Beach	Palm Beach Co.	\$ 44,700	\$ 44,500
2	NFMU	FGU Authority	\$ 8,100	\$ 48,600
3	United Water	Aquarian	\$ 39,700	---
4	Car/Woodberry CWS	United Utility	\$ 13,000	\$ 15,300
5	Westfield	Citizens Energy	\$ 49,100	\$ 44,600
6	Valencia WC	Buckeye	\$ 56,700	---
7	Haddonfield	American	\$ 14,400	\$ 14,400
8	Citizens	IAWC	\$ 118,300	\$ 108,200

From **Table 6-6** we input the number of ERCs for each allocated system. **Table 6-7** presents this analysis for the water systems.

**Table 6-7
CALCULATED PRICE PER ERC
WATER SYSTEMS**

<u>ID No.</u>	<u>Purchase Price</u> (Allocated/Rounded)	<u>Water ERCs</u>	<u>Price Per ERC</u>
1	\$ 44,700,000	11,796	\$ 3,789
2	\$ 8,100,000	2,000	\$ 4,050
3	\$ 39,700,000	9,302	\$ 4,268
4	\$ 13,000,000	2,849	\$ 4,563
5	\$ 49,100,000	11,000	\$ 4,464
6	\$ 56,700,000	7,000	\$ 8,100
7	\$ 14,400,000	4,500	\$ 3,200
8	\$118,300,000	35,000	\$ 3,380
		Simple Average	\$4,477

Similarly, for the wastewater systems the same process is used as shown in **Table 6-8**.

**Table 6-8
CALCULATED PRICE PER ERC
WASTEWATER SYSTEMS**

<u>ID No.</u>	<u>Purchase Price</u> (Allocated/Rounded)	<u>Wastewater ERCs</u>	<u>Price Per ERC</u>
1	\$ 44,500,000	11,731	\$ 3,793
2	\$ 48,600,000	12,000	\$ 4,050
3	N/A	N/A	N/A
4	\$ 15,300,000	3,359	\$ 4,555
5	\$ 44,600,000	10,000	\$ 4,460
6	N/A	N/A	N/A
7	\$ 14,400,000	4,500	\$ 3,200
8	\$108,200,000	32,000	\$ 3,381
		Simple Average	\$3,907

The RMWD water system is more expansive (more linear feet per customer served) than the comparable sales of a typical water system.

The average was found to be \$4,477 per ERC which is rounded to \$4,500 per ERC. The RMWD potable water delivery system would command or a higher value per ERC than that average calculated by **Table 6-7**.

Considering the 1,704,384 LF of water main serving 20,237 ERCs (**Table 6-3** @ 16,021 plus **Table 6-4** @ 4,216) yields 84.2 LF per ERC. This amount is approximately 23% greater than the average.

To adjust for this factor, the \$4,500 is multiplied by 1.23 (23%) to render a value per ERC for RMWD non-agricultural ERC base as \$5,535. Therefore, 16,021 ERCs multiplied by 5,535/ERC results in \$88,700,000.

The 16,021 ERCs use approximately 47.5% (9,105 AF/19,163 AF total 2015) of the water provided. The 4,216 ERCs use approximately 52.5% of the water provided (Raftelis 11/10/2015). Yet the historical water rate revenues reflect an approximate 10% combined unit difference.

For the agricultural ERCs there exist few comparable sales which have the due diligence and public disclosure as the non-agricultural transactions. These sales are not typically the water system but rather the vested water rights and the specific business operation sold.

For the surrogated allocation of value, I have used a revenue ratio of 0.89. Applying that ratio results in \$78,900,000 of allocation to the agricultural customer base.

There are 4,000 laterals for wastewater service in the system. The estimated ERCs for those laterals are as follows:

**Table 6-9
WASTEWATER SYSTEM ERCS**

<u>Meter Size</u>	<u>Factor</u>	<u>Allocated Number</u>	<u>ERCs</u>
5/8"	1.0	201	201
3/4"	1.5	1,802	2,703
1"	2.5	1,594	3,985
1 ½"	5.0	213	1,065
2"	8.0	166	1,328
3"	16.0	18	288
4"	25.0	6	150
		4,000	9,720

From **Table 6-8** the price per ERC for the wastewater systems was found to be \$3,907. Applying the price per ERC to the 9,720 ERCs resulted in \$37,976,040 or rounded \$38,000,000.

6.4 SUMMARY OF FINDINGS

The analysis for the adjusted market approach are as shown in Table 6-10.

Table 6-10
SUMMARY OF MARKET ANALYSIS FINDINGS

<u>Property Type Description</u>	<u>Indicated Value</u>
General Plant	\$ 10,000,000
Non-Agricultural Potable	\$ 88,700,000
Agricultural Potable	\$ 78,900,000
Wastewater	\$ 38,000,000
Fire Protection and Drought Storage System	\$ 216,000,000 ⁽ⁱ⁾
Indicated Market Value	\$ 431,600,000
Rounded	\$ 432,000,000

- (i) \$72.7 Million Storage, \$3.3 Million PRSs and PSs and \$140 Million for Water Transmission associated with the Storage Facilities Functions.

6.5 ALLOCATED MARKET APPROACH TO WATER AND WASTEWATER SYSTEMS

I have allocated 90% of the general plant to water. The water result becomes the sum of \$88.7 million plus \$78.9 million plus \$216 million plus \$9.0 million or \$392,600,000 rounded to be \$393 million dollars.

The remaining 10% of the general plant I have allocated to wastewater or the sewer system. The wastewater result becomes the sum of \$38 million plus \$1 million or \$39 million dollars.

The total RMWD utility is \$432,000,000 under the market approach without the value of water rights.

The RMWD is a not-for-profit California exempt entity with delegated governmental authority. As a not-for-profit, there are no operating return on equity (rate base) or return of equity or accelerated depreciation, or regulatory assessment fee or tax revenues within the RMWD rate structure to capitalize, or project into the future and discount the future cash flows. The contributions in aid of construction (CIAC) agreed to be paid or property contributed for the inducement of service has no margin or profit involved. Such CIAC does increase the value of RMWD in the cost approach, but does not represent a cash flow to capitalize.

Therefore, though considered, the income approach is not applicable to this property's FMV.

Section 7

SECTION 7: RECONCILIATION OF VALUATION APPROACH

The RCNLD, income and comparable sales approaches with the supporting analysis and documents provide useful information. In addition, my forty (40) years of water and wastewater utility design, construction, bidding, purchase and sales, appraisals, negotiations, regulatory matters, financings, and rates and charge activities on hundreds of assignments in the United States with my market participation have given me the ability to understand the value of water and wastewater utility property. I have an engineering and utility management, ownership, and operations background with specialized experience, training and practice in water and wastewater utilities. I am an American Academy of Environmental Engineers board certified environmental engineer with my specialty being water and pollution control (wastewater). I am not only an Accredited Senior Appraiser by the American Society of Appraisers (ASA), but also have the machinery and technical specialties certification and the public utilities specialty certification. One of my public utility specialties is water and wastewater utilities.

It is with the combination of the work performed, my experience and my training and accreditations that I render my opinion of value as of May 19, 2016 for the Rainbow Municipal Water District Water and Wastewater Utilities as:

\$439,000,000
(Four Hundred Thirty-Nine Million Dollars)

For the reader's information the results of the approaches were found to be the following:

RCNLD	\$440 Million
Income	\$ N/A
Comparable Project Costs	\$ 432 Million

Even though the above opinion of value was not derived mathematically, I offer the following approximate weighting for informational purposes.

The cost approach is intended to value all of the real property, tangible property and certain intangible property (limited for this Report). It is specific to the utility's configuration, facilities, and its on-going concern. The market will see some risk associated with the cost approach involving deferred maintenance, latent defects and non-observable deficiencies in the due diligence process. Nonetheless, for the Rainbow Municipal Water District Utilities Systems, the cost approach is the strongest indicator of highest and best use/full fair market value given the extraordinary assumptions and hypothetical conditions taken in this work. It provides full compensation/value for the property. Mathematically, the weighting calculates to approximately 85%.

The income approach for a not-for-profit utility (NFP) typically does not capture all of the value of the assets. A difficulty with the income approach is the amount of assumptions, the rate limitations to a non-profit situation and lack of information available. Moreover, there is

significant uncertainty due to the prospective nature of forecasting future financial performance, which may or may not be realized. Therefore, the income approach for the subject property is not applicable.

The comparable sales approach is the standard approach relied upon for real estate appraisals. The water and wastewater systems market values have increased greater than inflation in the past five years. The service provided is monopolistic in nature.

I believe the analysis of substitute construction costs is reliable. I believe the approach values all of the tangible personal property (TPP) considered. I believe the adjustments taken are reflective of the market and costs which a buyer may consider necessary associated with the standard terms and conditions in the industry.

I believe that the substitute construction cost adjustments for the unique adjustments coupled with the market approach is an indicator of value for the Rainbow Municipal Water District. Mathematically, the weighting calculates to approximately 15%. I believe that the market approach, though not as specific as the cost approach, serves also a verification step for this work.

The summary above discusses considerations in the reconciliation of the approaches into the opinion of value.

USPAP CHECKLIST

1. Client Intended Users – Section 1
2. Intended Use Letter- Section 1
3. Property Identification – Section 2, 4 and Appendix
4. Property Physical Characteristics – Section 2, 4 and Appendix
5. Property Interest – Section 1
6. Type of Value – Fair Market Value
7. Define and Source – Section 1
8. Effective Date – May 19, 2016
9. Summary of Scope of Work – Section 1
10. Three Approaches Consideration – Sections 4, 5 and 6
11. Use of Property – Current Use
12. Appropriate Market – Not-for-Profit
13. Extraordinary Assumptions – Section 1
14. Hypothetical Conditions – Section 1
15. Signed Certification – Certification Page – Appendix “H”
16. Effect of Assumptions and Conditions – Section 1

Appendices

Appendix A

APPENDIX A: LAND AND GENERAL PLANT

The fee simple land is summarized on **Schedule A-1**. The APN identifications were used correlating to RMWD ownership and the public use non-taxable designation. Short descriptions were provided. To determine the implied value of the raw land, surrounding unimproved raw land parcels which were taxable were analyzed. The implied value from that analysis was used for land value purposes. Note, this approach is not a real property appraisal, rather a surrounding taxable value analysis. We expect that a USPAP full appraisal would conclude with at least the values derived. Such an appraisal was outside the scope of this work. The fee simple land value is a small component of the overall value of the special purpose property public utility appraisal.

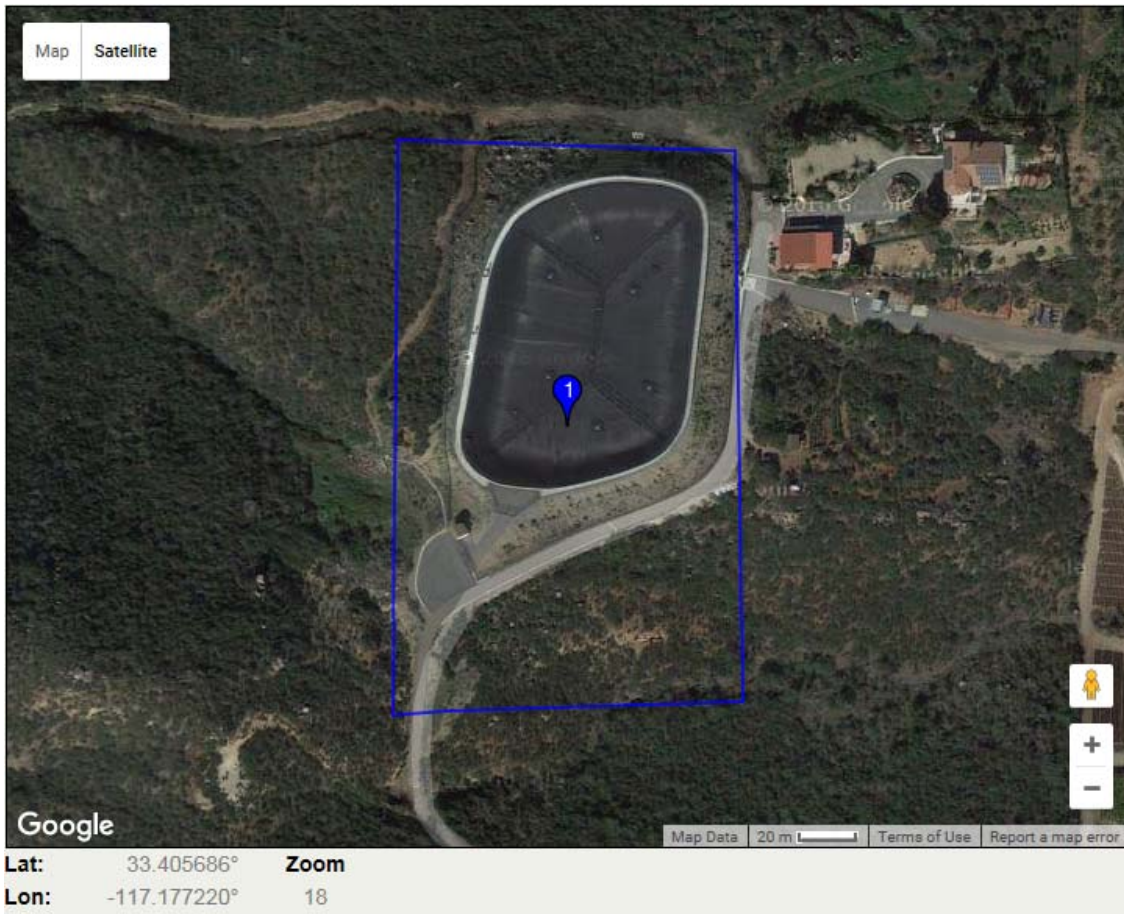
The remaining pages of this Appendix provide individual descriptions for the reader's understanding of the extent or magnitude of each parcel's configuration.

Tables A-1.1 through **A-1.47** provide the backup for the land values for each parcel.

Table A-2 presents the General Plant cost/value estimates.

Table A-3 presents the super adequacy summary for the adjustments to the Market Approach.

Table A-1.1
Land Values
Parcel No. 1



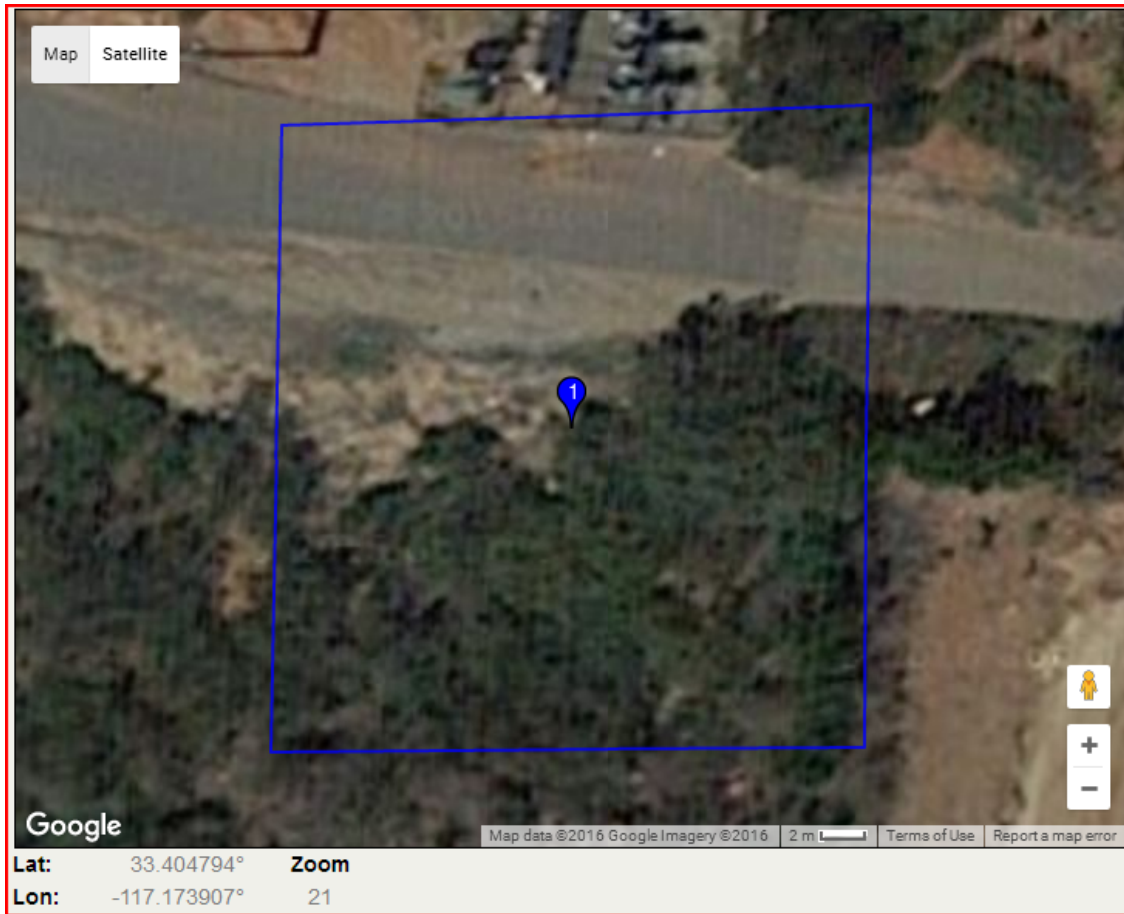
1. Subject Parcel

APN	102-300-08-00
Description of Use	North Reservoir
Acreage	4.800
Value	\$47,776

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
102-720-16-00	\$254,995	16.46	\$15,491.80
108-020-37-00	\$160,028	47.15	\$3,394.02
102-300-49-00	\$308,468	54.68	\$5,641.33
102-300-24-00	\$54,078	10.00	\$5,407.80
Average Price Per Acre			\$7,483.74
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$9,953.37

Table A-1.2
Land Values
Parcel No. 2



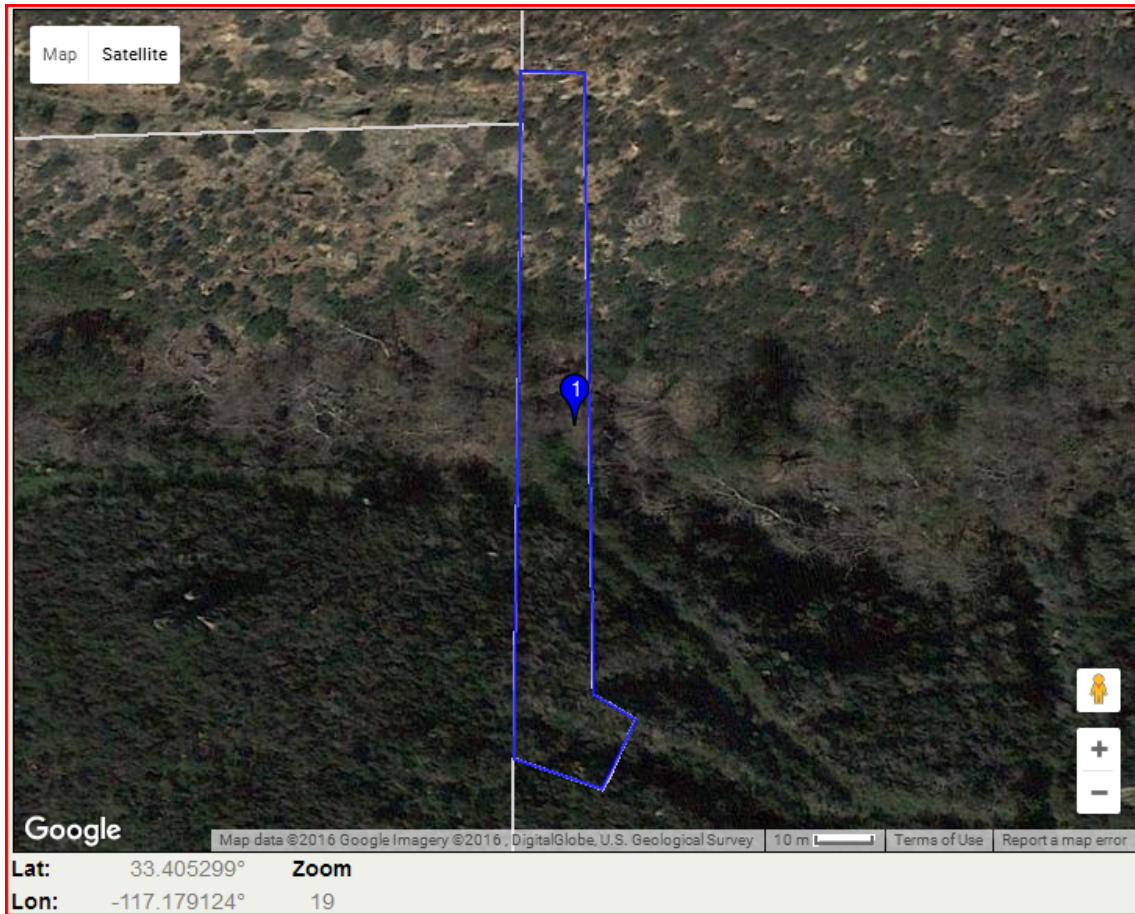
1. Subject Parcel

APN	102-300-11-00
Description of Use	U-1 Pump Station
Acreage	0.150
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
102-720-14-00	\$132,597	3.72	\$35,644.35
108-020-37-00	\$160,028	47.15	\$3,394.02
102-300-49-00	\$308,468	54.68	\$5,641.33
102-300-24-00	\$54,078	10.00	\$5,407.80
Average Price Per Acre			\$12,521.88
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$16,654.10

Table A-1.3
Land Values
Parcel No. 3



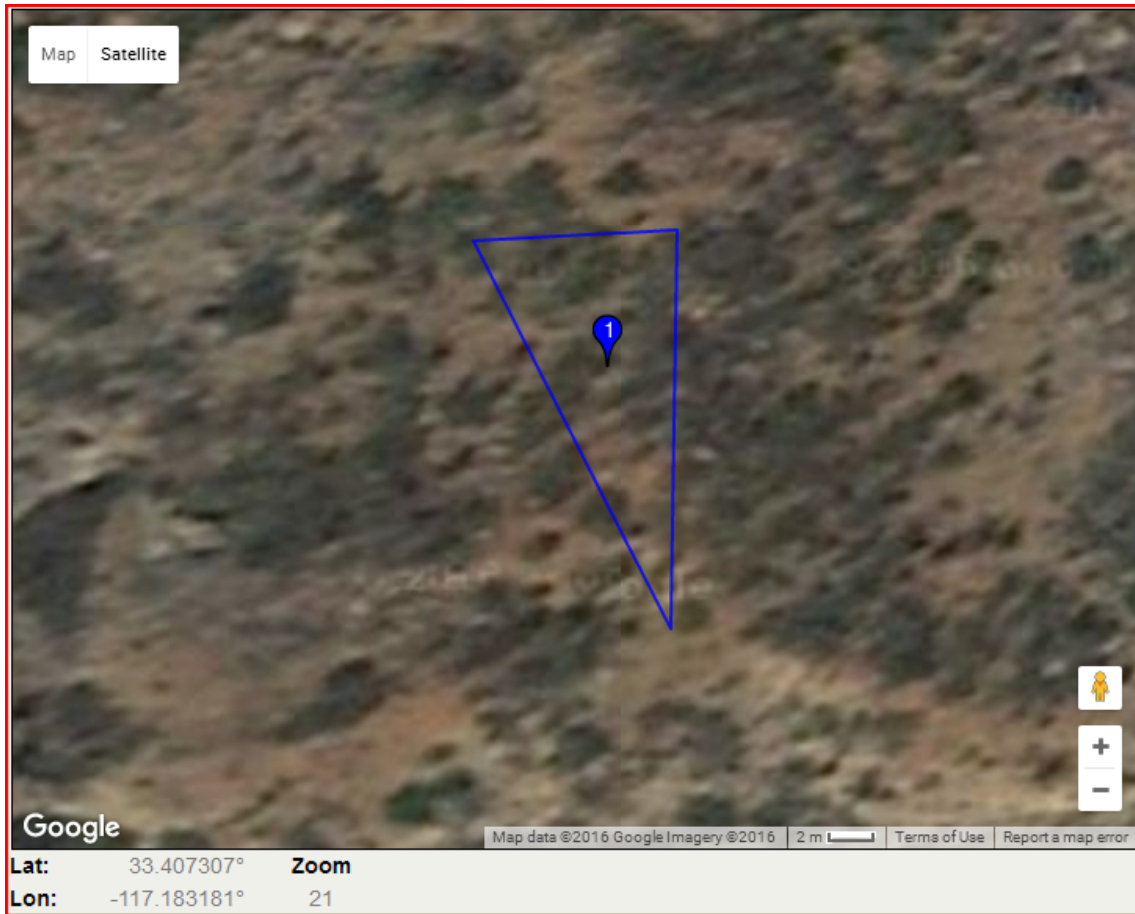
1. Subject Parcel

APN	102-300-50-00
Description of Use	Rainbow Creek Crossing near North Reservoir
Acreage	0.890
Value	\$8,858

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
102-720-16-00	\$254,995	16.46	\$15,491.80
108-020-37-00	\$160,028	47.15	\$3,394.02
102-300-49-00	\$308,468	54.68	\$5,641.33
102-300-24-00	\$54,078	10.00	\$5,407.80
Average Price Per Acre			\$7,483.74
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$9,953.37

Table A-1.4
Land Values
Parcel No. 4



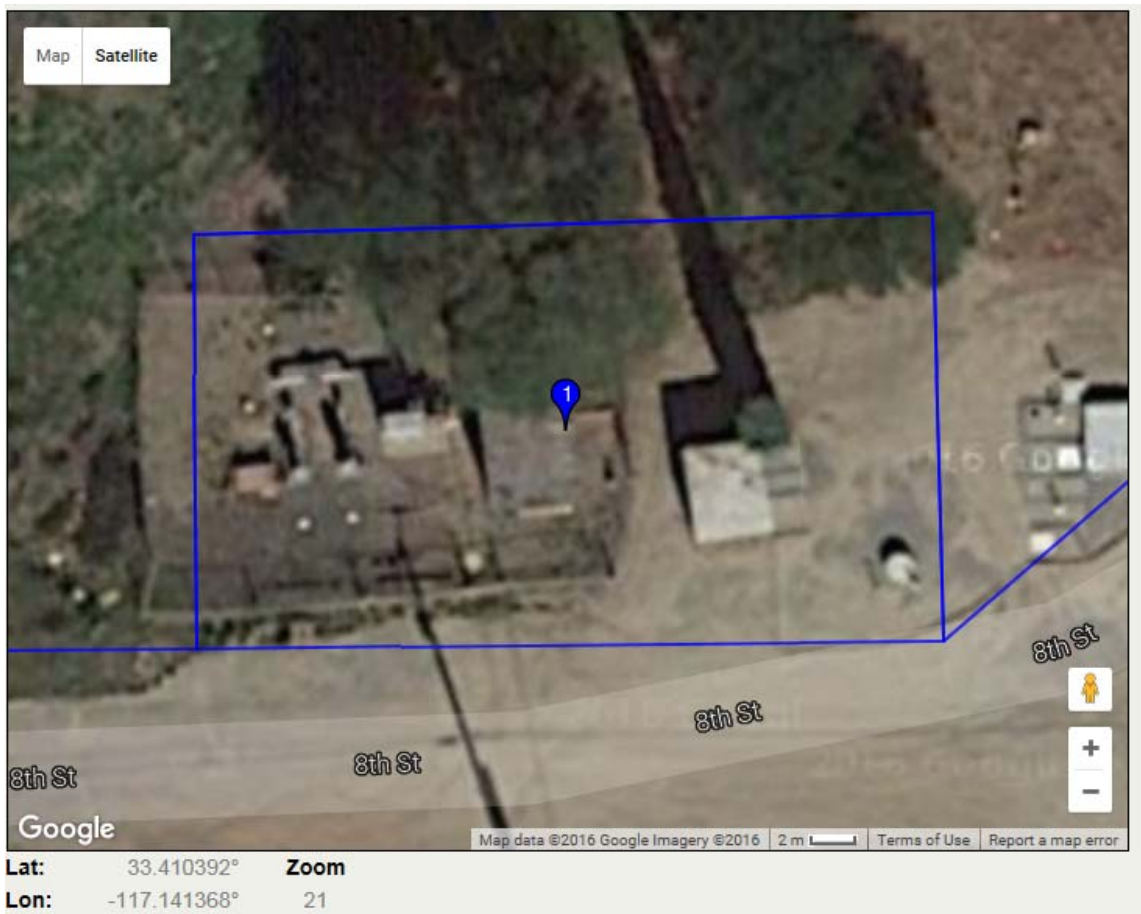
1. Subject Parcel

APN	102-300-53-00
Description of Use	Connection 9
Acreage	0.016
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
102-720-16-00	\$254,995	16.46	\$15,491.80
108-020-37-00	\$160,028	47.15	\$3,394.02
102-300-49-00	\$308,468	54.68	\$5,641.33
102-300-24-00	\$54,078	10.00	\$5,407.80
Average Price Per Acre			\$7,483.74
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$9,953.37

Table A-1.5
Land Values
Parcel No. 5



1. Subject Parcel

APN	102-430-09-00
Description of Use	Pump Station across PS1 (not in use)
Acreage	0.124
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
102-430-29-00	\$147,062	7.79	\$18,878.31
102-630-72-00	\$86,821	4.22	\$20,573.70
Average Price Per Acre			\$7,483.74
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$26,235.58

Table A-1.6
Land Values
Parcel No. 6



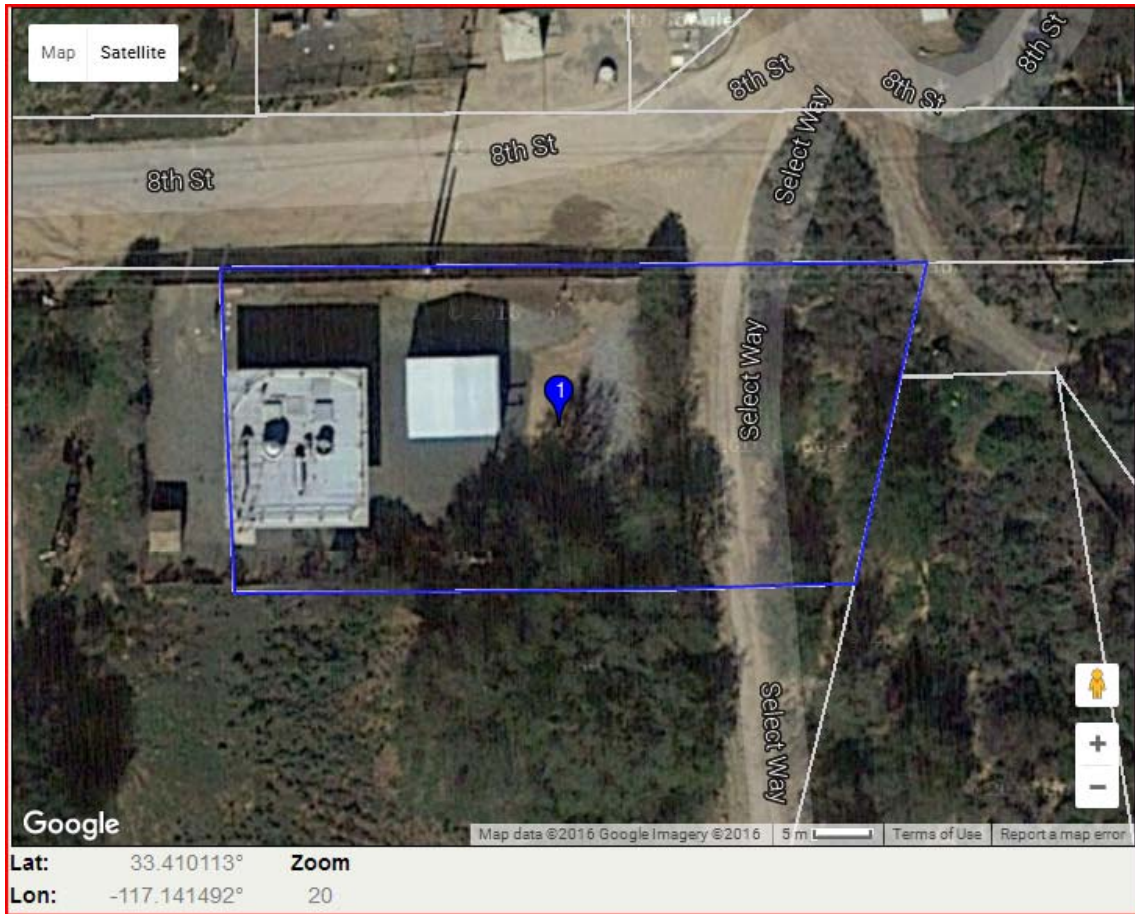
1. Subject Parcel

APN	102-570-20-00
Description of Use	U-1 Tanks
Acreage	1.080
Value	\$38,940

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
102-570-31-00	\$76,695	4.97	\$15,431.59
102-570-30-00	\$184,000	6.42	\$28,660.44
102-570-32-00	\$219,318	5.89	\$37,235.65
Average Price Per Acre			\$27,109.23
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$36,055.27

Table A-1.7
Land Values
Parcel No. 7



1. Subject Parcel

APN	102-630-54-00
Description of Use	Pump Station #1
Acreage	0.336
Value	\$8,815

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
102-430-29-00	\$147,062	7.79	\$18,878.31
102-630-72-00	\$86,821	4.22	\$20,573.70
Average Price Per Acre			\$19,726.00
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$26,235.58

Table A-1.8
Land Values
Parcel No. 8



1. Subject Parcel

APN	102-660-20-00
Description of Use	Booster Pump Station #4
Acreage	0.035
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
102-660-19-00	\$10,167	0.70	\$14,524.29
102-660-18-00	\$11,125	0.80	\$13,906.25
Average Price Per Acre			\$14,215.27
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$18,906.31

Table A-1.9
Land Values
Parcel No. 9



1. Subject Parcel

APN	102-700-16-00
Description of Use	Pump Station #3
Acreage	0.670
Value	\$33,873

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
102-700-13-00	\$36,578	0.68	\$53,791.18
102-240-04-00	\$40,507	1.01	\$40,105.94
102-700-01-00	\$248,541	12.34	\$20,141.09
Average Price Per Acre			\$38,012.73
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$50,556.94

Table A-1.10
Land Values
Parcel No. 10



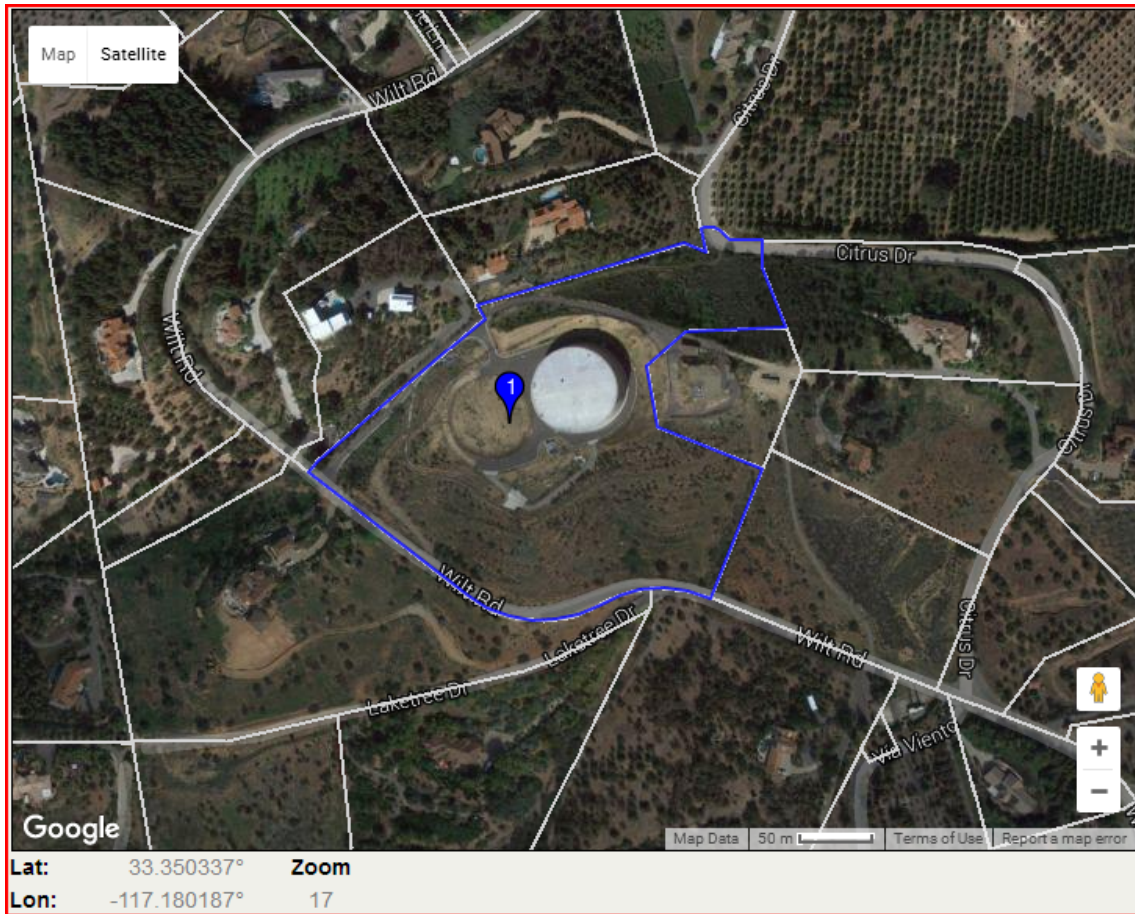
1. Subject Parcel

APN	107-170-28-00
Description of Use	Connection 7
Acreage	1.600
Value	\$43,919

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
107-170-22-00	\$53,300	3.79	\$14,063.32
107-171-03-00	\$239,842	7.01	\$34,214.27
107-170-51-00	\$108,836	7.98	\$13,638.60
Average Price Per Acre			\$20,638.73
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$27,449.51

Table A-1.11
Land Values
Parcel No. 11



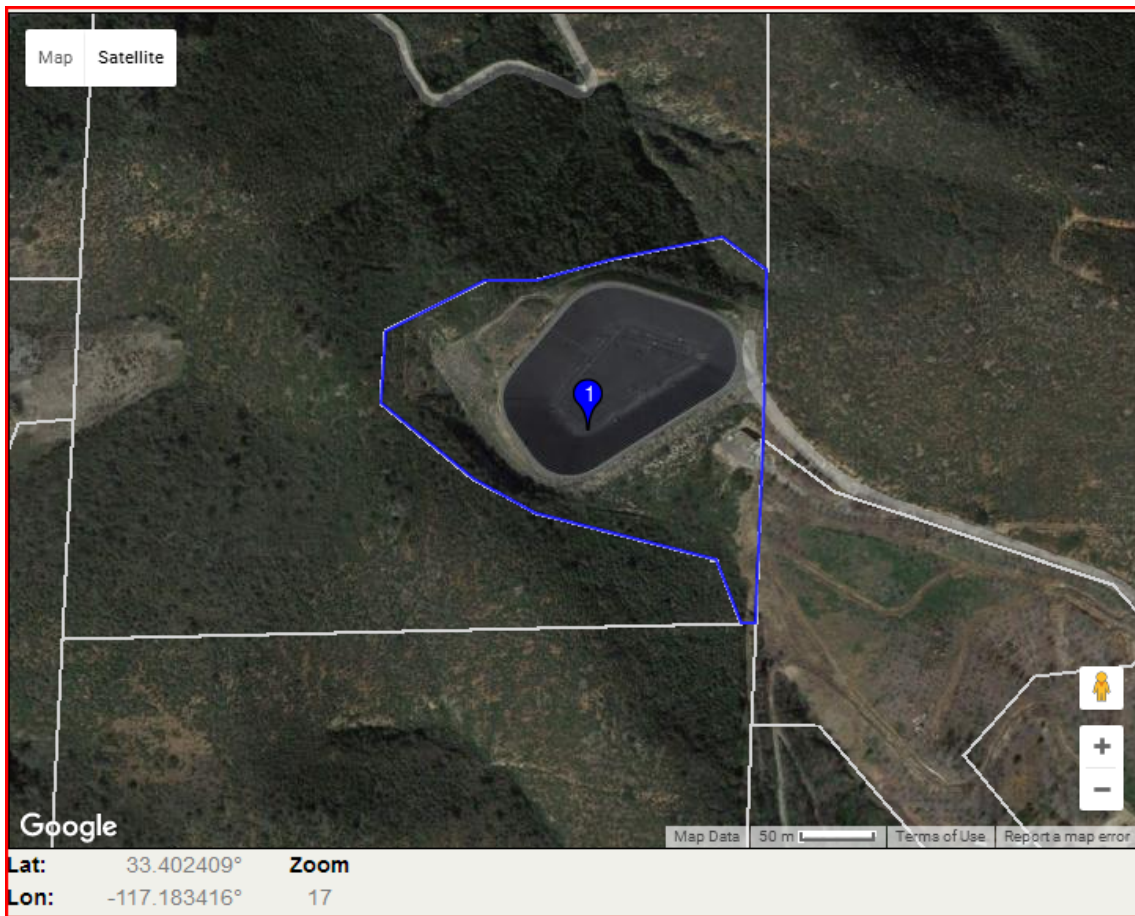
1. Subject Parcel

APN	107-170-29-00
Description of Use	Pala Mesa Tank
Acreage	10.350
Value	\$284,102

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
107-170-51-00	\$108,836	7.98	\$13,638.60
107-170-22-00	\$53,300	3.79	\$14,063.32
107-171-03-00	\$239,842	7.01	\$34,214.27
Average Price Per Acre			\$20,638.73
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$27,449.51

Table A-1.12
Land Values
Parcel No. 12



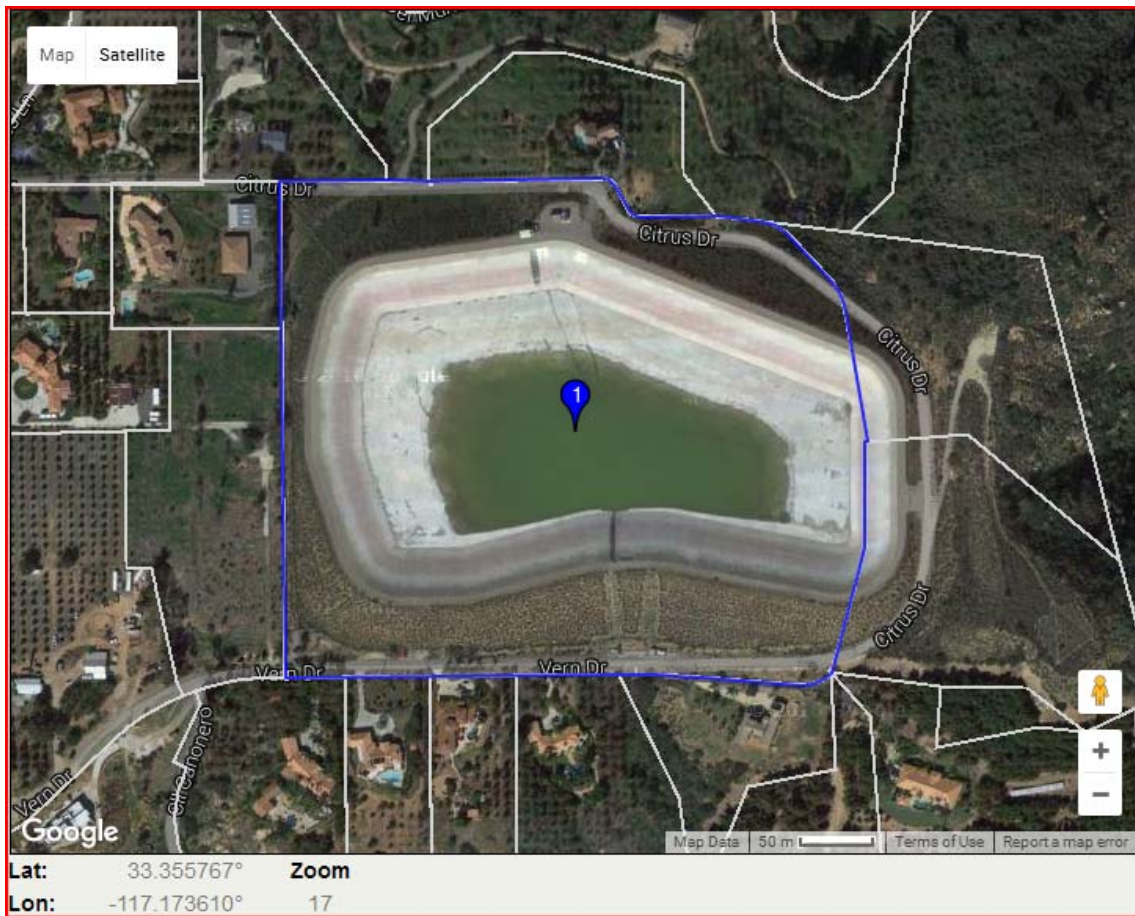
1. Subject Parcel

APN	108-020-69-00
Description of Use	Northside Reservoir
Acreage	9.230
Value	\$91,870

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
102-720-16-00	\$254,995	16.46	\$15,491.80
108-020-37-00	\$160,028	47.15	\$3,394.02
102-300-49-00	\$308,468	54.68	\$5,641.33
102-300-24-00	\$54,078	10.00	\$5,407.80
Average Price Per Acre			\$7,483.74
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$9,953.37

Table A-1.13
Land Values
Parcel No. 13



1. Subject Parcel

APN	108-221-06-00
Description of Use	Beck Reservoir
Acreage	27.250
Value	\$1,077,409

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
108-400-27-00	\$300,000	25.50	\$11,764.71
108-222-11-00	\$162,692	8.00	\$20,336.50
108-221-11-00	\$31,966	0.56	\$57,082.14
Average Price Per Acre			\$29,727.78
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$39,537.95

Table A-1.14
Land Values
Parcel No. 14



1. Subject Parcel

APN	108-221-09-00
Description of Use	Near Beck Reservoir
Acreage	4.820
Value	\$190,573

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
108-400-27-00	\$300,000	25.50	\$11,764.71
108-222-11-00	\$162,692	8.00	\$20,336.50
108-221-11-00	\$31,966	0.56	\$57,082.14
Average Price Per Acre			\$29,727.78
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$39,537.95

Table A-1.15
Land Values
Parcel No. 15



1. Subject Parcel

APN	108-221-10-00
Description of Use	Near Beck Reservoir
Acreage	6.230
Value	\$246,321

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
108-400-27-00	\$300,000	25.50	\$11,764.71
108-222-11-00	\$162,692	8.00	\$20,336.50
108-221-11-00	\$31,966	0.56	\$57,082.14
Average Price Per Acre			\$29,727.78
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$39,537.95

Table A-1.16
Land Values
Parcel No. 16



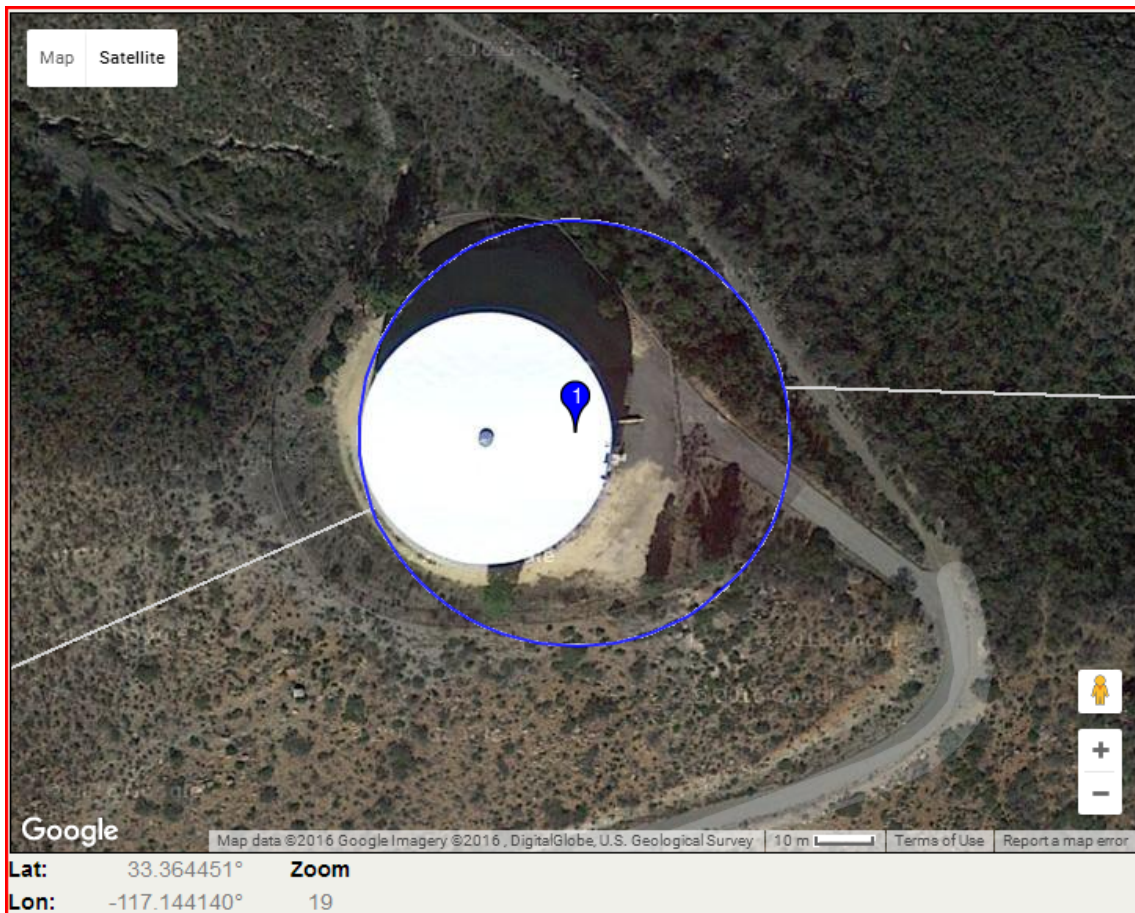
1. Subject Parcel

APN	108-221-18-00
Description of Use	Near Beck Reservoir - Excess Property (not in use)
Acreage	4.680
Value	\$185,038

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
108-400-27-00	\$300,000	25.50	\$11,764.71
108-222-11-00	\$162,692	8.00	\$20,336.50
108-221-11-00	\$31,966	0.56	\$57,082.14
Average Price Per Acre			\$29,727.78
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$39,537.95

Table A-1.17
Land Values
Parcel No. 17



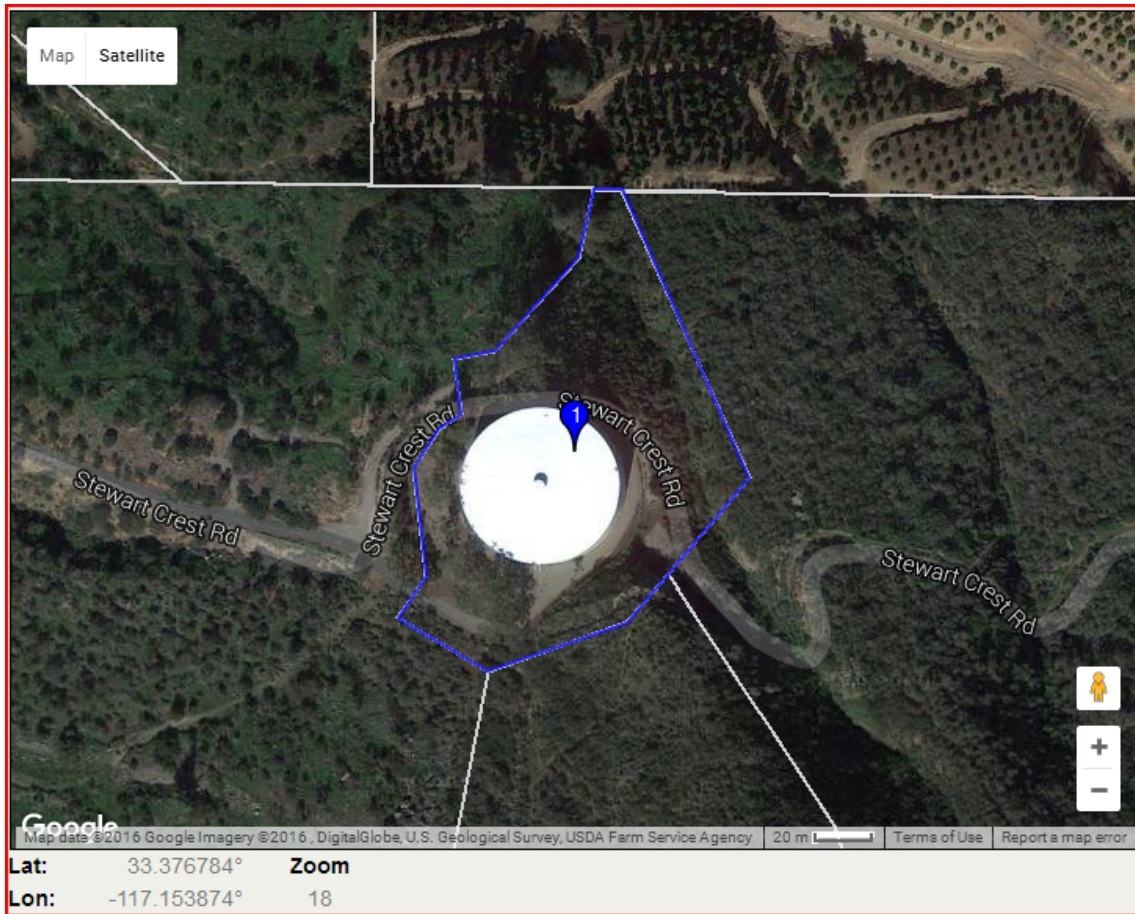
1. Subject Parcel

APN	108-421-06-00
Description of Use	Rice Canyon Tank
Acreage	1.000
Value	\$8,621

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
108-421-18-00	\$167,981	25.78	\$6,515.94
108-421-19-00	\$85,172	13.21	\$6,447.54
Average Price Per Acre			\$6,481.74
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$8,620.72

Table A-1.18
Land Values
Parcel No. 18



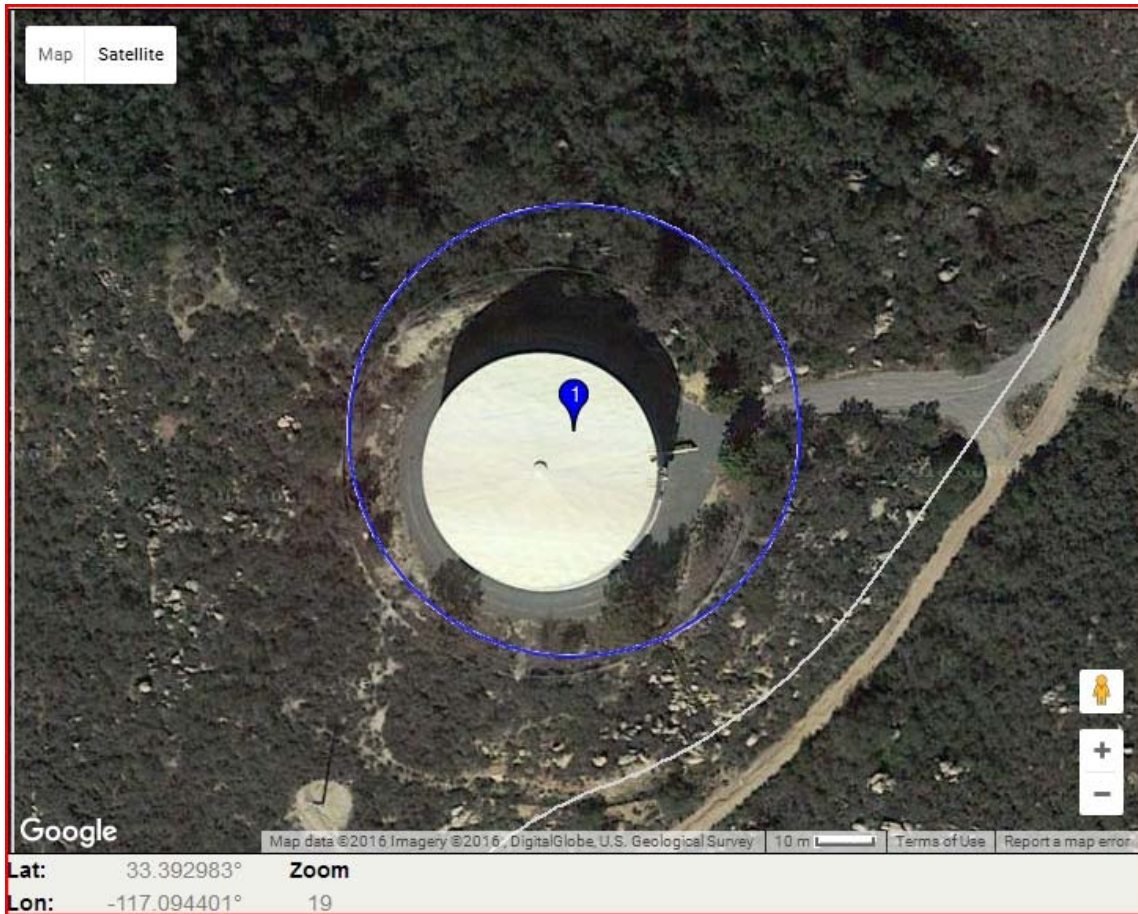
1. Subject Parcel

APN	108-441-03-00
Description of Use	Canonita Tank
Acreage	2.410
Value	\$26,954

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
108-441-06-00	\$146,220	18.28	\$7,998.91
108-390-25-00	\$100,017	11.57	\$8,644.51
108-390-26-00	\$225,345	26.25	\$8,584.57
Average Price Per Acre			\$8,409.33
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$11,184.41

Table A-1.19
Land Values
Parcel No. 19



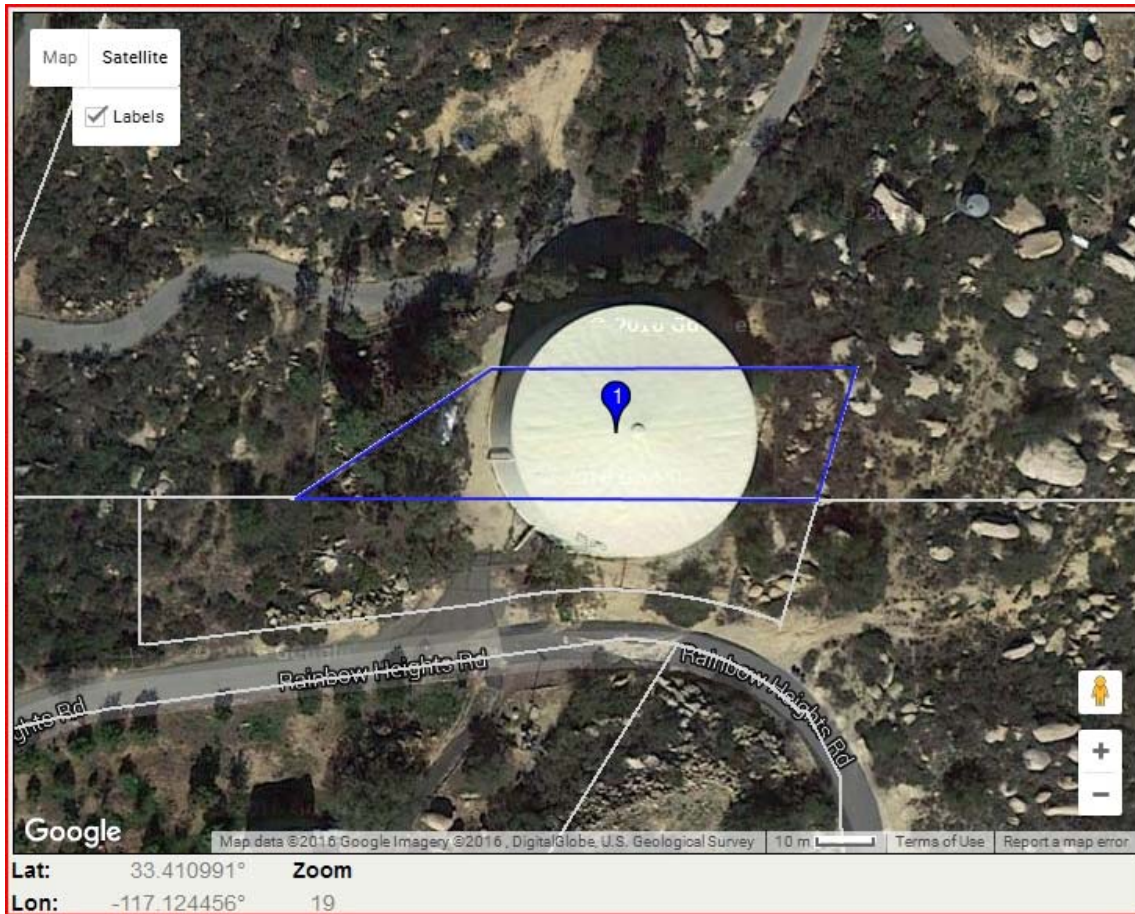
1. Subject Parcel

APN	109-141-07-00
Description of Use	Gomez Creek Tank
Acreage	1.000
Value	\$9,804

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
109-141-06-00	\$253,563	37.19	\$6,818.04
109-140-19-00	\$1,076,802	135.88	\$7,924.65
Average Price Per Acre			\$7,371.35
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$9,803.89

Table A-1.20
Land Values
Parcel No. 20



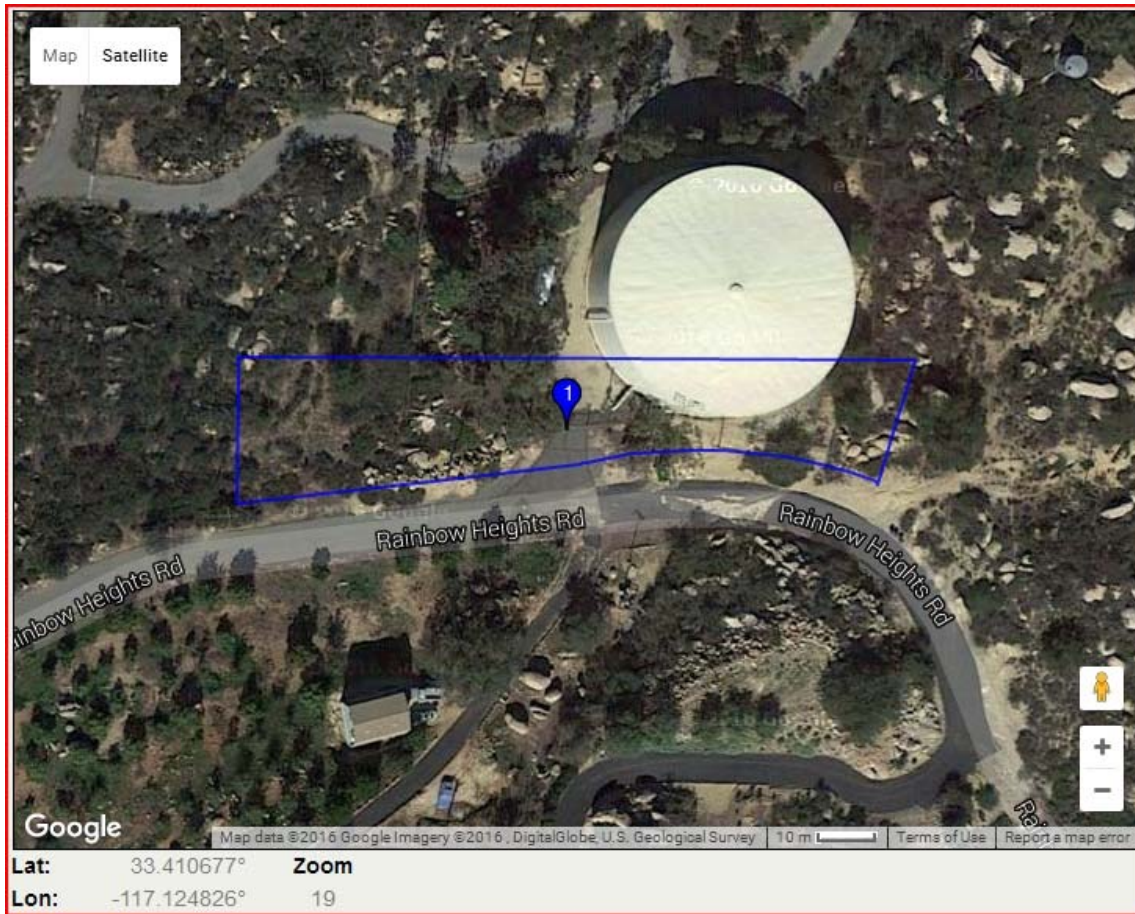
1. Subject Parcel

APN	109-231-09-00
Description of Use	Rainbow Heights Tank
Acreage	0.357
Value	\$5,565

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
109-231-08-00	\$150,362	10.63	\$14,145.06
109-233-02-00	\$37,739	4.06	\$9,295.32
Average Price Per Acre			\$11,720.19
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$15,587.85

Table A-1.21
Land Values
Parcel No. 21



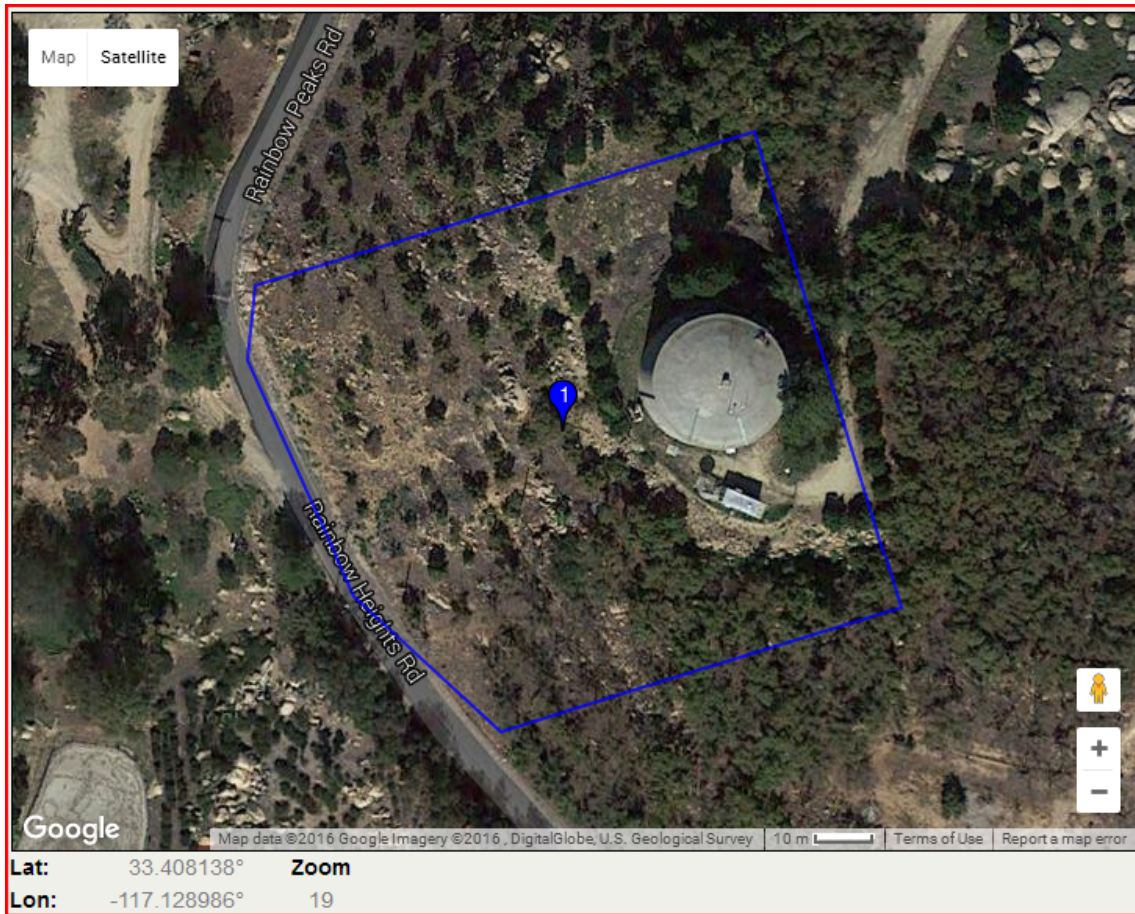
1. Subject Parcel

APN	109-233-03-00
Description of Use	Rainbow Heights Tank
Acreage	0.990
Value	\$15,432

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
109-231-08-00	\$150,362	10.63	\$14,145.06
109-233-02-00	\$37,739	4.06	\$9,295.32
Average Price Per Acre			\$11,720.19
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$15,587.85

Table A-1.22
Land Values
Parcel No. 22



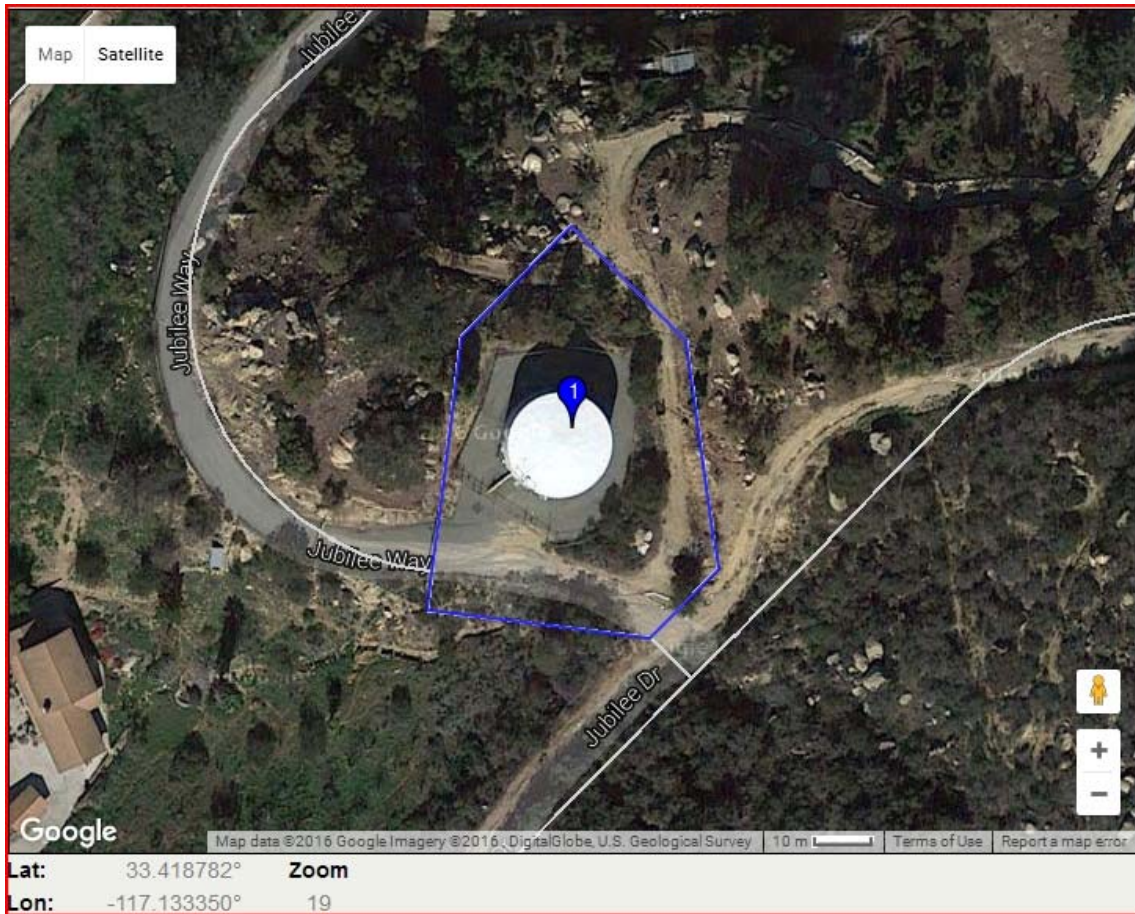
1. Subject Parcel

APN	109-234-10-00
Description of Use	Rainbow Heights Concrete Tank - used for SCADA
Acreage	1.740
Value	\$50,350

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
109-234-18-00	\$140,655	5.39	\$26,095.55
109-234-11-00	\$167,215	9.60	\$17,418.23
Average Price Per Acre			\$21,756.89
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$28,936.66

Table A-1.23
Land Values
Parcel No. 23



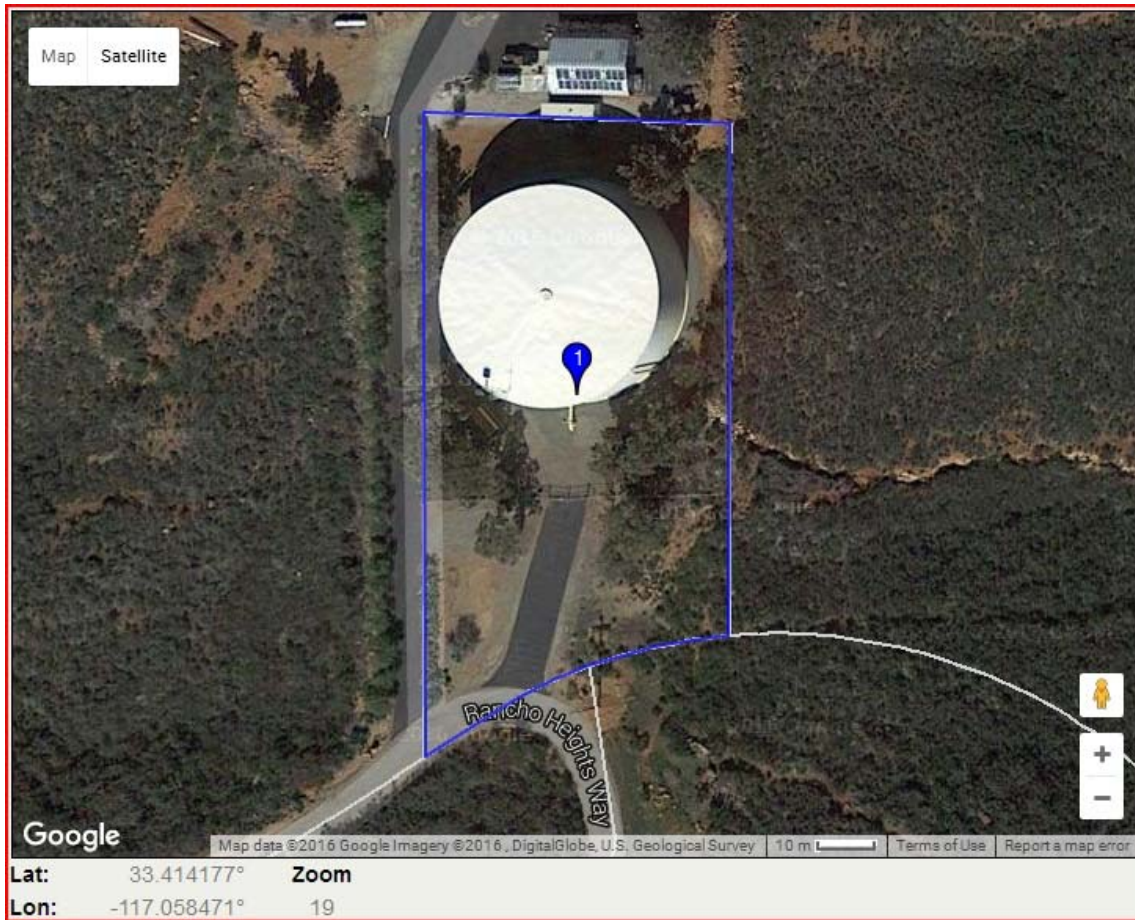
1. Subject Parcel

APN	109-310-18-00
Description of Use	Vallecitos Tank
Acreage	0.550
Value	\$6,191

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
109-310-69-00	\$73,157	6.19	\$11,818.58
109-310-61-00	\$48,723	9.54	\$5,107.23
Average Price Per Acre			\$8,462.91
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$11,255.66

Table A-1.24
Land Values
Parcel No. 24



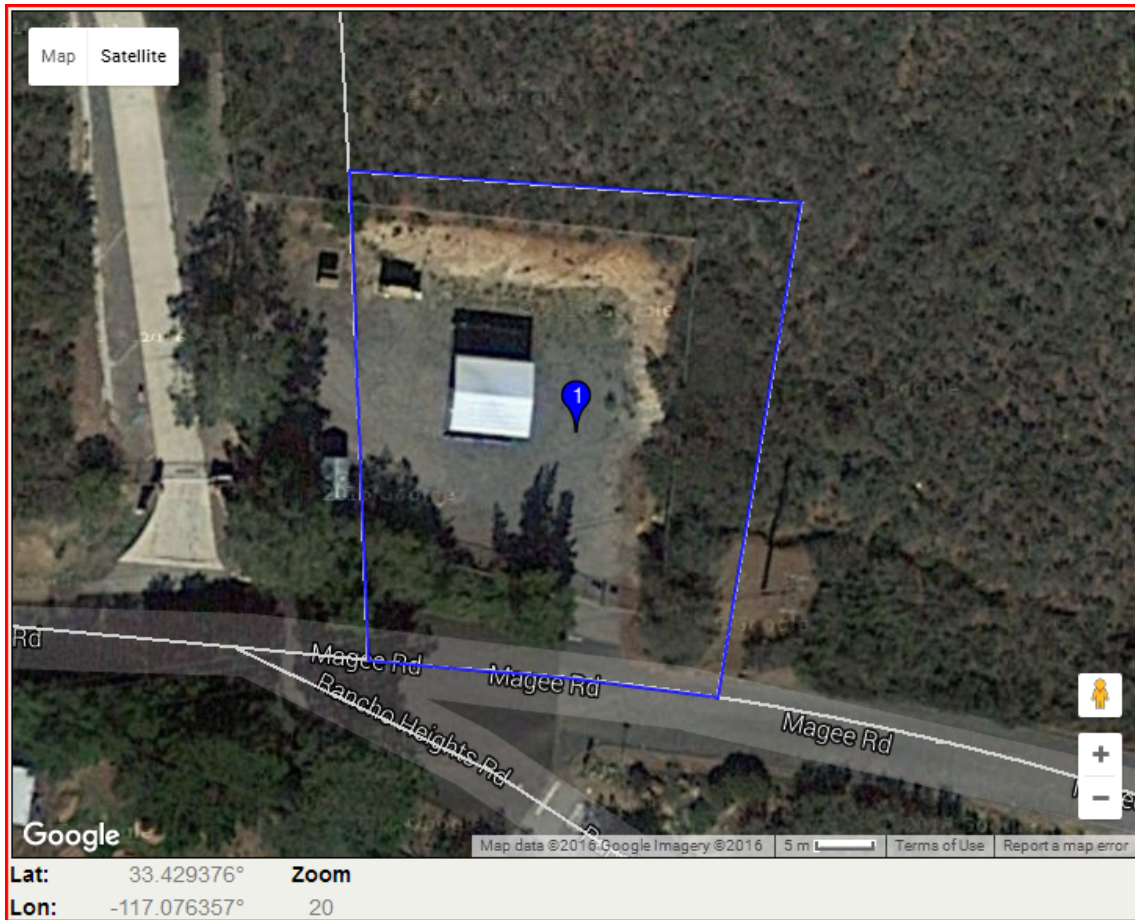
1. Subject Parcel

APN	109-382-28-00
Description of Use	Magee Tank
Acreage	1.030
Value	\$26,705

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
109-382-27-00	\$104,000	11.70	\$8,888.89
109-382-11-00	\$98,329	3.23	\$30,442.41
109-382-10-00	\$73,157	3.82	\$19,151.05
Average Price Per Acre			\$19,494.12
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$25,927.18

Table A-1.25
Land Values
Parcel No. 25



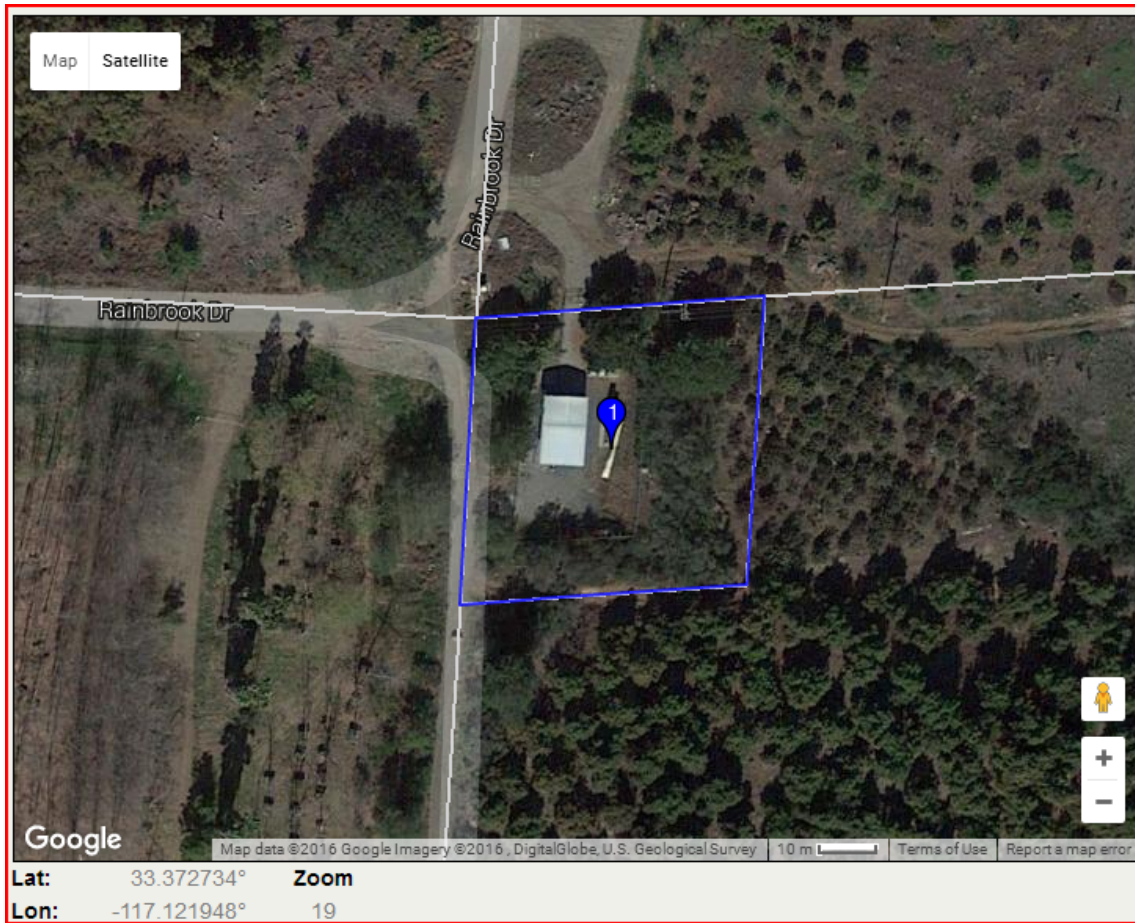
1. Subject Parcel

APN	109-391-24-00
Description of Use	Magee Pump Station
Acreage	0.306
Value	\$7,668

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
109-391-23-00	\$35,211	7.19	\$4,897.22
109-391-07-00	\$60,000	1.83	\$32,786.89
Average Price Per Acre			\$18,842.05
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$25,059.93

Table A-1.26
Land Values
Parcel No. 26



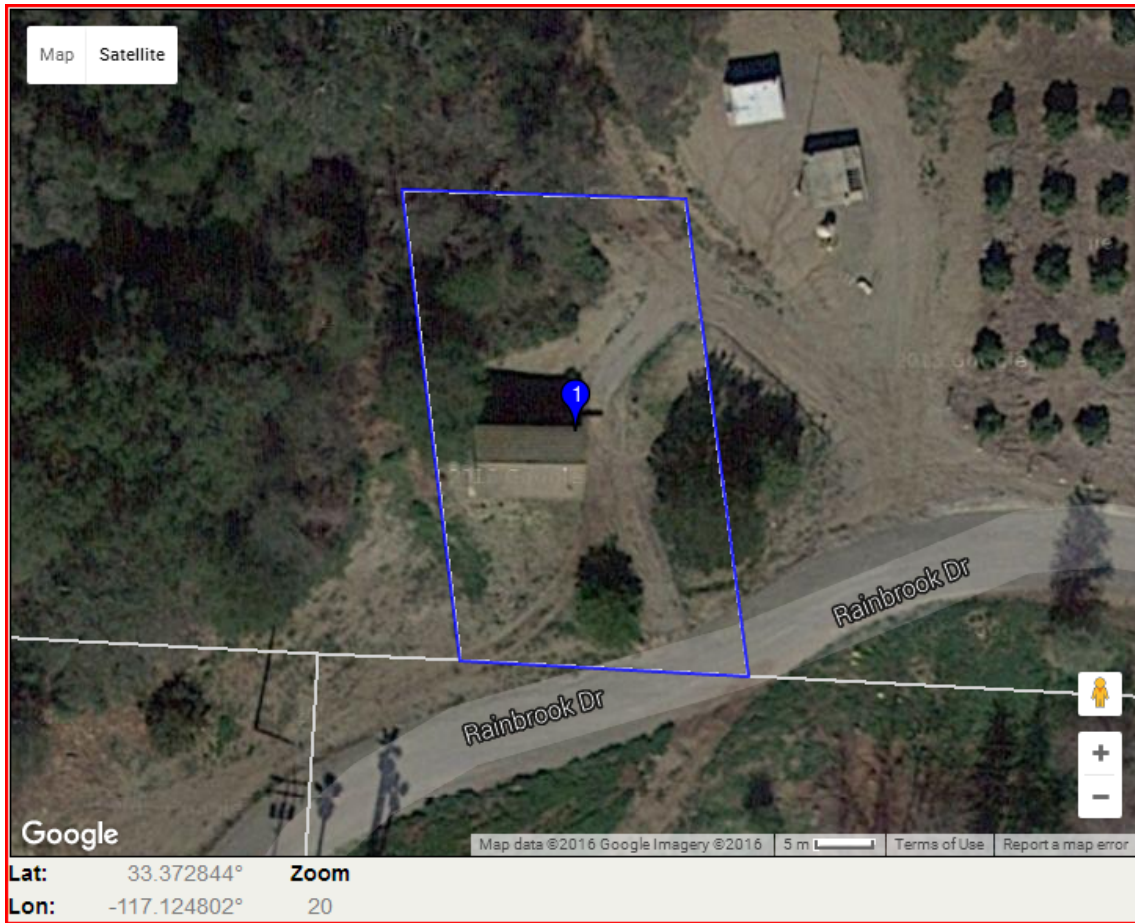
1. Subject Parcel

APN	110-072-10-00
Description of Use	Huntley Road Pump Station
Acreage	0.520
Value	\$5,985

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
110-072-11-00	\$55,450	13.26	\$4,181.75
110-021-24-00	\$573,833	45.18	\$12,701.04
110-071-09-00	\$288,494	31.77	\$9,080.71
Average Price Per Acre			\$8,654.50
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$11,510.48

Table A-1.27
Land Values
Parcel No. 27



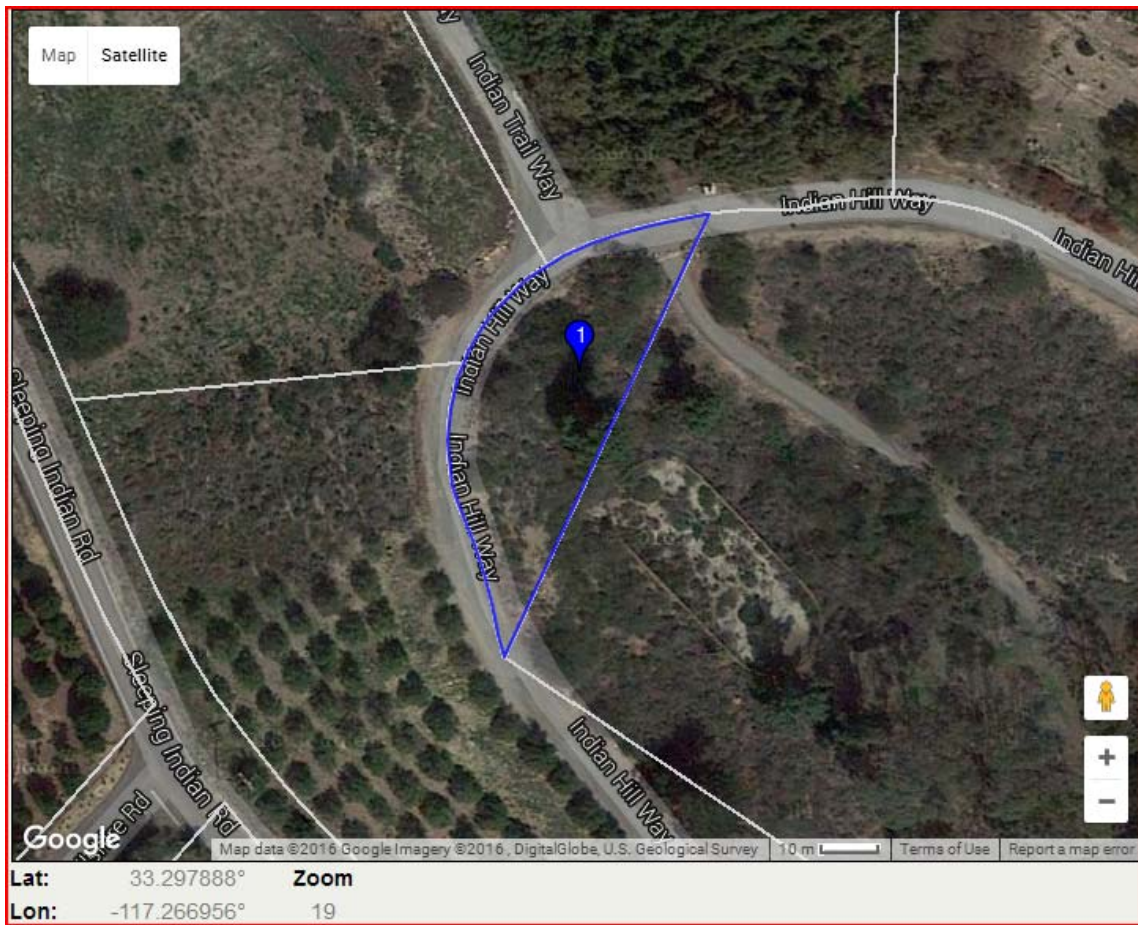
1. Subject Parcel

APN	110-220-37-00
Description of Use	Huntley Chlorination Station (not in use)
Acreage	0.205
Value	\$5,311

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
110-220-36-00	\$150,000	3.53	\$42,492.92
110-071-09-00	\$288,494	31.77	\$9,080.71
110-071-20-00	\$494,000	71.97	\$6,863.97
Average Price Per Acre			\$19,479.20
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$25,907.33

Table A-1.28
Land Values
Parcel No. 28



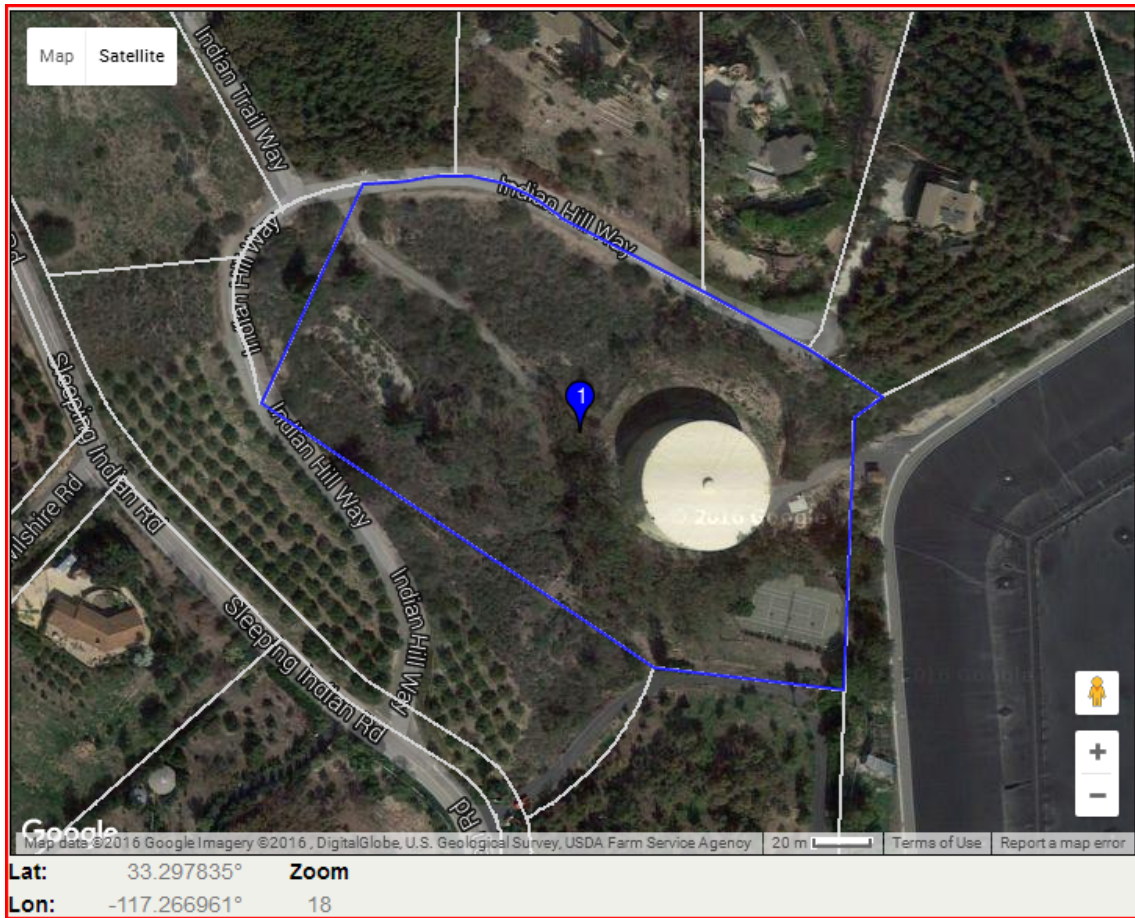
1. Subject Parcel

APN	121-201-10-00
Description of Use	Morro Tank
Acreage	No Acreage Listed
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
121-260-01-00	\$105,486	3.00	\$35,162.00
121-330-13-00	\$107,401	3.12	\$34,423.40
Average Price Per Acre			\$34,792.70
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$46,274.29

Table A-1.29
Land Values
Parcel No. 29



1. Subject Parcel

APN	121-201-11-00
Description of Use	Morro Tank
Acreage	4.850
Value	\$224,430

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
121-260-01-00	\$105,486	3.00	\$35,162.00
121-330-13-00	\$107,401	3.12	\$34,423.40
Average Price Per Acre			\$34,792.70
Adjusted Average Price Per Acre			\$46,274.29
(Based on Property Appraiser Value at 75% of Actual Value)			

Table A-1.30
Land Values
Parcel No. 30



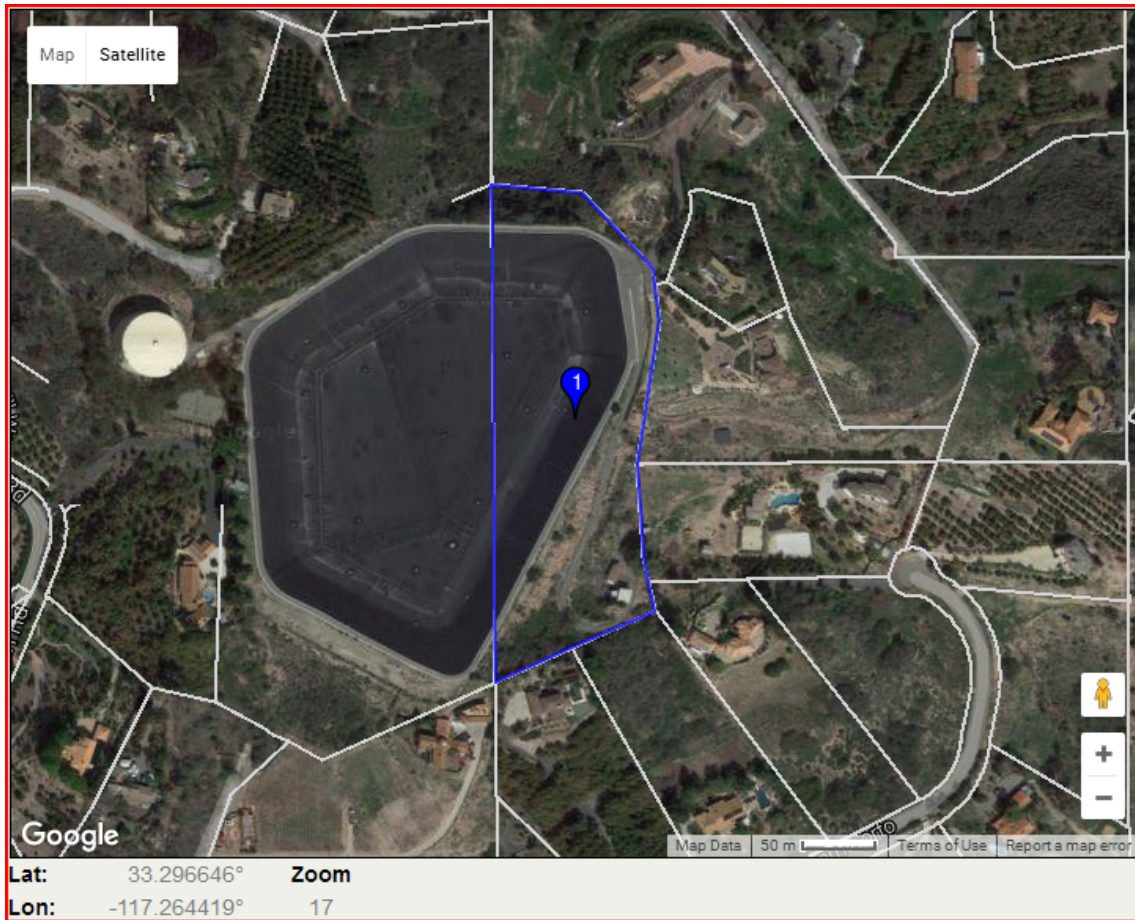
1. Subject Parcel

APN	121-201-12-00
Description of Use	Morro Reservoir
Acreage	13.010
Value	\$602,029

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
121-260-01-00	\$105,486	3.00	\$35,162.00
121-330-13-00	\$107,401	3.12	\$34,423.40
Average Price Per Acre			\$34,792.70
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$46,274.29

Table A-1.31
Land Values
Parcel No. 31



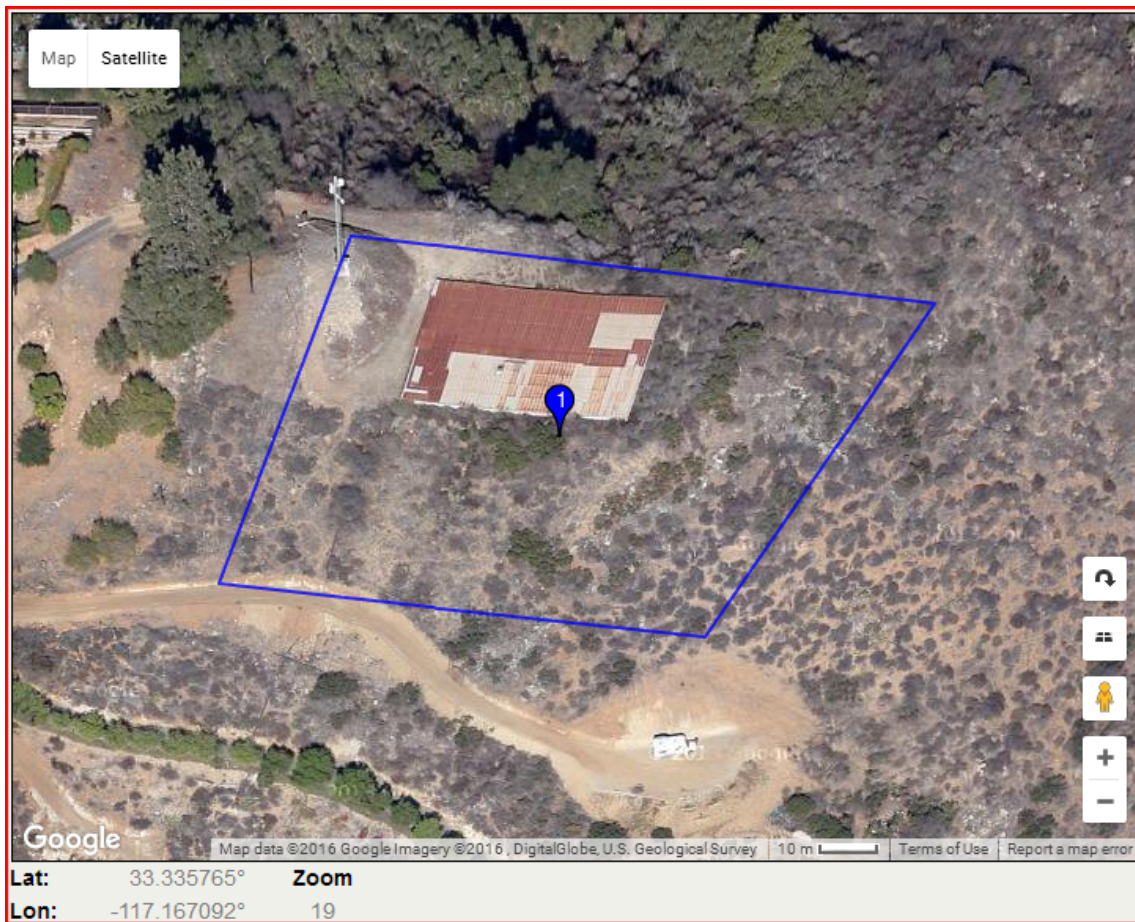
1. Subject Parcel

APN	121-330-09-00
Description of Use	Morro Reservoir
Acreage	6.790
Value	\$314,202

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
121-260-01-00	\$105,486	3.00	\$35,162.00
121-330-13-00	\$107,401	3.12	\$34,423.40
Average Price Per Acre			\$34,792.70
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$46,274.29

Table A-1.32
Land Values
Parcel No. 32



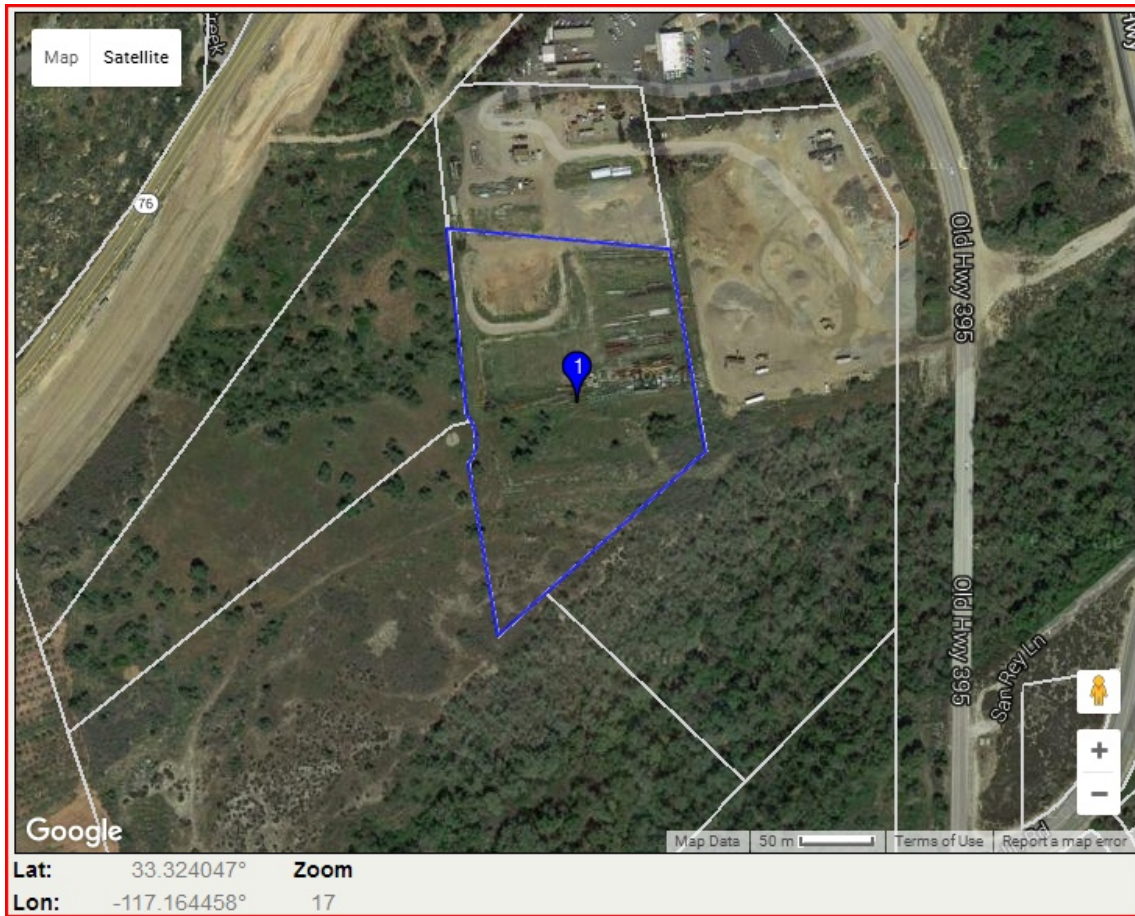
1. Subject Parcel

APN	125-070-32-00
Description of Use	Sumac Reservoir (Not in Use)
Acreage	1.720
Value	\$14,124

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
125-070-31-00	\$106,600	15.38	\$6,931.08
125-070-33-00	\$122,434	22.60	\$5,417.43
Average Price Per Acre			\$6,174.26
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$8,211.76

Table A-1.33
Land Values
Parcel No. 33



1. Subject Parcel

APN	125-090-26-00
Description of Use	Near Headquarters
Acreage	7.380
Value	\$490,770

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
Adjusted Average Price Per Acre (Developed Based on Land Lease on Property)			\$66,500.00

Table A-1.34
Land Values
Parcel No. 34



1. Subject Parcel

APN	125-090-34-00
Description of Use	Near Headquarters
Acreage	4.430
Value	\$294,595

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
Adjusted Average Price Per Acre (Developed Based on Land Lease on Property)			\$66,500.00

Table A-1.35
Land Values
Parcel No. 35



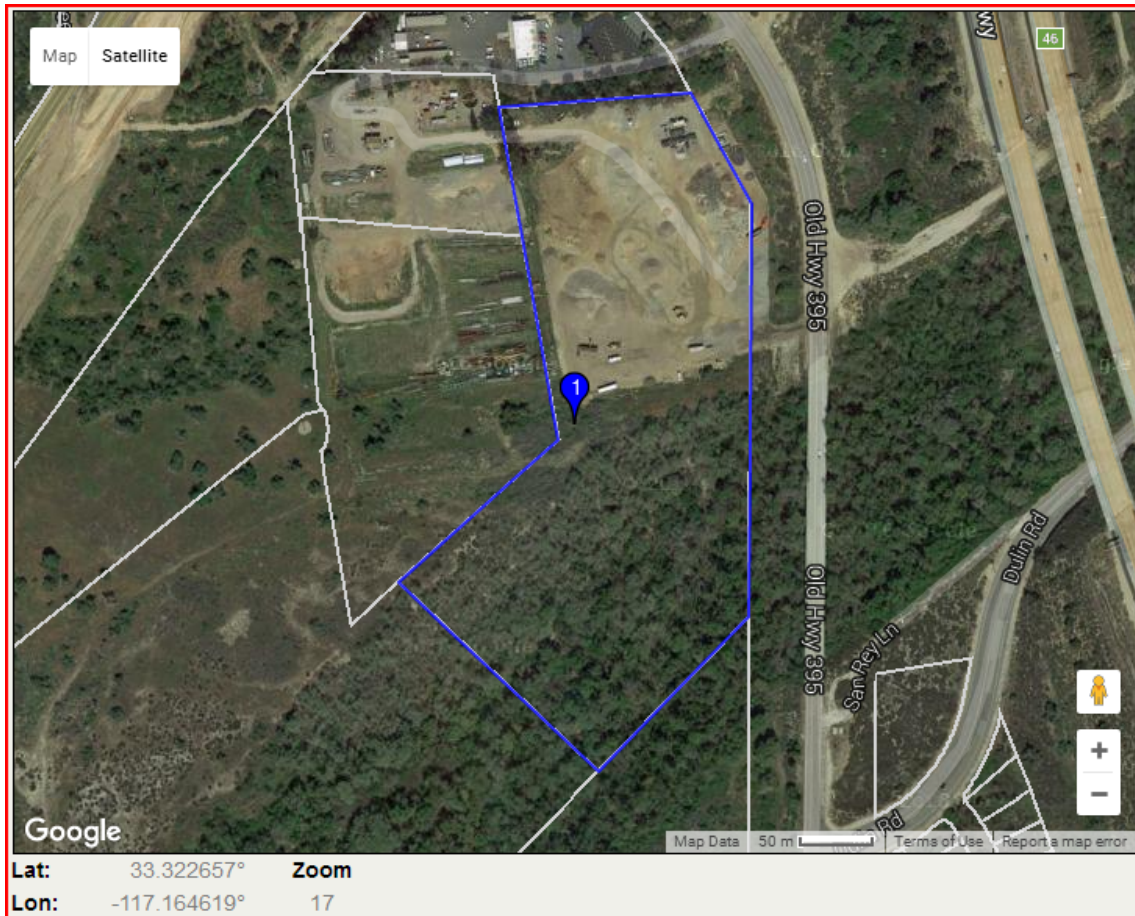
1. Subject Parcel

APN	125-090-35-00
Description of Use	Near Headquarters
Acreage	3.400
Value	\$29,736

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
Adjusted Average Price Per Acre (Developed Based on Land Lease on Property)			\$66,500.00

Table A-1.36
Land Values
Parcel No. 36



1. Subject Parcel

APN	125-090-38-00
Description of Use	Near Headquarters
Acreage	17.030
Value	\$1,132,495

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
Adjusted Average Price Per Acre (Developed Based on Land Lease on Property)			\$66,500.00

Table A-1.37
Land Values
Parcel No. 37



1. Subject Parcel

APN	125-100-21-00
Description of Use	Rancho Viejo Lift Station #5
Acreage	0.052
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
125-100-28-00	\$21,940	16.48	\$1,331.31
Average Price Per Acre			\$1,331.31
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$1,770.64

Table A-1.38
Land Values
Parcel No. 38



1. Subject Parcel

APN	125-231-18-00
Description of Use	Hutton Tank
Acreage	1.390
Value	\$45,064

1. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
125-231-09-00	\$15,377	2.65	\$5,802.64
125-231-11-00	\$313,530	7.30	\$42,949.32
Average Price Per Acre			\$24,375.98
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$32,420.05

Table A-1.39
Land Values
Parcel No. 39



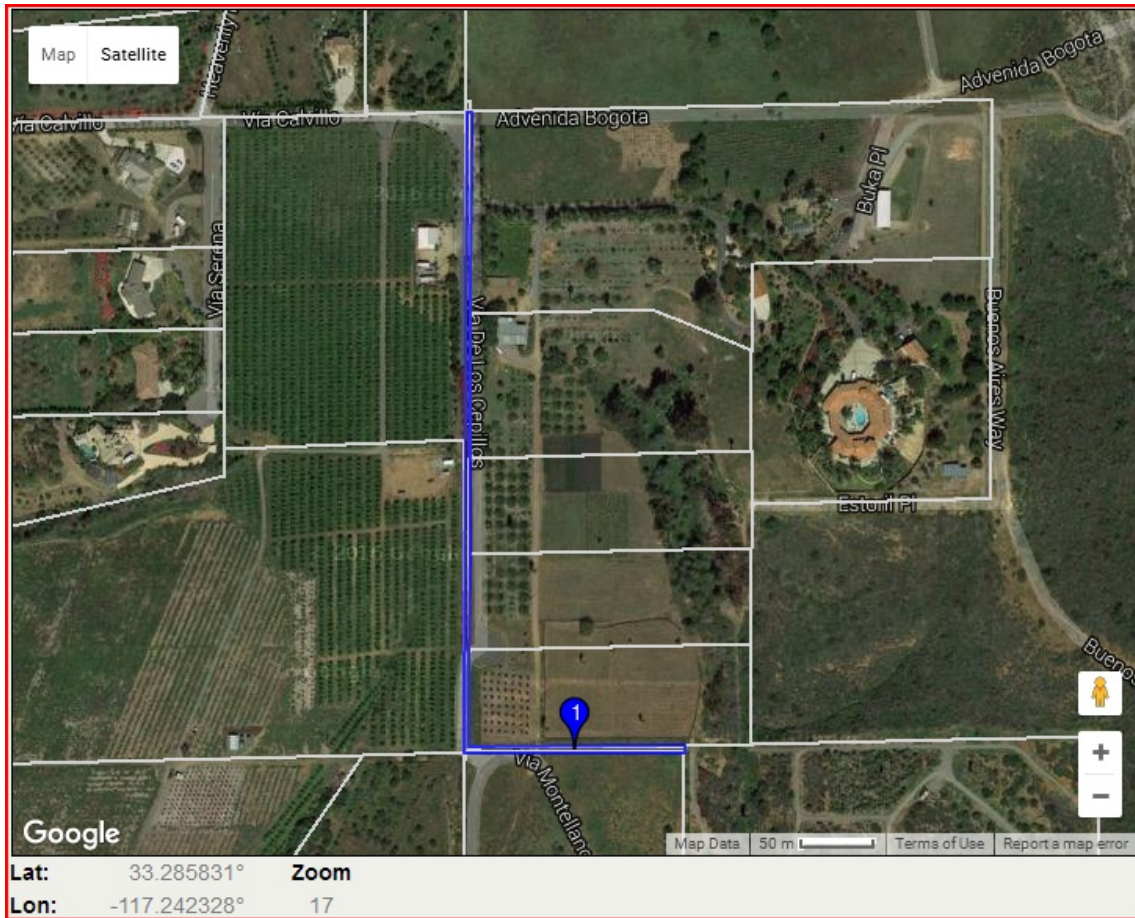
1. Subject Parcel

APN	125-231-26-00
Description of Use	Hutton Tank
Acreage	0.890
Value	\$28,854

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
125-231-09-00	\$15,377	2.65	\$5,802.64
125-231-11-00	\$313,530	7.30	\$42,949.32
Average Price Per Acre			\$24,375.98
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$32,420.05

Table A-1.40
Land Values
Parcel No. 40



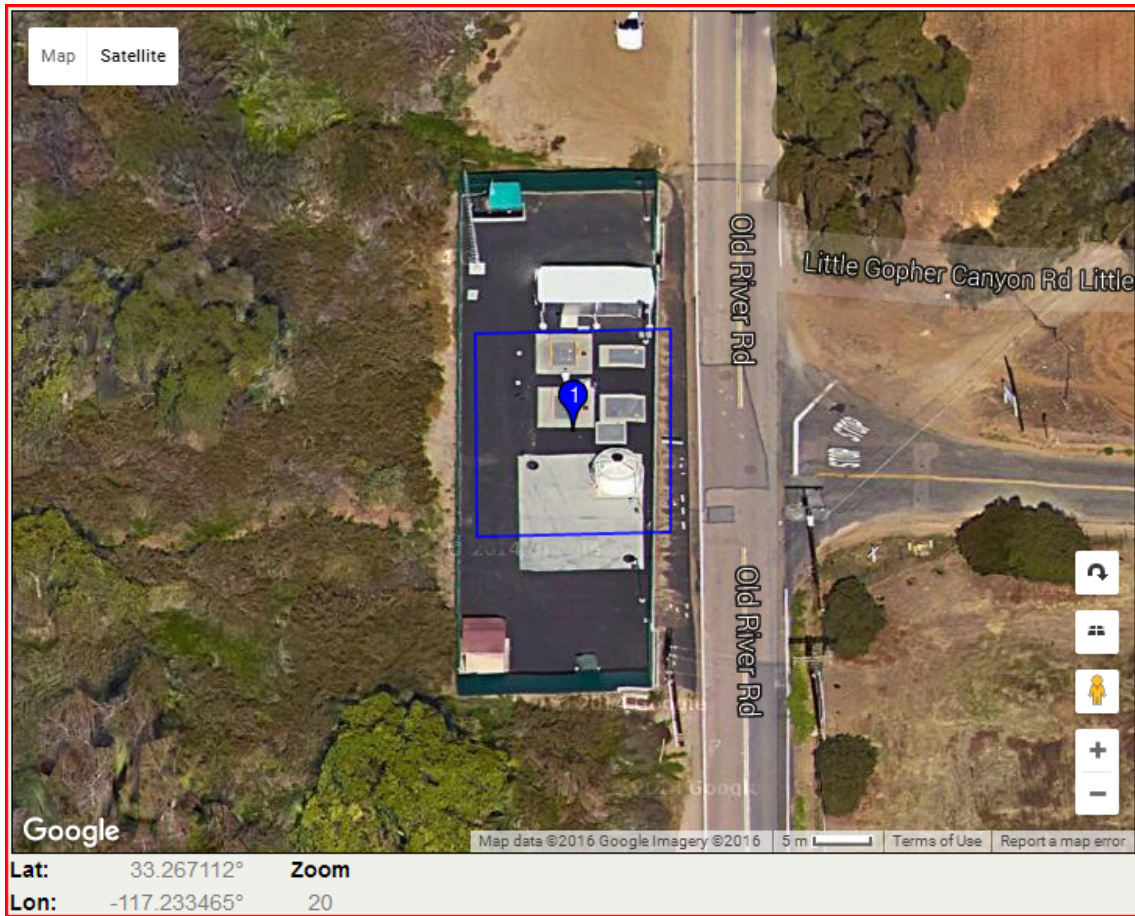
1. Subject Parcel

APN	126-080-31-00
Description of Use	Via de los Cepillos Easement
Acreage	No Acreage Listed
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
Adjusted Average Price Per Acre (Minimum Value)			\$5,000.00

Table A-1.41
Land Values
Parcel No. 41



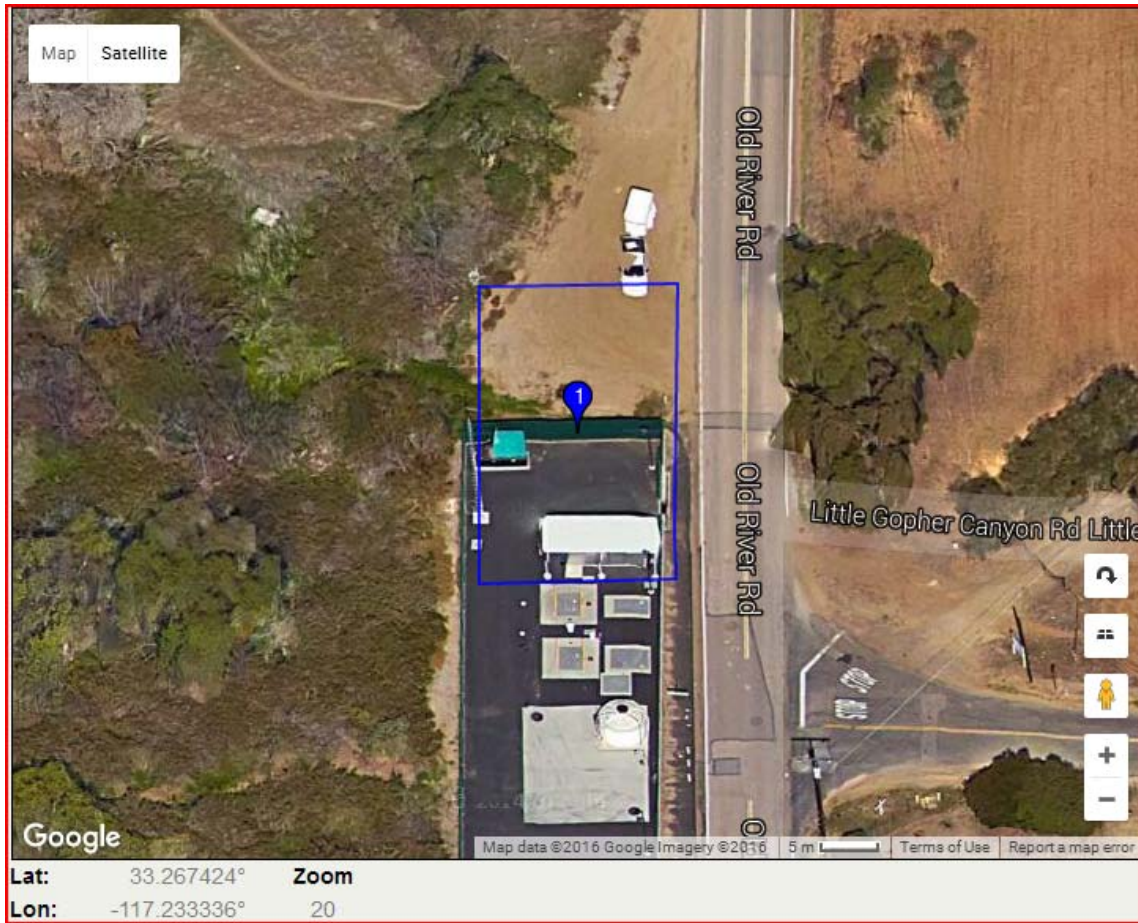
1. Subject Parcel

APN	126-170-87-00
Description of Use	Lift Station #2
Acreage	0.086
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
126-170-53-00	\$44,765	3.89	\$11,507.71
126-170-88-00	\$55,531	6.23	\$8,913.48
Average Price Per Acre			\$10,210.60
Adjusted Average Price Per Acre			\$13,580.09
(Based on Property Appraiser Value at 75% of Actual Value)			

Table A-1.42
Land Values
Parcel No. 42



1. Subject Parcel

APN	126-170-89-00
Description of Use	Lift Station #2
Acreage	0.121
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
126-170-53-00	\$44,765	3.89	\$11,507.71
126-170-88-00	\$55,531	6.23	\$8,913.48
Average Price Per Acre			\$10,210.60
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$13,580.09

Table A-1.43
Land Values
Parcel No. 43



1. Subject Parcel

APN	126-300-42-00
Description of Use	Lift Station #1
Acreage	0.009
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
Adjusted Average Price Per Acre (Minimum Value)			\$5,000.00

Table A-1.44
Land Values
Parcel No. 44



1. Subject Parcel

APN	127-071-05-00
Description of Use	Bonsall Reservoir (Not in Use)
Acreage	6.190
Value	\$138,033

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
127-071-39-00	\$188,654	21.24	\$8,882.02
127-071-38-00	\$1,185,000	38.37	\$30,883.50
127-071-16-00	\$51,826	4.92	\$10,533.74
Average Price Per Acre			\$16,766.42
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$22,299.34

**Table A-1.45
Land Values
Parcel No. 45**



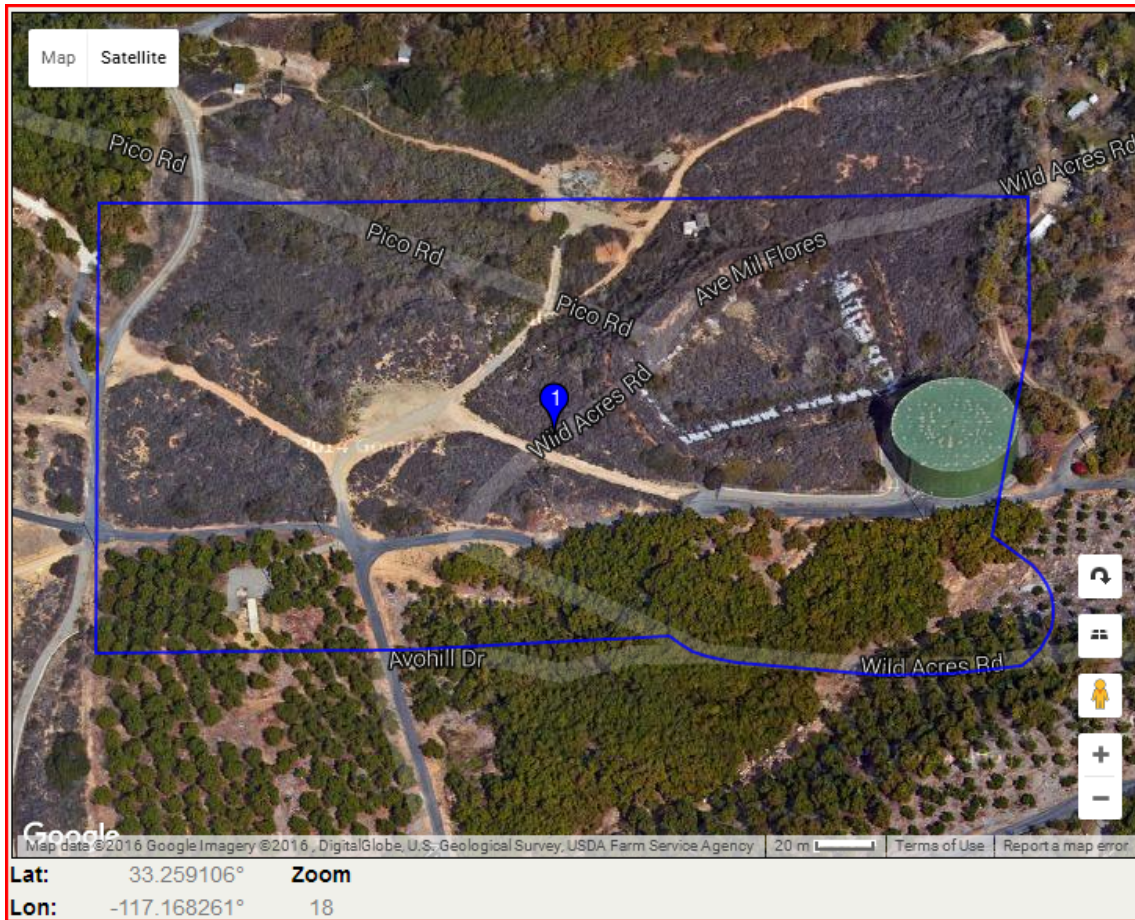
1. Subject Parcel

APN	127-071-06-00
Description of Use	Connection 6
Acreage	No Acreage Listed
Value	\$5,000

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
127-071-39-00	\$188,654	21.24	\$8,882.02
127-071-38-00	\$1,185,000	38.37	\$30,883.50
127-071-16-00	\$51,826	4.92	\$10,533.74
Average Price Per Acre			\$16,766.42
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$22,299.34

Table A-1.46
Land Values
Parcel No. 46



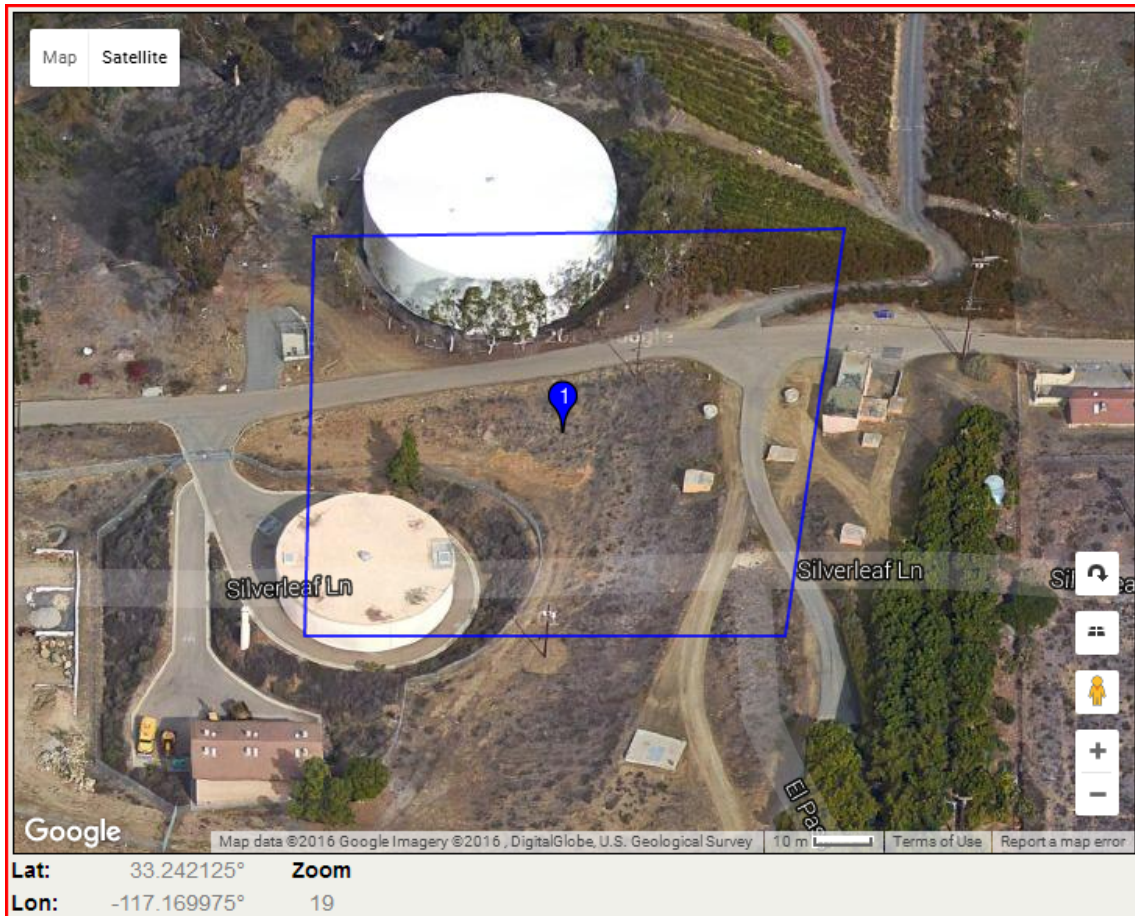
1. Subject Parcel

APN	127-151-23-00
Description of Use	Turner Tank
Acreage	15.120
Value	\$159,674

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
127-151-24-00	\$39,061	10.65	\$3,667.70
127-151-15-00	\$65,338	5.35	\$12,212.71
Average Price Per Acre			\$7,940.20
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$10,560.47

Table A-1.47
Land Values
Parcel No. 47



1. Subject Parcel

APN	172-140-43-00
Description of Use	Gopher Canyon Tank
Acreage	1.840
Value	\$23,786

2. Comparable Neighboring Property Values

APN	VALUE	ACREAGE	\$/ACRE
172-140-67-00	\$48,026	2.68	\$17,920.15
172-140-58-00	\$89,333	11.26	\$7,933.66
Average Price Per Acre			\$12,926.90
Adjusted Average Price Per Acre (Based on Property Appraiser Value at 75% of Actual Value)			\$17,192.78

Table A-2
RMWD GENERAL PLANT

No.	Item Description	Allocated Amount
1.	Morrow CLz Facility	\$ 510,000
2.	Stallion L.S. Amenities	\$ 190,000
3.	Administration Building	\$3,400,000
4.	Auxiliary Power Installations, Trailers	\$1,470,000
5.	Bathroom Trailer, etc.	\$ 100,000
6.	Engineering Trailer, etc.	\$ 220,000
7.	Operation Building	\$ 240,000
8.	Warehouse Building	\$ 370,000
9.	Fueling Station	\$ 80,000
10.	Shops	\$ 210,000
11.	Maintenance Buildings	\$ 505,000
12.	Garage Structures	\$ 300,000
13.	Site Work, Paving & Security	\$ 300,000
14.	Security Facilities System-wide	\$ 180,000
15.	SCADA System & RTU's etc.	\$1,200,000
16.	Telecommunications	\$ 70,000
17.	System Structures	\$ 900,000
18.	Office Equipment, Furnishings, Fixtures, Computers, Billing, etc.	\$ 360,000
19.	Embedded Software, Licenses, etc.	\$ 90,000
20.	Building Contents (Non-Consumable) Used System Records, Reports, References, Drawings,	\$ 120,000
21.	GIS, MOPS's Operations Manuals, etc. @ 0.1% Other General Plant @ 0.2% of RCNLD	\$ 437,000
22.	unidentified property	\$ 874,000
	Total	\$ 12,166,000
	Rounded to Millions	\$ 12,000,000

Table A-3
SUPERADEQUACY OF RMWD
LAND AND GENERAL PLANT PROPERTY

Item	Amount RMWD	Market	Superadequacy
		\$5,280,000	
	\$6,200,000	(1.2% of	
Raw Land (OC)	(Willdan Raw Land Analysis)	\$440,000,000)	\$920,000
		\$3,000,000	\$9,000,000
	\$12,000,000	(12,000 Connections @ \$250 per Connection (8,000 Water, 4,000 Wastewater Rounded))	
General Plant	(HC Allocation Value)		
Total	---	---	\$9,920,000
Rounded	---	---	\$10,000,000

Rainbow Municipal Water District
Land Values

No.	Parcel Number	Description of Use	Acreage	Value
1	1023000800	North Reservoir	4.800	\$47,776
2	1023001100	U-1 Pump Station ⁽¹⁾	0.150	\$5,000
3	1023005000	Rainbow Creek Crossing near North Reservoir	0.890	\$8,858
4	1023005300	Connection 9 ⁽¹⁾	0.016	\$5,000
5	1024300900	Pump Station across PS1 (not in use) ⁽¹⁾	0.124	\$5,000
6	1025702000	U-1 Tanks	1.080	\$38,940
7	1026305400	Pump Station #1 ⁽¹⁾	0.336	\$8,815
8	1026602000	Booster Pump Station #4 ⁽¹⁾	0.035	\$5,000
9	1027001600	Pump Station #3	0.670	\$33,873
10	1071702800	Connection 7	1.600	\$43,919
11	1071702900	Pala Mesa Tank	10.350	\$284,102
12	1080206900	Northside Reservoir	9.230	\$91,870
13	1082210600	Beck Reservoir	27.250	\$1,077,409
14	1082210900	Near Beck Reservoir	4.820	\$190,573
15	1082211000	Near Beck Reservoir	6.230	\$246,321
16	1082211800	Near Beck Reservoir - Excess Property (not in use)	4.680	\$185,038
17	1084210600	Rice Canyon Tank	1.000	\$8,621
18	1084410300	Canonita Tank	2.410	\$26,954
19	1091410700	Gomez Creek Tank	1.000	\$9,804
20	1092310900	Rainbow Heights Tank ⁽¹⁾	0.357	\$5,565
21	1092330300	Rainbow Heights Tank	0.990	\$15,432
22	1092341000	Rainbow Heights Concrete Tank - used for SCADA	1.740	\$50,350
23	1093101800	Vallecitos Tank	0.550	\$6,191
24	1093822800	Magee Tank	1.030	\$26,705
25	1093912400	Magee Pump Station ⁽¹⁾	0.306	\$7,668
26	1100721000	Huntley Road Pump Station	0.520	\$5,985
27	1102203700	Huntley Chlorination Station (not in use) ⁽¹⁾	0.205	\$5,311
28	1212011000	Morro Tank	No Acreage listed	\$5,000
29	1212011100	Morro Tank	4.850	\$224,430
30	1212011200	Morro Reservoir	13.010	\$602,029
31	1213300900	Morro Reservoir	6.790	\$314,202
32	1250703200	Sumac Reservoir (Not in Use)	1.720	\$14,124
33	1250902600	Near Headquarters	7.380	\$490,770
34	1250903400	Near Headquarters	4.430	\$294,595
35	1250903500	Near Headquarters	3.400	\$226,100
36	1250903800	Near Headquarters	17.030	\$1,132,495
37	1251002100	Rancho Viejo Lift Station #5 ⁽¹⁾	0.052	\$5,000
38	1252311800	Hutton Tank	1.390	\$45,064
39	1252312600	Hutton Tank	0.890	\$28,854
40	1260803100	Via de los Cepillos Easement	No Acreage listed	\$5,000
41	1261708700	Lift Station #2 ⁽¹⁾	0.086	\$5,000
42	1261708900	Lift Station #2 ⁽¹⁾	0.121	\$5,000
43	1263004200	Lift Station #1 ⁽¹⁾	0.009	\$5,000
44	1270710500	Bonsall Reservoir (Not in Use)	6.190	\$138,033
45	1270710600	Connection 6	No Acreage listed	\$5,000
46	1271512300	Turner Tank	15.120	\$159,674
47	1721404300	Gopher Canyon Tank	1.840	\$31,635
48	TOTAL LAND VALUE			\$6,183,085

Notes:

1 Acreage estimated based on Property Appraiser Maps.

Appendix B

APPENDIX B: INSPECTION AND CONDITION ASSESSMENT RAINBOW MUNICIPAL WATER DISTRICT WATER AND SEWER SYSTEMS

On 5/16 Hartman Consultants, LLC (HC) drove through the service area to attain a visual overview of the customer base and natural setting for the RMWD systems. RMWD provided several reports, studies, RMWD documents, mapping, and other descriptive materials of their property. **Section 2 Figures 1-15** all come directly from RMWD and are reproduced herein for the reader's convenience.

On 5/17 Willdan and HC met with RMWD engineering and management representatives and initially discussed the data needs for the project, the data provided by RMWD, and the inspection/asset documentation/visual condition assessment which occurred both on 5/17 and 5/18.

After the meeting on 5/17, the inspections commenced. On 5/18 the inspections continued. Later on 5/18 a wrap-up quick discussion was held.

On 5/19 for an hour or so, a quick drive to a few of the properties without entrance was conducted.

For the appraisal activity the property was grouped into like types and this memo is re-organized to follow the same property type grouping order as found in Section 4 of this Report.

1. Water Storage Tanks and Reservoirs

The Utility Service Group is the contractor retained to maintain the storage tanks. Based upon our visual inspection, they are doing a good job with the assistance and supplemental activities being accomplished by RMWD staff.

a.) Merge Tank

The merge water storage tank is shown on **Figure 16**. It was constructed in 1983. It is a 3 MG (million gallons) welded steel tank with all appurtenances. It is in good condition.

b.) Rainbow Heights #1

The facility is a small 0.9 MG welded steel tank. It was built in 1950 and is currently out of service. The conditions were not assessed.

c.) Rainbow Heights #2

Figures 17 and 18 depict Rainbow Heights #2. This 4.0 MG facility was constructed by Pacific Erectors Corporation in 1980 and commissioned for service in 1981. It is 40-foot-tall with approximately two (2) feet of free-board and an approximate 140-foot diameter facility with all appurtenances. This facility is in good condition. It is of welded steel construction.

d.) Gomez Tank

The Gomez water tank is shown on Figure 19. It is a remote tank with a long access road to it. This tank is 122 feet in diameter and is 40 feet tall. The 3.5 MG facility was built in 1984 and commissioned in 1985 by US Steel Fabricators, Inc. Solar Panels are used for telemetering and on-site battery recharge. The tank has all appurtenances and is in good condition.

e.) U1 – Tanks #1 and #2

U1 – Tank #1 is not in service, yet it appears to be in good condition. It is a welded steel 0.6 MG tank built in 1963. **Figure 20** depicts the tanks.

U1 – Tank #2 is in service and is in good condition. The two tanks are the green twins next to each other with Tank #1 at a higher grade. Tank #2 which has all appurtenances as shown in **Figure 21**.

f.) Vallecitos Tank

The Vallecitos tank is a riveted steel panel tank. It holds 0.4 MG. This facility was built in 1983 and is in good condition. It has the appropriate appurtenances. **Figure 22** depicts the facility.

g.) Northside Reservoir and Cover

Figure 23 depicts the Northside Reservoir and Cover. The 22.8 MG reservoir was excavated on the hill-top and concrete lined and sealed in 1963. A floating fabric cover was installed in 2010 to minimize water losses and ensure potable water quality. The apparent condition is very good with minor maintenance requirements for the rainwater sump pumps.

h.) North Reservoir and Cover

Figure 24 depicts the North Reservoir and Cover. The 7.8 MG reservoir is similar, yet smaller than the Northside reservoir. It was built earlier in 1986 and the cover constructed in 2011. It appears in good condition.

i.) Rice Canyon Tank

Figure 25 depicts the Rice Canyon Tank. This 4.0 MG welded steel tank was constructed by Cypress Contractors from Phoenix Arizona in 1980 and is similar to the other 4 MG Tanks in the system. It is in good condition.

j.) Canonita Tank

Figure 26 shows the 6 MG welded steel Caninita Tank. This facility was built in 1969 by American Bridge with US Steel Fabricators. It is 40 feet tall and 164 feet in diameter. It is in good condition.

k.) Gopher Canyon Tank

Figure 27 depicts the 4 MG welded steel tank which is 40 ft. tall and 133 feet in diameter. The Gopher, Turner and Hutton tanks all float on the system together. This tank was constructed in 1975 by US Steel Fabricators. It is in good condition.

l.) Hutton Tank

Figure 28 presents the 4.0 MG Hutton welded steel tanks constructed in 1987 by Pitt-Des Moines, Inc. and is 40 feet tall and 133 feet in diameter. It is in good condition.

m.) South (Turner) Tank

Figure 29 presents the Turner Tank which is also 4 MG welded steel facility constructed in 1989 by Hydrostorage/Pitt-Des Moines, Inc. It is 40 feet tall and is 133 feet in diameter. It is in good condition.

n.) Beck Reservoir

Figure 30 shows the Beck Reservoir. It was originally built in 1982 with a finish of smooth concrete over a concrete base. The nominal capacity is 203.7 MG and is the largest storage facility. It is not covered. It has the appropriate appurtenances. It is not in use. RMWD staff indicated that the future use for this facility would be to store irrigation quality water or reclaimed water.

o.) Pala Mesa Tank

Figure 31 depicts the Pala Mesa imbedded cylinder prestressed concrete tank with seismic instrumentation. It is the newest tank (2012) and has a capacity of 6.0 MG.

It is in excellent – like new condition and has all appropriate specials and appurtenances.

p.) Morro Re-chlorination/Disinfection Station

This station has gone through a few phases with the latest chemical feed system being in excellent condition. **Figure 32** depicts an outside view of the facility. The facility is valued under general plant.

q.) Morro Reservoir

This is the largest active reservoir in use with a capacity of 151.5 MG. It was originally constructed in 1971 and a new floating cover installed in 2012. **Figure 33** depicts the facility. It is in very good condition.

2. Water Pumping Stations (P.S.)

a.) P.S #1 – Rainbow Heights

The old P.S #1 is across the street from this facility and is abandoned in place and is not valued in this appraisal.

P.S #1 – Rainbow Heights in the newest pump station built in 2001. It has two right-angle gear driver (amarillo) one on each pump inside the building driven by two caterpillar engines. Two additional pumps are covered, yet outside. The capacity is 3,509 gpm. The facility is partially depicted on **Figure 34**. P.S. #1 is in good condition.

b.) P.S. #2 – U-1

The U-1 pump station has three (3) close-couples vertical turbine pumps outside and uncovered as shown on **Figure 35**. This station serves both U1 - #1 and #2. There is not auxiliary power on-site. The station is in average to fair condition. The station was built in 1980. The capacity is 1,615 gpm.

c.) P.S. #3 – Vallecitos

Figure 36 depicts this station. It has horizontal split-cased pumps one having auxiliary power from an on-site engine on site. This is the smallest pump station with a capacity of 379 gpm. It was built in 1983, is covered and is in good condition.

d.) P.S. #4 – Northside

Figure 37 depicts the Northside water pump station. This station has large pumps with a capacity of 6,296 gpm. It has a building enclosure and electrical feeds. It was built in 1999. It does not have a generator. The stations appear to be in good condition.

e.) P.S. #5 – Morro Hills

Figure 38 illustrates this facility. It has a capacity of 3,455 gpm and was built in 1982.

The facility is in average condition for its age. This is a split case horizontal configuration within a block hut.

f.) P.S. #6 – Huntley Gomez

Figure 39 presents the Hutley-Gomez water pumping station with four (4) close coupled vertical turbines and a bypass. There is no auxiliary power. The pumps are covered. The capacity is 4,552 gpm and the facility was built in 1985. There has been theft at this station as it is isolated. The facility is in between average and good condition.

g.) P.S. #7 – Magee

Figure 40 depicts the Magee water pumping station. There are 2 vertical turbine pumps with bypass capability. The capacity is 1,398 gpm and was built in 1984. No auxiliary power. The facility is in between average and good condition and is covered.

3. Pressure Regulating Stations

Only a sampling of the 58 pressure regulating stations were inspected (8 of 58). **Figures 41, 42, and 43** present the better condition and new facilities. The condition observed ranged from fair/needing work to new. Table 4-3 presents information on these facilities.

4. Wastewater Lift Stations

Five (5) of the six (6) wastewater lift stations appear to be package type typical for a developer dedication to the utility. Only the Stallion or Lift Station #2 or the regional lift station is custom built to utility or municipal standards.

a.) L.S. #1

Figure 44 presents L.S. #1. It is a Smith & Loveless triplex and has auxiliary power. The station has an installed capacity of 1,500 gpm (3 pumps at 500 gpm) and firm capacity of 1,000 gpm. It was built in 1991 and is in fair to average condition.

b.) L.S. #2 - Stallion

This is also a triplex station, yet of a modern design with a firm capacity of 3,800 gpm (2 of 3 pumps at 1,900 ea.) There is auxiliary power. There are amenities provided. The facility is in like-new condition though built in 2011. **Figure 45** presents only a portion of this facility. It is the last lift station pumping to Oceanside.

c.) L.S. #3 - Admin

This lift station is at the Administration building lower level area next to the decontamination package wastewater plant (not valued) as shown on **Figure 46**. It is a small Smith & Loveless “can” type facility with a firm capacity of 320 gpm (duplex

320 gpm pump). It was built in 1990 and is in good condition. There is an average condition Generac generator for auxiliary power on-site.

d.) L.S. #4

L.S. #4 is on a hillside with components at the end of a driveway, then more down on the golf course. It is a Flygt submersible duplex facility with a firm capacity of 320 gpm (both pumps at 320 gpm). **Figure 47** depicts the general location. Due to rebuilds, this facility is in good condition. The last rebuild was in 2012.

e.) L.S. #5

L.S. #5 is s Gorman Rupp “can” with auxiliary power and all appurtenances. It is in average condition. The firm capacity is 805 gpm. **Figure 48** shows this facility which was constructed in 1990.

f.) L.S. #6

L.S. #6 is a Meyers grinder type submersible. It is in good condition. It is of a modern design with auxiliary power. There is a hoist and all appurtenances. It was built in 1988. The firm capacity is 250 gpm (each pumps, lead and lag). **Figure 49** shows the station.

General

Figures 50 and **51** shows the good warehouse for inventory storage. **Figure 52** presents the fleet tire shop. **Figure 53** presents a few of the fleet and the operations/shop building. **Figure 54** shows the Vac truck used for wastewater materials removal.

Figure 55 shows the garage/maintenance area. **Figure 56** shows the Administration Building as #1, equipment garages/aux, power as #4 and #5, Building 2A – Engineering and convenience areas.



Magee Storage Tank

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
16**



Rainbow Heights Tank No. 1

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
17**



Rainbow Heights Storage Tank No 2

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
18**



Gomez Storage Tank

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
19**



U 1 Storage Tank #1

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
20**



U 1 Storage Tank #2

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
21**



Vallecitos Storage Tank

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
22**



Northside Reservoir

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
23**



North Reservoir

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
24**



Rice Canyon Tank

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
25**



Canonita Tank

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
26**



Gopher Canyon Tank

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
27**



Hutton Tank

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
28**



South (Turner) Tank

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
29**



Beck Reservoir

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
30**



Pala Mesa Tank

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
31**

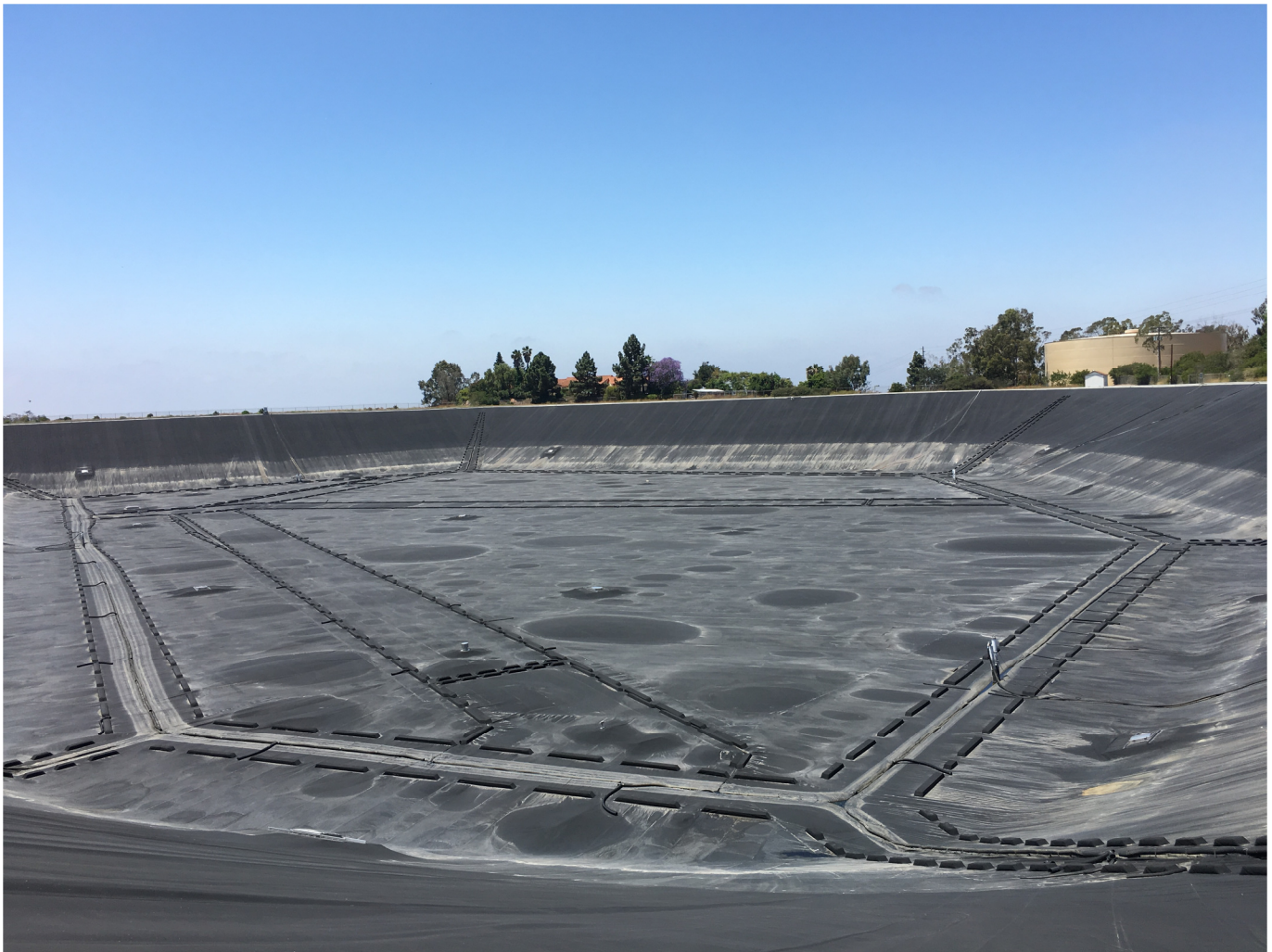


Morro Chlorine Station

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
32**



Morro Reservoir

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
33**



Water PS #1 – Rainbow Heights

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

Rainbow Municipal Water
District

Figure
34



Water PS #2 – U-1

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
35**



Water PS #3 – Vallecitos

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
36**



Water PS #4 – Northside

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
37**



Water PS #5 – Morro Hills

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
38**



Water PS #6 – Huntley Gomez

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
39**



Water PS #7 – Magee

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
40**



Typical Fenced Water PRS

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
41**

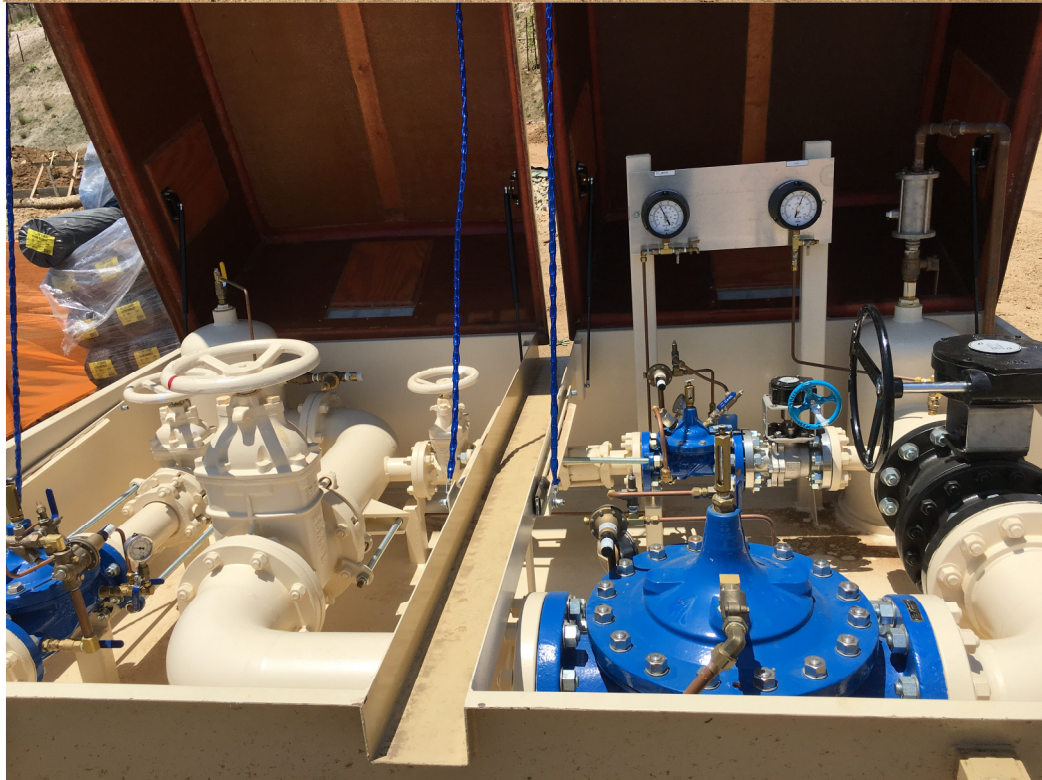


Typical New Water PRS

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
42**



Typical Dual Water PRS

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
43**

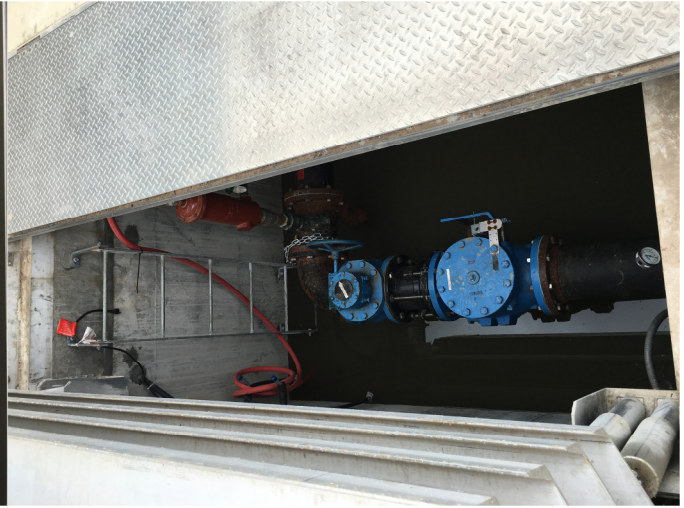


Wastewater Lift Station #1

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
44**



Wastewater Lift Station #2

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

Rainbow Municipal Water
District

Figure
45



Wastewater Lift Station #3

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
46**



Wastewater Lift Station #4

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
47**



Wastewater Lift Station #5

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
48**



Wastewater Lift Station #6

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
49**



Inventory Storage

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
50**



Inventory Storage 2

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
51**



Inventory Storage 3

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

Rainbow Municipal Water
District

Figure
52



Fleet

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
53**

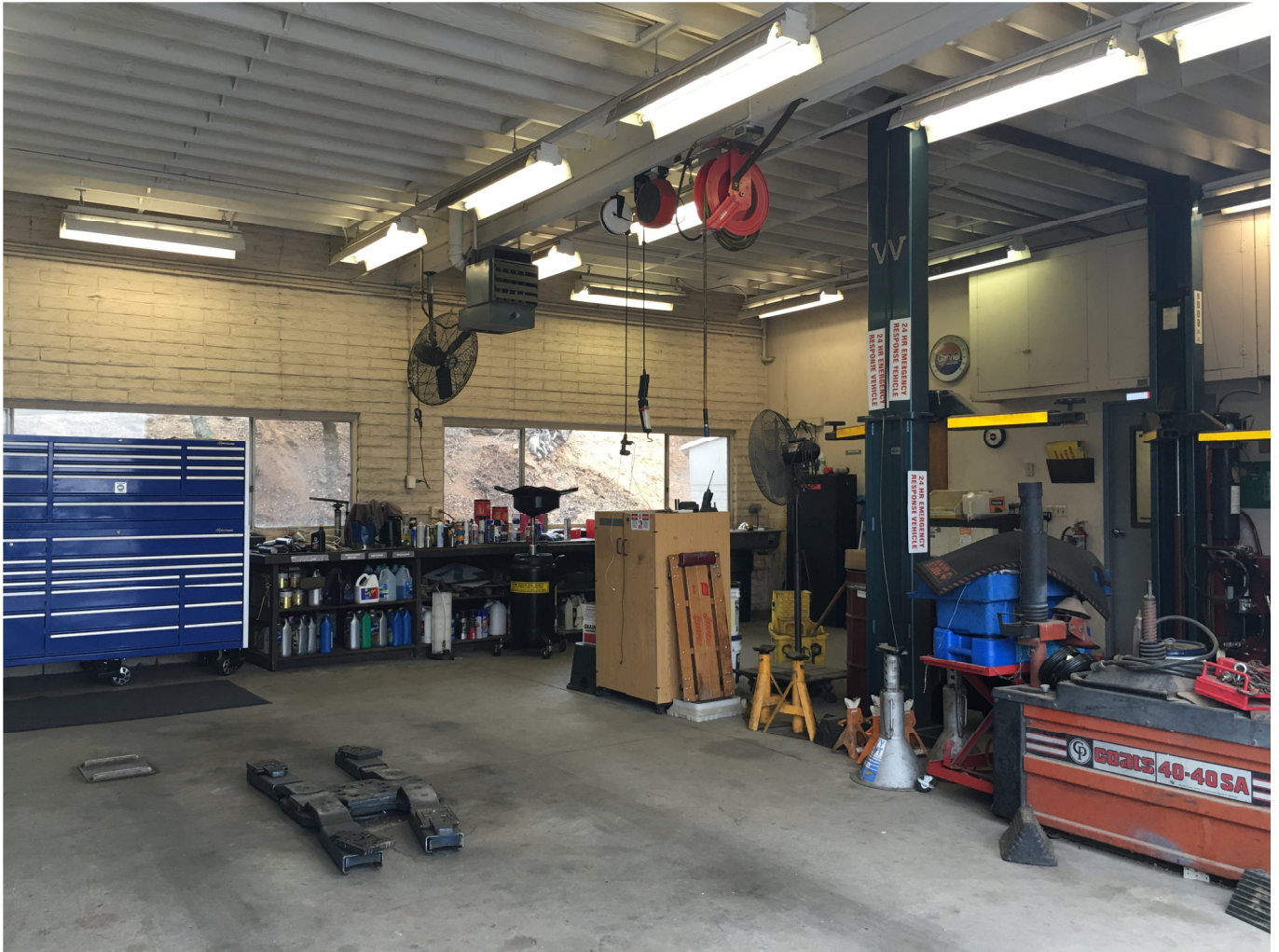


Vac Truck

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
54**



Equipment

Gerald C. Hartman, PE, BCEE, ASA
Hartman Consultants, LLC

**Rainbow Municipal Water
District**

**Figure
55**



Operation Buildings

Appendix C

APPENDIX C: INVENTORY LISTING

Appendix “C” includes an inventory listing as provided by Rainbow Municipal Water District with cost at original cost.

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
1	3/4 F.HOSE X 3/4 M PIPE 71935		0	\$3.73	\$0.00
2	3/4x3/4 FEMALEXFPT #71939 ADPT		10	\$4.87	\$48.71
3	SWIVEL F.HOSE THREAD 71937 GRAINGER # 1P724	3/4"	6	\$4.94	\$29.61
4	HOSE TO PIPE ADAPT DBL MALE GRAINGER # 4X072	3/4"	8	\$1.66	\$13.31
5	HOSE TO PIPE ADAPT SWIVEL DBL FEMALE GRAINGER	3/4"	8	\$2.30	\$18.40
6	HOSE TO PIPE ADAPT FEMALE/MALE GRAINGER # 1P7	3/4"	8	\$5.13	\$41.04
7	1" #143C.2 APCO AIR VALVE	1"	7	\$345.60	\$2,419.20
8	2" #145C.2 APCO AIR VALVE	2"	13	\$500.58	\$6,507.54
9	3" APCO 147C.10 AIR VALVE	3"	4	\$894.33	\$3,577.31
10	1" APCO #2001 COMPD AIR RELEAS	1"	4	\$202.08	\$808.30
11	4" 149C.5 APCO AIR VAC 125 FLG EPOXY SS TRIM		1	\$1,680.00	\$1,680.00
12	1/4" BRASS 90 ELL	1/4"	22	\$5.81	\$127.84
13	1/8 BRS COUPLING	1/8"	44	\$4.81	\$211.49
14	3/8" FLR X 3/8" MIP ELBOW 90 P/N-CHO6730606J		11	\$4.05	\$44.55
15	1/2" LONG FLARE NUT		53	\$3.98	\$210.94
16	1/2" BRASS 45		25	\$7.14	\$178.47
17	3/8" BRASS TEE		10	\$6.83	\$68.25
18	1/8" BRASS 45		30	\$6.83	\$204.76
19	1/4" BRASS 45		34	\$7.14	\$242.72
20	1/4" BRASS FLARE NUT		0	\$1.74	\$0.00
21	1/2"FLR X 1/2" MIP/ TUBE CONN UNION /CHO6730		26	\$7.29	\$189.54
22	1/2 FLARE X 3/8 MIP	2-Jan	9	\$1.99	\$17.94
23	1/2" FLR X 1/2"FLR / FLR UNION XF-MM10-109L	2-Jan	25	\$2.79	\$69.67
24	3/8 FLR X 3/8 MIP BRASS P/N-6730707E - TUBE C	8-Mar	2	\$6.91	\$13.82
25	1/4"M x FLARE BRASS 90 XF-149-4	4-Jan	35	\$1.98	\$69.17
26	1/4" FLARE X 1/4 FLARE UNIONS XF-MM10-106	4-Jan	29	\$2.67	\$77.36
27	3/8" SHORT FLARE NUT P/N XF-MM10-017	8-Mar	9	\$1.62	\$14.58
28	1/2" SHORT FLARE NUT XF MM10-019		26	\$1.47	\$38.19
29	1/4"MIPx1/4"FLARE BRASS ADAPT XF-48-4	1/4"	33	\$0.79	\$26.02
30	3/8" BRASS 45		28	\$7.14	\$199.88
31	1/8" BRASS 90		20	\$5.87	\$117.44
32	3/8" BRASS 90		6	\$7.12	\$42.70
33	1/4 FLARE x 3/8 MIP		25	\$0.84	\$20.99
34	1/2" BRASS 90		11	\$5.76	\$63.32
35	1/8" BRASS TEE		21	\$7.06	\$148.32
36	1/4x1/8 FLxMIP ADAPT U1-4A P/N XF-48-4-2	4-Jan	25	\$0.62	\$15.39

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
37	1/4x1/2 FLxMIP ADAPT U1-4D	4-Jan	26	\$5.78	\$150.23
38	1/2 X 1/4 FL X MIP REDUCE ADPT XF-10-267	2-Jan	27	\$2.48	\$67.07
39	1/4x1/8 FLxMIP 90 ELL E1-4A P/N XF-149-4-2	4-Jan	25	\$1.74	\$43.47
40	1/4x3/8 FLxMIP 90 ELL E1-4C CHO6730603F	4-Jan	37	\$2.43	\$89.91
41	1/4x1/2 FLxMIP 90 ELL E1-4D	4-Jan	8	\$1.72	\$13.79
42	1/2 FL X 1/4 MIP ANGLE XF-MM10-298	2-Jan	25	\$2.52	\$62.92
43	1/2" FLR X 3/8" MIP ELBOW 90 CHO6730610A	2-Jan	15	\$3.24	\$48.60
44	3/8 FL X 1/8 MIP ELBOW 90 CHO6730604D	8-Mar	20	\$3.01	\$60.26
45	3/8 FL X 1/2" MIP ELBOW 90 CHO6730607G	8-Mar	17	\$2.60	\$44.25
46	3/8 FL X 1/2 MIP CHO6730708C/TUBE CONN UNION	8-Mar	23	\$2.89	\$66.56
47	3/8 FL X 1/8 MIP CHO6730705J- TUBE CONN UNION	8-Mar	26	\$1.08	\$28.08
48	3/8 FLR X 1/4 MIP P/N-6730706G-TUBE CONN UNIO	8-Mar	29	\$6.91	\$200.45
49	3/8 FLARE X 1/4 MIP 90 P/N - CHO6730605A	8-Mar	34	\$7.29	\$247.86
50	1/4 FLARE NUT - SHORT	4-Jan	42	\$1.09	\$45.81
51	3/8 FLARE NUT - LONG	8-Mar	31	\$2.42	\$75.12
52	3/8 FLARE X 1/4 FIP	8-Mar	14	\$0.65	\$9.13
53	FLARE UNION 3/8 X 3/8 FL(U2-6) P/N-XF-MM10-10	8-Mar	23	\$1.62	\$37.26
54	1/4x1/8 FLxMIP SHUT OFF COCK	4-Jan	5	\$16.16	\$80.82
55	1/4x1/4 FLxMIP SHUT OFF COCK	4-Jan	4	\$16.70	\$66.81
56	3/8x1/4 FLxMIP SHUT OFF COCK	8-Mar	2	\$12.67	\$25.34
57	3/8x3/8 FLxMIP SHUT OFF COCK	8-Mar	1	\$3.46	\$3.46
58	3/8 BRASS COUPLING #103-6	8-Mar	12	\$4.86	\$58.32
59	1/4" BRASS COUPLING	1/4"	19	\$4.86	\$92.34
60	1/2" BRASS COUPLING		23	\$5.02	\$115.51
61	1/4" BRASS TEE		20	\$6.83	\$136.51
62	1" VENT-O-MAT AIR RELEASE VLV	1"	1	\$594.00	\$594.00
63	6" SS SEAT CLAVAL C1029C	6	2	\$352.88	\$705.76
64	4" SS SEAT CLAVAL CHO67306574H	4"	1	\$368.65	\$368.65
65	2" CLA-VAL STEM		7	\$59.33	\$415.31
66	4" 90-01BY GLOBE/300# PN-90-01-4850E/E999994/	4"	2	\$2,221.54	\$4,443.08
67	6" 150# FLG CLAVAL 90G-01	6"	1	\$2,826.28	\$2,826.28
68	8" 150" FLG CLAVAL 90-01BY P/N 90-01-4844H	8"	1	\$5,521.77	\$5,521.77
69	3/8" X 6" HOSE W/BRS FLR ENDS	6"	0	\$0.00	\$0.00
70	3/8" X 8" HOSE W/BRS FLR ENDS	8"	0	\$0.00	\$0.00
71	3/8" X 12" HOSE W/BRS FLR ENDS	12"	0	\$0.00	\$0.00
72	3/8" X 16" HOSE W/BRS FLR ENDS	16"	0	\$0.00	\$0.00
73	1/2" CRL-18 250-600 LB CHO20278803H	1/2"	2	\$817.29	\$1,634.58

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
74	3/8" X 24" HOSE W/BRS FLR ENDS	24"	0	\$0.00	\$0.00
75	CRD-18 100-500PSI REPAIR KIT CHO20275401K		15	\$68.85	\$1,032.75
76	4" X101 VAL POSITION INDICATOR CHO9710001A	4"	7	\$113.40	\$793.80
77	6" X101 VLV POSITION INDICATOR CHO9710002J	6"	8	\$140.40	\$1,123.20
78	2" #100 DIAPH/DISC ASSY-KC,SS P/N- CHO2006160		8	\$271.08	\$2,168.64
79	1/4 X 1/4" FILTER SCREEN CHOC2890G		6	\$47.79	\$286.74
80	3/8"CV SPEED CONTROL STANDARD CHO9701501A	8-Mar	6	\$154.12	\$924.70
81	CSM11-A2-2 SOLENOID CONTROL CHO1002302G		4	\$1,045.71	\$4,182.84
82	3/8" SS CRD/DISC RETNER ASSY P/N-CHO37133G		23	\$25.86	\$594.78
83	1/2" CRL REPAIR KIT 9170007A		16	\$72.09	\$1,153.44
84	GASKET		2	\$11.86	\$23.72
85	2" RUBBER DISC CLA-VAL CHOV5564K	2"	9	\$6.48	\$58.32
86	4" HYTROL SPACE WASH CHOV0634F	4"	10	\$2.15	\$21.50
87	ASSEMBLY RETAIN DISC CLA-VAL		0	\$21.55	\$0.00
88	CRD BELLEVILLE WASHER 7055001H		13	\$4.59	\$59.70
89	CLA-VAL SPRINGS		10	\$12.01	\$120.10
90	8" CLA-VAL STEM		2	\$113.21	\$226.42
91	12" CLA-VAL STEM		2	\$298.01	\$596.02
92	3/8"CRD18 CH020191701F 150-600		3	\$1,003.32	\$3,009.96
93	1/2 CRL 0-75 CHO7922201E	1/2"	3	\$367.74	\$1,103.22
94	1 1/2" S.S. SEAT CLAVAL STEEL		3	\$57.20	\$171.60
95	2" S.S SEAT CLA-VAL CH0C4135E	2	7	\$168.48	\$1,179.36
96	3" S.S SEAT CLA-VAL STEEL		2	\$103.33	\$206.66
97	4" S.S SEAT CLA-VAL STEEL		3	\$210.24	\$630.73
98	REBUILT KIT FOR CDS4 9170014G		7	\$179.51	\$1,256.57
99	1/2" CRL-4A REPAIR KIT 100-450 CHO43413E		12	\$79.38	\$952.56
100	8" DISC GUIDE		2	\$2.26	\$4.52
101	2 1/2" S.S. CLAVAL SEAT V6562C	2 1/2"	2	\$154.62	\$309.23
102	1 1/2" RUBBER DISC CLA-VAL		16	\$3.73	\$59.62
103	3" RUBBER DISC CLA-VAL		7	\$21.87	\$153.09
104	4" RUBBER DISC CLA-VAL		5	\$3.10	\$15.50
105	10" RUBBER DISC CLA-VAL		5	\$45.35	\$226.75
106	12" RUBBER DISC CLA-VAL		2	\$32.08	\$64.16
107	3" #100 HYTROL KIT P/N CHO91698-12G		5	\$89.10	\$445.50
108	1/2 CRL 20-200 CHO79222-02C	1/2"	5	\$378.40	\$1,892.00
109	1/2" CRL 100-300 CH08280901D	1/2"	4	\$509.49	\$2,037.96
110	3/8 CRD CH07194304H 30-300		3	\$225.58	\$676.74

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
111	3/8 CRD REPAIR KIT CHO9170002B		14	\$77.76	\$1,088.64
112	2" DIAPHRAM REPR KIT 9169805A		3	\$76.14	\$228.42
113	1 1/2" DISC DIAPHRAM ASSEMBLY	1 1/2"	3	\$105.68	\$317.04
114	1 1/2 CLA VLV 90-01-919A 300# DESC 90-01AS	1 1/2"	3	\$1,244.16	\$3,732.48
115	2" CLAVAL THR 90-01-296D CHO90-01-296D	2"	4	\$1,188.00	\$4,752.00
116	2" CLAVAL FLG 150#90-01-3811H	2"	1	\$2,054.89	\$2,054.89
117	DISC. & DIAPH ASSY FOR 3" HP C2524B CLAVAL 69	3"	4	\$312.32	\$1,249.26
118	4" DISC-DIAPH ASSY 100KC 4 IS P/N CHO200616C		3	\$644.76	\$1,934.28
119	3" CLAVAL FLG 150# 90-01AS P/N 90-01-395D	3"	2	\$1,628.37	\$3,256.74
120	3" CLAVL FLG 300# 90-01AS P/N 90-01-1767D	3"	0	\$1,620.81	\$0.00
121	6" 90-01YB,KC,SS 30-300 300# FLANGE (CHO90-01	6"	1	\$3,584.03	\$3,584.03
122	2 1/2" DISC/DIAPH. ASSY S.S. CHO20061605H	2 1/2"	3	\$222.75	\$668.25
123	6" PUMP-CV - RUBBER KIT		0	\$211.00	\$0.00
124	8" CLA-VAL DIAPH ASSY #125 P/N-20061602A		2	\$1,594.35	\$3,188.70
125	4" 90-01-1732H 150# FLG CLAVAL	4"	3	\$2,124.63	\$6,373.89
126	8" STAINLESS STEEL SEAT CLAVAL		5	\$327.66	\$1,638.30
127	10"STAINLESS STEEL SEAT CLAVAL		0	\$681.64	\$0.00
128	12"STAINLESS STEEL SEAT CLAVAL		3	\$742.01	\$2,226.03
129	1 1/2 SEAT O-RING CH000731A	1 1/2"	2	\$2.59	\$5.18
130	2" SEAT O-RING CH000777D	2"	9	\$0.78	\$6.99
131	2 1/2 SEAT O-RING CH000785G	2 1/2"	1	\$2.59	\$2.59
132	3" SEAT O-RING CH000788A	3"	1	\$3.45	\$3.45
133	4" HYTROL SEAT O-RING CH000836	4"	4	\$4.31	\$17.24
134	6" SEAT O-RING CH000851G	6"	5	\$6.04	\$30.20
135	8-10" SEAT O-RING CH000982K	10-Aug	6	\$2.94	\$17.61
136	10" SEAT O-RING CH000865G	10	1	\$1.47	\$1.47
137	12" SEAT O-RING CH000869J	12	2	\$16.22	\$32.44
138	14" SEAT O-RING CH000870G	14	2	\$14.59	\$29.18
139	3/8" STRAINER NEEDLE VAL P/N-CHO68372C X-42N-	8-Mar	8	\$138.99	\$1,111.88
140	8" COVER SS STUDS CH037048G	8"	29	\$6.48	\$187.92
141	10" COVER SS STUD CH037041B	10	30	\$11.48	\$344.25
142	12" COVER SS STUD CHOV6896E	12	20	\$18.11	\$362.22
143	4" CLA-VAL STEM		2	\$47.85	\$95.70
144	3" CLA-VAL STEM		3	\$31.50	\$94.50
145	10" CLA-VAL STEM		1	\$188.57	\$188.57
146	6" CLA-VAL STEM		6	\$38.13	\$228.78
147	4" #100 HYTROL COVER BOLT-SST CHO6760904A	4"	19	\$8.62	\$163.78

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
148	8" VALV INDICATOR CHOC8581F	8"	5	\$135.95	\$679.75
149	10" VALV INDICATOR CHOC9187A	10	3	\$145.64	\$436.91
150	12" VALV INDICATOR CH031420D	12"	3	\$148.77	\$446.31
151	2" VALV INDICATOR CH0C8972G	2	5	\$108.54	\$542.70
152	3" CALV INDICATOR CH0C2609A	3	4	\$102.06	\$408.24
153	3/8X3/4 FILTER SCREEN C3085C X46A	6	8	\$81.00	\$648.00
154	3/8x1/2 FILTER SCREEN C3084F CHOC3084F	3"	5	\$46.87	\$234.36
155	3/8 X 3/8" FILTER SCREEN CHOC2891E	4"	15	\$47.79	\$716.85
156	1/2"x1/2" FILTER SCREEN C2892C	1/2"x1/2"	6	\$107.19	\$643.14
157	3/8"x1" FLITER SCREEN C3086A	3/8"x1"	7	\$83.43	\$584.01
158	3/8X3/8X1/8 TUBE RESTRICTOR CHO64673H X58C R	8-Jan	9	\$36.40	\$327.56
159	X58C TUBERESTRICTR 3/8X3/8X3/32 BLUE P/N-CHO68	Mar-32	8	\$36.72	\$293.76
160	3/8X3/8X3/16 RESTRCT CH043302K	16-Mar	8	\$64.80	\$518.40
161	CLAVAL #6797225H FLATHEAD BOLT		23	\$3.88	\$89.22
162	3/8 SHUT OFF VALVES WATTS 3/8"LFFBV-3C	8-Mar	25	\$6.43	\$160.65
163	2" HYSROL COVER BOLT STL CHO6760597C	2"	26	\$4.05	\$105.30
164	3" S.S. COVER BOLTS 6760796A	3"	32	\$4.31	\$137.92
165	2" CLAVAL SPRING #C3147A	2"	2	\$5.36	\$10.71
166	3" CLAVAL 3" SPRING CHOC3149G	3"	3	\$7.76	\$23.28
167	4" CLAVAL SPRING P/N-CHOC1533D DEC-SPR 100	4"	3	\$17.92	\$53.77
168	6" CLAVAL SPRING C1534B	6"	2	\$7.65	\$15.30
169	8" CLAVAL SPRING C7948H	8"	0	\$16.83	\$0.00
170	CRD TENSION SPRING 30-300PSI CHO71885J		7	\$29.97	\$209.79
171	DIAPHRAM FOR CRD #18		3	\$11.48	\$34.43
172	DISC RETAINER ASSY FOR CRD #18		3	\$22.95	\$68.85
173	BODY GASKET FOR CRD #18		3	\$3.83	\$11.48
174	4" HYTROL SPACE WASHER PN-CHOV0634F	4"	4	\$0.81	\$3.23
175	4" HYTROL DISC PN-CHOV5467F	4"	3	\$22.68	\$68.04
176	6" HYTROL SPACER WASHER P/N-CHOV5138C	6"	19	\$0.81	\$15.39
177	2 1/2" #100 & 100P RUBBER DISC P/N-CHOV1637H	2 1/2"	7	\$15.39	\$107.73
178	4" DIAPHRAMS EPOXY COATED P/N - CHO200616C		5	\$623.16	\$3,115.80
179	8" CLAVAL FLG 300# 90-01-95A	8"	1	\$6,056.37	\$6,056.37
180	2" CLA-VAL 90-01-1022D 300#	2"	3	\$1,572.48	\$4,717.44
181	3" #100 DIAPH/DISC ASSY-KC,SS CHO20061606G		5	\$652.38	\$3,261.88
182	3" CLAVAL 300# 90-01-1088E DESC-90-01AS THREE	3"	1	\$1,586.35	\$1,586.35
183	6" DISC-DIAPHRAM ASSY-KC,SS P/N 20061601B 10	6"	2	\$1,134.00	\$2,268.00
184	6" COVER SS STUD V6901C	6"	19	\$5.26	\$99.97

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
185	6" #100P PWR UNIT-EPOXY COATED CHO7092901D		1	\$1,725.72	\$1,725.72
186	6" #100 HYTROL DIAPH WASHER KC CHO7092802D PN		1	\$162.92	\$162.92
187	6" POWERCHECK KC DISC RETAINER CHO7092802D		1	\$506.86	\$506.86
188	COLLAR W/SET SCREW-BRASS CH020441701E		4	\$5.17	\$20.69
189	HOSE WASHERS		0	\$0.33	\$0.00
190	8" #100P POWERROL RUBBER KIT CHO99116G	8"	2	\$296.22	\$592.44
191	6" 100-02 POWERROL RUBBER KIT CH091699-13C	6"	3	\$222.85	\$668.55
192	1" APCO #50 RELEASE VALVE	1"	3	\$88.36	\$265.07
193	1/2" APCO #50 AIR RELEASE VALV	1/2"	2	\$88.36	\$176.71
1	12" 150# SS BOLT KIT		0	\$104.04	\$0.00
2	2-3" 150# T316 SS FLG BOLT KIT		17	\$6.43	\$109.25
3	3" 300# T316 SS FLG BOLT KIT	3"	22	\$30.24	\$665.28
4	4" 150# T316 SS FLG BOLT KIT		7	\$18.67	\$130.71
5	4" 300# T316 SS FLG BOLT KIT		17	\$30.22	\$513.71
6	6" 6-HOLE HYD BREAK-OFF BLTS 3/4 X 3 1/4 T-31		10	\$44.28	\$442.80
7	6-8" 150# T316 SS FLG BOLT KIT		13	\$23.76	\$308.88
8	6" 300# T316 SS FLG BOLT KIT		11	\$50.87	\$559.55
9	8" 300# T316 SS FLG BOLT KIT		14	\$83.73	\$1,172.26
10	10-12 150# T316 SS FLG BLT KIT		21	\$55.08	\$1,156.68
11	10" 300# T316 SS FLG BOLT KIT		6	\$199.47	\$1,196.81
12	12" 300# T316 SS FLG BOLT KIT		7	\$353.73	\$2,476.13
13	14" 300# T316 SS FLG BOLT KIT		10	\$316.02	\$3,160.20
14	14" 150# T316 SS FLG BOLT KIT		6	\$56.26	\$337.55
15	16" 150# T316 SS FLG BOLT KIT		12	\$128.52	\$1,542.24
16	16" 300# T316 SS FLG BOLT KIT		5	\$564.61	\$2,823.05
17	18" 300# T316 SS FLG BOLT KIT		4	\$500.04	\$2,000.16
18	20" 150# T316 SS FLG BOLT KIT		6	\$341.85	\$2,051.09
19	20" 300# T316 SS FLG BOLT KIT	20"	6	\$619.69	\$3,718.16
20	2" 300# T316 SS FLG BOLT KIT	2"	11	\$20.63	\$226.97
21	18" 150# T316 SS FLG BOLT KIT	18"	5	\$251.49	\$1,257.43
22	4" 3000 STEEL COUPLING THR		10	\$61.51	\$615.14
23	8" 2000# COUPLING		10	\$92.00	\$920.00
24	3/4" #38 DRESSER		2	\$17.10	\$34.20
25	1" #38 DRESSER		9	\$13.71	\$123.41
26	1 1/2" #38 DRESSER		8	\$28.45	\$227.57
27	2" #38 DRESSER COUPLING		3	\$51.11	\$153.33

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
28	2 1/2" #38 DRESSER COUPLING		2	\$27.73	\$55.46
29	3" #38 DRESSER COUPLING		2	\$71.81	\$143.61
30	4" #38 DRESSER COUPLING		6	\$122.85	\$737.10
31	6" #38 DRESSER COUPLING 6.54 - 7.65		4	\$151.20	\$604.80
32	8" #38 DRESSER COUPLING 8.60-9.75 OR 8.40-9.		3	\$231.66	\$694.98
33	12" #38 DRESSER COUPLING 12.75 - 14.40		4	\$652.97	\$2,611.86
34	6" STEEL COUPLING 300# THR	6"	14	\$94.77	\$1,326.78
35	6" 3000# STEEL COUPLING THR	6"	9	\$70.20	\$631.80
36	4" 300# STEEL COUPLING THR	4"	14	\$62.34	\$872.74
37	6" GALV PLUG 150 LB		5	\$22.00	\$110.00
38	4" GALV PLUG 150 LB		11	\$15.00	\$165.00
39	12" MECHANICAL JOINT		1	\$73.27	\$73.27
40	8"MECHANICAL JOINT		2	\$424.54	\$849.08
41	6" 3000 SOLID STEEL PLUG THR	6"	4	\$109.18	\$436.73
42	4" 3000# THR STEEL PLUG	4"	9	\$46.44	\$417.96
43	6" 300 SOLID STEEL PLUG THR		14	\$76.14	\$1,065.96
44	ELL 6" STEEL WELD 45		6	\$29.10	\$174.57
45	ELL 6" STEEL WELD 90		4	\$37.98	\$151.92
46	8" ELL STEEL WELD 45		8	\$42.60	\$340.80
1	1 1/4 WR5 WEDDING RING	1 1/4	10	\$1.51	\$15.08
2	1" WR4 WEDDING RING	10	25	\$1.24	\$30.96
3	1/2" X 4" NIPPLE BRASS		20	\$3.56	\$71.28
4	1/2" X 3" NIPPLE BRASS		22	\$2.73	\$60.10
5	1/4 X 6" BRASS NIPPLE		25	\$3.19	\$79.65
6	1/2" X 5" BRASS NIPPLE		26	\$4.27	\$110.93
7	3/8" X 4" BRASS NIPPLE		32	\$2.34	\$75.00
8	3/8"x6" BRASS NIPPLE		17	\$3.62	\$61.51
9	1/8" X 2" BRASS NIPPLE		28	\$0.91	\$25.40
10	1/8" X 3" BRASS NIPPLE		31	\$2.30	\$71.32
11	1/2" X 2" BRASS NIPPLE		25	\$2.10	\$52.38
12	1/2x2 1/2" BRASS NIPPLE	2-Jan	12	\$2.47	\$29.60
13	3/8" X 3" BRASS NIPPLE		34	\$2.05	\$69.77
14	1/2" X CLOSE NIPPLE BRASS		36	\$1.30	\$46.66
15	1/2" X 6" BRASS NIPPLE		25	\$5.18	\$129.60
16	3/8" X 2" BRASS NIPPLE		28	\$1.38	\$38.71
17	3/8" X CLOSE BRASS NIPPLE		28	\$0.95	\$26.64

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
18	1/8" X CLOSE BRASS NIPPLE		38	\$0.80	\$30.36
19	1/4x2" BRASS NIPPLE		18	\$1.36	\$24.49
20	1/4x3" BRASS NIPPLE		13	\$1.73	\$22.46
21	1/4x CLOSE BRASS NIPPLE		16	\$1.04	\$16.59
22	1/4x1 1/2" BRASS NIPPLE		18	\$1.20	\$21.58
23	1/8" X 4" NIPPLE BRASS		25	\$1.60	\$39.96
24	1/4x4" BRASS NIPPLE		23	\$2.21	\$50.92
25	1/8" X 5" NIPPLE BRASS		29	\$1.97	\$57.00
26	1/8" X 4 1/2" NIPPLE BRASS		23	\$1.52	\$35.02
27	3/4" BRASS COUPLING		16	\$7.06	\$113.01
28	3/4" BRASS 90		19	\$9.72	\$184.68
29	3/4" BRASS 45		23	\$8.97	\$206.36
30	3/4" BRASS UNION		21	\$23.67	\$497.13
31	3/4"X 1" 1/2 SHORT METER TAIL C38-23-1.5		14	\$9.89	\$138.50
32	3/4" X 2 1/2" LONG METER TAIL C38-23-2.5		32	\$7.85	\$251.25
33	1" BRASS COUPLING		42	\$10.17	\$427.30
34	1" BRASS 90		24	\$6.11	\$146.71
35	1" BRASS 45		38	\$15.02	\$570.87
36	1" BRASS TEE		18	\$20.07	\$361.19
37	1" BRASS UNION		21	\$16.26	\$341.40
38	1" SHORT METER TAIL 1 1/2"		13	\$13.87	\$180.27
39	1" LONG METER TAIL 2 5/8"		20	\$12.74	\$254.88
40	1" MULLER MIP POLY ADAPT		9	\$29.28	\$263.48
41	1"FIP X IPS INSTA-TITE INSTA-TITE COUPLING		16	\$23.63	\$378.08
42	1 1/2" BRASS COUPLING		25	\$25.77	\$644.22
43	1 1/2" BRASS 45		19	\$34.37	\$652.94
44	1 1/2" BRASS 90		18	\$20.59	\$370.64
45	1 1/2" BRASS UNION		14	\$49.24	\$689.39
46	1 1/2" BRASS TEE		10	\$14.02	\$140.18
47	2" BRASS COUPLING		15	\$40.48	\$607.18
48	2" BRASS 45		22	\$57.91	\$1,274.00
49	2" BRASS 90		22	\$39.96	\$879.12
50	2" BRASS UNION		19	\$91.36	\$1,735.79
51	2" BRASS TEE		15	\$58.26	\$873.90
52	1 1/2" X 3/4" BRASS BUSHING		18	\$17.86	\$321.53
53	1 1/2"x1" BRASS BUSHING		15	\$17.04	\$255.63
54	1 1/2"x1 1/4" BRASS BUSHING		28	\$16.69	\$467.21

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
55	2"x1" BRASS BUSHING		19	\$21.30	\$404.66
56	2"x1 1/2" BRASS BUSHING		15	\$20.84	\$312.66
57	2 1/2"x1 1/2" BRASS BUSHING		17	\$53.62	\$911.47
58	2 1/2"x2" BRASS BUSHING		11	\$51.97	\$571.66
59	1 1/2"x1 1/2" BRASS BUSHING		14	\$17.82	\$249.51
60	1 1/4"x3/4" BRASS BUSHING		17	\$13.34	\$226.76
61	1"x3/4" BRASS BUSHING		31	\$7.45	\$231.01
62	1"x1/2" BRASS BUSHING		24	\$7.38	\$177.03
63	1"x1/4" BRASS BUSHING		6	\$5.69	\$34.15
64	3/4"x1/2" BRASS BUSHING		37	\$2.03	\$75.12
65	3/4"x3/8" BRASS BUSHING		16	\$6.31	\$100.92
66	3/4"x1/4" BRASS BUSHING		35	\$6.35	\$222.26
67	1/2"x3/8" BRASS BUSHING		31	\$1.35	\$41.85
68	1/2"x1/4" BRASS BUSHING		0	\$1.11	\$0.00
69	3/8"x1/4" BRASS BUSHING		30	\$1.89	\$56.70
70	1/8" BRASS PLUG	8-Jan	28	\$1.08	\$30.24
71	1/4" BRASS PLUG		31	\$1.73	\$53.57
72	3/8" BRASS PLUG		25	\$2.38	\$59.40
73	1/2" BRASS PLUG		26	\$4.24	\$110.34
74	3/4" BRASS PLUG		23	\$2.66	\$61.10
75	1" BRASS PLUG		21	\$7.76	\$162.92
76	1 1/4" BRASS PLUG		20	\$16.68	\$333.51
77	1 1/2" BRASS PLUG		18	\$20.81	\$374.60
78	2" BRASS PLUG		13	\$22.76	\$295.89
79	3" X 2" BRASS BUSHING		16	\$81.90	\$1,310.35
80	1 1/4 X 1" BRASS BUSHING		25	\$11.12	\$278.10
81	3" BRASS COUPLING	3"	4	\$102.20	\$408.80
82	4" X 2" BRASS BUSHING	4"	5	\$197.59	\$987.93
83	3/4" FIPT X 3/4" M METER THR BBIM-33 FORD	3/4"	15	\$9.19	\$137.86
84	3/4" FIPT X 1" MALE METER THR BBIM-34	4-Mar	13	\$8.40	\$109.23
85	1" FIPT X 1" MALE MTR THREAD BBIM-44	1"	12	\$18.78	\$225.38
86	1 1/2" CTS O,D X F.I.P. THREAD c04-66-nl		5	\$55.22	\$276.11
87	1" CTS O.D X F.I.P. THREAD c04-44-nl		3	\$23.90	\$71.69
88	1-1/4"x1"ADAPTER FCTXPJ CTS C04-54		10	\$25.73	\$257.31
89	1/2" COPPER TEE		16	\$1.00	\$16.00
90	1/2" COPPER 90	1/2"	34	\$0.53	\$17.95
91	1/2" COPPER COUP W/OUT STOP	1/2"	19	\$0.59	\$11.21

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
92	1/2 COPPER MALE ADAPTER	2-Jan	21	\$0.98	\$20.54
93	3/4" COPPER MIP ADAPTOR		21	\$0.86	\$18.10
94	3/4" COPPER 90		48	\$0.54	\$25.86
95	3/4" COPPER 45		50	\$0.57	\$28.50
96	3/4" COPPER FIP ADAPTOR		32	\$1.03	\$32.96
97	3/4" COPPER TEE		32	\$0.80	\$25.60
98	3/4" COPPER COUP W/OUT STOP		58	\$0.54	\$31.25
99	3/4" BRASS TEE		32	\$9.72	\$311.04
100	1" COPPER 90		24	\$3.67	\$88.13
101	1" COPPER 45		34	\$3.24	\$110.16
102	1" COPPER COUPLING W/OUT STOP		27	\$2.16	\$58.32
103	1" COPPER FIP ADAPTOR		45	\$3.25	\$146.43
104	1" COPPER MIP ADAPTER		45	\$4.32	\$194.40
105	1" X 3/4" COPPER MIP ADAPTOR		35	\$2.63	\$92.05
106	1x1x3/4" COPPER TEE		16	\$2.25	\$36.00
107	1" COPPER TEE		56	\$5.75	\$322.22
108	1 1/2" COPPER COUP W/OUT STOP		29	\$6.40	\$185.73
109	1 1/2" COPPER MIP ADAPTOR		17	\$11.84	\$201.22
110	1 1/2" COPPER FIP ADAPTOR		18	\$15.78	\$283.95
111	1 1/2" COPPER 90		29	\$10.18	\$295.35
112	1 1/2" COPPER 45		23	\$5.15	\$118.45
113	2"x3/4" COPPER TEE		6	\$3.38	\$20.28
114	1 1/2"x3/4" COPPER TEE		10	\$2.28	\$22.80
115	2" COPPER MIP ADAPTOR		50	\$13.12	\$656.10
116	2" COPPER FIP ADAPTOR		25	\$16.31	\$407.70
117	2" COPPER 90		16	\$11.12	\$177.98
118	2" COPPER COUPLING W/OUT STOP		39	\$8.64	\$336.96
119	2" COPPER 45		19	\$16.20	\$307.80
120	3" COPPER COUPLING		13	\$25.41	\$330.38
121	3" FIP COPPER ADAPTOR		4	\$78.39	\$313.56
122	3" COPPER MALE ADAPTOR	3"	5	\$101.79	\$508.95
123	3" COPPER 90		6	\$13.72	\$82.31
124	3" COPPER 45		3	\$7.60	\$22.79
125	3/4 x 1" MIP COPPER ADAPTER		42	\$8.06	\$338.52
126	1" 3000# STEEL COUPLING		20	\$2.48	\$49.68
127	1 1/2" 3000# STEEL COUPLING		17	\$6.79	\$115.37
128	2" 3000# STEEL COUPLING		18	\$8.10	\$145.80

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
129	1 1/2" STEEL COUPLING		18	\$2.33	\$41.90
130	2 1/2" 3000# STEEL COUPLING		13	\$8.40	\$109.20
131	1" 3000# STL CPLG 1/2 SIZE THR	1"	14	\$1.58	\$22.07
132	1" MIP X COMP E26055G	1	8	\$15.27	\$122.17
133	1" E2609SG MIP COMP COUPLG	1	13	\$17.21	\$223.67
134	1" E2607 FIPxCOMP COUPLG S.G.	1"	10	\$18.40	\$184.03
135	3/4" X 2" METER TAIL P/N C38-23-2	3/4"	8	\$11.09	\$88.74
136	1" X 2" METER TAIL P/N C38-44-2	1"	28	\$11.03	\$308.76
137	1 1/2" BRASS METER FLANGE		23	\$29.16	\$670.68
138	2" METER FLANGE		12	\$27.49	\$329.83
139	3/4 X 12" BRASS NIPPLE		23	\$13.59	\$312.66
140	3/4 X 6" BRASS NIPPLE		21	\$2.83	\$59.51
141	3/4 X 3" BRASS NIPPLE		34	\$3.10	\$105.38
142	3/4 X 2 1/2" BRASS NIPPLE		28	\$2.74	\$76.80
143	3/4 X 2" BRASS NIPPLE		40	\$2.27	\$90.72
144	3/4 X CLOSE BRASS NIPPLE		36	\$1.78	\$64.15
145	1 X 2" BRASS NIPPLE		49	\$3.25	\$159.29
146	1 X CLOSE BRASS NIPPLE		53	\$2.64	\$139.67
147	1 X 2 1/2" BRASS NIPPLE		34	\$3.82	\$129.74
148	1 X 3" BRASS NIPPLE		27	\$4.48	\$121.01
149	1 X 4" BRASS NIPPLE		26	\$6.21	\$161.46
150	1 X 6" BRASS NIPPLE		27	\$8.62	\$232.70
151	1 X 8" BRASS NIPPLE		12	\$9.86	\$118.33
152	1 X 10" BRASS NIPPLE		29	\$13.50	\$391.50
153	1 X 12" BRASS NIPPLE		20	\$16.11	\$322.27
154	1 1/2" X 6" BRASS NIPPLE		20	\$13.10	\$262.08
155	1 1/2" X 4" BRASS NIPPLE		33	\$10.26	\$338.58
156	1 1/2" X 3 BRASS NIPPLE		22	\$8.18	\$179.86
157	1 1/2" X 2 1/2" BRASS NIPPLE		21	\$8.07	\$169.41
158	1 1/2 X 2" BRASS NIPPLE		21	\$6.74	\$141.52
159	1 1/2 X CLOSE BRASS NIPPLE		24	\$5.05	\$121.31
160	1 1/2" X 8" BRASS NIPPLE		22	\$21.31	\$468.78
161	1 1/2 X 10" BRASS NIPPLE		19	\$28.72	\$545.59
162	2"x2" BRASS NIPPLE		22	\$7.89	\$173.69
163	2"x2 1/2" BRASS NIPPLE		18	\$9.84	\$177.10
164	2"x3" BRASS NIPPLE		12	\$9.98	\$119.75
165	2"x4" BRASS NIPPLE		17	\$14.50	\$246.58

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
166	2"x4 1/2" BRASS NIPPLE		19	\$12.83	\$243.77
167	2"x6" BRASS NIPPLE		15	\$15.66	\$234.90
168	2"x8" BRASS NIPPLE		15	\$25.38	\$380.70
169	2"x10" BRASS NIPPLE		21	\$32.20	\$676.10
170	1"x24" BRASS NIPPLE		23	\$38.34	\$881.82
171	2"x24" BRASS NIPPLE		15	\$83.48	\$1,252.26
172	3"x3" BRASS NIPPLE	3"	4	\$30.21	\$120.83
173	1" X 3 1/2" BRASS NIPPLE	1"	19	\$5.65	\$107.33
174	3/4" X 3 1/2" BRASS NIPPLE	3/4"	22	\$3.76	\$82.69
175	2" X 3 1/2" BRASS NIPPLE		19	\$12.16	\$231.06
176	1 1/2" X 3 1/2" BRASS NIPPLE		14	\$10.76	\$150.60
177	2 1/2" STEEL THR PLUG		8	\$13.88	\$111.03
178	3/4" WILKINS 510XL PRESS REG WITH 34-TPKXL		32	\$93.20	\$2,982.53
179	1" WILKINS 510XL PRESS REG WITH TPKXL		19	\$136.62	\$2,595.78
180	1 1/2" PRES. REG WILKINS 510XL		10	\$383.40	\$3,834.00
181	2" WILKINS 510XL PRESS REG		2	\$702.00	\$1,404.00
182	1 1/2" STEEL PLUG	1 1/2"	25	\$3.78	\$94.50
183	3/4" STEEL PLUG	3/4"	23	\$0.90	\$20.62
184	1" STEEL PLUG	1"	17	\$1.36	\$23.13
185	2" STEEL PLUG	2"	11	\$5.51	\$60.57
186	1" BRASS CORP STOP Mx F E1931		25	\$49.52	\$1,237.95
187	1 1/2" BRASS SERVICE STOP		13	\$146.35	\$1,902.49
188	1 1/2" BRASS SVC STOP/WL		12	\$163.16	\$1,957.87
189	1 1/2" M X M BRASS CORP STOP E1943		26	\$102.08	\$2,654.11
190	1 1/2" FxM BRASS CORP STOP		17	\$118.08	\$2,007.38
191	2" M X M BRASS CORP STOP E1943		14	\$181.89	\$2,546.51
192	2" BRASS FxM CORP STOP		16	\$189.57	\$3,033.16
193	3/4" BALL VALVE J-1900		27	\$46.17	\$1,246.59
194	3/4" BALL VALVE W/LOCK J1900W	3/4"	17	\$47.99	\$815.86
195	1" BALL VALVE		17	\$69.75	\$1,185.69
196	1" BALL VALVE W/L	1"	16	\$72.65	\$1,162.42
197	2" BALL VALVE JONES E-1900		24	\$204.52	\$4,908.48
198	2" BALL VALVE W/L JONES E-1900	2"	18	\$206.47	\$3,716.53
199	1/2" CORP STOP MxM		7	\$25.05	\$175.35
200	1" E1963WSG AM STOP	1"	6	\$99.40	\$596.42
201	1" ANGLE MTR STOP E1527W FIP	1"	11	\$44.38	\$488.18
202	3/4" ANGLE MTR STOP FIP E1527	3/4"	4	\$28.39	\$113.58

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
203	1" MIP X CTS LP BALL CORP E1935SG JONES / FB1	1"	12	\$53.70	\$644.37
204	2" BALL VALVE W/LONG HANDLE E1905		4	\$209.95	\$839.80
205	3/4" COPPER FLARE NUT X FIP E1901W 3/4"/W TH	3/4"	5	\$63.48	\$317.40
206	1" COPPER FLARE NUT X FIP E1901W 1"/W TH FBV	1"	8	\$85.82	\$686.54
207	1" ANGLE BALL METER VALVE BA23-444W	1"	4	\$71.97	\$287.88
208	3/4" ANGLE BALL METER VLV BA23-332W	3/4"	4	\$54.52	\$218.07
1	1 1/2" 150# RING GASKET		35	\$0.35	\$12.09
2	2" 150# RING GASKET		22	\$0.72	\$15.88
3	2" 300# RING GASKET		13	\$0.70	\$9.13
4	3" 150# RING GASKET		32	\$0.73	\$23.49
5	3" 300# RING GASKET		18	\$1.24	\$22.36
6	4" 150# RING GASKET		19	\$1.03	\$19.49
7	4" 300# RING GASKET		24	\$1.62	\$38.88
8	6" 150# RING GASKET		48	\$2.16	\$103.68
9	6" 300# RING GASKET		30	\$1.89	\$56.70
10	8" 150# RING GASKET		32	\$3.73	\$119.23
11	8" 300# RING GASKET		47	\$3.08	\$144.67
12	10" 150# RING GASKET		31	\$4.37	\$135.59
13	10" 300# RING GASKET		17	\$7.06	\$119.99
14	12" 150# RING GASKET		14	\$6.48	\$90.72
15	12" 300# RING GASKET		16	\$9.46	\$151.38
16	14" 150# RING GASKET		13	\$13.50	\$175.50
17	14" 300# RING GASKET		12	\$13.41	\$160.90
18	16" 150# RING GASKET		22	\$7.94	\$174.64
19	16" 300# RING GASKET		10	\$17.41	\$174.13
20	18" 150# RING GASKET		9	\$19.03	\$171.28
21	18" 300# RING GASKET		8	\$19.06	\$152.51
22	20" 150# RING GASKET		12	\$30.17	\$362.04
23	24" 150# RING GASKET		6	\$20.69	\$124.13
24	8" 300 BOLT FLANGE GASKET		4	\$1.81	\$7.24
25	6" 300 BOLT F. GASKET		4	\$2.88	\$11.52
26	6" RUBBER RING		44	\$7.38	\$324.72
27	2" AIR VALVE COVER GASKET		19	\$14.00	\$266.00
28	1" AIR VALVE COVER GASKET		21	\$16.16	\$339.41
29	1 1/2" STRAINER GASKET		8	\$1.05	\$8.40
30	2" STRAINER GASKET		11	\$1.11	\$12.21

Rainbow Municipal Water District Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
31	1/8" COPPER TRACER WIRE		0	\$0.43	\$0.00
32	1/4" TYPE K COPPER TUBE/ 4WTC9 ID-1/4" OD-3/		0	\$1.62	\$0.00
33	3/8 K COPPER TUBING I.D 3/8" O.D 0.500	8-Mar	0	\$1.78	\$0.00
34	1/2" SOFT COPPER TUBING I.D-0.340 O.D-0.500		0	\$2.21	\$0.00
35	1/4" O.D FRIG TUBING 1/8" I.D 1/4" OD X 0.030	1/8"	99	\$0.46	\$45.22
36	3/8"x3' ALL THREAD SS	8-Mar	8	\$15.76	\$126.11
1	5/8"x 3' ALL THREAD SS		1	\$17.34	\$17.34
2	1"x 3' ALL THREAD SS		4	\$40.21	\$160.85
3	5/16"x 3' ALL-THREAD SS		6	\$7.89	\$47.32
4	1/4"x 3' ALL THREAD SS		7	\$4.73	\$33.11
5	1"x 4" SADDLE CLAMP		4	\$42.02	\$168.08
6	1"x 6" SADDLE CLAMP		2	\$86.79	\$173.58
7	1"x 8" SADDLE CLAMP		2	\$93.40	\$186.80
8	1"x 10" SADDLE CLAMP		2	\$67.40	\$134.80
9	1 1/2"x 4" SADDLE CLAMP		2	\$47.83	\$95.66
10	1 1/2"x 6" SADDLE CLAMP		2	\$52.58	\$105.16
11	1 1/2"x 8" SADDLE CLAMP		1	\$49.92	\$49.92
12	2"x 4" SADDLE CLAMP		2	\$34.82	\$69.64
13	2"x 6" SADDLE CLAMP		2	\$109.03	\$218.06
14	2"x 8" SADDLE CLAMP		2	\$52.54	\$105.08
15	2" X 3" SADDLE CLAMP		0	\$0.00	\$0.00
16	3/4" REDWOOD PLUGS		28	\$2.15	\$60.17
17	1" REDWOOD PLUGS		16	\$2.53	\$40.43
18	1 1/4" REDWOORD PLUG		10	\$2.99	\$29.87
19	2" REDWOOD PLUGS		19	\$5.53	\$105.07
20	1/2" REDWOOD PLUG	2-Jan	0	\$2.66	\$0.00
21	1/2" x 3' ALL-THREAD SS	1/2"	0	\$26.28	\$0.00
22	3/4"x 3' ALL-THREAD SS	3/4"	1	\$35.48	\$35.48
23	7/8"x3' ALL-THREAD SS	16-Jul	0	\$49.54	\$0.00
24	1"x 3" SCH 80 PVC NIPPLE		61	\$0.95	\$57.95
25	3/4"x 6" SCH 80 PVC NIPPLE		13	\$7.86	\$102.23
26	3/4"x 3" SCH 80 PVC NIPPLE		18	\$0.32	\$5.84
27	3/4"x 2" SCH 80 PVC NIPPLE		15	\$1.00	\$15.06
28	3/4"x 12" SCH 80 PVC NIPPLE		15	\$1.08	\$16.20
29	1"x 12" SCH 80 PVC NIPPLE		19	\$1.43	\$27.09
30	1 1/2"x 12" SCH 80 PVC NIPPLE		13	\$2.55	\$33.14

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
31	1"x4" SCH 80 PVC NIPPLE		16	\$1.05	\$16.80
32	3/4" SCH 80 PVC 90		31	\$0.79	\$24.40
33	1/2" SCH 80 PVC COUPLING		31	\$1.14	\$35.34
34	3/4" SCH 80 PVC COUPLING		11	\$1.56	\$17.18
35	1" SCH 80 PVC COUPLING		0	\$1.76	\$0.00
36	1/2" SCH 80 PVC 45		21	\$1.43	\$29.93
37	3/4" SCH 80 PVC 45		20	\$2.38	\$47.52
38	1" SCH 80 PVC UNION		0	\$2.00	\$0.00
39	3/4" SCH 80 PVC UNION		11	\$4.21	\$46.27
40	1 1/2" SCH 80 PVC COUPLING		14	\$3.16	\$44.30
41	1 1/2" SCH 80 PVC SxFIP COUPLG		0	\$9.57	\$0.00
42	1 1/2" SCH 80 PVC 90		18	\$2.26	\$40.63
43	2" SCH 80 PVC 90		4	\$4.05	\$16.18
44	2 1/2" SCH 80 PVC 90		9	\$10.84	\$97.56
45	2" SCH 80 PVC COUPLING		25	\$3.35	\$83.71
46	2 1/2" SCH 80 PVC COUPLING		1	\$14.19	\$14.19
47	1 1/2" SCH 80 PVC TEE		19	\$7.38	\$140.24
48	2" SCH 80 PVC TEE		15	\$9.59	\$143.85
49	1/2" PVC TEE		24	\$0.39	\$9.34
50	3/4" PVC SLIP TEE SCH 40		31	\$0.13	\$4.14
51	1" PVC SLIP TEE SCH 40		11	\$0.32	\$3.56
52	1 1/2"x 1/2" PVC TEE		6	\$2.39	\$14.34
53	2" PVC TEE		0	\$1.36	\$0.00
54	2"x 1/2" PVC SLIP TEE		11	\$2.35	\$25.85
55	1 1/2" PVC SLIP TEE SCH 40		18	\$1.14	\$20.48
56	1 1/4 X 1" SCH 40 TEE		5	\$1.36	\$6.80
57	1 1/2" PVC 45		9	\$0.80	\$7.17
58	1 1/4" 45 PVC SCH-40		13	\$0.57	\$7.41
59	1" PVC 45		18	\$0.63	\$11.25
60	3/4" PVC 45		13	\$0.53	\$6.86
61	1/2" PVC 45		31	\$0.92	\$28.46
62	2" PVC 45		11	\$1.45	\$15.95
63	3/4" PVC PLUG		8	\$0.47	\$3.79
64	1" THR. PVC PLUG		13	\$1.04	\$13.49
65	1" PVC SLIP PLUG		26	\$0.69	\$17.97
66	3/4"x 1/2" THR PVC BUSHING		15	\$0.38	\$5.69
67	3/4"x 1/2" SLIP PVC BUSHING		25	\$0.35	\$8.63

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
68	3" PVC SLIPxTHR TEE		0	\$10.78	\$0.00
69	1/2" PVC COUP SLPXSLP		19	\$0.22	\$4.10
70	3/4" PVC COUP SLPXSLP		25	\$0.31	\$7.83
71	1" PVC COUPLING		27	\$0.52	\$14.00
72	1 1/4" PVC COUPLING		10	\$0.73	\$7.33
73	1 1/2" PVC COUPLING		27	\$0.38	\$10.21
74	2" PVC COUPLING		13	\$1.20	\$15.58
75	2" SCH 40 SLIP PVC CAP		15	\$0.64	\$9.56
76	1 1/2" PVC SLIP CAP		0	\$0.53	\$0.00
77	1 1/2" THR PVC CAP		0	\$0.64	\$0.00
78	1 1/4" PVC SLIP CAP		32	\$0.78	\$24.90
79	1 1/2" SLIP PVC CAP		32	\$0.89	\$28.34
80	1" PVC SLIP CAP GRAINGER# 5WPW0		27	\$0.56	\$15.16
81	1" THR PVC CAP		27	\$1.16	\$31.43
82	3/4" THR PVC CAP		14	\$0.50	\$7.06
83	1/2" THR PVC CAP		17	\$0.66	\$11.17
84	1/2" SLIP PLUG		10	\$0.43	\$4.30
85	2 1/2" PVC SLIP REPAIR COUPLIN		2	\$15.07	\$30.14
86	1" PVC TELESCOPE REPR COUPLING	1"	8	\$3.10	\$24.80
87	1/2" PVC SLIP REPAIR COUPLING		26	\$0.38	\$9.88
88	1 1/4" PVC MALE ADPATOR		28	\$0.28	\$7.84
89	1" PVC MIP ADAPTOR		15	\$0.42	\$6.23
90	1" PVC FEMALE ADAPTOR		0	\$0.33	\$0.00
91	3/4" PVC FEMALE ADAPTOR		35	\$0.16	\$5.74
92	3/4" PVC MALE ADAPTOR		14	\$0.22	\$3.02
93	3/4 SCH 40 PVC FIP W/WASHER		7	\$1.62	\$11.36
94	1/2" PVC SCH 40 MALE ADAPTER		23	\$0.26	\$5.96
95	2" PVC MALE ADAPTOR		0	\$0.88	\$0.00
96	2" PVC FEMALE ADAPTOR		8	\$0.81	\$6.48
97	1 1/2" PVC MALE ADAPTOR		11	\$0.64	\$7.03
98	1 1/2" PVC FEMALE ADAPTOR		16	\$3.91	\$62.56
99	1/2"SLIP x 3/8THR PVC BUSHING		18	\$0.64	\$11.52
100	1"x 3/4" PVC SLIP BUSHING		17	\$0.44	\$7.41
101	1 1/4"x 1" SLIP BUSHING		22	\$0.54	\$11.86
102	1 1/2"x 1" PVC SLIP BUSHING		17	\$0.42	\$7.16
103	2"x1" SCH 40 PVC BUSHING		17	\$1.08	\$18.36
104	2"x 1/2" PVC SLIP BUSHING		31	\$0.94	\$29.13

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
105	1" PVC SLIP 90 SCH 40	1"	26	\$0.54	\$14.03
106	3/4" PVC THR×THR 90 5	3/4"	15	\$0.69	\$10.35
107	3/4" PVC SLIP 90		29	\$0.32	\$9.40
108	1/2" PVC SLIP 90		25	\$0.44	\$11.08
109	1" PVC THR 90		15	\$2.09	\$31.35
110	1" PVC SLIP X THR 90		16	\$0.43	\$6.90
111	1"x 3/4" PVC SLIP 90		13	\$0.54	\$7.02
112	2" PVC SLIP 90		9	\$1.16	\$10.48
113	1 1/4" PVC SLIP 90		16	\$1.22	\$19.46
114	1 1/2" PVC SLIP X THR 90		3	\$0.76	\$2.28
115	2" PVC SLIP X THR 90		9	\$1.65	\$14.84
116	1 1/2" PVC SLIP 90 SCH 40		15	\$0.70	\$10.53
117	1 1/2" REDWOOD PLUGS		22	\$4.96	\$109.05
118	1 1/4 SLIP×THR PVC 90	1 1/4	13	\$0.69	\$8.97
119	1"× 1/2" PVC SLIP BUSHING		12	\$0.27	\$3.23
120	2"SLIP X 1/2"THR PVC BUSHING		7	\$1.46	\$10.22
121	1/2"SLIP X 1/4"THR PVC BUSHING		13	\$1.01	\$13.13
122	3/4 SLIP x THR SCH 40 PVC 90		37	\$0.65	\$23.98
123	1 X 1/2 PVC SLIP TEE	1"	6	\$0.41	\$2.46
124	1x1x3/4 SCH 40 PVC TEE SxS×THR	1"	8	\$0.69	\$5.52
125	3/4Sx3/4Sx1/2THR PVC TEE	4-Mar	14	\$0.66	\$9.20
126	1x1x1/2 SCH 40 PVC TEE SxS×THR	1	7	\$0.49	\$3.43
127	1 1/2"x1" SLIP×FIP PVC BUSHING	1 1/2"x1	14	\$1.09	\$15.23
128	1"SLIPx3/4"FIP PVC BUSHING	1x3/4	16	\$0.61	\$9.76
129	1/2" PVC SLIP CAP	1/2"	18	\$0.17	\$3.10
130	3/4" SCH 40 PVC SLIP CAP		16	\$0.24	\$3.83
131	1" PVC SxS×FIP TEE		7	\$0.70	\$4.90
132	272002 3/4" PVC COMP. COUPLING		16	\$0.95	\$15.17
133	272003 1" PVC COMP COUPLING		9	\$1.26	\$11.35
134	272005 1 1/2" PVC COMP COUPLG		8	\$2.00	\$16.00
135	2" PVC COMP COUPLING		5	\$6.80	\$34.02
136	1 1/2" SCH 40 PVC TEE S×THR×S	1 1/2	6	\$0.26	\$1.55
137	2" PVC TELESCOPE REPR COUPLG	2"	4	\$8.51	\$34.04
138	1/2 PVC TELESCOPE REPR COUPLG	1/2"	2	\$2.68	\$5.36
139	2" TEE S X S SCH 40 GRAINGER # 5WNW3	2"	4	\$2.38	\$9.53
140	1 1/4" 45 PVC SCH-80		0	\$0.00	\$0.00
141	2"x3" SCH 80 NIPPLE		24	\$2.10	\$50.40

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
142	1" SCH 80 PVC THR UNION	1"	0	\$2.37	\$0.00
143	1 1/2"x6" SCH 80 PVC NIPPLE	1.5x6"	15	\$0.95	\$14.25
144	1 1/4 SLIP UNION	2"	6	\$6.48	\$38.86
145	2" SCH 80 PVC 45	2"	18	\$6.36	\$114.50
146	1" SCH 80 PVC TEE	1"	9	\$4.70	\$42.28
147	1/2" SCH 80 PVC FIP ADAPT	1/2"	16	\$1.92	\$30.74
148	1/2 SCH 80 PVC SLIP 90	1/2"	15	\$1.37	\$20.52
149	1 1/2" SCH 80 PVC THR UNION	1 1/2"	10	\$4.62	\$46.22
150	1/2" SCH 80 PVC THR UNION	1/2"	10	\$1.56	\$15.62
151	2x6" SCH 80 PVC NIPPLE	2x6"	16	\$0.99	\$15.90
152	3/4" SCH 80 PVC TEE		7	\$1.70	\$11.90
153	1/2" SCH 80 PVC UNION		34	\$2.13	\$72.42
154	1"x 6" SCH 80 PVC NIPPLE		16	\$0.96	\$15.37
155	2" SCH 80 PVC DBL UNION B VALV		0	\$63.42	\$0.00
156	1" SCH 80 PVC 90	1"	19	\$1.57	\$29.75
157	1 1/2 x 3" SCH 80 PVC NIPPLE	1 1/2"	14	\$0.57	\$7.99
158	1" SCH 80 PVC MIP ADAPTER	1"	13	\$3.12	\$40.62
159	1" SCH 80 PVC 45 ELL	1"	16	\$3.25	\$52.01
160	2 SCH 80 PVC THR BALL VALVE	2	1	\$52.55	\$52.55
161	1/2 x 2" SCH 80 NIPPLE		0	\$0.16	\$0.00
162	1 1/4 SCH 80 PVC MIP	1 1/4	9	\$3.75	\$33.75
163	3/4"x1/2" SCH 80 PVC BUSHING	3/4"	12	\$0.66	\$7.93
164	1 x 1/2 SCH 80 PVC BUSH SxFIP	1"	21	\$1.34	\$28.13
165	1 1/4x2 SCH 80 PVC NIPPLE	1 1/4x2	12	\$0.29	\$3.49
166	1 1/4 SCH 80 PVC THR BAL VALVE	1 1/4	4	\$5.62	\$22.49
167	1 1/2 SCH 80 PVC THR BAL VALVE	1 1/2	4	\$7.70	\$30.80
168	1" COUP SS SCH-80	1"	10	\$2.12	\$21.17
169	4 X 3 WELD REDUCER		3	\$8.56	\$25.67
170	2X1 1/2" REDUCER		7	\$6.14	\$42.98
171	6X4" REDUCER		2	\$16.95	\$33.90
172	8X4" REDUCER		4	\$18.83	\$75.32
173	8X6" REDUCER		2	\$22.82	\$45.64
174	10X8" REDUCER		6	\$26.94	\$161.63
175	12X10" REDUCER		5	\$40.13	\$200.65
176	2" PVC THR CAP		15	\$2.04	\$30.66
177	1/2" SCH 80 PVC BALL VALVE		6	\$32.82	\$196.92
178	3/4" SCH 80 SLIP BALL VALVE		9	\$11.37	\$102.35

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
179	1" SCH 80 PVC BALL VALVE		3	\$32.50	\$97.49
180	1" SCH 80 PVC THR BALL VALVE	1"	0	\$4.83	\$0.00
181	2" SCH 80 BALL VALVE		2	\$46.76	\$93.53
182	3/4" SCH 80 PVC THR BALL VALVE	3/4"	7	\$11.88	\$83.16
183	ELL 3" STEEL WELD 90		5	\$4.86	\$24.31
184	4" STEEL WELD 45		5	\$7.14	\$35.70
185	ELL 4" STEEL WELD 90		6	\$11.64	\$69.82
186	ELL 8" STEEL WELD 90		1	\$38.25	\$38.25
187	3X2 BUTT WELD		7	\$5.17	\$36.19
188	10" BUTT WELD 45 BEND	10"	2	\$41.12	\$82.24
1	2 1/2" FNST x 1 1/2" MNST ALUM		3	\$23.76	\$71.28
2	12 X 12 GLV VLV BOX TOP	12	2	\$19.36	\$38.71
3	1" GALV MUSH VENT CAP W/SCRN & NIPPLE		42	\$14.81	\$621.89
4	2" AIR VALVE SCREENS		37	\$23.65	\$875.12
5	2" P.V.C SCREEN AIR VALVE		0	\$24.23	\$0.00
6	1/2x1/2 FLxMIP 90 ELL E1-8D	2-Jan	28	\$2.07	\$57.96
7	12" VICTAULIC COUPLING		3	\$93.14	\$279.42
8	6" VICTAULIC COUPLING		16	\$39.10	\$625.60
9	8" VICTAULIC COUPLING	8"	3	\$69.88	\$209.63
10	2" FxF THR DIELECTRIC UNION	2"	2	\$27.75	\$55.49
11	8"x18" GALV. SLEEVES		16	\$9.13	\$146.03
12	1" X CLOSE GALV NIPPLE	1"	40	\$1.18	\$47.09
13	2" X CLOSE GALV NIPPLE	2"	35	\$2.21	\$77.49
14	6" X 12" GALVANIZED SLEEVES		14	\$5.66	\$79.21
15	8" X 12" GALVANIZED SLEEVES		9	\$7.29	\$65.61
16	4" GALV ST. 90		10	\$23.09	\$230.90
17	4" GALV 90		3	\$15.00	\$44.99
18	3" GALV TEE		3	\$23.21	\$69.63
19	4" GALV TEE		3	\$27.50	\$82.50
20	3" GALV 90		3	\$17.77	\$53.31
21	3" GALV ST. 90		5	\$13.99	\$69.93
22	5"x 3" GALV BUSHING		5	\$24.06	\$120.30
23	3" X 2" GALV BUSHING	3"	3	\$6.20	\$18.61
24	4x2" GALV THR BUSHING	4x2	9	\$14.21	\$127.92
25	4" GALV CAP THREADED	4"	3	\$9.39	\$28.16
26	3" GALV CAP		1	\$5.03	\$5.03

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
27	2" GALV COUPLING		8	\$4.47	\$35.78
28	2" GALV TEE		9	\$4.46	\$40.14
29	1 1/2" GALV CAP		7	\$0.55	\$3.85
30	2" GALV UNION		6	\$7.14	\$42.84
31	1 1/2" GALV UNION		5	\$8.25	\$41.25
32	2" GALV CAP		6	\$3.06	\$18.35
33	1" GALV CAP		2	\$1.35	\$2.70
34	1 1/2" ST. GALV. 90		18	\$4.05	\$72.90
35	2" GALV 90		16	\$9.91	\$158.56
36	1" GALV UNION		5	\$2.35	\$11.73
37	2" ST GALV 90		2	\$6.83	\$13.66
38	3"x CLOSE GALV. NIPPLE	3"	4	\$3.13	\$12.50
39	2"x 5" GALV NIPPLE		5	\$4.30	\$21.49
40	3/4" GALV UNION		4	\$3.36	\$13.44
41	3/4" GALV COUPLING		7	\$0.72	\$5.04
42	1" GALV 90		9	\$1.05	\$9.45
43	3/4" GALV 90		4	\$0.92	\$3.68
44	2 1/2" GALV PLUG		3	\$3.39	\$10.18
45	3" GALV PLUG		2	\$3.01	\$6.01
46	2"x 1/2" GALV BUSHING		11	\$3.49	\$38.39
47	1" GALV COUPLING 44170	1	10	\$0.38	\$3.77
48	1"x 3/4" GALV REDUCER		7	\$0.37	\$2.56
49	1"x 3/4" GALV BUSHING		8	\$0.28	\$2.24
50	1 1/2" GALV 90		5	\$2.16	\$10.80
51	1/2" GALV COUPLING		4	\$0.67	\$2.68
52	4"x4" GALV NIPPLE	4"	6	\$4.94	\$29.61
53	3"x 2" GALV BELL REDUCER		5	\$16.32	\$81.60
54	2"NPT FEMALE X 2 1/2" NST MALE	2"	7	\$25.49	\$178.41
55	2 1/2" GASKETS" HYDNT FOR L.P		9	\$1.20	\$10.80
56	2 1/2" NST X 2" NPT FXM P/N09-215-4	2 1/2"	6	\$63.72	\$382.32
57	PACKING NUT FOR FIRE HYDRANT		1	\$2.48	\$2.48
58	2 1/2" ADAPTER WASHERS		38	\$1.73	\$65.66
59	2 1/2" FIRE HYDRANT CAP		30	\$7.83	\$234.90
60	4" FIRE HYDRANT CAP		23	\$10.64	\$244.68
61	2 1/2"-3/4" GARDEN HOSE ADAPT		7	\$26.16	\$183.11
62	2 1/2"FNSTx1 1/2" MNST		12	\$11.31	\$135.76
63	1 1/2"x 1 1/2" FNSTxFIP SWIVEL	1 1/2"	10	\$39.06	\$390.60

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
64	2 1/2"FNSTx1"MIP ADAPTER		7	\$15.12	\$105.84
65	2 1/2 X 2 1/2" DBL ADAPT SWIVL		8	\$66.54	\$532.31
66	2 1/2" FNST X 2" FNPT SWV P/N-DSF25F20T		11	\$63.72	\$700.92
67	2 1/2" X 2 1/2" WARF HEAD		10	\$432.00	\$4,320.00
68	2" X 2 1/2" JONES WHARFHEAD		11	\$427.68	\$4,704.48
69	4" X 2 1/2" H.P WARF HEAD		7	\$603.07	\$4,221.50
70	1 1/2 x 1 1/2 FNST X FIP ADPT	1 1/2	5	\$11.59	\$57.93
71	1 1/2"x 1 1/2 MNST x MIP ADPT	1 1/2	3	\$12.75	\$38.24
72	1 1/2 FNST X MIP ADAPT	1 1/2	3	\$7.29	\$21.88
73	2 1/2"FNST X 2 1/2" NPT P/N-SM250F		11	\$46.06	\$506.68
74	2 1/2"FNST x 3" MIP SWIVEL		4	\$82.11	\$328.43
75	BRASS CAP - NPSH SIDE 2 1/2"		9	\$20.52	\$184.68
76	HOSE NIPPLE 2"NPT X 2 1/2"NPSH DIXON P/N-DMH2		4	\$42.01	\$168.05
77	FLOWSERVE SEALANT 421 GREASE		5	\$218.70	\$1,093.50
78	2" GALV CLOSE NIPPLE		0	\$1.68	\$0.00
79	4"x 8" GALV NIPPLE		3	\$17.94	\$53.82
80	3" X 8" GALV NIPPLE		5	\$4.64	\$23.18
81	3"x 6" GALV NIPPLE		4	\$11.15	\$44.61
82	3"x 4" GALV NIPPLE		5	\$8.20	\$40.98
83	1"x 4" GALV NIPPLE		58	\$0.52	\$29.99
84	1"x 6" GALV NIPPLE		8	\$0.74	\$5.94
85	1 1/2xCLOSE GALV NIPPLE	1 1/2	21	\$0.49	\$10.35
86	2"x 3" GALV NIPPLE		5	\$2.80	\$13.99
87	1 1/2" X 6" GALV NIPPLE		5	\$1.35	\$6.73
88	4"x 36" GALV NIPPLE		3	\$70.20	\$210.60
89	12" INSIDE O-RING 934045	12"	10	\$4.92	\$49.24
90	12" OUTSIDE O-RING 934053	12"	10	\$8.50	\$85.02
91	1/2x3/8 BLK STEEL BUSHING	2-Jan	38	\$0.82	\$30.99
92	12-14" #00056678 NORDSTM WORM	12-14"	2	\$2,297.66	\$4,595.32
93	RESUN SEALANT PLUG VALVE		9	\$8.20	\$73.80
94	WRENCH SOCKET		8	\$16.28	\$130.24
95	12" #113288 WORM GEAR SEGMENT	12"	3	\$770.68	\$2,312.04
96	3/4" BUTTON HEADS		8	\$15.90	\$127.20
97	6-8" INSIDE O-RING 934039	6-8"	10	\$4.92	\$49.24
98	6-8" OUTSIDE O-RING 934044	6-8"	9	\$4.92	\$44.32
99	NORDSTROM ROLL PIN 946564		8	\$13.89	\$111.11
100	NORSTROM 927941 THRUST BEARING TIMKEN T144W	2 6-8"	8	\$174.96	\$1,399.68

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
101	NORDSTROM 12" 57831 SHAFT W/KEY		3	\$717.23	\$2,151.69
102	NORDSTROM 6"-8" 57733 SHAFT W/KEY	6-8"	3	\$1,644.30	\$4,932.90
103	1/4" X 4" BLACK IRON NIPPLES		22	\$0.68	\$14.97
104	6-8"WORM #45790 FOR 1489 NORST		3	\$847.38	\$2,542.14
105	14" SHAFT #8 FOR NORDSTROM PVL	14"	0	\$261.84	\$0.00
106	OP NUT W/S.SCREW NORDSTROM 14"		5	\$50.44	\$252.18
107	1/2" BLK IRON PLUGS	1/2"	34	\$0.13	\$4.39
108	1/2 BUTTONHEAD COUPLG W/CK-VLV #5069 INJECTOR		9	\$117.18	\$1,054.60
109	1/2"BLK IRON COUPLING		46	\$0.99	\$45.60
110	RESUN VALVE LUBE		4	\$19.00	\$76.00
111	RESUN SEALANT PLUG VALVE		7	\$19.67	\$137.66
112	MULTIPURPOSE LITHIUM GREASE		10	\$3.06	\$30.60
113	WRENCH HEAD ADAPTER		22	\$10.69	\$235.18
114	WRENCH HEAD PLUG VALVE		7	\$62.64	\$438.48
115	NORDSTROM JAY STICKS #421		3	\$73.44	\$220.32
116	10" WORM GEAR SEGMENT P/N-00113495 / 1489	10"	3	\$1,976.40	\$5,929.20
117	8" 113623 WORM GEAR SEGMENT FITS 8" 1489 - 6"	6"-8"	4	\$1,603.80	\$6,415.20
118	1/4" BLACK IRON PLUGS		34	\$0.24	\$8.02
119	1/8" BLK IRON PLUGS		18	\$0.22	\$3.88
120	SET SCREW SQ HD 944136		10	\$5.50	\$54.95
121	KEY WAY #481788 NORDSTM 6"-8" FLOWSERVE P/N-0	G 6-8"	9	\$13.89	\$125.00
122	1/2 BUTTON HEAD GREASE FITTING P/N-N5069-LUBE		28	\$74.52	\$2,086.56
123	1/4" BLACK IRON COUPLING	1/4"	31	\$0.19	\$6.01
124	1/2" BLACK IRON 90		23	\$0.69	\$15.90
125	1/2 " BLK IRON ST. 90		11	\$1.24	\$13.66
126	3/4" BLK IRON ST. 90		25	\$1.39	\$34.83
127	1/4" 90 BLK IRON		34	\$0.70	\$23.81
128	1/4" STREET ELLS BLK IRON		18	\$0.29	\$5.28
129	1/4" 45 BLK IRON		47	\$0.63	\$29.38
130	1/4" X 1/2" BLK IRON BUSHING		32	\$0.82	\$26.10
131	3/4 X 1/2" BLK IRON BUSHING		21	\$2.42	\$50.91
132	1/4" X CLOSE INPPLE BLK IRON		60	\$0.17	\$10.41
133	1/4" X 2" NIPPLE BLK IRON		37	\$0.22	\$7.97
134	1/4" X 5" NIPPLE BLK IRON		34	\$0.66	\$22.35
135	1/4" X 6" NIPPLE BLK IRON		30	\$0.79	\$23.60
136	1/4" X 8" NIPPLE BLK IRON		29	\$0.99	\$28.75
137	CAP SCREWS 1 1/8X3 1/2 316 SS 12" PLUG VALVE	12"	6	\$46.14	\$276.83

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
138	1/2" BLACK IRON 45	1/2"	48	\$1.08	\$51.84
139	1/2"x CLOSE BLK IRON NIPPLE	1/2"	108	\$0.31	\$33.74
140	1/2"x 2 BLK IRON NIPPLE	1/2"	85	\$0.36	\$30.23
141	1/2"x 4" BLK IRON NIPPLE	1/2"	24	\$0.79	\$18.92
142	1/2"x 5" BLK IRON NIPPLE	1/2"	23	\$0.56	\$12.92
143	1/2"x 6" BLK IRON NIPPLE	1/2"	15	\$1.33	\$19.88
144	1/2"x 8" BLK IRON NIPPLE	1/2"	50	\$1.10	\$54.95
145	CAP SCREWS 7/8 X 3" 316 SS 8" PLUG VALVE	8"	2	\$38.06	\$76.13
146	2" BRONZE BALL VALVE		3	\$42.10	\$126.30
1	3" PAINT BRUSH GRAINGER # 1XRJ7		44	\$1.52	\$67.00
2	ZINC ANODE UNDERGROUND 15LBS		6	\$65.88	\$395.28
3	BRASS SCREW GROUND CLAMP		6	\$3.24	\$19.44
4	3/4" COMBO AIR VALVE		8	\$290.39	\$2,323.12
5	1" COMBO AIR VALVE P/N D040C01 A.R.I 1" NPT	E	9	\$281.88	\$2,536.92
6	#BF853 FILTER		0	\$9.65	\$0.00
7	2" 300# BLIND FLANGE		12	\$10.80	\$129.60
8	2" 150# BLIND FLANGE		7	\$5.77	\$40.36
9	3" 300# BLIND FLANGE		8	\$17.41	\$139.28
10	3" 150# BLIND FLANGE		9	\$16.37	\$147.31
11	2" BRASS HAND WHEEL		2	\$3.97	\$7.94
12	3/4"x 3" SS PIPE REPAIR CLAMP 461002		7	\$14.07	\$98.50
13	3/4"x6" SS PIPE REPAIR CLAMP	3/4"x6"	10	\$8.60	\$86.02
14	1"x 3" S.S PIPE REPAIR CLAMP 461003		6	\$31.32	\$187.92
15	1"x 6" SS PIPE REPAIR CLAMP	1"	11	\$53.14	\$584.50
16	1 1/2" X 3" PIPE REPAIR CLAMP		9	\$38.10	\$342.92
17	1 1/2 X 6" PIPE REPAIR CLAMP		10	\$33.87	\$338.70
18	2 X 3" PIPE REPAIR CLAMP GRAINGER # 4NWP6		7	\$35.80	\$250.61
19	2x6 S.S. REPAIR CLAMP GRAINGER - 4NWP7	2x6	7	\$35.53	\$248.72
20	2" 300# WELD FLANGE		14	\$10.83	\$151.60
21	3" 300# WELD FLANGE		12	\$15.50	\$185.94
22	3" 150# WELD FLANGE		12	\$10.80	\$129.60
23	2" WELD FLANGE 150#	2"	15	\$4.29	\$64.35
24	600 PSI GAUGE 63-1008A-02L-600#		17	\$16.09	\$273.56
25	600 PSI LIQD FILL GAUGE 1/4" 63-1008AL-02L-60		19	\$17.55	\$333.45
26	400 PSI LIQD FILL GAUGE 63-1008AL-02L-400# 1/		11	\$18.08	\$198.87
27	#1X691 200 PSI LIQD FILL GAUGE		0	\$20.35	\$0.00

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
28	100 PSI GAUGE 63-1008A-02L-XLJ-100#		22	\$8.64	\$190.08
29	100 PSI LIQD GAUGE 63-1008AL-02L-100#		23	\$18.25	\$419.80
30	60 PSI GAUGE 63-1008A-02L-XLJ-60#		14	\$18.19	\$254.65
31	60 PSI LIQD GAUGE 63-1008AL-02L-060# 1/4" NPT		10	\$18.08	\$180.79
32	30 PSI GAUGE 63-1008A-02L-30 PSI 1/4" NPT		16	\$7.39	\$118.20
33	30 PSI LIQD GAUGE 1/4" 63-1008AL-02L 30PSI		13	\$17.55	\$228.15
34	200 PSI LIQ FILL GAUGE 63-1008AL-02L-200# 1/4		8	\$18.08	\$144.63
35	200 PSI GAUGE 1/4" 63-1008A-02L-XLJ-200#		21	\$7.52	\$157.84
36	300 PSI LIQD FILL GAUGE 1/4" 63-1008AL-02L-30		18	\$17.55	\$315.90
37	300 PSI GAUGE 63-1008A-02L-300#		10	\$9.45	\$94.50
38	PRIMER CLEANER PURPLE 8OZ GRAINGER # 6KWX1		11	\$5.48	\$60.23
39	PREM WET & DRY CEMENT 1/2 PT GRAINGER # 5E528		11	\$6.28	\$69.03
40	ANTI-SEIZE PURE WHITE FOOD GRADE WITH PTFE		4	\$34.78	\$139.11
41	PIPE LUBRICANT		4	\$4.86	\$19.44
42	HACK SAW BLADES P/N 5R856		47	\$1.29	\$60.41
43	PVC PIPE WRAP TAPE 10MIL PSPWT210 PROSELECT 2		75	\$3.89	\$291.60
44	WAX TAPE PRIMER		2	\$33.14	\$66.27
45	#1170 PROTECTO WRAP PRIMER GAL	GALLON	8	\$65.21	\$521.68
46	BITUMASTIC #50 1 GAL.		5	\$38.88	\$194.40
47	NO-OX-ID GREASE GAL CONTAINERS		5	\$38.49	\$192.45
48	DUCT TAPE GRAINGER P/N 5AD15		6	\$12.10	\$72.57
49	ELECTRICAL TAPE GRAINGER# 2A225		9	\$4.37	\$39.37
50	MASKING TAPE		3	\$1.07	\$3.20
51	CAUTION TAPE GRAINGER# 1N956		6	\$3.90	\$23.40
52	PAINT BRUSH 2" GRAINGER #1TTX2		17	\$0.32	\$5.46
53	1 1/2" PAINT BRUSH		19	\$0.76	\$14.36
54	PAINT BRUSH 1"		36	\$1.04	\$37.58
55	WIRE BRUSH SMALL GRAINGER # 10D449		46	\$2.45	\$112.74
56	WIRE BRUSH LARGE GRAINGER P/N 1VAG6		16	\$4.21	\$67.39
57	4" PAINT BRUSH 5CJG9		45	\$2.63	\$118.34
58	NUT & BUSHING FOR WATER GAUGE PASCO 1402		15	\$4.32	\$64.81
59	TEFLON PIPE DOPE 1/2 PINT GRAINGER # 4X222		7	\$13.00	\$91.03
60	1 1/2" PUTTY KNIFE GRAINGER P/N-1UKF4		20	\$2.35	\$47.09
61	3" PUTTY KNIFE GRAINGER P/N-4YP31		19	\$7.70	\$146.31
62	NISSEN METAL MARKER		28	\$4.73	\$132.44
63	OPEN MESH CLOTH 180 GRIT GRAINGER# 4UEZ5		8	\$5.21	\$41.64
64	ABRASIVE FLEXIBLE SAND CLOTH GRAINGER # 41R38		1	\$10.46	\$10.46

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
65	BLUE PLASTIC PIPE SLEEVE fr 1"	1"	5	\$11.74	\$58.71
66	BLUE HYDRANT REFLECTOR		20	\$2.55	\$50.98
67	EPOXY FOR BLUE DOTS		10	\$20.13	\$201.31
68	LOCKING BRACKET FOR DEBRIS CAP ITEM - LD-8		0	\$5.05	\$0.00
69	DEBRIS CAP W/GREEN HANDLE ITEM - DC825		0	\$57.92	\$0.00
70	DEBRIS CAP W/LOCKING BRACKET		13	\$63.12	\$820.50
71	6 X 9 WAX TAPE NTST1TAPE6	6	16	\$18.36	\$293.76
72	POLY PLY WRAP TRENTON NTSTPOLYPLY06		18	\$14.08	\$253.50
73	WAX TAPE PRIMER TRENTON 1 GAL BROWN	GAL	8	\$41.04	\$328.32
74	2" 300# SCREW FLANGE		11	\$16.90	\$185.93
75	2" 150#SCREW FLANGE		12	\$16.11	\$193.30
76	1 1/2" 150# SCREW FLANGE		19	\$19.34	\$367.48
77	3" 300# SCREW FLANGE		5	\$21.66	\$108.29
78	3" 150# SCREW FLANGE		6	\$25.13	\$150.76
79	1/8" WATTS TEST COCK		21	\$3.77	\$79.15
80	1/4" WATTS TEST COCK		47	\$5.19	\$244.16
81	1/2" TEST COCK		27	\$30.06	\$811.53
82	BALING WIRE		6	\$5.63	\$33.80
1	M1000 4" TS HEAD ASSY	4"	2	\$589.68	\$1,179.36
2	ITRON 100W+ ERT	100W	48	\$91.80	\$4,406.40
3	ITRON ERT 60W W/CC (RADIOS)		0	\$73.81	\$0.00
4	BR35 3/4" MTR W/ITRON-ERT 100W 3/4" X 9"	3/4"	39	\$277.02	\$10,803.78
5	BR55 1" MTR W/ITRON-ERT 100W HEAD	1"	127	\$335.34	\$42,588.18
6	BR170 2" MTR W/ITRON-ERT 100W	2"	8	\$797.58	\$6,380.64
7	BR120 1 1/2" MTR W/ITRON-ERT 100W	1 1/2"	18	\$592.38	\$10,662.84
8	3"MTR W/ITRON REG 100CFT	3"	2	\$1,360.80	\$2,721.60
9	BR1000 4" MTR W/ITRON-ERT 100W	4"	3	\$1,971.00	\$5,913.00
10	BR160S 1 1/2" MTR ITRON-ERT 100W NO STRAINER	1 1/2"	4	\$756.00	\$3,024.00
11	BR200 2" MTR W/ITRON-ERT 100W	2"	5	\$891.00	\$4,455.00
12	BR160 1 1/2" MTR W/ITRON ERT 100W WITH - STR	1 1/2"	10	\$1,077.30	\$10,773.00
13	BR200 2"MTR TURBO SERIES W/ERT 100W ITRON	2"	10	\$1,209.06	\$12,090.60
14	BR35 3/4" SHORTIES MTR W/ITRON BR35712BBLLLR	3/4"	10	\$225.23	\$2,252.34
15	2-3" T316 SS MTR BLT KIT 150# 8 SS WASHERS PE	2"	2	\$13.34	\$26.68
16	M450 3" 6-DIAL REGISTER CF	3"	1	\$123.12	\$123.12
17	M1000 4" 6-DIAL REGISTER CF	4"	4	\$123.12	\$492.48
18	LF70 1" MTR W/ITRON-ERT 100W	1"	8	\$361.80	\$2,894.40

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
19	M450 3" TS HEAD ASSY	3"	2	\$576.72	\$1,153.44
20	BR25 5/8" MTR W/ITRON-ERT 100W		12	\$252.18	\$3,026.16
21	2" MVR 160 REGISTER	2"	3	\$146.81	\$440.44
22	1 1/2" MVR 100 REGISTER	1 1/2"	5	\$146.81	\$734.06
23	3/4" PD REG W/WIRE-ITRON- CC	3/4"	19	\$124.20	\$2,359.80
24	1" PD REG W/WIRE-ITRON-CC	1"	52	\$133.92	\$6,963.84
25	1 1/2" TRL5 REG CF,5' ITRON	1 1/2"	28	\$156.60	\$4,384.80
26	2" TRL5 REG,CF,5' WIRE ITRON	2"	3	\$156.60	\$469.80
27	M35 3/4" ADE ITRON W/CABLE ARMOR	3/4"	14	\$91.80	\$1,285.20
28	M55 1" ADE ITRON W/CABLE ARMOR	1"	4	\$88.56	\$354.24
29	1 1/2 M120 BADGER REG W/ILC	1 1/2"	13	\$114.48	\$1,488.24
30	M170 2" ADE ITRON W/CABLE ARMOR	2"	6	\$99.36	\$596.16
1	3/4" TYPE K COPPER		303	\$6.05	\$1,832.54
2	1/2 TYPE K COPPER		163	\$0.92	\$149.29
3	1/2 B/K IRON PIPE		168	\$0.57	\$95.02
4	1" TYPE K HARD COPPER TUBING		131	\$4.14	\$541.87
5	1 1/2" TYPE K COPPER		92	\$10.28	\$945.47
6	2" K SOFT COPPER		205	\$11.88	\$2,435.40
7	3" TYPE K COPPER		58	\$19.33	\$1,121.26
8	1/2 PVC SCH 40		270	\$0.26	\$69.98
9	3/4 PVC SCH 40 PIPE		199	\$0.36	\$70.94
10	1" PVC SCH 40		189	\$0.50	\$93.90
11	1 1/4 PVC SCH 40		91	\$0.71	\$64.33
12	2" PVC SCH 40		129	\$1.01	\$129.92
13	1 1/2" PVC SCH 80		100	\$0.76	\$76.15
14	1" BRASS PIPE		173	\$13.76	\$2,380.34
15	1 1/2" BRASS PIPE		122	\$9.13	\$1,114.02
16	2" BRASS PIPE		235	\$32.40	\$7,614.00
17	1/2" BRASS PIPE	1/2"	130	\$5.69	\$739.39
18	1 1/2" SCH 40 PVC PIPE	1 1/2"	205	\$0.69	\$141.70
19	1" SCH 80 PVC PIPE	1"	157	\$0.75	\$117.00
20	2" SCH 80 PIPE	2"	129	\$2.01	\$259.54
21	1" K SOFT COPPER TUBING SOFT TEMPER	1"	112	\$3.77	\$422.15
22	3/4" K SOFT COPPER TUBING SOFT TEMPER	3/4"	120	\$4.42	\$530.06
23	1/2" SCH 80 PVC PIPE	1/2"	113	\$0.38	\$42.61

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
1	WD-40 GRAINGER # 20JY60		16	\$7.64	\$122.16
2	ZEP DRY MOLY LUBE NC		2	\$13.85	\$27.69
3	ZEPRESERVE		0	\$8.78	\$0.00
4	LUBEZE DRILL CHILL CUTTING OIL ITEM - 2F146		6	\$11.36	\$68.17
5	EXPANDING HOLE FOAM		0	\$4.30	\$0.00
6	PROPANE FUEL CYLINDER		3	\$2.99	\$8.97
7	BLACK MARKING PAINT GRAINGER # 6YH14		32	\$3.18	\$101.60
8	WHITE MARKING PAINT GRAINGER # 6KP32		39	\$3.10	\$120.90
9	WHITE STRIPING PAINT GRAINGER#6KP30		3	\$2.85	\$8.54
10	BLUE MARKING PAINT GRAINGER # 6KP33		30	\$3.10	\$92.99
11	RED MARKING PAINT		12	\$4.22	\$50.68
12	SAFETY YELLOW SPRAY PAINT GRAINGER # 6KN97		25	\$3.20	\$79.92
13	EQUIPMENT YELLOW SPR PAINT		8	\$7.54	\$60.29
14	YELLOW MARKING PAINT		0	\$4.44	\$0.00
15	FLAT WHITE SPRAY PAINT GRAINGER # 6KP29		0	\$6.72	\$0.00
16	GRAY PRIMER GRAINGER #5U705		13	\$4.31	\$56.02
17	DARK MACHINE GRAY GRAINGER P/N-5H905		19	\$4.53	\$85.98
18	SAFETY RED SPRAY PAINT GRAINGER # 6KPO9		43	\$3.20	\$137.49
19	GLOSS BLACK SPRAY PAINT GRAINGER # 6KP22		13	\$2.56	\$33.33
20	GREEN MARKING PAINT 6YH09		14	\$3.18	\$44.45
21	1GAL BLUE EPOXY ENAMUEL GRAINGER # 1D467		3	\$64.35	\$193.04
22	1GAL GRAY PRIMER GRAINGER P/N-1D460		4	\$60.49	\$241.97
23	1GAL NAVY GRAY ENAMUEL GRAINGER # 1D459		3	\$65.68	\$197.03
24	1GAL EQUIP. YELLOW		0	\$32.38	\$0.00
25	WHITE GLOSS SPRAY PAINT GRAINGER # 6KP31		18	\$3.29	\$59.30
26	FLAT BLACK SPRY PAINT GRAINGER #6KP19		21	\$3.05	\$63.95
27	GRAFFITI REMOVER		3	\$2.72	\$8.16
28	1 GAL SAFETY YELLOW GRAINGER P/N-1D465	GALLON	4	\$61.58	\$246.32
1	16" SUPREME DIAMOND COMBO BLADE	16"	6	\$216.00	\$1,296.00
2	18" PREMIUM COMBO BLADE	18"	5	\$237.60	\$1,188.00
3	CONST. METER COLLAR LOCKS		16	\$2.87	\$45.96
4	CONST. METER LOCK KEYS		7	\$90.48	\$633.38
5	MBW-100-RT MTR BX LID LIFTER WITH RUBBER LENS		6	\$30.67	\$184.03
6	SMALL MASTERLOCK #2975 7/8"		60	\$7.07	\$424.44
7	LRG MASTERLOCK #2975 1"		50	\$8.63	\$431.47
8	TRENCHING SHOVEL GRAINGER # 12U496		9	\$32.51	\$292.58

Rainbow Municipal Water District Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
9	ROUND SHOVEL GRAINGER # 1WG31		7	\$19.26	\$134.80
10	HEAVY DUTY RUBBER PAIL W/LIP FORTEX N105-12		0	\$10.64	\$0.00
11	WHEEL BRUSH KNOT 5/8-11 GRAINGER #1GBJ5		27	\$17.95	\$484.65
12	SQUARE SHOVEL GRAINGER P/N-1WG32		11	\$19.05	\$209.57
13	SILVER SOLDER 15% .050" X 1/8" X 20" PN-15620		14	\$59.90	\$838.59
14	9x1/4x5/8 GRINDING WHEEL		5	\$8.61	\$43.04
15	#158-179143 MASONRY BLADE 14"		2	\$68.48	\$136.96
16	9V BATTERY		6	\$2.12	\$12.71
17	C BATTERIES #207		11	\$1.16	\$12.75
18	MEASURING TAPE 5LP66		5	\$6.84	\$34.18
19	WATER HOSE NOZZLE		0	\$3.18	\$0.00
20	4.5 X 1/4 X 5/8-11 GRIND WHEEL GRAINGER #4B17		32	\$4.90	\$156.90
21	SPARKER LIGHTER		8	\$3.85	\$30.80
22	SPARK LIGHTER FLINTS		2	\$2.24	\$4.48
23	#P275 GRAY HAND PUMP		12	\$28.08	\$336.96
24	VALVE SUPPORTS 1"x36" STEEL P/N PS-100S		4	\$52.34	\$209.35
25	INDUSTRIAL WATER HOSE		0	\$32.59	\$0.00
26	WAREHOUSE BROOM 56"		4	\$9.84	\$39.36
27	GATE VALVE WRENCHES 6'-11' P/N-SW-611 2" VAL		1	\$108.00	\$108.00
28	HACKSAW		7	\$19.61	\$137.27
29	HYDRANT WRENCH		3	\$20.35	\$61.04
30	VALVE WRENCH LOCK PINS		25	\$3.24	\$81.00
31	DIGGING BAR HEX 6'X 1 1/4" P/N DB-60H		4	\$101.52	\$406.08
32	SSP - 400 SOIL PROBE		4	\$55.08	\$220.32
1	SPEEDCRETE RED LINE MORTAR 5GL ITEM - TA1000		87	\$34.56	\$3,006.72
2	14A X 20" POWER SEAL SS. CLAMP	14"	2	\$345.00	\$690.00
3	14B X 20 POWER SEAL SS CLAMP	14	2	\$345.00	\$690.00
4	10A X 20" POWER SEAL SS CLAMP	10"	2	\$229.00	\$458.00
5	14A x 16" POWER SEAL SS CLAMP	14"	1	\$254.00	\$254.00
6	8A X 20" POWER SEAL SS CLAMP	8"	7	\$354.34	\$2,480.36
7	6" X 20" POWER SEAL SS CLAMP	6"	6	\$239.73	\$1,438.37
8	14B X 16" POWER SEAL SS CLAMP	14	2	\$254.00	\$508.00
9	12B X 12" POWER SEAL SS CLAMP	12"	0	\$0.00	\$0.00
10	12A X 12" POWER SEAL SS CLAMP	12	1	\$186.00	\$186.00
11	8 X 12 SS REPAIR CLAMP	8"	1	\$252.14	\$252.14
12	4" POWER SEAL SS CLAMP	4"	3	\$142.28	\$426.84

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
13	12" 300# FLG DUCTILE 90 ELL	12"	4	\$1,646.97	\$6,587.86
14	18"X14" FLG 300 LBCML COATED	18" X 14	2	\$2,648.39	\$5,296.77
15	18"X16" FLG 150 LB CML COATED	18" X 16	2	\$565.50	\$1,131.00
16	18"X14" FLG 150 LB CML COATED	18" X 14	2	\$504.60	\$1,009.20
17	18"X16" FLG 300 LB CML COATED	18" X 16	2	\$2,865.89	\$5,731.78
18	18" X 16" 300# FLG DI REDUCER	18" X 16	2	\$3,197.25	\$6,394.50
19	MED. METER BOX CARSON CARSON 1220-1134		21	\$44.71	\$938.95
20	MED. METER BOX READ LID CARSON 1220-00-FC-01		11	\$22.68	\$249.48
21	LARGE METER BOX CARSON 1730-12		29	\$97.85	\$2,837.59
22	LARGE METER BOX READ LID 1730-F		21	\$104.65	\$2,197.69
23	17x30x12" CONCRETE METER BOX W/READ LID		0	\$60.50	\$0.00
24	CONCRETE MTR LID 23"x14" WATER		3	\$20.19	\$60.56
25	13"x7" CONCRETE MTR LID		13	\$7.83	\$101.79
26	W4-1/2 CONCRETE BODIES 23 X 16	23" X 16	6	\$16.88	\$101.28
27	W4-1/2 CI COVER FOR 23X16 BOX	23X16	8	\$52.65	\$421.20
28	W5-1/4 CONCRETE BOX 28"X18 1/2		7	\$26.36	\$184.54
29	P-W51/4 CVR W/HINGED READER DIM 23 1/4" X 13		9	\$42.65	\$383.84
30	PREMIXED CONCRETE 60lb BAGS BP3047A		85	\$3.62	\$307.53
31	POLY AIR VAC ENCLOS VCAS-1830		7	\$317.91	\$2,225.37
1	AIR VALVE ENCLOSURE VCDD-1624		1	\$380.36	\$380.36
2	6" 150# BLIND FLANGE 8-HOLE	6"	17	\$27.95	\$475.15
3	6" 300# BLIND FLANGE	6"	14	\$48.80	\$683.15
4	8" 150# BLIND FLANGE	8"	9	\$68.51	\$616.61
5	10" 150# BLIND FLANGE	10"	7	\$97.73	\$684.11
6	8" 300# BLIND FLANGE	8"	13	\$75.24	\$978.16
7	6" 150# BLIND FLANGE 6-HOLE	6"	6	\$45.26	\$271.54
8	16" BLIND FLANGE 150#	16"	6	\$260.82	\$1,564.92
9	16" BLIND FLANGE 300#	16"	5	\$293.08	\$1,465.39
10	12" BLIND FLANGE 300#	12"	5	\$176.72	\$883.60
11	12" 150# BLIND FLANGE	12"	7	\$101.95	\$713.67
12	14" 300# BLIND FLANGE	14"	2	\$380.62	\$761.24
13	10" 300# BLIND FLANGE	10"	7	\$161.63	\$1,131.38
14	14" 150# BLIND FLANGE	14"	10	\$206.88	\$2,068.80
15	4" 150# BLIND FLANGE	4"	9	\$31.83	\$286.45
16	4" 300# BLIND FLANGE	4"	11	\$28.55	\$314.00
17	8" CI WATER VALVE LID	8"	22	\$20.25	\$445.50

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
18	SEWER 8" CI VALVE CAN LID	8"	13	\$11.58	\$150.56
19	6" LID WATER VALVE	6"	6	\$12.18	\$73.05
20	12" CI WATER VALVE LID	12"	2	\$48.60	\$97.20
21	1208N VALVE BOX LID WATER	8"	12	\$32.45	\$389.45
22	1208N CI FRAME ONLY	8"	15	\$67.70	\$1,015.43
23	6" CMLC 45	6"	2	\$93.99	\$187.98
24	8" FLG 90 CMLC 300#	8"	1	\$596.77	\$596.77
25	4" X 3" 150# FLG TEE DI	4 X 3	4	\$138.96	\$555.82
26	10"X10"X10" 150# DUCTILE TEE	10"	2	\$399.17	\$798.34
27	8" 150# FLG DUCTILE 90 ELL	8"	4	\$208.82	\$835.27
28	8" 300# FLG DUCTILE 90 ELL	8"	3	\$1,001.16	\$3,003.48
29	4" 250# FLG DUCTILE 90	4"	6	\$340.31	\$2,041.85
30	6" 150# FLG DUCTILE 90	6"	2	\$128.52	\$257.04
31	6" 150# FLG DUCTILE 45 ELL	6"	3	\$93.44	\$280.33
32	6" 150# FLG DUCTILE 22-1/2 ELL	6"	5	\$83.81	\$419.06
33	10" X 6" REDUCER STEEL	10"	1	\$274.77	\$274.77
34	12" DI 250# FLG TEE	12	1	\$2,273.53	\$2,273.53
35	6" 300# FLANGE DUCTILE TEE	6"	2	\$1,050.89	\$2,101.77
36	6" 150# FLG DI TEE	6"	4	\$151.63	\$606.53
37	4" 150# FLANGE DUCTILE 45	4"	6	\$61.82	\$370.92
38	4" 300# FLANGE DUCTILE 45	4"	3	\$177.50	\$532.50
39	4" 150# FLANGED DUCTILE 90	4"	2	\$77.76	\$155.52
40	6" 300# FLANGED DUCTIL 90	6"	4	\$361.80	\$1,447.20
41	6" 300# FLANGED DUCTIL 45	6"	4	\$459.02	\$1,836.06
42	12" X 12" X 6" TEE	12"	3	\$392.26	\$1,176.77
43	12"x10" 150# FLG REDUCER	12x10	2	\$275.14	\$550.28
44	8" 250# FLNGE TEE DUCTILE IRON	8"	3	\$1,269.00	\$3,807.00
45	8x8x6" FLGE 150# TEE DUCT.IRON	8"	3	\$219.68	\$659.03
46	10x10x6 150# FLG DUCTLE TEE	10"	1	\$312.09	\$312.09
47	8x8x6" FLGE 250# TEE DUCT.IRON	8"	3	\$218.70	\$656.10
48	10x10x8 FLGE TEE 150# DUCT.IRO	10" X 8"	1	\$244.59	\$244.59
49	10x10x8 FLGE 250# TEE DUCT IRO	10" X 8"	1	\$954.93	\$954.93
50	8"x6" 150# FLG DUCTILE REDUCER	8"x6"	3	\$143.49	\$430.47
51	8" FLANGE 150# 45 ELL	8"	3	\$85.77	\$257.31
52	8" FLANGE 250# 45 ELL	8"	3	\$727.92	\$2,183.76
53	10" FLANGE 150# 45 ELL	10"	4	\$201.96	\$807.84
54	10" FLANGE 250# 45 ELL	10"	2	\$937.43	\$1,874.85

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
55	10" FLGxFLG 150# DUCTILE 90	10"	3	\$234.90	\$704.69
56	8" 150# FLG DI 22 1/2 BEND	8"	2	\$121.76	\$243.52
57	8" 150# FLG DI 11 1/4 BEND	8"	4	\$128.37	\$513.48
58	6" 150# FLG DI 11 1/4 BEND	6"	3	\$77.96	\$233.87
59	4" 150# FLG DI 11 1/4 BEND	4"	2	\$44.56	\$89.12
60	4" 150# FLG DI 22 1/2 BEND	4"	2	\$44.66	\$89.32
61	8" 300# FLG DI 22 1/2 BEND	8"	4	\$505.69	\$2,022.76
62	8" 300# FLG DI 11 1/4 BEND	8"	2	\$663.74	\$1,327.48
63	6" 300# FLG DI 22 1/2 BEND	6"	2	\$721.01	\$1,442.02
64	6" 300# FLG DI 11 1/4 BEND	6"	2	\$721.02	\$1,442.04
65	4" 300# FLG DI 22 1/2 BEND	4"	4	\$193.95	\$775.80
66	10" 250# FLG 11 1/4 ELL DRILLD	10"	1	\$652.97	\$652.97
67	14" 250# FLG 11 1/4 ELL DRILLD	14"	1	\$1,129.98	\$1,129.98
68	14" DI 125# FLG 22-1/2 BEND	14"	1	\$561.38	\$561.38
69	6" X 3' 6-H X 8-H BRK-OFF SPL	6" X 36"	2	\$164.38	\$328.76
70	6" X 6" HYD RISER BREAK-AWAY SPOOL	6"	5	\$42.62	\$213.08
71	6" X 4" HYD RISER BREAK-AWAY SPOOL	6" X 4"	4	\$38.79	\$155.16
72	6"x8"LONG 6-H BREAKAWAY SPOOL	6"	4	\$77.76	\$311.04
73	6"x10"LONG 6-H BREAKAWAY SPOOL	6"	3	\$81.00	\$243.00
74	6"8-Hx6"6-H BREAK.SPOOL 8"LONG	6"	2	\$79.92	\$159.84
75	6"8-Hx6"6-H BREAK.SPOOL10"LONG	6"	2	\$77.76	\$155.52
76	8" X 6" HYD RISER BREAK-AWAY SPOOL	8" X 6"	3	\$70.20	\$210.60
77	6"8-Hx6"6-H BREAK SPOOL12"LONG	6"	3	\$79.92	\$239.76
78	12" 150# FLANGE DUCTILE 90 ELL	12"	2	\$352.50	\$705.01
79	12"x8" 300# FLG DUCTLE REDUCER	12"x8"	2	\$1,316.92	\$2,633.84
80	12"x8" 150# FLG DUCTLE REDUCER	12"x8"	3	\$376.77	\$1,130.31
81	8" DI C153 PO 90 W/GASKET		2	\$142.44	\$284.88
82	8" DI C153 PO 45 W/GASKET	8"	2	\$118.94	\$237.88
83	8" DI C153 PO 22-1/2 W/GASKET	8"	2	\$97.79	\$195.57
84	8" FLG X 3' -0" SPOOL	8"	2	\$274.05	\$548.10
85	8"X8"X4" FLG TEE 150#	8" X 4"	2	\$204.45	\$408.90
86	8"X8"X4" FLG CMLC TEE 300#	8	2	\$773.49	\$1,546.97
87	4"X4"X4" FLG DI TEE 150#	4" X 4"	4	\$149.69	\$598.75
88	6" X 4" FLG REDUCER 150#	6"	2	\$106.92	\$213.84
89	3" 150# FLANGED DUCTILE 90	3"	3	\$52.92	\$158.76
90	3" 250# FLANGED DUCTILE 90	3"	4	\$223.20	\$892.81
91	6' X 4" TRANSITIONAL REDUCING WELD FLG 150#	6"	2	\$60.48	\$120.96

Rainbow Municipal Water District Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
92	8"x24" GALV. SLEEVE	8"	15	\$8.78	\$131.72
93	RESIDENTIAL FIRE HYDRANT 1 1/8" NUT & S.D DRI		4	\$1,667.25	\$6,669.00
94	COMMERCIAL FIRE HYDRANT 1 1/8" NUT & S.D DRIL		6	\$2,316.08	\$13,896.48
95	12"x20" BLK EPOXY COAT VAL CAN	12"	2	\$66.96	\$133.92
96	12" ROCKWELL PLUG VALVES	12"	2	\$11,298.96	\$22,597.92
97	4" NORDSTROM PLUG/VALVE 269 WITH/2" NUT	4"	2	\$6,477.15	\$12,954.30
98	14" NORDSTROM PLUG VALVE 1489	14"	0	\$14,977.25	\$0.00
99	6" NORDSTROM PLUG VALVE 1589SP	6"	0	\$7,992.00	\$0.00
100	8" NORDSTROM PLUG VALVE 1489SP	8"	4	\$4,891.58	\$19,566.30
101	10" NORDSTROM PLUG VALVE 1489	10"	2	\$7,781.80	\$15,563.60
102	12" NORDSTROM PLUG VALVE	12"	0	\$12,560.63	\$0.00
103	18" NORDSTROM PLUG VALVE	18"	1	\$26,372.96	\$26,372.96
104	8" THREADED SCREW FLANGE	8"	3	\$38.42	\$115.26
105	6X4 FLANGE SCREW REDUCING 150#	6" X 4"	5	\$50.69	\$253.43
106	4" X 3" SCREW IN FLANGE 150#	4"	8	\$32.40	\$259.20
107	4" X 4" SCREW IN FLG 150#	4"	6	\$23.71	\$142.24
108	4" X 4" SCREW IN FLANGE 250#	4"	10	\$34.56	\$345.60
109	4"x20" BUTT STRAP 1/8 THICK WITH 17" CIRCUMFE	4"	15	\$67.34	\$1,010.16
110	18"x20" BUTT STRAP 1/8 THICK WITH 65" CIRCUMF	18"	6	\$156.60	\$939.57
111	20"x20" BUTT STRAP 1/8 THICK WITH 70" CIRCUMF	20"	8	\$110.14	\$881.14
112	22"x20" BUTT STRAP 1/8 THICK	22"	7	\$179.13	\$1,253.93
113	24"x20" BUTT STRAP 1/8 THICK	24"	3	\$143.67	\$431.00
114	27" X 20" BUTT STRAP 1/8 THICK	27"	4	\$208.80	\$835.20
115	8"x20" BUTT STRAP 1/8 THICK WITH 30" CIRCUMFE	8"	10	\$105.84	\$1,058.40
116	6"x20" BUTT STRAP 1/8 THICK WITH 23.5" CIRCUM	6"	4	\$117.72	\$470.88
117	12"x20" 1/8 THICK BUTT STRAP WITH 43" CIRCUMF	12"	9	\$128.24	\$1,154.16
118	16"x20" 1/8 THICK BUTT STRAP WITH 57" CIRCUMF	16"	4	\$135.34	\$541.37
119	10"x20"x1/8" BUTT STRAP WITH 36.5" CIRCUMFERE	10"	8	\$118.52	\$948.16
120	14"x20"x1/8" BUTT STRAPS WITH 50.5" CIRCUMFER	14"	10	\$124.47	\$1,244.70
121	6" X 20" BUTT STRAP W/HANDHOLE 1/8 THICK STEE	6"	2	\$317.25	\$634.50
122	8" X 20" BUTT STRAP W/HANDHOLE 1/8 THICK STEE	8"	2	\$337.50	\$675.00
123	6" 300# THREADED FLANGE	6"	5	\$51.51	\$257.53
124	6" 150# THR. FLANGE	6"	18	\$11.35	\$204.36
125	10" MUELLER GATE VALVE 150#	10"	3	\$2,078.42	\$6,235.25
126	8" 150lb GATE VALVE W/2" NUT	8"	4	\$1,440.72	\$5,762.88
127	3" MUELLER GATE VALVE 150LB	3"	3	\$445.34	\$1,336.02
128	4" 250# FLANGE GATE VALVE	4"	3	\$1,721.65	\$5,164.95

Rainbow Municipal Water District

Replacement Cost Approach

Other System Assets Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
129	4" MUELLER GATE VALVE #150	4"	2	\$563.76	\$1,127.52
130	18" GATE VALVE W/GEARING 250#	18"	1	\$17,670.79	\$17,670.79
131	18" GATE VALVE 150 LB	18"	1	\$9,986.52	\$9,986.52
132	12" GATE VALVE MUELLER 150#	12"	2	\$2,109.69	\$4,219.38
133	6"150# MULLER GATE VLV/W/2"NUT	6"	3	\$921.30	\$2,763.89
134	14" AVK GATE VALVE FLG HF 150#	14"	2	\$8,613.60	\$17,227.19
135	16" 150# FLG RW GATE VALVE	16"	1	\$7,575.90	\$7,575.90
136	12"250# FLXFL AFC GATE VALVE	12"	2	\$1,777.01	\$3,554.03
137	3" 250lb GATE VALVE W/2" NUT	3"	2	\$1,222.56	\$2,445.12
138	6" 250lb GATE VALVE W/2" NUT	6"	0	\$1,681.54	\$0.00
139	8" 250lb GATE VALVE W/2" NUT	8"	1	\$1,928.14	\$1,928.14
140	10" 250lb GATE VALVE W/2" NUT	10"	1	\$2,763.34	\$2,763.34
141	14" 250lb GATE VALVE W/2" NUT	14"	1	\$8,290.02	\$8,290.02
142	6" 300# WELD FLANGE	6"	14	\$25.92	\$362.88
143	6" 150# WELD FLANGE 8-HOLE	6"	2	\$19.44	\$38.88
144	6" 400# WELD FLANGE	6"	2	\$36.85	\$73.70
145	10" 300# WELD FLANGE	10"	6	\$121.22	\$727.32
146	12" 150# WELD FLANGE	12"	13	\$68.04	\$884.52
147	150# WELD FLANGE 12.05 OD PIPE	12.05	11	\$159.63	\$1,755.96
148	12" 300# WELD FLANGE	12"	7	\$115.55	\$808.83
149	14" 150" WELD FLANGE	14"	10	\$189.00	\$1,890.00
150	14" 300# WELD FLANGE	14"	8	\$274.77	\$2,198.12
151	16" 150# WELD FLANGE	16"	12	\$165.24	\$1,982.88
152	16" 300# WELD FLANGE	16"	5	\$376.28	\$1,881.38
153	8" WELD FLANGE (LIP) 150#	8"	6	\$25.65	\$153.90
154	8" 300# WELD FLANGE	8"	10	\$81.00	\$810.00
155	10" 150 WELD FLANGE	10"	18	\$38.88	\$699.84
156	18" WELD FLANGE 150#	18"	4	\$199.34	\$797.36
157	10" 400 WELD FLANGE	10"	1	\$81.68	\$81.68
158	4" 300# WELD FLANGE	4"	14	\$32.40	\$453.60
159	4" 150# WELD FLANGE	4"	11	\$12.96	\$142.56
160	12" 300# W/F 12.8 ID FLAT FACE	12"	8	\$132.06	\$1,056.46
161	16" 150# WF WITH O.D 17.375	16"	12	\$263.25	\$3,159.00
162	6" 6-HOLE RAISED WF #150 STEEL	6"	12	\$32.33	\$387.90
1	CMLC PIPE 3"	3"	117	\$23.60	\$2,760.97
2	CMLC PIPE 10"	10"	56	\$13.36	\$748.16

Rainbow Municipal Water District
Replacement Cost Approach

Other System Assets
Inventory

No.	Description	Size	Quantity	Current Unit Cost	Est. Total Current Cost
3	CMLC PIPE 4"		16	\$19.98	\$319.68
4	CMLC PIPE 6	6"	39	\$22.24	\$867.25
5	CMLC PIPE 8"	8"	70	\$24.58	\$1,720.66
6	CMLC PIPE 12" /10 GAUGE	12"	61	\$38.27	\$2,334.64
7	CMLC PIPE 16" / 10 GAUGE	16"	108	\$31.69	\$3,422.44
8	CMLC PIPE 18" / 10 GAUGE6	18"	64	\$37.79	\$2,418.43
9	CMLC PIPE 20"	20"	224	\$25.80	\$5,779.20
10	CMLC PIPE 26"	26"	52	\$30.75	\$1,599.00
11	CMLC PIPE 28"		33	\$24.50	\$808.50
12	CMLC PIPE 14"	14"	74	\$56.70	\$4,195.80
13	8 CL 350 DI TJ PIPE W/GASKET	8"	11	\$22.24	\$244.61
14	8" SDR 35 PVC PIPE		311	\$3.43	\$1,068.10
15	STEEL PIPE 12"		0	\$31.55	\$0.00
16	6" BLK STEEL PIPE SCH 40		134	\$17.58	\$2,355.05
17	4" BLK STEEL PIPE SCH 40		147	\$10.28	\$1,511.47
Total Inventory					\$924,997.75

Appendix D

APPENDIX D: LARGE AND SMALL EQUIPMENT, TOOLS, FLEET

Appendix “D” provides the rolling stock, trucks, equipment, etc. at market/blue book or trade values.

RMWD LARGE EQUIPMENT

New ID Number	Name	License Number	Serial Number	VIN #	Estimated Value
101	446B CAT Backhoe				\$45,000
101A	Sheepsfoot		None		
101B	36" Bucket		None		
102	580SK Case Backhoe		121-446		\$20,000
102A	24" Bucket		None		
102B	18" Bucket		None		
102C	12" Bucket		None		
102D	Sheepsfoot Adapter		None		
103	570 LXT Skiploader	No plate	JJG0225767		\$26,000
104	Bobcat 763	No plate		ID #512229919	\$19,000
104A	Backhoe Attachment		584101024		
104B	Broom		714410269		
104C	Trencher		705100307		
105	420F CAT Backhoe		C7N11639F2F04907		\$100,781.28
110	International Carrier Loadrunner Trailer - Emergency CL2 Trailer (2007) / GVW - 1,400	1284662		4RACS12197K018396	\$5,000
111	Trailer for 446B, Big Tex & #71	1094197		4K8HX262411870469	\$14,700
112	Zieman Trailer 2725 SPL for 580SK (2004)	1187174		1ZCE36A2942P25748	\$13,980.61
114	Zieman Trailer 1165 for Bobcat (1998)	1007254		1ZCE23E27WZP19591	\$4,500
115	Wells Cargo Box Trailer, Water Emergency Response Trailer	1064689		1WC200G20Y7005618	\$7,000
116	Aztec Box Trailer, Wastewater Emergency Response Trailer (2002)	1139902		42BSUZ0013F000222	\$4,600
117	Carson Utility Trailer	1244579		4HXLS081X6C115443	\$1,506
118	Military Type Utility Trailer (Asphalt Trailer)	E315954			
119	Highline Circle Box Trailer, Portable Hose	E327396		1K9551022K1045259	
120	Water Emergency Trailer (2007)	4JH5738		4RACS12197K018396	
125	Apache Trailer, Single Wheel, Black (6/5/08)	1287042		VIN 5JRUE08118C201316	\$1,429.00
126	Cement Mixer, Canoga, Model #113BG4	E916975	0000446	N/A	\$750.00
127	Trailer w/200 gal. trailer sprayer (2009)	SE562415		N/A	\$3,201.00
128	Portable Pump Station (on Ronco Dual A Utility Trailer)	1335119		1R9UE2022AV252011	\$122,093.00
129	Reservoir Cover Wash Down Trailer - SDCUS (2012)	1362679		4A6UC12263B1017109	\$81,497.37
130	Trailer (Ronco Utility) - Meter Services	1335376		1R9UE0813CV252005	\$1,078.23
130	John Deer 6" trash pump w/trailer (2015)	SE674514	PE4045R978745	15006941	\$34,600
131	Sullair Compressor	SE 585080	004-132150	PE4045D083394	\$8,000
132	Ingersoll Rand Compressor - #p100WD				\$3,000

RMWD LARGE EQUIPMENT

New ID Number	Name	License Number	Serial Number	VIN #	Estimated Value
133	Lincoln Welder	SE562414	A-711453	N/A	\$1,500
134	Lincoln Welder - SA250 - #23	N/A	U1980706603		
135	Lincoln Welder - SA250 - #24	N/A	U1950701811		
136	Millermatic 35 (TIG) - Stock 057436-01-3	N/A	JG097662		
137	Miller Trailblazer #302 Welder (2007) - Gas Engine Kohler CH20	N/A	LH370102Q		
140	Whisper Watt MQ Power 220 KW mobile generator (2008)	N/A	PE6068L029652	8010126	\$70,000
141	Cummins Power Command 125 KW: District's Back-up Generator (2004); Model #GTA8.3G1	N/A	46431937		57902.04
142	Ingersoll Rand Light Tower - se416603	1262606	212151U825	N/A	\$4,000
143	Ingersoll Rand Light Tower	1262605	212149U825	N/A	\$4,000
144	Eclipse Arrow Board	E947929	9506B444		\$2,500
145	Wanco Arrow Board		WTSP55LSAC	5F115101831000712	\$4,500
150	Husky Hauler Port-a-Potty	917373	1M0061210RA0091		\$2,000
151	Husky Hauler Port-a-Potty		1F9BU112X6E305006		\$2,000
152	Husky Hauler Port-a-Potty	E441311	1M9SS1211RA969010	N/A	\$2,000
153	Husky Hauler Port-a-Potty	E1121181	1M9SS10112A069002	N/A	\$2,000
154	Husky Hauler Port-a-Potty	E1121182		N/A	\$7,354
156	Boat Trailer	916975	11BPNB08AP11M21039	N/A	
157	Inflatable Boat, Model #AA3804D3M		KR-USA11353L203	N/A	
170	Warehouse Forklift, Model #NSP22	N/A	INSP15123	N/A	\$3,000
	Minnkota Enoura				
	Wachs Value Machine - TM-7 - #31	N/A	03-2291		
	Wachs Trav-L-Val 300	N/A	3306911081	N/A	

RMWD SMALL EQUIPMENT

Name	New ID Number	Serial Number	Location	Cost
(Compactor) DS 70 Wacker Diesel, Model #L48V4	201	5694402	#155 Toilet	
1 Inch Pump Subaru, Model #PKV101	28 P	120401170	Unit #28 Standby	\$ 350.00
(Compactor) BS 500 Wacker 2 stroke	202	755002184	Stall 4	
(Compactor) DS 72Y Wacker Diesel	203	720952343T	Unit #21	
(Compactor) DS 72Y Wacker Diesel	204	781754395	Warehouse	
Honda Weed Trimmer: HHT35S, 4-Stroke Gas	205	GCAMT1773945	Water Operations	
Honda Weed Trimmer: HHT35S, 4-Stroke Gas	206	GCAMT2282354	Water Operations	
2013 Mutiquip, MTX-70HD Honda GX-100 Wacker	207	251614W5021	C & M Truck # _____	
2013 Multiquip, QP-3TH Honda Pump GX-240 Pump	208	3TH22566	C & M Truck # _____	
(Pump) Honda 2" or 1 1/2", WD 20X	209		#22 Toilet	
(Pump) Wacker 2", PT 2A	210	672006779	Stall 4 - VM Cage	
(Pump) Wacker 3", PT 3	211	672910830	Unit #21	
(Pump)Wacker 3", PT 3A	212	672910819	Stall 4	
(Pump) Teel 1", IV287B	214			
(Pump) Multiquip 2" Submersible, Model #ST2005T	215			
Wacker 2" Submersible Pump	216			
Wacker 2" Submersible Pump	217			
Honda GX25 1" Pump, 4-stroke	219	GCART-1117394	Unit #22	
Koshin Honda 1", 1 HP Portable Trash Pump; Model SHE-25L; Honda GX-25 Engine; Engine Model W3	220	150101044 Engine SN: GCART-1301249	Meter Crew	\$ 433.83
Multiquip 3" Trash Pump	221	3TH-26921	Water Ops Emergency Response Trailer (#115)	
Honda Generator, EM5000S	230	GC05-2368279	Warehouse	
Honda Generator, EM5000S	231	GC05-2368282	Warehouse	
Coleman Generator, PM0401853.02	232	95821154	Garage	
Powermate 1850 - Same as one above	233			
Honda Generator, EM5000S	234	GC05-2368279	Garage	
Honda Generator		GC05-1219182	Emergency Response Trailer for WW	
Honda Generator EU1000	235	1041603	Weld Shop	
Honda Generator Ex 650	237		Emergency Response Trailer for Water Ops	
Honda Generator EX1000	238	1179873		
WW Trailer Gensets	239			
Honda Generator GC 160	240			
Honda Generator	241	1172468	Emergency Response Trailer	
Honda Generator	242	1176589	Emergency Response Trailer	
Honda Generator EXL8000, Engine #030244	243	1014274774	Water Operations Chorine Trailer	\$ 1,369.00
Honda Generator EU1000	243W	EZGA1176588	Water Operations	\$ 800.00
Industrial Air Compressor, CTA5090412GNE Honda Engine GC-160	244	L33410742A	VM Unit #33 / Feb. 2014	\$ 500.00
Industrial Air Compressor, CTA5090412GNE Honda Engine GC-160	245	L33410740A	VM Unit #32 / Feb. 2014	\$ 500.00
Industrial Air Compressor, CTA5090412GNE Honda Engine GC-160	246	L33410739A	VM Unit #43 / Feb. 2014	\$ 500.00
Pacific TEK Vac Kohler Engine, CH730S OO40	247		Mounted on Unit #33	\$ 0.00
Pacific TEK Vac Kohler Engine, CH15S SPEC 44502	248	3712816211	Mounted on Unit #31 / May 8, 2007	\$ 0.00
Industrial Air Compressor, CTA5090412GNE Honda Engine GC-160	249	M03210301A	Unit #61 March, 2014	\$ 500.00
Stanley Hydraulic Unit HP1	250	None	Warehouse	
MK Asphalt Saw	251			
Stanley Hydraulic breaker	252	None		
Stanley Hydraulic Chipping Hammer	253	None		
Stanley Hydraulic Impact ID04	254	None		
Stanley Hydraulic Chop Saw	255	None		
Stanley Hydraulic Breaker BR 72	256	None		
Mini Collings (Hot Tap Machine)	257	6945	Warehouse	
Mini Collings (Hot Tap Machine)	258	None	Warehouse	
Wheeler Rex (Hot Tap Machine)	259	None	Warehouse	
Mini Collings (Hot Tap Machine) CL-12 Large	260		Warehouse	
Mini Collings 1600 Series Asphalt Saw	261			
Hurco Ripcord Blower RIP18H	290	RIP18H	Wastewater Trailer #116	
Rotherberger Pipe Threader	300	51046	Weld Shop	
Husqvarna 39R Clearing Saw	301			
Husqvarna 125R Clearing Saw	302			
Husqvarna 51/55 Chain Saw	303			
Stihl MS 250C Chain Saw	304	282684593	Wastewater	

RMWD SMALL EQUIPMENT

Name	New ID Number	Serial Number	Location	Cost
Husqvarna 326L 968057203 Weed trimmer; 2 stroke oil mix/gas	305	05 4200 432	Wastewater	
Stihl Chain Saw MS201T	306	176603696	Valve Maintenance	
Stihl TS 420 Chop Saw	308	None	Unit #22	
Stihl Cut Off Saw	309			
Stihl TS 420 Chop Saw	310	170271193	Unit #21	
Ground Hog Auger	312	GC02-365331	Warehouse	
Copper Crimper (Enerpac)	313		Warehouse	
Excell Pressure Washer	314	2655032749	Stall 4 - VM Cage	
Mustang Pipe Crimper PS-62A	315	022041	Warehouse	
Safety Boy Flange Spreader	316	None	Water Services - broken	
Weed Trimmer	318	HAGA 1038974	Valve Maintenance	\$ 359.00
Ciaisons Air Compressor	399	920816	Stall 4 - VM Cage	
Shop Air Compressor, Ingersoll Rand	400	5009741	Behind Shop	
Beck Reservoir Compressor	401	?		
Rigid Mechanic's Portable Air Compressor, Caft	402	1483501	Unit #37	
Pallet Jack	420	1NSP15123	Warehouse	\$ 3,000.00
Caterpillar Forklift P6000	421	AT113F00813		\$ 5,000.00
Kohler Pressure Washer MAG 16	422	3129250051	Stall 5	
Mechanic's Tools	450		Garage & Unit #37	
Dayton Fan	455	K554XPFS-7378	Garage	
Ultra Air Paint Sprayer 400	Sell			
Lawn Mower Scotts	Sell	98062556	Stall 5	
Edger McLain 801-3.5 RP-CA	Sell	981013YB	Stall 5	
Blower Echo ES 211			Warehouse	
Shredder Mighty Mac	Sell	87OA08/8255	Stall 5	
Mikasa Plate Compactor	Sell	A6792	Stall 5	
Bits 10" 6" 4" 2"				
Rigid Freeze Machine SF 2500		1218830	Warehouse	
Shindaiwa Hedger				
Husbuarna Chain Saw 55				
Stihl Chain Saw M5290			Warehouse	
Rigid Freeze Machine SF 2500		1212653	Warehouse	
Wheeler Snap Cutter			Stall 4	
Portable Pneumatic Car Lift		3129250051	Stall 5	
Stihl Trimmer FS250		None		
Banding Clamp Signode				
Gold AC Locator in Case			Warehouse	
Gold AC Locator in Case		9107011A	Warehouse	
Marking Paint Stripper		None	Warehouse	
Plumbing Snake		None	Warehouse	
Portable Light Stand		None	Warehouse	
Portable Light Signup in Case		None	Warehouse	
Portable Light in Case		None	Warehouse	
Portable Light in Case		None	Warehouse	
Portable Light in Case		None	Warehouse	
Portable Light in Case		None	Warehouse	
Duke Backflow Tester		None	Eng./Cust. Service Vault - Warehouse	
Gas Tester	Sell			
Diffuser				
Pollard Diffuser				
Coleman Heater, Propane 5085-751			Warehouse	
Dayton Heater, Propane		011957032	Warehouse	
Lietz Automatic Level and Stand - Eng.		238888	Eng./Cust. Service Vault - Warehouse	
Bosch 3/4" Roto Hammer		3490278		
Bosch 3/4" Roto Hammer				
Wild Transit - Eng.		230693	Eng./Cust. Service Vault - Warehouse	

RMWD FLEET

OLD UNIT #	NEW UNIT #	YEAR	DESCRIPTION	VEHICLE ASSIGNMENT	LICENSE #	VIN/SN		NOTES
N/A	1	2015	FORD EXPLORER	Tom Kennedy	1397921	1FM5K7B83FGA55307	1	1/2 Ton
N/A	3	2008	FORD F-150 4X4 EXTRA CAB	Ramon Zuniga	1287016	1FTRX14W78FB81405	1	1/2 Ton
N/A	4	2008	FORD F-150 4X4 EXTRA CAB	TBD	1287014	1FTRX14W98FB81406	1	1/2 Ton
N/A	5	2007	CHEVROLET UT TRAILBLAZER	Engineering	1272033	1GNDT13S972263184	1	1/2 Ton
3, 12	10	2007	CHEVROLET, SILVERADO 1500 4WD REGULAR CAB	Marc Walker	1270277	1GCEK14C57Z597601	1	1/2 Ton
11	11	2004	CHEVROLET SILVERADO 1500, PICK-UP TRUCK	Jeff Stacy	1182255	1GCEC14V54Z211950	1	1/2 Ton
N/A	12	2015	CHEVROLET SILVERADO 1500 4WD EXTRA CAB	Chris Heincy	1444871	1GCVKPEH9FZ180252	1	1/2 Ton
New	13	2013	CHEVROLET 1500, PICK-UP TRUCK	Steve Coffey	1335542	1GCNKPEA8DZ290208	1	1/2 Ton
New	14	2013	CHEVROLET 1500, PICK-UP TRUCK	Jerry Kraft	1335541	1GCNKPEAXDZ291649	1	1/2 Ton
New	15	2015	CHEVROLET, SILVERADO 1500, 4x4 DOUBLE CAB P/U	Jesus Hernandez	1398565	1GCVKPEHXFZ403267	1	1/2 Ton
New	16	2015	CHEVROLET, SILVERADO 1500, 4x4 DOUBLE CAB P/U	Joe Perreira	1398564	1GCVKPEH4FZ401921	1	1/2 Ton
18	18	2005	CHEVROLET 3/4 TON PICK-UP TRUCK	Mark Cline	1182338	1GBHC24U15E101789	1	3/4 Ton
40	20	2008	FORD F-150 4X4 EXTRA CAB	John Maccarrone	1287015	1FTRX14W58FB81404	1	1/2 Ton
N/A	21	2011	FORD F-450 SUPER DUTY DIESEL	Armando Lopez	1335357	1FDUF4GT2BEC30308	1	Crew
N/A	22	2008	FORD, F550 , 4X2 REGULAR CHASSIS CAB	Wayne Nault	1258070	1FDAF56R08EC00876	1	Crew
10	23	2003	CHEVROLET, 3500 (WELDER)	Construction	1138719	1G8JK34G43E125084	1	1 Ton w/welder
22	24	2003	CHEVROLET, SILVERADO 3500 HD, AUTO CRANE	Construction	1150716	1GBJC34G53E245392	1	1 Ton
16	25	2003	CHEVROLET, C2500, UTILITY TRUCK	Construction	1957578	1GBHC24U73E231685	1	1/2 Ton
N/A	28	2015	CHEVROLET, SILVERADO 2500, PICK-UP TRUCK	Water Standby	1448756	16B0KUEG2FZ508843	1	3/4 Ton
N/A	31	2007	CHEVROLET, SILVERADO 2500, PICK-UP TRUCK	Bryan Rose	1236448	1GBHK24K17E560261	1	1/2 Ton
N/A	32	2016	FORD F550 SUPER DUTY XL 4 WD	Valve Maintenance	1456588	1FDUF5HT3BEB33033	1	2 Ton
N/A	33	2008	FORD F-550 SUPER DUTY DIESEL	Valve Maintenance	1276203	1FDAF57R78EC60281	1	1 1/2 Ton - Valve
N/A	36	2008	FORD F-350 SUPER DUTY DIESEL	Ed Bradley	1244732	1FDWF34R28ED33751	1	1 Ton
30	37	1993	FORD, SUPER DUTY, W/HYDRAULIC LIFT	Rene Del Rio	377156	2FDLF47G2PCA21369	1	
01	39	2005	PASSENGER VAN	Pool Vehicle	1184670	1GAGG25U451158000	1	
17, 52	40	2003	CHEVROLET, SILVERADO 1500, PICK-UP TRUCK	Chris Hoelscher	1150709	1GCEC14V63Z240940	1	1/2 Ton
New	41	2014	CHEVROLET SILVERADO 1500 REG CAB, 4-WHEEL DRIVE	Clem Taylor	1425581	1GCNKPEH3EZ202549	1	1/4 Ton
New	42	2014	CHEVROLET SILVERADO 1500 REG CAB, 4-WHEEL DRIVE	Kenny Diaz	1425580	1GCNKPEH4EZ197717	1	1/4 Ton
20, 43	43	2003	CHEVROLET SILVERADO 2500HD	Chris Waite	1335060	1GBHC24U33E232526	1	1/2 Ton

RMWD FLEET

OLD UNIT #	NEW UNIT #	YEAR	DESCRIPTION	VEHICLE ASSIGNMENT	LICENSE #	VIN/SN		NOTES
Old 28	44	2007	CHEVROLET, SILVERADO 2500, PICK-UP TRUCK	Justin Chandler	1236447	1GBHK24K27E559748	1	1/2 Ton
54	53	2003	CHEVROLET, SILVERADO, PICK-UP TRUCK	David Hill	1138711	1GCEC14X43Z120314	1	1/2 Ton
New	60	2015	CHEVROLET, SILVERADO 1500, 4x4 DOUBLE CAB P/U	Victor Veenstra	1398566	1GCVKPEH3FZ405250	1	1/2 Ton
N/A	61	2011	FORD, SUPER DUTY F450 TRUCK, W/AUTO CRANE	Wastewater	1335356	1FD0W4GT5BEC64872	1	Crew
New	68	2013	CHEVROLET 2500 HD	WW Standby	1425577	1GB0CVCG5DF158743	1	1/2 Ton
6	71	2001	FREIGHTLINER, FL-112, DUMP TRUCK	Construction	1081503	1FVHBGA871HJ19620	1	
14	72	2005	INTERNATIONAL 7500/HT5701	Construction	1187175	1HTWPAZR85J153887	1	
25	75	2004	VAC-CON SEWER TRUCK	Wastewater	1182401	2F2AATAK64AL90876	1	
N/A	N/A	2014	VACTOR 2100 PLUS, TANDEM AXLE EXTRA HEAVY TRUCK	Sewer - Available for Lease	N/A	N/A		Chuy Vallejo - Haaker Equip. Rental: (909) 598-2706; chuyv@haaker.com
Total # of Units:							37	

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
ADAPT	C2006	C	3/4 F.HOSE X 3/4 M PIPE 71935		0	3.73	0
ADAPT	C2007	C	3/4x3/4 FEMALExFPT #71939 ADPT		10	4.871	48.71
ADAPT	C2008	C	SWIVEL F.HOSE THREAD 71937 GRAINGER # 1P724	3/4"	6	4.935	29.62
ADAPT	C2050	C	HOSE TO PIPE ADAPT DBL MALE GRAINGER # 4X072	3/4"	8	1.6638	13.29
ADAPT	C2060	C	HOSE TO PIPE ADAPT SWIVEL DBL FEMALE GRAINGER # 4KG88	3/4"	8	2.3	18.18
ADAPT	C2070	C	HOSE TO PIPE ADAPT FEMALE/MALE GRAINGER # 1P7	23 3/4"	8	5.13	40.27
AIRVAL	C1023	C	1" #143C.2 APCO AIR VALVE	1"	7	345.6	2,419.26
AIRVAL	C1024	C	2" #145C.2 APCO AIR VALVE	2"	13	500.58	6,520.19
AIRVAL	C1025	C	3" APCO 147C.10 AIR VALVE	3"	4	894.3267	3,492.71
AIRVAL	C1028	C	1" APCO #2001 COMPD AIR RELEAS	1"	4	202.075	808.3
AIRVAL	C2009	C	4" 149C.5 APCO AIR VAC 125 FLG EPOXY SS TRIM		1	1680	1,680.00
BRASS	C0007	C	1/4" BRASS 90 ELL	1/4"	22	5.811	128.26
BRASS	C0011	C	1/8 BRS COUPLING	1/8"	44	4.8067	133.94
BRASS	C0030	C	3/8" FLR X 3/8" MIP ELBOW 90 P/N-CHO6730606J		11	4.05	44.55
BRASS	C0031	C	1/2" LONG FLARE NUT		53	3.98	210.94
BRASS	C0060	C	1/2" BRASS 45		25	7.1387	179.4
BRASS	C0078	C	3/8" BRASS TEE		10	6.8253	68.24
BRASS	C0079	C	1/8" BRASS 45		30	6.8253	188.84
BRASS	C0080	C	1/4" BRASS 45		34	7.1387	223.03
BRASS	C1018	C	1/4" BRASS FLARE NUT		0	1.74	0
BRASS	C1029	C	1/2"FLR X 1/2" MIP/ TUBE CONN UNION /CHO6730 712E		26	7.29	148.78
BRASS	C1030	C	1/2 FLARE X 3/8 MIP	2-Jan	9	1.993	17.93
BRASS	C1033	C	1/2" FLR X 1/2"FLR / FLR UNION XF-MM10-109L	2-Jan	25	2.7867	52.5
BRASS	C1036	C	3/8 FLR X 3/8 MIP BRASS P/N-6730707E - TUBE C ONN UNION	8-Mar	2	6.912	13.82
BRASS	C1037	C	1/4"M x FLARE BRASS 90 XF-149-4	4-Jan	35	1.9764	54.38
BRASS	C1038	C	1/4" FLARE X 1/4 FLARE UNIONS XF-MM10-106	4-Jan	29	2.6676	68.68
BRASS	C1039	C	3/8" SHORT FLARE NUT P/N XF-MM10-017	8-Mar	9	1.62	14.63
BRASS	C1040	C	1/2" SHORT FLARE NUT XF MM10-019		26	1.4687	33.4
BRASS	C1041	C	1/4"MIPx1/4"FLARE BRASS ADAPT XF-48-4	1/4"	33	0.7884	22.61
BRASS	C1059	C	3/8" BRASS 45		28	7.1387	191.63
BRASS	C1061	C	1/8" BRASS 90		20	5.872	67.12
BRASS	C1062	C	3/8" BRASS 90		6	7.1172	42.71
BRASS	C1063	C	1/4 FLARE x 3/8 MIP		25	0.8395	19.01
BRASS	C1064	C	1/2" BRASS 90		11	5.756	63.44
BRASS	C1075	C	1/8" BRASS TEE		21	7.063	141.39
BRASS	C1240	C	1/4x1/8 FLxMIP ADAPT U1-4A P/N XF-48-4-2	4-Jan	25	0.6156	15.4
BRASS	C1241	C	1/4x1/2 FLxMIP ADAPT U1-4D	4-Jan	26	5.778	102.07
BRASS	C1243	C	1/2 X 1/4 FL X MIP REDUCE ADPT XF-10-267	2-Jan	27	2.484	61.88
BRASS	C1244	C	1/4x1/8 FLxMIP 90 ELL E1-4A P/N XF-149-4-2	4-Jan	25	1.7388	43.46
BRASS	C1245	C	1/4x3/8 FLxMIP 90 ELL E1-4C CHO6730603F	4-Jan	37	2.43	90.4
BRASS	C1246	C	1/4x1/2 FLxMIP 90 ELL E1-4D	4-Jan	8	1.7242	13.81
BRASS	C1248	C	1/2 FL X 1/4 MIP ANGLE XF-MM10-298	2-Jan	25	2.5167	64.05

BRASS	C1249	C	1/2" FLR X 3/8" MIP ELBOW 90 CHO6730610A		2-Jan	15	3.24	48.6
BRASS	C1251	C	3/8 FL X 1/8 MIP ELBOW 90 CHO6730604D		8-Mar	20	3.013	42.63
BRASS	C1252	C	3/8 FL X 1/2" MIP ELBOW 90 CHO6730607G		8-Mar	17	2.603	70.24
BRASS	C1253	C	3/8 FL X 1/2 MIP CHO6730708C/TUBE CONN UNION		8-Mar	23	2.894	36.26
BRASS	C1254	C	3/8 FL X 1/8 MIP CHO6730705J- TUBE CONN UNION		8-Mar	26	1.08	18.46
BRASS	C1255	C	3/8 FLR X 1/4 MIP P/N-6730706G-TUBE CONN UNIO	N	8-Mar	29	6.912	200.42
BRASS	C1256	C	3/8 FLARE X 1/4 MIP 90 P/N - CHO6730605A		8-Mar	34	7.29	246.55
BRASS	C1257	C	1/4 FLARE NUT - SHORT		4-Jan	42	1.0907	45.82
BRASS	C1258	C	3/8 FLARE NUT - LONG		8-Mar	31	2.4233	74.89
BRASS	C1259	C	3/8 FLARE X 1/4 FIP		8-Mar	14	0.652	10.61
BRASS	C1260	C	FLARE UNION 3/8 X 3/8 FL(U2-6) P/N-XF-MM10-10	8	8-Mar	23	1.62	29.5
BRASS	C1270	C	1/4x1/8 FLxMIP SHUT OFF COCK		4-Jan	5	16.1633	80.81
BRASS	C1271	C	1/4x1/4 FLxMIP SHUT OFF COCK		4-Jan	4	16.7017	66.81

05/06/1 6 11:18:53

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 1

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
BRASS	C1272	C	3/8x1/4 FLxMIP SHUT OFF COCK		8-Mar	2	12.67 25.6
BRASS	C1273	C	3/8x3/8 FLxMIP SHUT OFF COCK		8-Mar	1	3.46 3.46
BRASS	C1274	C	3/8 BRASS COUPLING #103-6		8-Mar	12	4.86 58.31
BRASS	C1275	C	1/4" BRASS COUPLING	1/4"		19	4.86 92.96
BRASS	C1276	C	1/2" BRASS COUPLING			23	5.022 109.69
BRASS	C1077	C	1/4" BRASS TEE			20	6.8253 136.02
C	C1800	C	1" VENT-O-MAT AIR RELEASE VLV	1"		1	594 594
CALVAL	C1118	C	6" SS SEAT CLAVAL C1029C		6	2	352.88 705.76
CALVAL	C1122	C	4" SS SEAT CLAVAL CH0V6574H	4"		1	368.65 368.65
CLA-VA	C1304	C	2" CLA-VAL STEM			7	59.33 283.64
CLAVAL	C0001	C	4" 90-01BY GLOBE/300# PN-90-01-4850E/E999994/	4"		2	2221.54 4,398.72
CLAVAL	C0002	C	6" 150# FLG CLAVAL 90G-01	6"		1	2826.28 2,826.28
CLAVAL	C0004	C	8" 150" FLG CLAVAL 90-01BY P/N 90-01-4844H	8"		1	5521.77 5,521.77
CLAVAL	C0006	C	3/8" X 6" HOSE W/BRS FLR ENDS	6"		0	0 0
CLAVAL	C0008	C	3/8" X 8" HOSE W/BRS FLR ENDS	8"		0	0 0
CLAVAL	C0012	C	3/8" X 12" HOSE W/BRS FLR ENDS	12"		0	0 0
CLAVAL	C0016	C	3/8" X 16" HOSE W/BRS FLR ENDS	16"		0	0 0
CLAVAL	C0018	C	1/2" CRL-18 250-600 LB CHO20278803H	1/2"		2	817.29 1,634.58
CLAVAL	C0024	C	3/8" X 24" HOSE W/BRS FLR ENDS	24"		0	0 0
CLAVAL	C0032	C	CRD-18 100-500PSI REPAIR KIT CH020275401K			15	68.85 1,014.61
CLAVAL	C1001	C	4" X101 VAL POSITION INDICATOR CHO9710001A	4"		7	113.4 780.81
CLAVAL	C1002	C	6" X101 VLV POSITION INDICATOR CHO9710002J	6"		8	140.4 1,022.78
CLAVAL	C1008	C	2" #100 DIAPH/DISC ASSY-KC,SS P/N- CHO2006160		4J	8	271.08 2,168.64
CLAVAL	C1015	C	1/4 X 1/4" FILTER SCREEN CHOC2890G			6	47.79 283
CLAVAL	C1016	C	3/8"CV SPEED CONTROL STANDARD CHO9701501A		8-Mar	6	154.1167 924.68
CLAVAL	C1017	C	CSM11-A2-2 SOLENOID CONTROL CHO1002302G			4	1045.71 4,111.56
CLAVAL	C1019	C	3/8" SS CRD/DISC RETNER ASSY P/N-CHO37133G			23	25.86 594.78
CLAVAL	C1020	C	1/2" CRL REPAIR KIT 9170007A			16	72.09 1,153.44
CLAVAL	C1021	C	GASKET			2	11.86 23.72
CLAVAL	C1022	C	2" RUBBER DISC CLA-VAL CHOV5564K	2"		9	6.48 58.32
CLAVAL	C1026	C	4" HYTROL SPACE WASH CHOV0634F	4"		10	2.15 21.5
CLAVAL	C1031	C	ASSEMBLY RETAIN DISC CLA-VAL			0	21.55 0
CLAVAL	C1032	C	CRD BELLEVILLE WASHER 7055001H			13	4.592 56.27
CLAVAL	C1035	C	CLA-VAL SPRINGS			10	12.01 120.1
CLAVAL	C1047	C	8" CLA-VAL STEM			2	113.21 226.42
CLAVAL	C1049	C	12" CLA-VAL STEM			2	298.01 596.02
CLAVAL	C1050	C	3/8"CRD18 CH020191701F 150-600			3	1003.32 3,009.96
CLAVAL	C1051	C	1/2 CRL 0-75 CHO7922201E	1/2"		3	367.74 1,050.25
CLAVAL	C1052	C	1 1/2" S.S. SEAT CLAVAL STEEL			3	57.2 171.6
CLAVAL	C1053	C	2" S.S SEAT CLA-VAL CHOC4135E		2	7	168.48 1,162.35
CLAVAL	C1054	C	3" S.S SEAT CLA-VAL STEEL			2	103.33 178.43

CLAVAL	C1055	C	4" S.S SEAT CLA-VAL STEEL		3	210.2433	630.73
CLAVAL	C1056	C	REBUILT KIT FOR CDS4 9170014G		7	179.51	1,149.12
CLAVAL	C1057	C	1/2" CRL-4A REPAIR KIT 100-450 CHO43413E		12	79.38	949.4
CLAVAL	C1058	C	8" DISC GUIDE		2	2.26	4.52
CLAVAL	C1060	C	2 1/2" S.S. CLAVAL SEAT V6562C	2 1/2"	2	154.615	309.22
CLAVAL	C1065	C	1 1/2" RUBBER DISC CLA-VAL		16	3.726	58.69
CLAVAL	C1067	C	3" RUBBER DISC CLA-VAL		7	21.87	138.44
CLAVAL	C1068	C	4" RUBBER DISC CLA-VAL		5	3.1	15.5
CLAVAL	C1071	C	10" RUBBER DISC CLA-VAL		5	45.35	174.43
CLAVAL	C1072	C	12" RUBBER DISC CLA-VAL		2	32.08	64.16
CLAVAL	C1073	C	3" #100 HYTROL KIT P/N CHO91698-12G		5	89.1	358.88
CLAVAL	C1076	C	1/2 CRL 20-200 CHO79222-02C	1/2"	5	378.4	1,775.98
CLAVAL	C1076HP	C	1/2" CRL 100-300 CH08280901D	1/2"	4	509.49	2,020.95
CLAVAL	C1078	C	3/8 CRD CH07194304H 30-300		3	225.58	676.74

05/06/1 6 11:18:53

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 2

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE	
CLAVAL	C1079	C	3/8 CRD REPAIR KIT CHO9170002B		14	77.76	1,088.64	
CLAVAL	C1080	C	2" DIAPHRAM REPR KIT 9169805A		3	76.14	228.43	
CLAVAL	C1100	C	1 1/2" DISC DIAPHRAM ASSEMBLY	1 1/2"	3	105.68	317.03	
CLAVAL	C1101	C	1 1/2 CLA VLV 90-01-919A 300# DESC 90-01AS	1 1/2"	3	1244.16	3,732.48	
CLAVAL	C1102	C	2" CLAVAL THR 90-01-296D CHO90-01-296D	2"	4	1188	4,811.44	
CLAVAL	C1103	C	2" CLAVAL FLG 150#90-01-3811H	2"	1	2054.89	2,054.89	
CLAVAL	C1104	C	DISC. & DIAPH ASSY FOR 3" HP C2524B CLAVAL 69	3"	4	312.315	1,173.07	
CLAVAL	C1107	C	4" DISC-DIAPH ASSY 100KC 4 IS P/N CHO200616C		3	644.76	1,895.61	
CLAVAL	C1110	C	3" CLAVAL FLG 150# 90-01AS P/N 90-01-395D	3"	2	1628.37	3,154.43	
CLAVAL	C1111	C	3" CLAVL FLG 300# 90-01AS P/N 90-01-1767D	3"	0	1620.81	0	
CLAVAL	C1112	C	6" 90-01YB,KC,SS 30-300 300# FLANGE (CHO90-01	6"	1	3584.03	3,584.03	
CLAVAL	C1114	C	2 1/2" DISC/DIAPH. ASSY S.S. CHO20061605H	2 1/2"	3	222.75	668.21	
CLAVAL	C1115	C	6" PUMP-CV - RUBBER KIT		0	211	0	
CLAVAL	C1116	C	8" CLA-VAL DIAPH ASSY #125 P/N-20061602A		2	1594.35	3,188.70	
CLAVAL	C1117	C	4" 90-01-1732H 150# FLG CLAVAL	4"	3	2124.63	6,373.89	
CLAVAL	C1119	C	8" STAINLESS STEEL SEAT CLAVAL		5	327.66	1,667.11	
CLAVAL	C1120	C	10"STAINLESS STEEL SEAT CLAVAL		0	681.635	0	
CLAVAL	C1121	C	12"STAINLESS STEEL SEAT CLAVAL		3	742.01	2,226.03	
CLAVAL	C1200	C	1 1/2 SEAT O-RING CH000731A	1 1/2"	2	2.59	5.18	
CLAVAL	C1201	C	2" SEAT O-RING CH000777D	2"	9	0.7767	7.49	
CLAVAL	C1202	C	2 1/2 SEAT O-RING CH000785G	2 1/2"	1	2.585	2.58	
CLAVAL	C1203	C	3" SEAT O-RING CH000788A	3"	1	3.45	3.45	
CLAVAL	C1204	C	4" HYTROL SEAT O-RING CH000836	4"	4	4.31	17.24	
CLAVAL	C1205	C	6" SEAT O-RING CH000851G	6"	5	6.04	30.17	
CLAVAL	C1206	C	8-10" SEAT O-RING CH000982K	10-Aug	6	2.935	26.83	
CLAVAL	C1207	C	10" SEAT O-RING CH000865G	10	1	1.465	1.46	
CLAVAL	C1208	C	12" SEAT O-RING CH000869J	12	2	16.22	32.44	
CLAVAL	C1209	C	14" SEAT O-RING CH000870G	14	2	14.59	29.18	
CLAVAL	C1221	C	3/8" STRAINER NEEDLE VAL P/N-CHO68372C X-42N-	2	8-Mar	8	138.985	1,132.67
CLAVAL	C1301	C	8" COVER SS STUDS CH037048G	8"		29	6.48	187.92
CLAVAL	C1302	C	10" COVER SS STUD CH037041B		10	30	11.475	321.55
CLAVAL	C1303	C	12" COVER SS STUD CHOV6896E		12	20	18.111	362.22
CLAVAL	C1305	C	4" CLA-VAL STEM			2	47.85	95.7
CLAVAL	C1306	C	3" CLA-VAL STEM			3	31.5	94.5
CLAVAL	C1307	C	10" CLA-VAL STEM			1	188.57	188.57
CLAVAL	C1308	C	6" CLA-VAL STEM			6	38.13	228.78
CLAVAL	C1309	C	4" #100 HYTROL COVER BOLT-SST CHO6760904A	4"		19	8.62	163.78
CLAVAL	C1331	C	8" VALV INDICATOR CHOC8581F	8"		5	135.95	679.75
CLAVAL	C1332	C	10" VALV INDICATOR CHOC9187A		10	3	145.6367	436.91
CLAVAL	C1333	C	12" VALV INDICATOR CH031420D	12"		3	148.77	446.31
CLAVAL	C1334	C	2" VALV INDICATOR CH0C8972G		2	5	108.54	529.75

CLAVAL	C1335	C	3" CALV INDICATOR CHOC2609A		3	4	102.06	408.26
CLAVAL	C1340	C	3/8X3/4 FILTER SCREEN C3085C X46A		6	8	81	643.12
CLAVAL	C1341	C	3/8x1/2 FILTER SCREEN C3084F CHOC3084F		3"	5	46.872	234.35
CLAVAL	C1342	C	3/8 X 3/8" FILTER SCREEN CHOC2891E		4"	15	47.79	1,001.14
CLAVAL	C1343	C	1/2"x1/2" FILTER SCREEN C2892C		1/2"x1/2"	" 6	107.19	568.13
CLAVAL	C1344	C	3/8"x1" FLITER SCREEN C3086A		3/8"x1"	7	83.43	570.23
CLAVAL	C1350	C	3/8X3/8X1/8 TUBE RESTRICTOR CHO64673H X58C R	ED	8-Jan	9	36.395	327.96
CLAVAL	C1351	C	X58C TUBERESTRICTR 3/8X3/8X3/32 BLUE P/N-CHO68	565B	Mar-32	8	36.72	294.08
CLAVAL	C1352	C	3/8X3/8X3/16 RESTRCT CH043302K		16-Mar	8	64.8	433.38
CLAVAL	C1353	C	CLAVAL #6797225H FLATHEAD BOLT			23	3.8792	89.22
CLAVAL	C1360	C	3/8 SHUT OFF VALVES WATTS 3/8"LFFBV-3C		8-Mar	25	6.426	160.62
CLAVAL	C1361	C	2" HYSROL COVER BOLT STL CHO6760597C		2"	26	4.05	105.3
CLAVAL	C1362	C	3" S.S. COVER BOLTS 6760796A		3"	32	4.31	137.92
CLAVAL	C1390	C	2" CLAVAL SPRING #C3147A		2"	2	5.355	10.71

05/06/1 6 11:18:53

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 3

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
CLAVAL	C1391	C	3" CLAVAL 3" SPRING CHOC3149G	3"	3	7.76	20.88
CLAVAL	C1392	C	4" CLAVAL SPRING P/N-CHOC1533D DEC-SPR 100	4"	3	17.9225	53.77
CLAVAL	C1393	C	6" CLAVAL SPRING C1534B	6"	2	7.65	15.3
CLAVAL	C1394	C	8" CLAVAL SPRING C7948H	8"	0	16.83	0
CLAVAL	C1395	C	CRD TENSION SPRING 30-300PSI CHO71885J		7	29.97	209.79
CLAVAL	C1396	C	DIAPHRAM FOR CRD #18		3	11.4767	34.43
CLAVAL	C1397	C	DISC RETAINER ASSY FOR CRD #18		3	22.95	68.85
CLAVAL	C1398	C	BODY GASKET FOR CRD #18		3	3.8267	11.48
CLAVAL	C2011	C	4" HYTROL SPACE WASHER PN-CHOV0634F	4"	4	0.8075	3.23
CLAVAL	C2012	C	4" HYTROL DISC PN-CHOV5467F	4"	3	22.68	68.04
CLAVAL	C2100	C	6" HYTROL SPACER WASHER P/N-CHOV5138C	6"	19	0.81	15.39
CLAVAL	C4444	C	2 1/2" #100 & 100P RUBBER DISC P/N-CHOV1637H	2 1/2"	7	15.39	107.73
CLAVLA	C1108	C	4" DIAPHRAMS EPOXY COATED P/N - CHO200616C		5	623.16	3,115.80
CLAVLV	C0003	C	8" CLAVAL FLG 300# 90-01-95A	8"	1	6056.37	6,056.37
CLAVLV	C1105	C	2" CLA-VAL 90-01-1022D 300#	2"	3	1572.48	4,617.78
CLAVLV	C1106	C	3" #100 DIAPH/DISC ASSY-KC,SS CHO20061606G		5	652.375	2,952.13
CLAVLV	C1109	C	3" CLAVAL 300# 90-01-1088E DESC-90-01AS THRE	ADED FLG 3"	1	1586.35	1,586.35
CLAVLV	C1113	C	6" DISC-DIAPHRAM ASSY-KC,SS P/N 20061601B 10	OKC PRES-125 6"	2	1134	2,268.00
CLVVAL	C1300	C	6" COVER SS STUD V6901C	6"	19	5.2614	99.97
MISC	C1900	C	6" #100P PWR UNIT-EPOXY COATED CHO7092901D		1	1725.72	1,725.72
MISC	C1901	C	6" #100 HYTROL DIAPH WASHER KC CHO7092802D PN	-6935701A	1	162.9175	162.91
MISC	C1902	C	6" POWERCHECK KC DISC RETAINER CH07092802D		1	506.855	506.85
MISC	C1903	C	COLLAR W/SET SCREW-BRASS CH020441701E		4	5.1725	20.69
MISC	C2005	C	HOSE WASHERS		0	0.3333	0
MISC	C2810	C	8" #100P POWERROL RUBBER KIT CHO99116G	8"	2	296.22	592.44
MISC	C2910	C	6" 100-02 POWERROL RUBBER KIT CH091699-13C	6"	3	222.85	669.26
VALVE	C0050	C	1" APCO #50 RELEASE VALVE	1"	3	88.3567	265.07
VALVE	C1027	C	1/2" APCO #50 AIR RELEASE VALV	1/2"	2	88.355	176.69
TOTAL C							133,975.63
1 93 PARTS							
BOLTKT	D1004T	D	12" 150# SS BOLT KIT		0	104.035	0
BOLTKT	D2001	D	2-3" 150# T316 SS FLG BOLT KIT		17	6.4265	109.22
BOLTKT	D2002	D	3" 300# T316 SS FLG BOLT KIT	3"	22	30.24	682.5
BOLTKT	D2003	D	4" 150# T316 SS FLG BOLT KIT		7	18.6733	130.74
BOLTKT	D2004	D	4" 300# T316 SS FLG BOLT KIT		17	30.2183	519.92
BOLTKT	D2005	D	6" 6-HOLE HYD BREAK-OFF BLTS 3/4 X 3 1/4 T-31	6 SS	10	44.28	464.71
BOLTKT	D2006	D	6-8" 150# T316 SS FLG BOLT KIT		13	23.76	308.88
BOLTKT	D2007	D	6" 300# T316 SS FLG BOLT KIT		11	50.8683	559.5
BOLTKT	D2008	D	8" 300# T316 SS FLG BOLT KIT		14	83.7327	1,172.23
BOLTKT	D2009	D	10-12 150# T316 SS FLG BLT KIT		21	55.08	1,153.35

BOLTKT	D2010	D	10" 300# T316 SS FLG BOLT KIT		6	199.4675	1,254.20
BOLTKT	D2011	D	12" 300# T316 SS FLG BOLT KIT		7	353.7333	2,203.28
BOLTKT	D2012	D	14" 300# T316 SS FLG BOLT KIT		10	316.02	3,762.27
BOLTKT	D2013	D	14" 150# T316 SS FLG BOLT KIT		6	56.2575	495.71
BOLTKT	D2014	D	16" 150# T316 SS FLG BOLT KIT		12	128.52	1,597.82
BOLTKT	D2015	D	16" 300# T316 SS FLG BOLT KIT		5	564.61	2,395.07
BOLTKT	D2017	D	18" 300# T316 SS FLG BOLT KIT		4	500.04	2,508.44
BOLTKT	D2018	D	20" 150# T316 SS FLG BOLT KIT		6	341.8475	2,003.11
BOLTKT	D2019	D	20" 300# T316 SS FLG BOLT KIT	20"	6	619.6925	2,730.94
BOLTS	D2000	D	2" 300# T316 SS FLG BOLT KIT	2"	11	20.634	229.35
BOLTS	D2016	D	18" 150# T316 SS FLG BOLT KIT	18"	5	251.485	1,091.75
COUP	D1061	D	4" 3000 STEEL COUPLING THR		10	61.514	615.09
COUPL	D1018	D	8" 2000# COUPLING		10	92	920
COUPL	D1078	D	3/4" #38 DRESSER		2	17.1	34.2

05/06/1 6 11:18:54

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 4

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE	
COUPL	D1079	D	1" #38 DRESSER			9	13.712	153.73
COUPL	D1081	D	1 1/2" #38 DRESSER			8	28.4467	206.46
COUPL	D1082	D	2" #38 DRESSER COUPLING			3	51.11	115.53
COUPL	D1083	D	2 1/2" #38 DRESSER COUPLING			2	27.73	55.46
COUPL	D1084	D	3" #38 DRESSER COUPLING			2	71.805	143.61
COUPL	D1085	D	4" #38 DRESSER COUPLING			6	122.85	652.33
COUPL	D1086	D	6" #38 DRESSER COUPLING 6.54 - 7.65			4	151.2	862.63
COUPL	D1087	D	8" #38 DRESSER COUPLING 8.60-9.75 OR 8.40-9.	75		3	231.66	659.63
COUPL	D1088	D	12" #38 DRESSER COUPLING 12.75 - 14.40			4	652.965	1,490.59
COUPL	D1259	D	6" STEEL COUPLING 300# THR	6"		14	94.77	1,326.76
COUPLG	D1059	D	6" 3000# STEEL COUPLING THR	6"		9	70.2	631.64
COUPLG	D4861	D	4" 300# STEEL COUPLING THR	4"		14	62.3383	814.55
GALV	D1045	D	6" GALV PLUG 150 LB			5	22	110
GALV	D1055	D	4" GALV PLUG 150 LB			11	15	165
MECHJT	D1091	D	12" MECHANICAL JOINT			1	73.27	80.57
MECHJT	D1092	D	8"MECHANICAL JOINT			2	424.54	849.08
PLUG	D1058	D	6" 3000 SOLID STEEL PLUG THR	6"		4	109.1825	436.74
PLUG	D1060	D	4" 3000# THR STEEL PLUG	4"		9	46.44	417.76
PLUG	D1258	D	6" 300 SOLID STEEL PLUG THR			14	76.14	1,065.74
WELD	D1066	D	ELL 6" STEEL WELD 45			6	29.095	119.29
WELD	D1067	D	ELL 6" STEEL WELD 90			4	37.98	108.76
WELD	D1068	D	8" ELL STEEL WELD 45			8	42.6	340.8
TOTAL D								37,748.94
ADAPT	F1290	F	1 1/4 WR5 WEDDING RING	1 1/4		10	1.508	15.08
ADAPT	F1292	F	1" WR4 WEDDING RING	10		25	1.2385	32.44
BRASS	F0005	F	1/2" X 4" NIPPLE BRASS			20	3.564	47.94
BRASS	F0006	F	1/2" X 3" NIPPLE BRASS			22	2.7317	53.92
BRASS	F0007	F	1/4 X 6" BRASS NIPPLE			25	3.186	74.75
BRASS	F0008	F	1/2" X 5" BRASS NIPPLE			26	4.2667	90.48
BRASS	F0009	F	3/8" X 4" BRASS NIPPLE			32	2.3436	77.01
BRASS	F0010	F	3/8"x6" BRASS NIPPLE			17	3.618	60.85
BRASS	F0011	F	1/8" X 2" BRASS NIPPLE			28	0.9073	30.75
BRASS	F0012	F	1/8" X 3" BRASS NIPPLE			31	2.3007	59.17
BRASS	F0013	F	1/2" X 2" BRASS NIPPLE			25	2.095	50.71
BRASS	F0014	F	1/2x2 1/2" BRASS NIPPLE	2-Jan		12	2.467	26.15
BRASS	F0015	F	3/8" X 3" BRASS NIPPLE			34	2.052	69.77
BRASS	F0016	F	1/2" X CLOSE NIPPLE BRASS			36	1.296	45.87
BRASS	F0017	F	1/2" X 6" BRASS NIPPLE			25	5.184	140.14
BRASS	F0018	F	3/8" X 2" BRASS NIPPLE			28	1.3824	38.69

BRASS	F0019	F	3/8" X CLOSE BRASS NIPPLE	28	0.9516	26.66
BRASS	F0020	F	1/8" X CLOSE BRASS NIPPLE	38	0.799	22.88
BRASS	F0021	F	1/4x2" BRASS NIPPLE	18	1.3607	24.49
BRASS	F0022	F	1/4x3" BRASS NIPPLE	13	1.728	22.45
BRASS	F0023	F	1/4x CLOSE BRASS NIPPLE	16	1.037	16.98
BRASS	F0024	F	1/4x1 1/2" BRASS NIPPLE	18	1.199	20.06
BRASS	F0025	F	1/8" X 4" NIPPLE BRASS	25	1.5983	46.81
BRASS	F0026	F	1/4x4" BRASS NIPPLE	23	2.214	47.62
BRASS	F0027	F	1/8" X 5" NIPPLE BRASS	29	1.9656	57.46
BRASS	F0028	F	1/8" X 4 1/2" NIPPLE BRASS	23	1.5227	57.29
BRASS	F1005	F	3/4" BRASS COUPLING	16	7.063	112.88
BRASS	F1006	F	3/4" BRASS 90	19	9.72	179.21
BRASS	F1007	F	3/4" BRASS 45	23	8.972	208.88
BRASS	F1008	F	3/4" BRASS UNION	21	23.673	501.05

05/06/1 6 11:18:54

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 5

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
BRASS	F1009	F	3/4"X 1" 1/2 SHORT METER TAIL C38-23-1.5		14	9.8928	138.51
BRASS	F1010	F	3/4" X 2 1/2" LONG METER TAIL C38-23-2.5		32	7.8516	254.34
BRASS	F1034	F	1" BRASS COUPLING		42	10.1737	440.62
BRASS	F1035	F	1" BRASS 90		24	6.1128	146.66
BRASS	F1036	F	1" BRASS 45		38	15.0228	608.41
BRASS	F1038	F	1" BRASS TEE		18	20.066	340.29
BRASS	F1039	F	1" BRASS UNION		21	16.2573	433.03
BRASS	F1053	F	1" SHORT METER TAIL 1 1/2"		13	13.867	179.88
BRASS	F1054	F	1" LONG METER TAIL 2 5/8"		20	12.744	254.89
BRASS	F1066	F	1" MULLER MIP POLY ADAPT		9	29.276	263.5
BRASS	F1067	F	1" FIP X IPS INSTA-TITE INSTA-TITE COUPLING	H-15456	16	23.63	386.15
BRASS	F1083	F	1 1/2" BRASS COUPLING		25	25.7687	635.97
BRASS	F1084	F	1 1/2" BRASS 45		19	34.3653	642.06
BRASS	F1085	F	1 1/2" BRASS 90		18	20.5913	375.78
BRASS	F1086	F	1 1/2" BRASS UNION		14	49.242	727.98
BRASS	F1087	F	1 1/2" BRASS TEE		10	14.018	140.18
BRASS	F1114	F	2" BRASS COUPLING		15	40.4787	609.86
BRASS	F1115	F	2" BRASS 45		22	57.9093	1,274.13
BRASS	F1116	F	2" BRASS 90		22	39.96	860.31
BRASS	F1117	F	2" BRASS UNION		19	91.3575	1,310.19
BRASS	F1118	F	2" BRASS TEE		15	58.26	856.88
BRASS	F1141	F	1 1/2" X 3/4" BRASS BUSHING		18	17.863	321.18
BRASS	F1142	F	1 1/2"x1" BRASS BUSHING		15	17.0423	255.7
BRASS	F1143	F	1 1/2"x1 1/4" BRASS BUSHING		28	16.686	496.41
BRASS	F1144	F	2"x1" BRASS BUSHING		19	21.2977	404.66
BRASS	F1145	F	2"x1 1/2" BRASS BUSHING		15	20.844	312.7
BRASS	F1146	F	2 1/2"x1 1/2" BRASS BUSHING		17	53.616	899.08
BRASS	F1147	F	2 1/2"x2" BRASS BUSHING		11	51.9693	571.5
BRASS	F1148	F	1 1/2"x1/2" BRASS BUSHING		14	17.822	245.63
BRASS	F1150	F	1 1/4"x3/4" BRASS BUSHING		17	13.339	168.04
BRASS	F1151	F	1"x3/4" BRASS BUSHING		31	7.452	230.51
BRASS	F1152	F	1"x1/2" BRASS BUSHING		24	7.3764	181.32
BRASS	F1154	F	1"x1/4" BRASS BUSHING		6	5.6915	34.1
BRASS	F1155	F	3/4"x1/2" BRASS BUSHING		37	2.0303	83.07
BRASS	F1156	F	3/4"x3/8" BRASS BUSHING		16	6.3075	100.91
BRASS	F1157	F	3/4"x1/4" BRASS BUSHING		35	6.3504	199.87
BRASS	F1158	F	1/2"x3/8" BRASS BUSHING		31	1.35	53.63
BRASS	F1159	F	1/2"x1/4" BRASS BUSHING		0	1.11	0
BRASS	F1160	F	3/8"x1/4" BRASS BUSHING		30	1.89	53.68
BRASS	F1161	F	1/8" BRASS PLUG	8-Jan	28	1.08	67.07
BRASS	F1162	F	1/4" BRASS PLUG		31	1.728	78.35

BRASS	F1163	F	3/8" BRASS PLUG			25	2.376	74.75
BRASS	F1164	F	1/2" BRASS PLUG			26	4.244	104.5
BRASS	F1165	F	3/4" BRASS PLUG			23	2.6567	79.02
BRASS	F1166	F	1" BRASS PLUG			21	7.758	163.91
BRASS	F1167	F	1 1/4" BRASS PLUG			20	16.6753	305.31
BRASS	F1168	F	1 1/2" BRASS PLUG			18	20.8113	351.31
BRASS	F1169	F	2" BRASS PLUG			13	22.761	287.9
BRASS	F1249	F	3" X 2" BRASS BUSHING			16	81.8967	1,122.26
BRASS	F1250	F	1 1/4 X 1" BRASS BUSHING			25	11.124	278.09
BRASS	F1275	F	3" BRASS COUPLING	3"		4	102.2	404.73
BRASS	F1294	F	4" X 2" BRASS BUSHING	4"		5	197.5863	987.93
BRASS	F1300	F	3/4" FIPT X 3/4" M METER THR BBIM-33 FORD	3/4"		15	9.1907	137.86
BRASS	F1301	F	3/4" FIPT X 1" MALE METER THR BBIM-34		4-Mar	13	8.4025	111.86
BRASS	F1302	F	1" FIPT X 1" MALE MTR THREAD BBIM-44	1"		12	18.782	206.22

05/06/1 6 11:18:54

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 6

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
BRASS	F1500	F	1 1/2" CTS O,D X F.I.P. THREAD c04-66-nl			55.222	276.11
BRASS	F2607	F	1" CTS O.D X F.I.P. THREAD c04-44-nl			23.898	71.68
BRASS	F7001	F	1-1/4"X1"ADAPTER FCTXPJ CTS C04-54			25.731	257.31
COPPER	F0001	F	1/2" COPPER TEE			1	18.65
COPPER	F0002	F	1/2" COPPER 90	1/2"		0.528	10.98
COPPER	F0003	F	1/2" COPPER COUP W/OUT STOP	1/2"		0.59	11.21
COPPER	F0004	F	1/2 COPPER MALE ADAPTER		2-Jan	0.978	20.79
COPPER	F1017	F	3/4" COPPER MIP ADAPTOR			0.862	18.3
COPPER	F1018	F	3/4" COPPER 90			0.5388	23.69
COPPER	F1019	F	3/4" COPPER 45			0.57	28.5
COPPER	F1020	F	3/4" COPPER FIP ADAPTOR			1.03	32.96
COPPER	F1021	F	3/4" COPPER TEE			0.8	25.6
COPPER	F1022	F	3/4" COPPER COUP W/OUT STOP			0.5388	28.4
COPPER	F1023	F	3/4" BRASS TEE			9.72	303.54
COPPER	F1058	F	1" COPPER 90			3.672	88.2
COPPER	F1059	F	1" COPPER 45			3.24	119.8
COPPER	F1060	F	1" COPPER COUPLING W/OUT STOP			2.16	58.47
COPPER	F1061	F	1" COPPER FIP ADAPTOR			3.254	107.66
COPPER	F1062	F	1" COPPER MIP ADAPTER			4.32	199.55
COPPER	F1063	F	1" X 3/4" COPPER MIP ADAPTOR			2.63	92.05
COPPER	F1064	F	1x1x3/4" COPPER TEE			2.25	36
COPPER	F1069	F	1" COPPER TEE			5.754	253.22
COPPER	F1098	F	1 1/2" COPPER COUP W/OUT STOP			6.4044	187.19
COPPER	F1099	F	1 1/2" COPPER MIP ADAPTOR			11.8367	194.11
COPPER	F1100	F	1 1/2" COPPER FIP ADAPTOR			15.775	200.71
COPPER	F1101	F	1 1/2" COPPER 90			10.1845	273.41
COPPER	F1102	F	1 1/2" COPPER 45			5.15	105.15
COPPER	F1104	F	2"x3/4" COPPER TEE			3.38	20.28
COPPER	F1105	F	1 1/2"x3/4" COPPER TEE			2.28	22.8
COPPER	F1129	F	2" COPPER MIP ADAPTOR			13.122	616.75
COPPER	F1130	F	2" COPPER FIP ADAPTOR			16.308	296.3
COPPER	F1131	F	2" COPPER 90			11.124	184.17
COPPER	F1132	F	2" COPPER COUPLING W/OUT STOP			8.64	327.83
COPPER	F1135	F	2" COPPER 45			16.2	256.68
COPPER	F1136	F	3" COPPER COUPLING			25.414	253.2
COPPER	F1137	F	3" FIP COPPER ADAPTOR			78.39	203.31
COPPER	F1138	F	3" COPPER MALE ADAPTOR	3"		101.79	357.35
COPPER	F1139	F	3" COPPER 90			13.7175	81.22
COPPER	F1140	F	3" COPPER 45			7.5967	22.79
COPPER	F1172	F	3/4 x 1" MIP COPPER ADAPTER			8.06	345.24
COUPL	F1068	F	1" 3000# STEEL COUPLING			2.484	50.45

COUPL	F1106	F	1 1/2" 3000# STEEL COUPLING			17	6.7863	106.4
COUPL	F1133	F	2" 3000# STEEL COUPLING			18	8.1	142.12
COUPL	F1211	F	1 1/2" STEEL COUPLING			18	2.328	37.83
COUPL	F1213	F	2 1/2" 3000# STEEL COUPLING			13	8.4	109.2
COUPLG	F1212	F	1" 3000# STL CPLG 1/2 SIZE THR	1"		14	1.5763	19.12
COUPLG	F1287	F	1" MIP X COMP E26055G		1	8	15.2713	122.12
COUPLG	F1288	F	1" E2609SG MIP COMP COUPLG		1	13	17.205	223.67
COUPLG	F1299	F	1" E2607 FIPxCOMP COUPLG S.G.	1"		10	18.4033	196.19
MTR	F3300	F	3/4" X 2" METER TAIL P/N C38-23-2	3/4"		8	11.092	88.74
MTR	F4400	F	1" X 2" METER TAIL P/N C38-44-2	1"		28	11.027	322.06
MTRFLG	F1097	F	1 1/2" BRASS METER FLANGE			23	29.16	670.64
MTRFLG	F1128	F	2" METER FLANGE			12	27.486	329.75
NIPPLE	F1011	F	3/4 X 12" BRASS NIPPLE			23	13.594	247.43
NIPPLE	F1012	F	3/4 X 6" BRASS NIPPLE			21	2.834	59.27

05/06/1 6 11:18:54

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 7

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
NIPPLE	F1013	F	3/4 X 3" BRASS NIPPLE		34	3.0995	78.54
NIPPLE	F1014	F	3/4 X 2 1/2" BRASS NIPPLE		28	2.743	63.32
NIPPLE	F1015	F	3/4 X 2" BRASS NIPPLE		40	2.268	90.53
NIPPLE	F1016	F	3/4 X CLOSE BRASS NIPPLE		36	1.782	64.9
NIPPLE	F1040	F	1 X 2" BRASS NIPPLE		49	3.2508	160.24
NIPPLE	F1041	F	1 X CLOSE BRASS NIPPLE		53	2.6353	138.68
NIPPLE	F1042	F	1 X 2 1/2" BRASS NIPPLE		34	3.816	133.3
NIPPLE	F1043	F	1 X 3" BRASS NIPPLE		27	4.482	121.86
NIPPLE	F1044	F	1 X 4" BRASS NIPPLE		26	6.21	161.91
NIPPLE	F1045	F	1 X 6" BRASS NIPPLE		27	8.6185	237.57
NIPPLE	F1046	F	1 X 8" BRASS NIPPLE		12	9.8607	105.49
NIPPLE	F1047	F	1 X 10" BRASS NIPPLE		29	13.5	371.04
NIPPLE	F1048	F	1 X 12" BRASS NIPPLE		20	16.1133	321.94
NIPPLE	F1089	F	1 1/2" X 6" BRASS NIPPLE		20	13.104	249.37
NIPPLE	F1090	F	1 1/2" X 4" BRASS NIPPLE		33	10.26	319.59
NIPPLE	F1091	F	1 1/2" X 3 BRASS NIPPLE		22	8.1753	173.42
NIPPLE	F1092	F	1 1/2" X 2 1/2" BRASS NIPPLE		21	8.0673	170.47
NIPPLE	F1093	F	1 1/2 X 2" BRASS NIPPLE		21	6.739	139.91
NIPPLE	F1094	F	1 1/2 X CLOSE BRASS NIPPLE		24	5.0547	121.29
NIPPLE	F1095	F	1 1/2" X 8" BRASS NIPPLE		22	21.3083	332.93
NIPPLE	F1096	F	1 1/2 X 10" BRASS NIPPLE		19	28.7153	516.04
NIPPLE	F1119	F	2"x2" BRASS NIPPLE		22	7.8948	173.66
NIPPLE	F1120	F	2"x2 1/2" BRASS NIPPLE		18	9.839	177.08
NIPPLE	F1121	F	2"x3" BRASS NIPPLE		12	9.9793	119.57
NIPPLE	F1122	F	2"x4" BRASS NIPPLE		17	14.5047	245.38
NIPPLE	F1123	F	2"x4 1/2" BRASS NIPPLE		19	12.83	271.49
NIPPLE	F1124	F	2"x6" BRASS NIPPLE		15	15.66	234.77
NIPPLE	F1125	F	2"X8" BRASS NIPPLE		15	25.38	377.2
NIPPLE	F1126	F	2"x10" BRASS NIPPLE		21	32.195	674.44
NIPPLE	F1273	F	1"x24" BRASS NIPPLE		23	38.34	891.37
NIPPLE	F1274	F	2"x24" BRASS NIPPLE		15	83.484	1,250.47
NIPPLE	F1297	F	3"x3" BRASS NIPPLE	3"	4	30.2067	115.59
NIPPLE	F3333	F	1" X 3 1/2" BRASS NIPPLE	1"	19	5.6487	107.36
NIPPLE	F4444	F	3/4" X 3 1/2" BRASS NIPPLE	3/4"	22	3.7587	82.68
NIPPLE	F8888	F	2" X 3 1/2" BRASS NIPPLE		19	12.1608	235.74
NIPPLE	F9999	F	1 1/2" X 3 1/2" BRASS NIPPLE		14	10.757	150.15
P	F1963	F	2 1/2" STEEL THR PLUG		8	13.8783	121.12
P.REG	F1026	F	3/4" WILKINS 510XL PRESS REG WITH 34-TPKXL		32	93.204	5,341.52
P.REG	F1070	F	1" WILKINS 510XL PRESS REG WITH TPKXL		19	136.62	4,029.14
P.REG	F1103	F	1 1/2" PRES. REG WILKINS 510XL		10	383.4	5,369.72
P.REG	F1170	F	2" WILKINS 510XL PRESS REG		2	702	1,404.00

PLUG	F1204	F	1 1/2 STEEL PLUG	1 1/2	25	3.78	95.94
PLUG	F1205	F	3/4 STEEL PLUG	3/4"	23	0.8967	21.43
PLUG	F1206	F	1" STEEL PLUG	1"	17	1.3608	25.51
PLUG	F1207	F	2" STEEL PLUG	2"	11	5.506	60.77
VALVE	F1031	F	1" BRASS CORP STOP MxF E1931		25	49.518	1,237.94
VALVE	F1080	F	1 1/2" BRASS SERVICE STOP		13	146.345	1,902.47
VALVE	F1080W	F	1 1/2" BRASS SVC STOP/WL		12	163.156	1,949.95
VALVE	F1081	F	1 1/2" M X M BRASS CORP STOP E1943		26	102.0813	2,836.35
VALVE	F1082	F	1 1/2" FxM BRASS CORP STOP		17	118.081	1,979.20
VALVE	F1107	F	2" M X M BRASS CORP STOP E1943		14	181.8933	2,565.68
VALVE	F1108	F	2" BRASS FxM CORP STOP		16	189.5727	3,033.16
VALVE	F1252	F	3/4" BALL VALVE J-1900		27	46.17	1,245.31
VALVE	F1252W	F	3/4" BALL VALVE W/LOCK J1900W	3/4"	17	47.992	822.29
VALVE	F1253	F	1" BALL VALVE		17	69.7467	1,185.73

05/06/1 6 11:18:55

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 8

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE	
VALVE	F1253W	F	1" BALL VALVE W/L	1"	16	72.6515	1,162.29	
VALVE	F1255	F	2" BALL VALVE JONES E-1900		24	204.52	4,933.97	
VALVE	F1255W	F	2" BALL VALVE W/L JONES E-1900	2"	18	206.474	3,687.60	
VALVE	F1256	F	1/2" CORP STOP MxM		7	25.05	206.74	
VALVE	F1282	F	1" E1963WSG AM STOP	1"	6	99.4033	613.58	
VALVE	F1283	F	1" ANGLE MTR STOP E1527W FIP	1"	11	44.38	506.94	
VALVE	F1284	F	3/4" ANGLE MTR STOP FIP E1527	3/4"	4	28.394	113.6	
VALVE	F1286	F	1" MIP X CTS LP BALL CORP E1935SG JONES / FB1	100-4Q FORD	12	53.6975	632.58	
VALVE	F1478	F	2" BALL VALVE W/LONG HANDLE E1905		4	209.95	899.42	
VALVE	F1585	F	3/4" COPPER FLARE NUT X FIP E1901W 3/4"/W TH	FBV FIP FC	3/4"	5	63.48	323.63
VALVE	F1886	F	1" COPPER FLARE NUT X FIP E1901W 1"/W TH FBV	FIP FC	1"	8	85.8175	689.76
VLV	F1202	F	1" ANGLE BALL METER VALVE BA23-444W	1"	4	71.97	287.91	
VLV	F1203	F	3/4" ANGLE BALL METER VLV BA23-332W	3/4"	4	54.5175	218.04	
TOTAL F		2	08 PARTS				89,949.85	
GASKET	G1000	G	1 1/2" 150# RING GASKET		35	0.3455	19.92	
GASKET	G1001	G	2" 150# RING GASKET		22	0.722	15.84	
GASKET	G1002	G	2" 300# RING GASKET		13	0.702	9.11	
GASKET	G1003	G	3" 150# RING GASKET		32	0.734	23.2	
GASKET	G1004	G	3" 300# RING GASKET		18	1.242	22.38	
GASKET	G1005	G	4" 150# RING GASKET		19	1.026	19.5	
GASKET	G1006	G	4" 300# RING GASKET		24	1.62	38.97	
GASKET	G1007	G	6" 150# RING GASKET		48	2.16	103.78	
GASKET	G1008	G	6" 300# RING GASKET		30	1.89	64.49	
GASKET	G1009	G	8" 150# RING GASKET		32	3.726	115.34	
GASKET	G1010	G	8" 300# RING GASKET		47	3.078	154.46	
GASKET	G1011	G	10" 150# RING GASKET		31	4.374	129.23	
GASKET	G1012	G	10" 300# RING GASKET		17	7.058	151.56	
GASKET	G1013	G	12" 150# RING GASKET		14	6.48	81.97	
GASKET	G1014	G	12" 300# RING GASKET		16	9.461	147.59	
GASKET	G1015	G	14" 150# RING GASKET		13	13.5	153.77	
GASKET	G1016	G	14" 300# RING GASKET		12	13.408	160.91	
GASKET	G1017	G	16" 150# RING GASKET		22	7.938	172.29	
GASKET	G1018	G	16" 300# RING GASKET		10	17.4129	168.38	
GASKET	G1019	G	18" 150# RING GASKET		9	19.0314	154.12	
GASKET	G1020	G	18" 300# RING GASKET		8	19.064	152.51	
GASKET	G1021	G	20" 150# RING GASKET		12	30.17	316.26	
GASKET	G1022	G	24" 150# RING GASKET		6	20.6883	124.13	
GASKET	G1023	G	8" 300 BOLT FLANGE GASKET		4	1.81	7.24	
GASKET	G1024	G	6" 300 BOLT F. GASKET		4	2.88	11.52	

GASKET	G1025	G	6" RUBBER RING			44	7.38	324.72
GASKET	G1026	G	2" AIR VALVE COVER GASKET			19	14	266
GASKET	G1027	G	1" AIR VALVE COVER GASKET			21	16.1625	335.86
GASKET	G1028	G	1 1/2" STRAINER GASKET			8	1.0503	8.41
GASKET	G1029	G	2" STRAINER GASKET			11	1.11	12.21
TUBING	G1030	G	1/8" COPPER TRACER WIRE			0	0.4264	0
TUBING	G1031	G	1/4" TYPE K COPPER TUBE/ 4WTC9 ID-1/4" OD-3/	8" WALL-0.035		0	1.6226	0
TUBING	G1032	G	3/8 K COPPER TUBING I.D 3/8" O.D 0.500		8-Mar	0	1.7835	0
TUBING	G1033	G	1/2" SOFT COPPER TUBING I.D-0.340 O.D-0.500			0	2.21	0
TUBING	G1034	G	1/4" O.D FRIG TUBING 1/8" I.D 1/4" OD X 0.030	"W/ UNS-C12200 1/8"		99	0.4568	63.26
	TOTAL G		35 PARTS					----- 3,528.93
ALLTHR	H1300	H	3/8"x3' ALL THREAD SS		8-Mar	8	15.7633	102.21

05/06/16 11:18:55

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 9

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE	
ALLTHR	H1301	H	5/8"x 3' ALL THREAD SS			1	17.34	17.34
ALLTHR	H1302	H	1"x 3' ALL THREAD SS			4	40.2117	160.86
ALLTHR	H1303	H	5/16"x 3' ALL-THREAD SS			6	7.8867	47.33
ALLTHR	H1304	H	1/4"x 3' ALL THREAD SS			7	4.73	33.11
CLAMP	H1023	H	1"x 4" SADDLE CLAMP			4	42.02	168.08
CLAMP	H1024	H	1"x 6" SADDLE CLAMP			2	86.79	131.52
CLAMP	H1025	H	1"x 8" SADDLE CLAMP			2	93.4	186.8
CLAMP	H1026	H	1"x 10" SADDLE CLAMP			2	67.4	135.98
CLAMP	H1027	H	1 1/2"x 4" SADDLE CLAMP			2	47.83	78.72
CLAMP	H1028	H	1 1/2"x 6" SADDLE CLAMP			2	52.58	105.16
CLAMP	H1029	H	1 1/2"x 8" SADDLE CLAMP			1	49.92	49.92
CLAMP	H1030	H	2"x 4" SADDLE CLAMP			2	34.82	69.64
CLAMP	H1031	H	2"x 6" SADDLE CLAMP			2	109.03	164.26
CLAMP	H1032	H	2"x 8" SADDLE CLAMP			2	52.54	105.08
CLAMP	H1333	H	2" X 3" SADDLE CLAMP			0	0	0
MISC	H1142	H	3/4" REDWOOD PLUGS			28	2.149	57.8
MISC	H1143	H	1" REDWOOD PLUGS			16	2.527	40.44
MISC	H1144	H	1 1/4" REDWOOD PLUG			10	2.987	29.65
MISC	H1146	H	2" REDWOOD PLUGS			19	5.53	110.74
MISC	H1160	H	1/2" REDWOOD PLUG		2-Jan	0	2.6614	0
MISC	H1305	H	1/2" x 3' ALL-THREAD SS	1/2"		0	26.2817	0
MISC	H1306	H	3/4"x 3' ALL-THREAD SS	3/4"		1	35.4817	35.49
MISC	H1307	H	7/8"x3' ALL-THREAD SS		16-Jul	0	49.5433	0
NIPPLE	H1037	H	1"x 3" SCH 80 PVC NIPPLE			61	0.95	57.95
NIPPLE	H1038	H	3/4"x 6" SCH 80 PVC NIPPLE			13	7.864	79.75
NIPPLE	H1039	H	3/4"x 3" SCH 80 PVC NIPPLE			18	0.3242	6.57
NIPPLE	H1040	H	3/4"x 2" SCH 80 PVC NIPPLE			15	1.004	11.65
NIPPLE	H1042	H	3/4"x 12" SCH 80 PVC NIPPLE			15	1.08	22.98
NIPPLE	H1043	H	1"x 12" SCH 80 PVC NIPPLE			19	1.4258	42.85
NIPPLE	H1053	H	1 1/2"x 12" SCH 80 PVC NIPPLE			13	2.549	29.5
PVC	H1041	H	1"x4" SCH 80 PVC NIPPLE			16	1.05	16.8
PVC	H1045	H	3/4" SCH 80 PVC 90			31	0.787	22.18
PVC	H1046	H	1/2" SCH 80 PVC COUPLING			31	1.14	34.9
PVC	H1047	H	3/4" SCH 80 PVC COUPLING			11	1.562	16.81
PVC	H1048	H	1" SCH 80 PVC COUPLING			0	1.7565	0
PVC	H1049	H	1/2" SCH 80 PVC 45			21	1.4253	27.92
PVC	H1050	H	3/4" SCH 80 PVC 45			20	2.3758	49.77
PVC	H1051	H	1" SCH 80 PVC UNION			0	2.0042	0
PVC	H1052	H	3/4" SCH 80 PVC UNION			11	4.206	44.78
PVC	H1056	H	1 1/2" SCH 80 PVC COUPLING			14	3.164	41.4
PVC	H1057	H	1 1/2" SCH 80 PVC SxFIP COUPLG			0	9.57	0

PVC	H1058	H	1 1/2" SCH 80 PVC 90	18	2.257	63.32
PVC	H1059	H	2" SCH 80 PVC 90	4	4.046	16.19
PVC	H1060	H	2 1/2" SCH 80 PVC 90	9	10.84	97.56
PVC	H1061	H	2" SCH 80 PVC COUPLING	25	3.3483	79.28
PVC	H1062	H	2 1/2" SCH 80 PVC COUPLING	1	14.19	14.19
PVC	H1063	H	1 1/2" SCH 80 PVC TEE	19	7.3808	173.88
PVC	H1064	H	2" SCH 80 PVC TEE	15	9.59	141.69
PVC	H1067	H	1/2" PVC TEE	24	0.389	8.68
PVC	H1068	H	3/4" PVC SLIP TEE SCH 40	31	0.1336	4.15
PVC	H1069	H	1" PVC SLIP TEE SCH 40	11	0.3235	3.61
PVC	H1070	H	1 1/2"x 1/2" PVC TEE	6	2.39	14.34
PVC	H1071	H	2" PVC TEE	0	1.3583	0
PVC	H1072	H	2"x 1/2" PVC SLIP TEE	11	2.35	25.85
PVC	H1073	H	1 1/2" PVC SLIP TEE SCH 40	18	1.138	16.29

05/06/1 6 11:18:55

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 10

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
PVC	H1074	H	1 1/4 X 1" SCH 40 TEE		5	1.36	6.8
PVC	H1075	H	1 1/2" PVC 45		9	0.797	7.17
PVC	H1076	H	1 1/4" 45 PVC SCH-40		13	0.57	7.41
PVC	H1077	H	1" PVC 45		18	0.625	11.22
PVC	H1078	H	3/4" PVC 45		13	0.528	6.86
PVC	H1079	H	1/2" PVC 45		31	0.918	25.73
PVC	H1080	H	2" PVC 45		11	1.45	15.95
PVC	H1081	H	3/4" PVC PLUG		8	0.4733	3.68
PVC	H1082	H	1" THR. PVC PLUG		13	1.038	12.99
PVC	H1083	H	1" PVC SLIP PLUG		26	0.691	21.75
PVC	H1085	H	3/4"x 1/2" THR PVC BUSHING		15	0.379	5.44
PVC	H1086	H	3/4"x 1/2" SLIP PVC BUSHING		25	0.345	6.03
PVC	H1087	H	3" PVC SLIPxTHR TEE		0	10.78	0
PVC	H1088	H	1/2" PVC COUP SLPXSLP		19	0.216	4.02
PVC	H1089	H	3/4" PVC COUP SLPXSLP		25	0.3133	7.8
PVC	H1090	H	1" PVC COUPLING		27	0.5184	13.61
PVC	H1091	H	1 1/4" PVC COUPLING		10	0.733	7.33
PVC	H1092	H	1 1/2" PVC COUPLING		27	0.378	10.51
PVC	H1093	H	2" PVC COUPLING		13	1.1987	15.39
PVC	H1094	H	2" SCH 40 SLIP PVC CAP		15	0.6373	9.6
PVC	H1095	H	1 1/2" PVC SLIP CAP		0	0.528	0
PVC	H1096	H	1 1/2" THR PVC CAP		0	0.64	0
PVC	H1097	H	1 1/4" PVC SLIP CAP		32	0.778	21.93
PVC	H1098	H	1 1/2" SLIP PVC CAP		32	0.8856	24.02
PVC	H1099	H	1" PVC SLIP CAP GRAINGER# 5WPW0		27	0.5613	15.39
PVC	H1100	H	1" THR PVC CAP		27	1.164	26.82
PVC	H1101	H	3/4" THR PVC CAP		14	0.504	5.94
PVC	H1102	H	1/2" THR PVC CAP		17	0.6573	10.78
PVC	H1103	H	1/2" SLIP PLUG		10	0.43	4.3
PVC	H1107	H	2 1/2" PVC SLIP REPAIR COUPLIN		2	15.07	30.14
PVC	H1110	H	1" PVC TELESCOPE REPR COUPLING	1"	8	3.1	30.07
PVC	H1111	H	1/2" PVC SLIP REPAIR COUPLING		26	0.38	25.92
PVC	H1112	H	1 1/4" PVC MALE ADPATOR		28	0.28	7.15
PVC	H1113	H	1" PVC MIP ADAPTOR		15	0.415	5.99
PVC	H1114	H	1" PVC FEMALE ADAPTOR		0	0.334	0
PVC	H1115	H	3/4" PVC FEMALE ADAPTOR		35	0.164	9.14
PVC	H1116	H	3/4" PVC MALE ADAPTOR		14	0.2155	2.98
PVC	H1117	H	3/4 SCH 40 PVC FIP W/WASHER		7	1.6233	12.47
PVC	H1119	H	1/2" PVC SCH 40 MALE ADAPTER		23	0.259	5.66
PVC	H1120	H	2" PVC MALE ADAPTOR		1	0.884	0.85
PVC	H1121	H	2" PVC FEMALE ADAPTOR		8	0.81	6.48

PVC	H1122	H	1 1/2" PVC MALE ADAPTOR		11	0.639	6.98
PVC	H1123	H	1 1/2" PVC FEMALE ADAPTOR		16	3.91	62.56
PVC	H1124	H	1/2"SLIP x 3/8THR PVC BUSHING		18	0.64	11.52
PVC	H1125	H	1"x 3/4" PVC SLIP BUSHING		17	0.436	7
PVC	H1126	H	1 1/4"x 1" SLIP BUSHING		22	0.539	9.35
PVC	H1127	H	1 1/2"x 1" PVC SLIP BUSHING		17	0.421	8.13
PVC	H1128	H	2"x1" SCH 40 PVC BUSHING		17	1.08	20.7
PVC	H1129	H	2"x 1/2" PVC SLIP BUSHING		31	0.9396	31.75
PVC	H1130	H	1" PVC SLIP 90 SCH 40	1"	26	0.5395	13.8
PVC	H1131	H	3/4" PVC THR x THR 90 5	3/4"	15	0.69	8.75
PVC	H1132	H	3/4" PVC SLIP 90		29	0.324	9.61
PVC	H1133	H	1/2" PVC SLIP 90		25	0.443	10.12
PVC	H1134	H	1" PVC THR 90		15	2.09	31.35
PVC	H1135	H	1" PVC SLIP X THR 90		16	0.431	6.52

05/06/1 6 11:18:55

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 11

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE	
PVC	H1136	H	1"x 3/4" PVC SLIP 90			13	0.54	7.02
PVC	H1137	H	2" PVC SLIP 90			9	1.164	10.42
PVC	H1138	H	1 1/4" PVC SLIP 90			16	1.216	17.62
PVC	H1139	H	1 1/2" PVC SLIP X THR 90			3	0.76	2.28
PVC	H1140	H	2" PVC SLIP X THR 90			9	1.649	14.84
PVC	H1141	H	1 1/2" PVC SLIP 90 SCH 40			15	0.702	10.49
PVC	H1145	H	1 1/2" REDWOOD PLUGS			22	4.957	110.39
PVC	H1150	H	1 1/4 SLIPxTHR PVC 90		1 1/4	13	0.69	10
PVC	H1153	H	1"X 1/2" PVC SLIP BUSHING			12	0.269	4.61
PVC	H1154	H	2"SLIP X 1/2"THR PVC BUSHING			7	1.46	9.8
PVC	H1155	H	1/2"SLIP X 1/4"THR PVC BUSHING			13	1.01	13.12
PVC	H1156	H	3/4 SLIP x THR SCH 40 PVC 90			37	0.648	21.01
PVC	H1170	H	1 X 1/2 PVC SLIP TEE		1"	6	0.41	2.45
PVC	H1171	H	1x1x3/4 SCH 40 PVC TEE SxSxTHR		1"	8	0.69	5.52
PVC	H1172	H	3/4Sx3/4Sx1/2THR PVC TEE		4-Mar	14	0.657	7.82
PVC	H1173	H	1x1x1/2 SCH 40 PVC TEE SxSxTHR		1	7	0.49	3.4
PVC	H1175	H	1 1/2"x1" SLIPxFIP PVC BUSHING		1 1/2"x1	14	1.088	15.22
PVC	H1176	H	1"SLIPx3/4"FIP PVC BUSHING		1x3/4	16	0.61	9.76
PVC	H1178	H	1/2" PVC SLIP CAP		1/2"	18	0.172	3.11
PVC	H1179	H	3/4" SCH 40 PVC SLIP CAP			16	0.2393	3.89
PVC	H1180	H	1" PVC SxSxFIP TEE			7	0.7	4.9
PVC	H1207	H	272002 3/4" PVC COMP. COUPLING			16	0.948	15.1
PVC	H1208	H	272003 1" PVC COMP COUPLING			9	1.261	11.34
PVC	H1210	H	272005 1 1/2" PVC COMP COUPLG			8	2	16.02
PVC	H1211	H	2" PVC COMP COUPLING			5	6.8033	34.58
PVC	H1220	H	1 1/2" SCH 40 PVC TEE SxTHRxs		1 1/2	6	0.258	1.54
PVC	H1224	H	2" PVC TELESCOPE REPR COUPLG		2"	4	8.51	38.08
PVC	H1230	H	1/2 PVC TELESCOPE REPR COUPLG		1/2"	2	2.68	5.36
PVC	H1311	H	2" TEE S X S SCH 40 GRAINGER # 5WNW3		2"	4	2.382	9.53
PVC	H1975	H	1 1/4" 45 PVC SCH-80			0	0	0
PVC 80	H1001	H	2"x3" SCH 80 NIPPLE			24	2.1	50.4
PVC 80	H1051T	H	1" SCH 80 PVC THR UNION		1"	0	2.37	0
PVC 80	H1177	H	1 1/2"x6" SCH 80 PVC NIPPLE		1.5x6"	15	0.95	14.13
PVC 80	H1181	H	1 1/4 SLIP UNION		2"	6	6.476	38.85
PVC 80	H1201	H	2" SCH 80 PVC 45		2"	18	6.361	112.31
PVC 80	H1202	H	1" SCH 80 PVC TEE		1"	9	4.6975	41.1
PVC 80	H1231	H	1/2" SCH 80 PVC FIP ADAPT		1/2"	16	1.921	25.73
PVC 80	H1233	H	1/2 SCH 80 PVC SLIP 90		1/2"	15	1.368	16.95
PVC 80	H1234	H	1 1/2" SCH 80 PVC THR UNION		1 1/2"	10	4.622	46.22
PVC 80	H1236	H	1/2" SCH 80 PVC THR UNION		1/2"	10	1.562	15.62
PVC 80	H1237	H	2x6" SCH 80 PVC NIPPLE		2x6"	16	0.994	38.83

PVC80	H1033	H	3/4" SCH 80 PVC TEE		7	1.7	11.9
PVC80	H1034	H	1/2" SCH 80 PVC UNION		34	2.13	72.42
PVC80	H1035	H	1"x 6" SCH 80 PVC NIPPLE		16	0.9608	13.38
PVC80	H1066	H	2" SCH 80 PVC DBL UNION B VALV		0	63.42	0
PVC80	H1158	H	1" SCH 80 PVC 90	1"	19	1.566	29.7
PVC80	H1159	H	1 1/2 x 3" SCH 80 PVC NIPPLE	1 1/2"	14	0.571	9.07
PVC80	H1165	H	1" SCH 80 PVC MIP ADAPTER	1"	13	3.1247	40.63
PVC80	H1167	H	1" SCH 80 PVC 45 ELL	1"	16	3.2507	51.88
PVC80	H1182	H	2 SCH 80 PVC THR BALL VALVE	2	1	52.545	52.54
PVC80	H1206	H	1/2 x 2" SCH 80 NIPPLE		0	0.16	0
PVC80	H1221	H	1 1/4 SCH 80 PVC MIP	1 1/4	9	3.75	33.75
PVC80	H1226	H	3/4"x1/2" SCH 80 PVC BUSHING	3/4"	12	0.661	7.17
PVC80	H1228	H	1 x 1/2 SCH 80 PVC BUSH SxFIP	1"	21	1.3393	31.42
PVC80	H1229	H	1 1/4x2 SCH 80 PVC NIPPLE	1 1/4x2	12	0.2907	3.49

05/06/1 6 11:18:56

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 12

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE	
PVC80	H1309	H	1 1/4 SCH 80 PVC THR BAL VALVE		1 1/4	4	5.622 22.49	
PVC80	H1310	H	1 1/2 SCH 80 PVC THR BAL VALVE		1 1/2	4	7.7 30.77	
PVC80	H1409	H	1" COUP SS SCH-80	1"		10	2.1167 21.17	
REDUCE	H1571	H	4 X 3 WELD REDUCER			3	8.555 25.65	
REDUCE	H1572	H	2X1 1/2" REDUCER			7	6.14 43.85	
REDUCE	H1573	H	6X4" REDUCER			2	16.95 33.9	
REDUCE	H1574	H	8X4" REDUCER			4	18.83 75.32	
REDUCE	H1575	H	8X6" REDUCER			2	22.82 45.64	
REDUCE	H1576	H	10X8" REDUCER			6	26.9383 161.63	
REDUCE	H1577	H	12X10" REDUCER			5	40.13 200.65	
SEWER	H1151	H	2" PVC THR CAP			15	2.044 30.68	
VALVE	H1044	H	1/2" SCH 80 PVC BALL VALVE			6	32.82 196.95	
VALVE	H1054	H	3/4" SCH 80 SLIP BALL VALVE			9	11.3717 89.07	
VALVE	H1055	H	1" SCH 80 PVC BALL VALVE			3	32.4967 97.48	
VALVE	H1055T	H	1" SCH 80 PVC THR BALL VALVE	1"		0	4.827 0	
VALVE	H1065	H	2" SCH 80 BALL VALVE			2	46.7633 93.53	
VALVE	H1308	H	3/4" SCH 80 PVC THR BALL VALVE	3/4"		7	11.88 78.3	
WELD	H1563	H	ELL 3" STEEL WELD 90			5	4.8625 25.18	
WELD	H1564	H	4" STEEL WELD 45			5	7.14 35.7	
WELD	H1565	H	ELL 4" STEEL WELD 90			6	11.6367 69.82	
WELD	H1569	H	ELL 8" STEEL WELD 90			1	38.25 38.25	
WELD	H1570	H	3X2 BUTT WELD			7	5.17 34.92	
WELD	H1593	H	10" BUTT WELD 45 BEND	10"		2	41.12 82.24	
TOTAL H							1 89 PARTS	6,388.33
	J1171	J	2 1/2" FNST x 1 1/2" MNST ALUM			3	23.76 71.28	
	J1195	J	12 X 12 GLV VLV BOX TOP		12	2	19.355 38.72	
AIRVLV	J1141	J	1" GALV MUSH VENT CAP W/SCRN & NIPPLE			42	14.8069 861.41	
AIRVLV	J1151	J	2" AIR VALVE SCREENS			37	23.652 907.5	
AIRVLV	J1153	J	2" P.V.C SCREEN AIR VALVE			0	24.23 0	
BRASS	J1250	J	1/2x1/2 FLxMIP 90 ELL E1-8D	2-Jan		28	2.07 57.96	
COUPL	J1000	J	12" VICTAULIC COUPLING			3	93.14 279.42	
COUPL	J1002	J	6" VICTAULIC COUPLING			16	39.1 625.6	
COUPLG	J1001	J	8" VICTAULIC COUPLING	8"		3	69.875 209.63	
DIELEC	J1553	J	2" FxF THR DIELECTRIC UNION	2"		2	27.745 55.49	
GALV	J1009	J	8"x18" GALV. SLEEVES			16	9.1267 148.92	
GALV	J1140	J	1" X CLOSE GALV NIPPLE	1"		40	1.1773 47.09	
GALV	J1152	J	2" X CLOSE GALV NIPPLE	2"		35	2.214 77.49	
GALV	J1157	J	6" X 12" GALVANIZED SLEEVES			14	5.658 76.51	
GALV	J1158	J	8" X 12" GALVANIZED SLEEVES			9	7.29 65.53	

GALV	J1304	J	4" GALV ST. 90		10	23.09	341.59
GALV	J1305	J	4" GALV 90		3	14.9967	44.99
GALV	J1307	J	3" GALV TEE		3	23.21	69.63
GALV	J1308	J	4" GALV TEE		3	27.5	105.8
GALV	J1309	J	3" GALV 90		3	17.77	53.31
GALV	J1311	J	3" GALV ST. 90		5	13.985	61.83
GALV	J1312	J	5"x 3" GALV BUSHING		5	24.06	120.3
GALV	J1314	J	3" X 2" GALV BUSHING	3"	3	6.2033	18.61
GALV	J1316	J	4x2" GALV THR BUSHING	4x2	9	14.2133	127.92
GALV	J1317	J	4" GALV CAP THREADED	4"	3	9.3867	28.16
GALV	J1318	J	3" GALV CAP		1	5.03	5.03
GALV	J1319	J	2" GALV COUPLING		8	4.472	31
GALV	J1520	J	2" GALV TEE		9	4.46	40.14
GALV	J1521	J	1 1/2" GALV CAP		7	0.55	5.13

05/06/1 6 11:18:56

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 13

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE	
GALV	J1522	J	2" GALV UNION			6	7.14	42.84
GALV	J1523	J	1 1/2" GALV UNION			5	8.25	41.25
GALV	J1524	J	2" GALV CAP			6	3.0575	13.76
GALV	J1525	J	1" GALV CAP			2	1.35	2.7
GALV	J1526	J	1 1/2" ST. GALV. 90			18	4.05	72.9
GALV	J1527	J	2" GALV 90			16	9.91	158.56
GALV	J1528	J	1" GALV UNION			5	2.346	11.73
GALV	J1529	J	2" ST GALV 90			2	6.83	13.66
GALV	J1530	J	3"x CLOSE GALV. NIPPLE	3"		4	3.125	12.49
GALV	J1534	J	2"x 5" GALV NIPPLE			5	4.2975	21.52
GALV	J1536	J	3/4" GALV UNION			4	3.36	13.44
GALV	J1537	J	3/4" GALV COUPLING			7	0.72	5.04
GALV	J1538	J	1" GALV 90			9	1.05	9.45
GALV	J1539	J	3/4" GALV 90			4	0.92	3.68
GALV	J1540	J	2 1/2" GALV PLUG			3	3.394	10.2
GALV	J1541	J	3" GALV PLUG			2	3.005	6
GALV	J1542	J	2"x 1/2" GALV BUSHING			11	3.49	38.39
GALV	J1544	J	1" GALV COUPLING 44170		1	10	0.377	3.77
GALV	J1545	J	1"x 3/4" GALV REDUCER			7	0.366	4.56
GALV	J1546	J	1"x 3/4" GALV BUSHING			8	0.28	5.96
GALV	J1547	J	1 1/2" GALV 90			5	2.16	10.8
GALV	J1548	J	1/2" GALV COUPLING			4	0.67	2.68
GALV	J1549	J	4"x4" GALV NIPPLE	4"		6	4.935	27.94
GALV	J1550	J	3"x 2" GALV BELL REDUCER			5	16.32	72.76
HYD	J1874	J	2"NPT FEMALE X 2 1/2" NST MALE	2"		7	25.4875	178.41
HYDNT	J1164	J	2 1/2" GASKETS" HYDNT FOR L.P			9	1.2	10.8
HYDRNT	J1147	J	2 1/2" NST X 2" NPT FXM P/N09-215-4	2 1/2"		6	63.72	382.32
HYDRNT	J1162	J	PACKING NUT FOR FIRE HYDRANT			1	2.48	2.48
HYDRNT	J1165	J	2 1/2" ADAPTER WASHERS			38	1.728	60.75
HYDRNT	J1166	J	2 1/2" FIRE HYDRANT CAP			30	7.83	234.94
HYDRNT	J1167	J	4" FIRE HYDRANT CAP			23	10.6383	214.96
HYDRNT	J1168	J	2 1/2"-3/4" GARDEN HOSE ADAPT			7	26.1583	171.95
HYDRNT	J1169	J	2 1/2"FNSTx1 1/2" MNST			12	11.3133	136.74
HYDRNT	J1170	J	1 1/2"x 1 1/2" FNSTxFIP SWIVEL		1 1/2	10	39.06	426.01
HYDRNT	J1172	J	2 1/2"FNSTx1"MIP ADAPTER			7	15.12	118.08
HYDRNT	J1173	J	2 1/2 X 2 1/2" DBL ADAPT SWIVL			8	66.5383	537.45
HYDRNT	J1174	J	2 1/2" FNST X 2" FNPT SWV P/N-DSF25F20T			11	63.72	744.12
HYDRNT	J1176	J	2 1/2" X 2 1/2" WARF HEAD			10	432	4,310.21
HYDRNT	J1176A	J	2" X 2 1/2" JONES WHARFHEAD			11	427.68	4,691.71
HYDRNT	J1177	J	4" X 2 1/2" H.P WARF HEAD			7	603.0717	4,213.41
HYDRNT	J1190	J	1 1/2 x 1 1/2 FNST X FIP ADPT		1 1/2	5	11.585	55.43

HYDRNT	J1192	J	1 1/2"x 1 1/2 MNST x MIP ADPT	1 1/2	3	12.745	38.23
HYDRNT	J1196	J	1 1/2 FNST X MIP ADAPT	1 1/2	3	7.292	21.87
HYDRNT	J1374	J	2 1/2"FNST X 2 1/2" NPT P/N-SM250F		11	46.062	544.99
HYDRNT	J1375	J	2 1/2"FNST x 3" MIP SWIVEL		4	82.1067	328.4
HYDRNT	J1803	J	BRASS CAP - NPSH SIDE 2 1/2"		9	20.52	190.97
HYDRNY	J1802	J	HOSE NIPPLE 2"NPT X 2 1/2"NPSH DIXON P/N-DMH2	25	4	42.0117	168.05
MISC	J1156	J	FLOWSERVE SEALANT 421 GREASE		5	218.7	1,093.51
NIPPLE	J1161	J	2" GALV CLOSE NIPPLE		0	1.675	0
NIPPLE	J1306	J	4"x 8" GALV NIPPLE		3	17.94	49.35
NIPPLE	J1310	J	3" X 8" GALV NIPPLE		5	4.635	27.48
NIPPLE	J1313	J	3"x 6" GALV NIPPLE		4	11.1533	38.6
NIPPLE	J1315	J	3"x 4" GALV NIPPLE		5	8.1967	32
NIPPLE	J1531	J	1"x 4" GALV NIPPLE		58	0.517	40.2
NIPPLE	J1532	J	1"x 6" GALV NIPPLE		8	0.743	5.95

05/06/1 6 11:18:56

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 14

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
NIPPLE	J1533	J	1 1/2xCLOSE GALV NIPPLE	1 1/2	21	0.493	10.95
NIPPLE	J1535	J	2"x 3" GALV NIPPLE		5	2.798	13.99
NIPPLE	J1543	J	1 1/2" X 6" GALV NIPPLE		5	1.3467	6.73
NIPPLE	J1551	J	4"x 36" GALV NIPPLE		3	70.2	220.62
PLGVAL	J1003	J	12" INSIDE O-RING 934045	12"	10	4.924	49.24
PLGVAL	J1004	J	12" OUTSIDE O-RING 934053	12"	10	8.502	85.02
PLGVAL	J1007	J	1/2x3/8 BLK STEEL BUSHING		2-Jan 38	0.8156	23.75
PLGVAL	J1008	J	12-14" #00056678 NORDSTM WORM	12-14"	2	2297.66	3,576.91
PLGVAL	J1083	J	RESUN SEALANT PLUG VALVE		9	8.2	73.8
PLGVAL	J1091	J	WRENCH SOCKET		8	16.28	130.24
PLGVAL	J1093	J	12" #113288 WORM GEAR SEGMENT	12"	3	770.68	2,216.77
PLGVAL	J1094	J	3/4" BUTTON HEADS		8	15.9	127.2
PLGVAL	J1095	J	6-8" INSIDE O-RING 934039	6-8"	10	4.924	49.24
PLGVAL	J1096	J	6-8" OUTSIDE O-RING 934044	6-8"	9	4.924	44.32
PLGVAL	J1098	J	NORDSTROM ROLL PIN 946564		8	13.8892	111.1
PLGVAL	J1101	J	NORSTROM 927941 THRUST BEARING TIMKEN T144W	904A2(200605 2 2 6-8"	8	174.96	1,230.43
PLGVAL	J1102	J	NORSTROM 12" 57831 SHAFT W/KEY		3	717.23	2,065.12
PLGVAL	J1103	J	NORDSTROM 6"-8" 57733 SHAFT W/KEY	6-8"	3	1644.3	4,932.90
PLGVAL	J1110	J	1/4" X 4" BLACK IRON NIPPLES		22	0.6803	14.97
PLGVAL	J1128	J	6-8"WORM #45790 FOR 1489 NORST		3	847.38	2,778.26
PLGVAL	J1131	J	14" SHAFT #8 FOR NORDSTROM PVL	14"	0	261.835	0
PLGVAL	J1132	J	OP NUT W/S.SCREW NORDSTROM 14"		5	50.4367	252.16
PLGVAL	J1485	J	1/2" BLK IRON PLUGS	1/2"	34	0.1292	4.38
PLGVLV	J1005	J	1/2 BUTTONHEAD COUPLG W/CK-VLV #5069 INJECTOR	ASSY	9	117.1781	1,054.61
PLGVLV	J1006	J	1/2"BLK IRON COUPLING		46	0.9913	44.3
PLGVLV	J1082	J	RESUN VALVE LUBE		4	19	76
PLGVLV	J1084	J	RESUN SEALANT PLUG VALVE		7	19.665	137.65
PLGVLV	J1086	J	MULTIPURPOSE LITHIUM GREASE		10	3.06	30.59
PLGVLV	J1087	J	WRENCH HEAD ADAPTER		22	10.69	235.18
PLGVLV	J1088	J	WRENCH HEAD PLUG VALVE		7	62.64	438.49
PLGVLV	J1089	J	NORDSTROM JAY STICKS #421		3	73.44	220.31
PLGVLV	J1090	J	10" WORM GEAR SEGMENT P/N-00113495 / 1489	10"	3	1976.4	5,493.79
PLGVLV	J1092	J	8" 113623 WORM GEAR SEGMENT FITS 8" 1489 - 6"	1589 6"-8"	4	1603.8	6,415.19
PLGVLV	J1097	J	1/4" BLACK IRON PLUGS		34	0.236	19.14
PLGVLV	J1099	J	1/8" BLK IRON PLUGS		18	0.2157	3.88
PLGVLV	J1100	J	SET SCREW SQ HD 944136		10	5.495	54.96
PLGVLV	J1106	J	KEY WAY #481788 NORDSTM 6"-8" FLOWSERVE P/N-0	0029358 2" LON G 6-8"	9	13.8892	125.05
PLGVLV	J1107	J	1/2 BUTTON HEAD GREASE FITTING P/N-N5069-LUBE	ASSEMBLY	28	74.52	2,086.57
PLGVLV	J1111	J	1/4" BLACK IRON COUPLING	1/4"	31	0.194	9.71
PLGVLV	J1112	J	1/2" BLACK IRON 90		23	0.6911	16.05
PLGVLV	J1113	J	1/2 " BLK IRON ST. 90		11	1.242	13.32

PLGVLV	J1114	J	3/4" BLK IRON ST. 90		25	1.393	34.63
PLGVLV	J1115	J	1/4" 90 BLK IRON		34	0.7004	20.46
PLGVLV	J1116	J	1/4" STREET ELLS BLK IRON		18	0.2935	5.31
PLGVLV	J1117	J	1/4" 45 BLK IRON		47	0.625	27.83
PLGVLV	J1118	J	1/4" X 1/2" BLK IRON BUSHING		32	0.8156	21.79
PLGVLV	J1119	J	3/4 X 1/2" BLK IRON BUSHING		21	2.4244	50.96
PLGVLV	J1120	J	1/4" X CLOSE INPPLE BLK IRON		60	0.1735	19.37
PLGVLV	J1122	J	1/4" X 2" NIPPLE BLK IRON		37	0.2155	9.65
PLGVLV	J1123	J	1/4" X 5" NIPPLE BLK IRON		34	0.6573	21.76
PLGVLV	J1124	J	1/4" X 6" NIPPLE BLK IRON		30	0.7867	23.63
PLGVLV	J1125	J	1/4" X 8" NIPPLE BLK IRON		29	0.9913	28.79
PLGVLV	J1292	J	CAP SCREWS 1 1/8X3 1/2 316 SS 12" PLUG VALVE	12"	6	46.138	274.19
PLGVLV	J1400	J	1/2" BLACK IRON 45	1/2"	48	1.08	51.9
PLGVLV	J1401	J	1/2"x CLOSE BLK IRON NIPPLE	1/2"	108	0.3124	33.33

05/06/1 6 11:18:56

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 15

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
PLGVLV	J1402	J	1/2"x 2 BLK IRON NIPPLE	1/2"	85	0.3556	34.83
PLGVLV	J1403	J	1/2"x 4" BLK IRON NIPPLE	1/2"	24	0.7883	18.82
PLGVLV	J1404	J	1/2"x 5" BLK IRON NIPPLE	1/2"	23	0.5617	12.86
PLGVLV	J1405	J	1/2"x 6" BLK IRON NIPPLE	1/2"	15	1.3252	19.21
PLGVLV	J1406	J	1/2"x 8" BLK IRON NIPPLE	1/2"	50	1.099	59.83
PLGVLV	J1458	J	CAP SCREWS 7/8 X 3" 316 SS 8" PLUG VALVE	8"	2	38.0625	76.14
VALVE	J1552	J	2" BRONZE BALL VALVE		3	42.1	126.3
TOTAL J							59,715.92
		1	46 PARTS				
	K1049	K	3" PAINT BRUSH GRAINGER # 1XRJ7		44	1.5227	67.03
	K1535	K	ZINC ANODE UNDERGROUND 15LBS		6	65.88	395.28
	K1536	K	BRASS SCREW GROUND CLAMP		6	3.24	19.44
AIRVAL	K1078	K	3/4" COMBO AIR VALVE		8	290.39	2,246.02
AIRVAL	K1079	K	1" COMBO AIR VALVE P/N D040C01 A.R.I 1" NPT	NSF,PN16 (BLU E	9	281.88	2,557.64
AUTO	K193	K	#BF853 FILTER		0	9.65	0
BLDFLG	K1021	K	2" 300# BLIND FLANGE		12	10.8	114.82
BLDFLG	K1022	K	2" 150# BLIND FLANGE		7	5.765	38.94
BLDFLG	K1029	K	3" 300# BLIND FLANGE		8	17.41	106.14
BLDFLG	K1030	K	3" 150# BLIND FLANGE		9	16.3675	109.68
BRASS	K1103	K	2" BRASS HAND WHEEL		2	3.97	7.94
CLAMP	K2010	K	3/4"X 3" SS PIPE REPAIR CLAMP 461002		7	14.072	78.4
CLAMP	K2011	K	3/4"x6" SS PIPE REPAIR CLAMP	3/4"x6"	10	8.602	84.98
CLAMP	K2012	K	1"X 3" S.S PIPE REPAIR CLAMP 461003		6	31.32	187.96
CLAMP	K2013	K	1"x 6" SS PIPE REPAIR CLAMP	1"	11	53.1367	336.88
CLAMP	K2014	K	1 1/2" X 3" PIPE REPAIR CLAMP		9	38.1025	238.03
CLAMP	K2015	K	1 1/2 X 6" PIPE REPAIR CLAMP		10	33.87	214.58
CLAMP	K2016	K	2 X 3" PIPE REPAIR CLAMP GRAINGER # 4NWP6		7	35.8017	233.69
CLAMP	K2017	K	2x6 S.S. REPAIR CLAMP GRAINGER - 4NWP7	2x6	7	35.5317	247.37
FLANGE	K1023	K	2" 300# WELD FLANGE		14	10.8283	121.05
FLANGE	K1026	K	3" 300# WELD FLANGE		12	15.495	198.26
FLANGE	K1027	K	3" 150# WELD FLANGE		12	10.8	129.59
FLANGE	K1710	K	2" WELD FLANGE 150#	2"	15	4.29	64.35
GAUGE	K1058	K	600 PSI GAUGE 63-1008A-02L-600#		17	16.092	273.53
GAUGE	K1058L	K	600 PSI LIQD FILL GAUGE 1/4" 63-1008AL-02L-60	0#	19	17.55	334.08
GAUGE	K1059L	K	400 PSI LIQD FILL GAUGE 63-1008AL-02L-400# 1/	4" NPT	11	18.0793	198.87
GAUGE	K1060L	K	#1X691 200 PSI LIQD FILL GAUGE		0	20.345	0
GAUGE	K1061	K	100 PSI GAUGE 63-1008A-02L-XLJ-100#		22	8.64	183.77
GAUGE	K1061L	K	100 PSI LIQD GAUGE 63-1008AL-02L-100#		23	18.252	413.36
GAUGE	K1062	K	60 PSI GAUGE 63-1008A-02L-XLJ-60#		14	18.189	254.37
GAUGE	K1062L	K	60 PSI LIQD GAUGE 63-1008AL-02L-060# 1/4" NPT		10	18.0788	180.05

GAUGE	K1063	K	30 PSI GAUGE 63-1008A-02L-30 PSI 1/4" NPT		16	7.3873	126.91
GAUGE	K1063L	K	30 PSI LIQD GAUGE 1/4" 63-1008AL-02L 30PSI		13	17.55	228.17
GAUGE	K1064L	K	200 PSI LIQ FILL GAUGE 63-1008AL-02L-200# 1/4	" NPT	8	18.0793	144.63
GAUGE	K1068	K	200 PSI GAUGE 1/4" 63-1008A-02L-XLJ-200#		21	7.516	209.29
GAUGE	K1068L	K	300 PSI LIQD FILL GAUGE 1/4" 63-1008AL-02L-30	0#	18	17.55	316.41
GAUGE	K1080	K	300 PSI GAUGE 63-1008A-02L-300#		10	9.45	94.62
GLUE	K1082	K	PRIMER CLEANER PURPLE 8OZ GRAINGER # 6KWX1		11	5.475	60.42
GLUE	K1086	K	PREM WET & DRY CEMENT 1/2 PT GRAINGER # 5E528		11	6.275	86.1
GREASE	K1081	K	ANTI-SEIZE PURE WHITE FOOD GRADE WITH PTFE		4	34.7767	139.03
LUBE	K1041	K	PIPE LUBRICANT		4	4.86	19.44
MISC	K1004	K	HACK SAW BLADES P/N 5R856		47	1.2853	274.76
MISC	K1010	K	PVC PIPE WRAP TAPE 10MIL PSPWT210 PROSELECT 2	" X 100'	75	3.888	291.41
MISC	K1014	K	WAX TAPE PRIMER		2	33.135	66.27
MISC	K1016	K	#1170 PROTECTO WRAP PRIMER GAL	GALLON	8	65.21	521.7

05/06/16 6 11:18:57

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 16

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE	
MISC	K1017	K	BITUMASTIC #50 1 GAL.		5	38.88	194.32	
MISC	K1038	K	NO-OX-ID GREASE GAL CONTAINERS		5	38.49	192.42	
MISC	K1045	K	DUCT TAPE GRAINGER P/N 5AD15		6	12.0958	72.57	
MISC	K1046	K	ELECTRICAL TAPE GRAINGER# 2A225		9	4.3742	39.26	
MISC	K1047	K	MASKING TAPE		3	1.067	3.2	
MISC	K1048	K	CAUTION TAPE GRAINGER# 1N956		6	3.8992	23.34	
MISC	K1050	K	PAINT BRUSH 2" GRAINGER #1TTX2		17	0.3213	5.48	
MISC	K1051	K	1 1/2" PAINT BRUSH		19	0.756	14.35	
MISC	K1052	K	PAINT BRUSH 1"		36	1.0439	37.54	
MISC	K1053	K	WIRE BRUSH SMALL GRAINGER # 10D449		46	2.4508	112.54	
MISC	K1054	K	WIRE BRUSH LARGE GRAINGER P/N 1VAG6		16	4.212	67.29	
MISC	K1055	K	4" PAINT BRUSH 5CJG9		45	2.6297	118.2	
MISC	K1056	K	NUT & BUSHING FOR WATER GAUGE PASCO 1402		15	4.3205	64.89	
MISC	K1089	K	TEFLON PIPE DOPE 1/2 PINT GRAINGER # 4X222		7	13.0038	90.96	
MISC	K1092	K	1 1/2" PUTTY KNIFE GRAINGER P/N-1UKF4		20	2.3547	62.91	
MISC	K1093	K	3" PUTTY KNIFE GRAINGER P/N-4YP31		19	7.7007	145.05	
MISC	K1113	K	NISSEN METAL MARKER		28	4.73	148.25	
MISC	K1114	K	OPEN MESH CLOTH 180 GRIT GRAINGER# 4UEZ5		8	5.205	41.56	
MISC	K1115	K	ABRASIVE FLEXIBLE SAND CLOTH GRAINGER # 41R38	4	1	10.455	10.37	
MISC	K1134	K	BLUE PLASTIC PIPE SLEEVE fr 1"	1"	5	11.7425	57.57	
MISC	K1400	K	BLUE HYDRANT REFLECTOR		20	2.549	50.98	
MISC	K1401	K	EPOXY FOR BLUE DOTS		10	20.131	201.31	
MISC	K3010	K	LOCKING BRACKET FOR DEBRIS CAP ITEM - LD-8		0	5.0538	0	
MISC	K4010	K	DEBRIS CAP W/GREEN HANDLE ITEM - DC825		0	57.9156	0	
MISC	K5010	K	DEBRIS CAP W/LOCKING BRACKET		13	63.115	820.48	
PIPE	K1200	K	6 X 9 WAX TAPE NTST1TAPE6		6	16	18.36	293.76
PIPE	K1300	K	POLY PLY WRAP TRENTON NTSTPOLYPLY06		18	14.0833	253.5	
PIPE	K1500	K	WAX TAPE PRIMER TRENTON 1 GAL BROWN	GAL	8	41.04	328.32	
SCRFLG	K1019	K	2" 300# SCREW FLANGE		11	16.9025	170.61	
SCRFLG	K1020	K	2" 150#SCREW FLANGE		12	16.108	193.28	
SCRFLG	K1024	K	1 1/2" 150# SCREW FLANGE		19	19.3413	309.32	
SCRFLG	K1025	K	3" 300# SCREW FLANGE		5	21.6583	108.27	
SCRFLG	K1028	K	3" 150# SCREW FLANGE		6	25.1271	150.74	
VALVE	K1071	K	1/8" WATTS TEST COCK		21	3.7692	78.88	
VALVE	K1072	K	1/4" WATTS TEST COCK		47	5.1948	244.17	
VALVE	K1073	K	1/2" TEST COCK		27	30.0567	831.7	
WIRE	K1100	K	BALING WIRE		6	5.634	33.82	
TOTAL K			82 PARTS				17,786.47	
METER	M1000I	M	M1000 4" TS HEAD ASSY	4"	2	589.68	1,179.36	

METER	M100W	M	ITRON 100W+ ERT		100W	48	91.8	4,406.40
METER	M1020I	M	ITRON ERT 60W W/CC (RADIOS)			0	73.8088	0
METER	M1023I	M	BR35 3/4" MTR W/ITRON-ERT 100W 3/4" X 9"		3/4"	39	277.02	10,803.51
METER	M1024I	M	BR55 1" MTR W/ITRON-ERT 100W HEAD		1"	127	335.34	42,348.59
METER	M1025I	M	BR170 2" MTR W/ITRON-ERT 100W		2"	8	797.58	6,380.77
METER	M1026I	M	BR120 1 1/2" MTR W/ITRON-ERT 100W		1 1/2"	18	592.38	10,607.37
METER	M1028I	M	3" MTR W/ITRON REG 100CFT		3"	2	1360.8	2,721.60
METER	M1033I	M	BR1000 4" MTR W/ITRON-ERT 100W		4"	3	1971	5,745.59
METER	M1850	M	BR160S 1 1/2" MTR ITRON-ERT 100W NO STRAINER		1 1/2"	4	756	3,024.00
METER	M1860	M	BR200 2" MTR W/ITRON-ERT 100W		2"	5	891	4,455.00
METER	M1870	M	BR160 1 1/2" MTR W/ITRON ERT 100W WITH - STR	AINER / TURBO	1 1/2"	10	1077.3	10,579.65
METER	M1890	M	BR200 2" MTR TURBO SERIES W/ERT 100W ITRON		2"	10	1209.06	12,087.33
METER	M2300I	M	BR35 3/4" SHORTIES MTR W/ITRON BR35712BBLLLR		3/4"	10	225.234	2,252.38
METER	M3000	M	2-3" T316 SS MTR BLT KIT 150# 8 SS WASHERS PE	R BOX	2"	2	13.338	26.69

05/06/16 6 11:18:57

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 17

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
METER	M3333	M	M450 3" 6-DIAL REGISTER CF	3"	1	123.12	123.12
METER	M4444	M	M1000 4" 6-DIAL REGISTER CF	4"	4	123.12	492.48
METER	M7000I	M	LF70 1" MTR W/ITRON-ERT 100W	1"	8	361.8	2,894.40
METERS	M4500I	M	M450 3"TS HEAD ASSY	3"	2	576.72	1,153.44
MTR	M1058I	M	BR25 5/8" MTR W/ITRON-ERT 100W		12	252.18	2,950.65
REG	M1019	M	2" MVR 160 REGISTER	2"	3	146.812	440.44
REG	M1021	M	1 1/2" MVR 100 REGISTER	1 1/2"	5	146.812	734.06
REG	M1040I	M	3/4" PD REG W/WIRE-ITRON- CC	3/4"	19	124.2	2,359.80
REG	M1041I	M	1" PD REG W/WIRE-ITRON-CC	1"	52	133.92	6,963.84
REG	M1042I	M	1 1/2" TRL5 REG CF,5' ITRON	1 1/2"	28	156.6	4,384.80
REG	M1043I	M	2" TRL5 REG,CF,5' WIRE ITRON	2"	3	156.6	469.8
REG	M1100	M	M35 3/4" ADE ITRON W/CABLE ARMOR	3/4"	14	91.8	1,265.76
REG	M1112	M	M55 1" ADE ITRON W/CABLE ARMOR	1"	4	88.56	354.24
REG	M1115	M	1 1/2 M120 BADGER REG W/ILC	1 1/2"	13	114.48	1,462.10
REG	M1118	M	M170 2" ADE ITRON W/CABLE ARMOR	2"	6	99.36	596.16
TOTAL M			30 PARTS				143,263.33
PIPE	P1002	P	3/4" TYPE K COPPER		303	6.048	998.3
PIPE	P1003	P	1/2 TYPE K COPPER		163	0.9159	149.25
PIPE	P1004	P	1/2 B/K IRON PIPE		168	0.5656	95
PIPE	P1005	P	1" TYPE K HARD COPPER TUBING		131	4.1364	544.25
PIPE	P1006	P	1 1/2" TYPE K COPPER		92	10.2768	925.05
PIPE	P1007	P	2" K SOFT COPPER		205	11.88	2,435.35
PIPE	P1008	P	3" TYPE K COPPER		58	19.332	698.73
PIPE	P1009	P	1/2 PVC SCH 40		270	0.2592	75.41
PIPE	P1010	P	3/4 PVC SCH 40 PIPE		199	0.3565	70.91
PIPE	P1011	P	1" PVC SCH 40		189	0.4968	93.97
PIPE	P1012	P	1 1/4 PVC SCH 40		91	0.7069	64.33
PIPE	P1013	P	2" PVC SCH 40		129	1.0071	129.87
PIPE	P1015	P	1 1/2" PVC SCH 80		100	0.7615	76.13
PIPE	P1020	P	1" BRASS PIPE		173	13.7592	2,380.21
PIPE	P1021	P	1 1/2" BRASS PIPE		122	9.1313	1,102.69
PIPE	P1022	P	2" BRASS PIPE		235	32.4	7,598.63
PIPE	P1023	P	1/2" BRASS PIPE	1/2"	130	5.6876	719.17
PIPE	P1024	P	1 1/2" SCH 40 PVC PIPE		205	0.6912	141.3
PIPE	P1026	P	1" SCH 80 PVC PIPE	1"	157	0.7452	112.37
PIPE	P1027	P	2" SCH 80 PIPE	2"	129	2.0119	216.79
PIPE	P1028	P	1" K SOFT COPPER TUBING SOFT TEMPER	1"	112	3.7692	422.06
PIPE	P1029	P	3/4" K SOFT COPPER TUBING SOFT TEMPER	3/4"	120	4.4172	568.79
PIPE	P1030	P	1/2" SCH 80 PVC PIPE	1/2"	113	0.3771	35.56

TOTAL P

23 PARTS

19,654.12

MISC	PA1005	PA	WD-40 GRAINGER # 20JY60	16	7.635	121.26
MISC	PA1007	PA	ZEP DRY MOLY LUBE NC	2	13.8467	27.68
MISC	PA1010	PA	ZEPRESERVE	0	8.78	0
MISC	PA1013	PA	LUBEZE DRILL CHILL CUTTING OIL ITEM - 2F146	6	11.3617	68.09
MISC	PA1028	PA	EXPANDING HOLE FOAM	0	4.3	0
MISC	PA1035	PA	PROPANE FUEL CYLINDER	3	2.99	8.97
PAINT	PA1000	PA	BLACK MARKING PAINT GRAINGER # 6YH14	32	3.175	101.61
PAINT	PA1002	PA	WHITE MARKING PAINT GRAINGER # 6KP32	39	3.1	119.44
PAINT	PA1003	PA	WHITE STRIPING PAINT GRAINGER#6KP30	3	2.845	8.53
PAINT	PA1004	PA	BLUE MARKING PAINT GRAINGER # 6KP33	30	3.0996	92.88
PAINT	PA1006	PA	RED MARKING PAINT	12	4.2233	44.04

05/06/1 6 11:18:57

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 18

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
PAINT	PA1016	PA	SAFETY YELLOW SPRAY PAINT GRAINGER # 6KN97		25	3.1967	79.75
PAINT	PA1017	PA	EQUIPMENT YELLOW SPR PAINT		8	7.5358	60.27
PAINT	PA1018	PA	YELLOW MARKING PAINT		0	4.4367	0
PAINT	PA1019	PA	FLAT WHITE SPRAY PAINT GRAINGER # 6KP29		0	6.7175	0
PAINT	PA1020	PA	GRAY PRIMER GRAINGER #5U705		13	4.3092	55.89
PAINT	PA1021	PA	DARK MACHINE GRAY GRAINGER P/N-5H905		19	4.525	81.67
PAINT	PA1022	PA	SAFETY RED SPRAY PAINT GRAINGER # 6KPO9		43	3.1975	137.37
PAINT	PA1023	PA	GLOSS BLACK SPRAY PAINT GRAINGER # 6KP22		13	2.5642	33.3
PAINT	PA1024	PA	GREEN MARKING PAINT 6YH09		14	3.175	43.19
PAINT	PA1036	PA	1GAL BLUE EPOXY ENAMUEL GRAINGER # 1D467		3	64.3475	193.04
PAINT	PA1037	PA	1GAL GRAY PRIMER GRAINGER P/N-1D460		4	60.4933	241.97
PAINT	PA1038	PA	1GAL NAVY GRAY ENAMUEL GRAINGER # 1D459		3	65.675	195.69
PAINT	PA1039	PA	1GAL EQUIP. YELLOW		0	32.38	0
PAINT	PA1043	PA	WHITE GLOSS SPRAY PAINT GRAINGER # 6KP31		18	3.2942	59.29
PAINT	PA1044	PA	FLAT BLACK SPRY PAINT GRAINGER #6KP19		21	3.045	58.75
PAINT	PA1045	PA	GRAFFITI REMOVER		3	2.72	8.16
PAINT	PA1046	PA	1 GAL SAFETY YELLOW GRAINGER P/N-1D465	GALLON	4	61.58	245.76
TOTAL PA			28 PARTS				2,086.60
BLADE	S1600	S	16" SUPREME DIAMOND COMBO BLADE	16"	6	216	1,296.00
BLADE	S1800	S	18" PREMIUM COMBO BLADE	18"	5	237.6	1,188.00
METER	S1054	S	CONST. METER COLLAR LOCKS		16	2.8728	45.96
METER	S1055	S	CONST. METER LOCK KEYS		7	90.4833	633.33
METER	S1106	S	MBW-100-RT MTR BX LID LIFTER WITH RUBBER LENS	TIP 36"	6	30.672	184.04
MISC	S1005	S	SMALL MASTERLOCK #2975 7/8"		60	7.074	424.42
MISC	S1006	S	LRG MASTERLOCK #2975 1"		50	8.6293	432.01
MISC	S1012	S	TRENCHING SHOVEL GRAINGER # 12U496		9	32.5086	300.82
MISC	S1023	S	ROUND SHOVEL GRAINGER # 1WG31		7	19.2567	134.76
MISC	S1025	S	HEAVY DUTY RUBBER PAIL W/LIP FORTEX N105-12	12-QUART	0	10.635	0
MISC	S1027	S	WHEEL BRUSH KNOT 5/8-11 GRAINGER #1GBJ5		27	17.95	484.48
MISC	S1029	S	SQUARE SHOVEL GRAINGER P/N-1WG32		11	19.0514	209.57
MISC	S1033	S	SILVER SOLDER 15% .050" X 1/8" X 20" PN-15620	F1	14	59.8992	924.52
MISC	S1034	S	9x1/4x5/8 GRINDING WHEEL		5	8.6083	43.04
MISC	S1035A	S	#158-179143 MASONRY BLADE 14"		2	68.48	186.92
MISC	S1043A	S	9V BATTERY		6	2.1175	12.72
MISC	S1044	S	C BATTERIES #207		11	1.1592	12.74
MISC	S1053	S	MEASURING TAPE 5LP66		5	6.8363	34.16
MISC	S1070	S	WATER HOSE NOZZLE		0	3.178	0
MISC	S1073	S	4.5 X 1/4 X 5/8-11 GRIND WHEEL GRAINGER #4B17	1	32	4.903	156.78
MISC	S1076	S	SPARKER LIGHTER		8	3.85	30.8

MISC	S1077	S	SPARK LIGHTER FLINTS		2	2.24	4.44
MISC	S1105	S	#P275 GRAY HAND PUMP		12	28.08	369.57
MISC	S1107	S	VALVE SUPPORTS 1"x36" STEEL P/N PS-100S		4	52.3371	209.34
MISC	S1108	S	INDUSTRIAL WATER HOSE		0	32.59	0
MISC	S1819	S	WAREHOUSE BROOM 56"		4	9.84	39.34
TOOL	S1101	S	GATE VALVE WRENCHES 6'-11' P/N-SW-611 2" VAL	VE NUT	1	108	108
TOOL	S1103	S	HACKSAW		7	19.61	152.91
TOOL	S1104	S	HYDRANT WRENCH		3	20.3475	61.05
TOOL	S1114	S	VALVE WRENCH LOCK PINS		25	3.24	81
TOOLS	S1100	S	DIGGING BAR HEX 6'X 1 1/4" P/N DB-60H		4	101.52	401.22
TOOLS	S1102	S	SSP - 400 SOIL PROBE		4	55.08	220.33
TOTAL S			32 PARTS				8,382.27

05/06/16 6 11:18:57

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 19

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
CEMENT	W1005	W	SPEEDCRETE RED LINE MORTAR 5GL ITEM - TA1000			87	3,006.42
CLAMP	W2000	W	14A X 20" POWER SEAL SS CLAMP	14"		2	690
CLAMP	W2001	W	14B X 20 POWER SEAL SS CLAMP		14	2	690
CLAMP	W2002	W	10A X 20" POWER SEAL SS CLAMP	10"		2	458
CLAMP	W2003	W	14A X 16" POWER SEAL SS CLAMP	14"		1	254
CLAMP	W2004	W	8A X 20" POWER SEAL SS CLAMP	8"		7	2,314.02
CLAMP	W2005	W	6" X 20" POWER SEAL SS CLAMP	6"		6	1,438.37
CLAMP	W2006	W	14B X 16" POWER SEAL SS CLAMP		14	2	508
CLAMP	W2007	W	12B X 12" POWER SEAL SS CLAMP	12"		0	0
CLAMP	W2008	W	12A X 12" POWER SEAL SS CLAMP		12	1	186
CLAMP	W2009	W	8 X 12 SS REPAIR CLAMP	8"		1	252.14
CLAMP	W4004	W	4" POWER SEAL SS CLAMP	4"		3	426.84
DI	W1377	W	12" 300# FLG DUCTILE 90 ELL	12"		4	6,587.86
DI	W1447	W	18"X14" FLG 300 LBCML COATED	18" X 14	" 2	2648.385	5,296.77
DI	W1448	W	18"X16" FLG 150 LB CML COATED	18" X 16	" 2	565.5	1,131.00
DI	W1449	W	18"X14" FLG 150 LB CML COATED	18" X 14	" 2	504.6	1,009.20
DI	W1450	W	18"X16" FLG 300 LB CML COATED	18" X 16	" 2	2865.89	5,731.78
DI	W1480	W	18" X 16" 300# FLG DI REDUCER	18" X 16	" 2	3197.25	6,394.50
METER	W1006	W	MED. METER BOX CARSON CARSON 1220-1134			21	925.1
METER	W1006A	W	MED. METER BOX READ LID CARSON 1220-00-FC-01			11	249.48
METER	W1007	W	LARGE METER BOX CARSON 1730-12			29	2,788.92
METER	W1007A	W	LARGE METER BOX READ LID 1730-F			21	2,176.75
METER	W1025	W	17x30x12" CONCRETE METER BOX W/READ LID			0	60.5
METER	W1026	W	CONCRETE MTR LID 23"x14" WATER			3	60.55
METER	W1027	W	13"x7" CONCRETE MTR LID			13	103.28
METER	W1400	W	W4-1/2 CONCRETE BODIES 23 X 16	23" X 16	" 6	16.88	101.28
METER	W1401	W	W4-1/2 CI COVER FOR 23X16 BOX	23X16		8	421.2
METER	W1500	W	W5-1/4 CONCRETE BOX 28"X18 1/2			7	184.54
METER	W1501	W	P-W51/4 CVR W/HINGED READER DIM 23 1/4" X 13 3/4"			9	383.84
MISC	W1001	W	PREMIXED CONCRETE 60lb BAGS BP3047A			85	307.76
MISC	W1243	W	POLY AIR VAC ENCLOS VCAS-1830			7	2,176.11
TOTAL W			31 PARTS				46,253.71
AIRVAL	Y1242	Y	AIR VALVE ENCLOSURE VCDD-1624			1	380.35
BF	Y0002	Y	6" 150# BLIND FLANGE 8-HOLE	6"		17	497.24
BF	Y0003	Y	6" 300# BLIND FLANGE	6"		14	643.32
BF	Y0009	Y	8" 150# BLIND FLANGE	8"		9	543
BF	Y0012	Y	10" 150# BLIND FLANGE	10"		7	685.43
BF	Y0013	Y	8" 300# BLIND FLANGE	8"		13	926.64
BF	Y0022	Y	6" 150# BLIND FLANGE 6-HOLE	6"		6	271.53

BF	Y1031	Y	16" BLIND FLANGE 150#	16"	6	260.82	1,587.03
BF	Y1032	Y	16" BLIND FLANGE 300#	16"	5	293.0775	1,440.13
BF	Y1033	Y	12" BLIND FLANGE 300#	12"	5	176.72	849.65
BF	Y1034	Y	12" 150# BLIND FLANGE	12"	7	101.9525	706.2
BF	Y1036	Y	14" 300# BLIND FLANGE	14"	2	380.62	561.22
BF	Y1037	Y	10" 300# BLIND FLANGE	10"	7	161.625	770.95
BF	Y1106	Y	14" 150# BLIND FLANGE	14"	10	206.88	1,924.26
BF	Y1133	Y	4" 150# BLIND FLANGE	4"	9	31.828	220.79
BF	Y1135	Y	4" 300# BLIND FLANGE	4"	11	28.545	268.86
CANLID	Y1053	Y	8" CI WATER VALVE LID	8"	22	20.25	445.99
CANLID	Y1054	Y	SEWER 8" CI VALVE CAN LID	8"	13	11.5817	149.29
CANLID	Y1055	Y	6" LID WATER VALVE	6"	6	12.175	67.06
CANLID	Y1245	Y	12" CI WATER VALVE LID	12"	2	48.6	97.2
CANLID	Y5310	Y	1208N VALVE BOX LID WATER	8"	12	32.4538	396.5

05/06/1 6 11:18:57

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 20

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE	
CANLID	Y5311	Y	1208N CI FRAME ONLY	8"	15	67.695	970	
CMLC	Y1014	Y	6" CMLC 45	6"	2	93.99	187.98	
CMLC	Y1806	Y	8" FLG 90 CMLC 300#	8"	1	596.77	596.77	
DI	Y0403	Y	4" X 3" 150# FLG TEE DI	4 X 3	4	138.955	555.82	
DI	Y1010	Y	10"X10"X10" 150# DUCTILE TEE	10"	2	399.17	798.34	
DI	Y1302	Y	8" 150# FLG DUCTILE 90 ELL	8"	4	208.8175	835.23	
DI	Y1303	Y	8" 300# FLG DUCTILE 90 ELL	8"	3	1001.16	2,976.72	
DI	Y1304	Y	4" 250# FLG DUCTILE 90	4"	6	340.3075	1,853.69	
DI	Y1305	Y	6" 150# FLG DUCTILE 90	6"	2	128.52	257.01	
DI	Y1313	Y	6" 150# FLG DUCTILE 45 ELL	6"	3	93.4433	280.33	
DI	Y1314	Y	6" 150# FLG DUCTILE 22-1/2 ELL	6"	5	83.8125	419.75	
DI	Y1315	Y	10" X 6" REDUCER STEEL	10"	1	274.765	274.76	
DI	Y1316	Y	12" DI 250# FLG TEE		12	1	2273.53	2,273.53
DI	Y1318	Y	6" 300# FLANGE DUCTILE TEE	6"	2	1050.885	2,101.77	
DI	Y1318A	Y	6" 150# FLG DI TEE	6"	4	151.6333	635.26	
DI	Y1322	Y	4" 150# FLANGE DUCTILE 45	4"	6	61.82	370.92	
DI	Y1323	Y	4" 300# FLANGE DUCTILE 45	4"	3	177.5	532.5	
DI	Y1324	Y	4" 150# FLANGED DUCTILE 90	4"	2	77.76	155.52	
DI	Y1325	Y	6" 300# FLANGED DUCTIL 90	6"	4	361.8	1,447.20	
DI	Y1326	Y	6" 300# FLANGED DUCTIL 45	6"	4	459.015	1,566.37	
DI	Y1327	Y	12" X 12" X 6" TEE	12"	3	392.2567	1,176.77	
DI	Y1329	Y	12"x10" 150# FLG REDUCER	12x10	2	275.14	663.99	
DI	Y1330	Y	8" 250# FLNGE TEE DUCTILE IRON	8"	3	1269	3,687.32	
DI	Y1331	Y	8x8x6" FLGE 150# TEE DUCT.IRON	8"	3	219.675	659.02	
DI	Y1332	Y	10x10x6 150# FLG DUCTLE TEE	10"	1	312.09	312.09	
DI	Y1333	Y	8x8x6" FLGE 250# TEE DUCT.IRON	8"	3	218.7	1,855.39	
DI	Y1334	Y	10x10x8 FLGE TEE 150# DUCT.IRO	10" X 8"	1	244.59	244.59	
DI	Y1335	Y	10x10x8 FLGE 250# TEE DUCT IRO	10" X 8"	1	954.93	954.93	
DI	Y1337	Y	8"x6" 150# FLG DUCTILE REDUCER	8"x6"	3	143.49	401.94	
DI	Y1338	Y	8" FLANGE 150# 45 ELL	8"	3	85.77	257.31	
DI	Y1339	Y	8" FLANGE 250# 45 ELL	8"	3	727.92	2,183.76	
DI	Y1340	Y	10" FLANGE 150# 45 ELL	10"	4	201.96	807.84	
DI	Y1341	Y	10" FLANGE 250# 45 ELL	10"	2	937.425	1,874.85	
DI	Y1342	Y	10" FLGxFLG 150# DUCTILE 90	10"	3	234.895	684.96	
DI	Y1343	Y	8" 150# FLG DI 22 1/2 BEND	8"	2	121.76	243.52	
DI	Y1344	Y	8" 150# FLG DI 11 1/4 BEND	8"	4	128.37	472.88	
DI	Y1345	Y	6" 150# FLG DI 11 1/4 BEND	6"	3	77.955	210.97	
DI	Y1346	Y	4" 150# FLG DI 11 1/4 BEND	4"	2	44.56	89.12	
DI	Y1347	Y	4" 150# FLG DI 22 1/2 BEND	4"	2	44.66	89.2	
DI	Y1348	Y	8" 300# FLG DI 22 1/2 BEND	8"	4	505.69	2,022.75	
DI	Y1349	Y	8" 300# FLG DI 11 1/4 BEND	8"	2	663.74	1,327.48	

DI	Y1350	Y	6" 300# FLG DI 22 1/2 BEND	6"	2	721.01	947.27
DI	Y1351	Y	6" 300# FLG DI 11 1/4 BEND	6"	2	721.02	947.3
DI	Y1353	Y	4" 300# FLG DI 22 1/2 BEND	4"	4	193.95	775.8
DI	Y1356	Y	10" 250# FLG 11 1/4 ELL DRILLD	10"	1	652.97	652.97
DI	Y1357	Y	14" 250# FLG 11 1/4 ELL DRILLD	14"	1	1129.98	1,129.98
DI	Y1358	Y	14" DI 125# FLG 22-1/2 BEND	14"	1	561.38	561.38
DI	Y1361	Y	6" X 3' 6-H X 8-H BRK-OFF SPL	6" X 36"	2	164.38	354.33
DI	Y1362	Y	6" X 6" HYD RISER BREAK-AWAY SPOOL	6"	5	42.615	214.03
DI	Y1363	Y	6" X 4" HYD RISER BREAK-AWAY SPOOL	6" X 4"	4	38.79	139.64
DI	Y1366	Y	6"x8"LONG 6-H BREAKAWAY SPOOL	6"	4	77.76	311.04
DI	Y1367	Y	6"x10"LONG 6-H BREAKAWAY SPOOL	6"	3	81	243
DI	Y1368	Y	6"8-Hx6"6-H BREAK.SPOOL 8"LONG	6"	2	79.92	159.84
DI	Y1369	Y	6"8-Hx6"6-H BREAK.SPOOL10"LONG	6"	2	77.76	155.51
DI	Y1370	Y	8" X 6" HYD RISER BREAK-AWAY SPOOL	8" X 6"	3	70.2	210.6

05/06/1 6 11:18:58

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 21

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
DI	Y1373	Y	6"8-Hx6"6-H BREAK SPOOL12"LONG	6"		79.92	228.36
DI	Y1378	Y	12" 150# FLANGE DUCTILE 90 ELL	12"		352.5025	705
DI	Y1379	Y	12"x8" 300# FLG DUCTILE REDUCER	12"x8"		1316.92	3,389.15
DI	Y1380	Y	12"x8" 150# FLG DUCTILE REDUCER	12"x8"		376.77	1,048.74
DI	Y1577	Y	8" DI C153 PO 90 W/GASKET			142.44	284.88
DI	Y1578	Y	8" DI C153 PO 45 W/GASKET	8"		118.94	237.88
DI	Y1579	Y	8" DI C153 PO 22-1/2 W/GASKET	8"		97.785	195.57
DI	Y1580	Y	8" FLG X 3' -0" SPOOL	8"		274.05	548.1
DI	Y1800	Y	8"X8"X4" FLG TEE 150#	8" X 4"		204.45	408.9
DI	Y1801	Y	8"X8"X4" FLG CMLC TEE 300#		8	773.485	1,546.97
DI	Y1805	Y	4"X4"X4" FLG DI TEE 150#	4" X 4"		149.6867	561.07
DI	Y4600	Y	6" X 4" FLG REDUCER 150#	6"		106.92	213.84
DI	Y4813	Y	3" 150# FLANGED DUCTILE 90	3"		52.92	158.76
DI	Y5813	Y	3" 250# FLANGED DUCTILE 90	3"		223.2025	892.81
DI	Y9600	Y	6" X 4" TRANSITIONAL REDUCING WELD FLG 150#	6"		60.48	120.96
GALV	Y1158	Y	8"x24" GALV. SLEEVE	8"		8.7816	131.78
HYDRNT	Y1239	Y	RESIDENTIAL FIRE HYDRANT 1 1/8" NUT & S.D DRI	LL 7/8"		1667.25	6,668.95
HYDRNT	Y1241	Y	COMMERCIAL FIRE HYDRANT 1 1/8" NUT & S.D DRIL	L 7/8"		2316.08	14,477.97
MISC	Y1244	Y	12"x20" BLK EPOXY COAT VAL CAN	12"		66.96	133.92
PLGVLV	Y1416	Y	12" ROCKWELL PLUG VALVES	12"		11298.96	18,798.96
PLGVLV	Y1431	Y	4" NORDSTROM PLUG/VALVE 269 WITH/2" NUT	4"		6477.15	12,954.30
PLGVLV	Y1439	Y	14" NORDSTROM PLUG VALVE 1489	14"		14977.25	0
PLGVLV	Y1440	Y	6" NORDSTROM PLUG VALVE 1589SP	6"		7992	0
PLGVLV	Y1441	Y	8" NORDSTROM PLUG VALVE 1489SP	8"		4891.575	19,566.29
PLGVLV	Y1442	Y	10" NORDSTROM PLUG VALVE 1489	10"		7781.8	15,563.60
PLGVLV	Y1444	Y	12" NORDSTROM PLUG VALVE	12"		12560.63	0
PLGVLV	Y1446	Y	18" NORDSTROM PLUG VALVE	18"		26372.96	26,372.96
SCRFLG	Y0008	Y	8" THREADED SCREW FLANGE	8"		38.42	115.26
SCRFLG	Y1015	Y	6X4 FLANGE SCREW REDUCING 150#	6" X 4"		50.685	253.4
SCRFLG	Y1134	Y	4" X 3" SCREW IN FLANGE 150#	4"		32.4	259.18
SCRFLG	Y1136	Y	4" X 4" SCREW IN FLG 150#	4"		23.7067	111.68
SCRFLG	Y1137	Y	4" X 4" SCREW IN FLANGE 250#		4	34.56	440.6
STEEL	Y2003	Y	4"x20" BUTT STRAP 1/8 THICK WITH 17" CIRCUMFE	4"		67.344	942.83
STEEL	Y2004	Y	18"x20" BUTT STRAP 1/8 THICK WITH 65" CIRCUMF	18"		156.595	893.55
STEEL	Y2005	Y	20"x20" BUTT STRAP 1/8 THICK WITH 70" CIRCUMF	20"		110.1425	963.88
STEEL	Y2006	Y	22"x20" BUTT STRAP 1/8 THICK	22"		179.1333	955.7
STEEL	Y2007	Y	24"x20" BUTT STRAP 1/8 THICK	24"		143.665	363.29
STEEL	Y2008	Y	27" X 20" BUTT STRAP 1/8 THICK	27"		208.8	835.2
STEEL	Y2009	Y	8"x20" BUTT STRAP 1/8 THICK WITH 30" CIRCUMFE		8	105.84	1,058.30
STEEL	Y2010	Y	6"x20" BUTT STRAP 1/8 THICK WITH 23.5" CIRCUM	6"		117.72	470.92
STEEL	Y2011	Y	12"x20" 1/8 THICK BUTT STRAP WITH 43" CIRCUMF	12"		128.24	1,216.55

STEEL	Y2012	Y	16"x20" 1/8 THICK BUTT STRAP WITH 57" CIRCUMF	ERENCE	16"	4	135.3433	550.54
STEEL	Y2015	Y	10"x20"x1/8" BUTT STRAP WITH 36.5" CIRCUMFERE	NCE	10"	8	118.52	909.79
STEEL	Y2016	Y	14"x20"x1/8" BUTT STRAPS WITH 50.5" CIRCUMFER	ENCE	14"	10	124.47	1,276.02
STEEL	Y6000	Y	6" X 20" BUTT STRAP W/HANDHOLE 1/8 THICK STEE	L	6"	2	317.25	634.5
STEEL	Y8000	Y	8" X 20" BUTT STRAP W/HANDHOLE 1/8 THICK STEE	L	8"	2	337.5	675
THRFLG	Y0004	Y	6" 300# THREADED FLANGE		6"	5	51.505	151.72
THRFLG	Y0005	Y	6" 150# THR. FLANGE		6"	18	11.3533	252.53
VALVE	Y1409	Y	10" MUELLER GATE VALVE 150#		10"	3	2078.415	5,634.64
VALVE	Y1410	Y	8" 150lb GATE VALVE W/2" NUT		8"	4	1440.72	5,421.33
VALVE	Y1411	Y	3" MUELLER GATE VALVE 150LB		3"	3	445.34	1,418.79
VALVE	Y1412	Y	4" 250# FLANGE GATE VALVE		4"	3	1721.65	5,164.95
VALVE	Y1413	Y	4" MUELLER GATE VALVE #150		4"	2	563.76	1,127.52
VALVE	Y1414	Y	18" GATE VALVE W/GEARING 250#		18"	1	17670.79	17,670.79
VALVE	Y1415	Y	18" GATE VALVE 150 LB		18"	1	9986.52	9,986.52

05/06/1 6 11:18:58

INVENTORY MASTER LIST

AS OF 05/06/16

PAGE 22

5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
VALVE	Y1429	Y	12" GATE VALVE MUELLER 150#	12"	2	2109.69	4,671.46
VALVE	Y1435	Y	6"150# MULLER GATE VLV/W/2"NUT	6"	3	921.295	2,763.88
VALVE	Y1436	Y	14" AVK GATE VALVE FLG HF 150#	14"	2	8613.595	17,227.18
VALVE	Y1437	Y	16" 150# FLG RW GATE VALVE	16"	1	7575.9	7,575.90
VALVE	Y1445	Y	12"250# FLXFL AFC GATE VALVE	12"	2	1777.0133	3,554.03
VALVE	Y1500	Y	3" 250lb GATE VALVE W/2" NUT	3"	2	1222.56	2,445.12
VALVE	Y1502	Y	6" 250lb GATE VALVE W/2" NUT	6"	0	1681.54	0
VALVE	Y1503	Y	8" 250lb GATE VALVE W/2" NUT	8"	1	1928.14	1,928.14
VALVE	Y1504	Y	10" 250lb GATE VALVE W/2" NUT	10"	1	2763.34	2,763.34
VALVE	Y1506	Y	14" 250lb GATE VALVE W/2" NUT	14"	1	8290.02	8,290.02
WF	Y0001	Y	6" 300# WELD FLANGE	6"	14	25.92	450.3
WF	Y0006	Y	6" 150# WELD FLANGE 8-HOLE	6"	2	19.44	38.8
WF	Y0007	Y	6" 400# WELD FLANGE	6"	2	36.85	73.7
WF	Y0010	Y	10" 300# WELD FLANGE	10"	6	121.22	776.01
WF	Y1003	Y	12" 150# WELD FLANGE	12"	13	68.04	1,072.04
WF	Y1003A	Y	150# WELD FLANGE 12.05 OD PIPE	12"	11	159.6325	1,521.88
WF	Y1004	Y	12" 300# WELD FLANGE	12"	7	115.5467	1,047.59
WF	Y1005	Y	14" 150" WELD FLANGE	14"	10	189	1,556.89
WF	Y1006	Y	14" 300# WELD FLANGE	14"	8	274.765	2,234.01
WF	Y1007	Y	16" 150# WELD FLANGE	16"	12	165.24	2,021.60
WF	Y1008	Y	16" 300# WELD FLANGE	16"	5	376.276	1,881.37
WF	Y1016	Y	8" WELD FLANGE (LIP) 150#	8"	6	25.65	153.9
WF	Y1042	Y	8" 300# WELD FLANGE	8"	10	81	809.98
WF	Y1049	Y	10" 150 WELD FLANGE	10"	18	38.88	753.13
WF	Y1050	Y	18" WELD FLANGE 150#	18"	4	199.34	780.11
WF	Y1052	Y	10" 400 WELD FLANGE	10"	1	81.68	81.68
WF	Y1138	Y	4" 300# WELD FLANGE	4"	14	32.4	431.5
WF	Y1139	Y	4" 150# WELD FLANGE	4"	11	12.96	157.62
WF	Y1381	Y	12" 300# W/F 12.8 ID FLAT FACE	12"	8	132.0575	1,056.46
WF	Y1616	Y	16" 150# WF WITH O.D 17.375	16"	12	263.25	3,159.00
WF	Y2200	Y	6" 6-HOLE RAISED WF #150 STEEL	6"	12	32.325	387.9
TOTAL Y		1	62 PARTS				316,174.72
CMLC	YL0003	YL	CMLC PIPE 3"	3"	117	23.598	2,722.74
CMLC	YL0010	YL	CMLC PIPE 10"	10"	56	13.36	748.24
CMLC	YL1000	YL	CMLC PIPE 4"		16	19.98	319.68
CMLC	YL1001	YL	CMLC PIPE 6"	6"	39	22.2372	867.16
CMLC	YL1002	YL	CMLC PIPE 8"	8"	70	24.5808	1,672.66
CMLC	YL1004	YL	CMLC PIPE 12" /10 GAUGE	12"	61	38.2728	2,416.56
CMLC	YL1005	YL	CMLC PIPE 16" / 10 GAUGE	16"	108	31.6893	2,914.69

CMLC	YL1006	YL	CMLC PIPE 18" / 10 GAUGE6	18"	64	37.788	2,046.72	
CMLC	YL1007	YL	CMLC PIPE 20"	20"	224	25.8	5,779.20	
CMLC	YL1008	YL	CMLC PIPE 26"	26"	52	30.75	1,599.00	
CMLC	YL1047	YL	CMLC PIPE 28"		33	24.5	808.5	
CMLC	YL1055	YL	CMLC PIPE 14"	14"	74	56.7	3,570.73	
DI	YL8350	YL	8 CL 350 DI TJ PIPE W/GASKET	8"	11	22.2372	244.61	
PIPE	YL1014	YL	8" SDR 35 PVC PIPE		311	3.4344	1,092.49	
PIPE	YL1016	YL	STEEL PIPE 12"		0	31.5492	0	
PIPE	YL1017	YL	6" BLK STEEL PIPE SCH 40		134	17.575	2,355.05	
PIPE	YL1051	YL	4" BLK STEEL PIPE SCH 40		147	10.2821	1,511.50	
TOTAL YL							17 PARTS	30,669.53
								30,669.53

05/06/1 6 11:18:58 INVENTORY MASTER LIST AS OF 05/06/16 PAGE 23

RAINBOW MUNICIPAL WATER DIST INVENTORY MASTER LIST AS OF 05/06/16 PAGE 24
 LOCATIO N AAAAAA - ZZZZZZ 5/6/2016

CLASS	PART#	LOC	DESCRIPTION	SIZE	ON HAND	LAST COST	VALUE
TOTAL VALUE							915,578.35

05/06/1 6 11:18:58 INVENTORY MASTER LIST AS OF 05/06/16 PAGE 24

Appendix E

APPENDIX E: COST BACK-UP MATERIALS

Appendix “E” includes costing back-up materials.

VALLECITOS WATER DISTRICT

BONDING COSTS - 2013

Updated: 1/24/2013

The following list is to be used to prepare Engineer's Cost Estimates for determining bonds for Vallecitos Water District. All unit prices shall be those shown hereon unless the item is not listed. Revisions to the estimate are the responsibility of the Engineer of Work. A fifteen percent (15%) contingency is required on all Engineer's Cost Estimates. If you have any questions, please contact the Engineering Department at 760-744-0460.

WATER

ITEM	STANDARD DRAWING	UNIT COST
8" PVC water main	W-17	\$68.00 lf
10" PVC water main	W-17	\$79.00 lf
12" PVC water main	W-17	\$90.00 lf
6" CML&C steel/DIP water main	W-17	\$105.00 lf
8" CML&C steel/DIP water main	W-17	\$198.00 lf
10" CML&C steel/DIP water main	W-17	\$205.00 lf
12" CML&C/DIP steel water main	W-17	\$222.00 lf
14" CML&C steel water main	W-17	\$243.00 lf
16" CML&C steel water main	W-17	\$248.00 lf
18" CML&C steel water main	W-17	\$253.00 lf
24" CML&C steel water main	W-17	\$287.00 lf
30" CML&C steel water main	W-17	\$320.00 lf
36" CML&C steel water main	W-17	\$353.00 lf
6" gate valve	W-14, W-16	\$945.00 ea
8" gate valve	W-14, W-16	\$1,490.00 ea
10" gate valve	W-14, W-16	\$1,680.00 ea
12" gate valve	W-14, W-16	\$2,020.00 ea
14" butterfly valve		\$2,745.00 ea
16" butterfly valve		\$4,200.00 ea
18" butterfly valve		\$4,850.00 ea
24" butterfly valve		\$8,750.00 ea
36" butterfly valve		\$17,655.00 ea
Hot tap existing main & saddle		\$2,100.00 ea
Adjust gate vavle to grade	W-14, W-16	\$383.00 ea
Fire hydrant assembly	W-4, W-5	\$4,960.00 ea
Relocate fire hydrant	W-4, W-5	\$2,515.00 ea
Protection post		\$222.00 ea
1" water service	W-6, W-8	\$1,930.00 ea
2" water service	W-7, W-8	\$2,070.00 ea
3" water service	W-9	\$5,250.00 ea
2" & smaller backflow device	W-19	\$1,570.00 ea
Relocate water meter	W-6, W-7, W-8	\$756.00 ea
Adjust water meter to grade	W-6, W-7, W-8	\$195.00 ea
1" water test station	W-21	\$2,415.00 ea

WATER (continued)

ITEM	STANDARD DRAWING	UNIT COST
1" air & vacuum valve	W-2	\$2,100.00 ea
2" air & vacuum valve	W-3	\$3,310.00 ea
4" air & vacuum valve	W-25	\$5,485.00 ea
Relocate air & vacuum valve	W-2, W-3, W-25	\$1,460.00 ea
2" blow-off assembly	W-1	\$1,575.00 ea
4" blow-off assembly	W-23	\$3,725.00 ea
6" blow-off assembly	W-23	\$4,300.00 ea
Relocate blow-off assembly	W-1, W-23	\$950.00 ea
6" detector check assembly	W-13	\$10,217.00 ea
8" detector check assembly	W-13	\$13,178.00 ea
Below ground detector check vault	W-12	\$2625 - \$6825 ea
Cathodic test station		\$420.00 ea
Thrust block	W-15	\$460.00 ea
Concrete anchor block	W-15	\$535.00 ea
End cap	W-16	\$263.00 ea
Perform pipe jacking		\$788.00 lf
8" steel/DIP water main utility crossing	W-27	\$15,455.00 ea
12" steel/DIP water main utility crossing	W-27, W-28	\$17,655.00 ea

SEWER

ITEM	STANDARD DRAWING	UNIT COST
4" sewer lateral	S-4, S-5	\$2,530.00 ea
6" sewer lateral	S-4, S-5	\$2,530.00 ea
8" VCP/PVC sewer main	S-12	\$63.25 lf
10" VCP/PVC sewer main	S-12	\$72.00 lf
12" VCP/PVC sewer main	S-12	\$80.00 lf
15" VCP/PVC sewer main	S-13	\$109.00 lf
18" VCP/PVC sewer main	S-14	\$136.00 lf
8" DIP sewer main (poly-wrap detail)	S-15	\$63.00 lf
12" DIP sewer main (poly-wrap detail)	S-16	\$80.00 lf
Sewer manhole - 4' diameter	S-1	\$4,550.00 ea
Sewer drop manhole - 4' diameter	S-2, S-3	\$5,400.00 ea
Sewer manole - 5' diameter	S-1	\$6,825.00 ea
Adjust manhole rim to grade	S-1	\$761.00 ea
Sewer clean-out	S-7, S-8	\$1,435.00 ea
Remove existing sewer clean-out		\$473.00 ea
Sewer encasement	S-11	\$33.75 lf
Concrete anchor		\$980.00 ea
Concrete protective slab		\$19.00 lf
Re-channel existing manhole	S-1	\$1,575.00 ea
8" stub & plug		\$210.00 ea

The attached useful life and disposal values are taken from information published by the U.S. Government's Office of Management and Budget. The disposal value factor, as a percent of acquisition cost, is based upon the rate of return. These values can be used to help agencies calculate depreciation, gain or loss on transfer of assets, and other costs to be considered in evaluating cost of service performance. This listing is not intended to be all-inclusive.

Useful Life and Disposal Value Table

FSC No. (Federal Supply Code, if applicable)	Nomenclature	Expected Useful Life (Years)	Disposal Value as a Percent of Acquisition Cost
1560	Airframe Structural Components	20	2.48
1610	Aircraft Propellers	10	4.58
1615	Helicopter Rotor Blades, Drive Mechanisms and Components	10	3.52
1620	Aircraft Landing Gear Components	10	2.71
1630	Aircraft Wheel and Brake Systems	10	4.92
1650	Aircraft Hydraulic, Vacuum and De-icing System Components	10	2.19
1660	Aircraft Air Conditioning, Heating and Pressurizing Equipment	10	2.23
1670	Parachutes; Aerial Pickup, Delivery, Recovery Systems and Cargo Tie Down Equipment	7	5.52
1680	Misc. Aircraft Accessories and Components	7	1.92
1720	Aircraft Launching Equipment	25	1.91
1730	Aircraft Ground Servicing Equipment	20	3.12
1740	Airfield Specialized Trucks and Trailers	6.37	
1915	Cargo and Tanker Vessels	30	8.54
1925	Special Service Vessels	25	8.54
1930	Barges and Lighters, Cargo	27	11.05
1935	Barges and Lighters, Special Purpose	30	19.83
1940	Small Craft	23	6.35
1945	Pontoons and Floating Docks	30	14.42
1990	Misc. Vessels		8.74
2010	Ship and Boat Propulsion Components	20	10.26
2030	Deck Machinery		3.31
2040	Marine Hardware and Hull Items	20	16.57
2050	Buoys		11.05
2090	Misc. Ship and Marine Equipment		4.81

2305	Ground Effect Vehicles	15	
2310	- Passenger Motor Vehicles	*	17.00
	- Passenger Cars and Station Wagons	6	
	- Buses (11 or more passengers)	8	
	- Ambulances	7	
2320	Trucks and Truck Tractors, Wheeled	*	17.96
	- Less than 12,500 (payload 1 ton and less)	6	
	- 12,500 through 16,999 (payload, 1-1/2 through 2-1/2 tons)	7	
	- 17,000 and over (payload, tons and over)	9	
	- Multiple Drive Vehicles	6	
2330	Trailers	23	10.09
2340	Motorcycles, Motor Scooters and Bicycles	12	27.31
2410	Tractors, Full Track, Low Speed	14	27.62
2420	Tractors, Wheeled	13	22.70
2430	Tractors, Track Laying High Speed		7.42
2510	Vehicular Cab, Body and Frame Structural Components	10	14.18
2520	Vehicular Power Transmission Components	12	16.22
2530	Vehicular Brake, Steering, Axle, Wheel and Track Components	12	12.17
2540	Vehicular Furniture and Accessories	18	6.95
2590	Misc. Vehicular Components	10	7.04
2805	Gasoline Reciprocating Engines except Aircraft and Components	7	5.68
2810	Gasoline Reciprocating Engines, Aircraft and Components		3.43
2815	Diesel Engines and Components		13.33
2835	Gas Turbines and Jet Engines, except Aircraft and Components	15	3.59
2840	Gas Turbines and Jet Engines, Aircraft, and Components		1.77
2910	Engine Fuel System Components, Nonaircraft		8.01
2915	Engine Fuel System Components, Aircraft		3.01
2920	Engine Electrical System Components, Nonaircraft		10.32
2925	Engine Electrical System Components, Aircraft		7.94
2930	Engine Cooling System Components, Nonaircraft		21.96
2935	Engine Cooling System Components, Aircraft		7.41
2945	Engine Air and Oil Filters, Trainers and Cleaners, Aircraft		1.71

2950	Turbosuperchargers		8.26
2990	Misc. Engine Accessories, Nonaircraft		7.77
2995	Misc. Engine Accessories, Aircraft		4.10
3010	Torque Converters and Speed Changers		5.93
3020	Gears, Pulleys, Sprockets and Transmission Chain		4.64
3040	Misc. Power Transmission Equipment		3.22
3110	Bearings, Antifriction, Unmounted		22.14
3120	Bearings, Plain, Unmounted		4.78
3130	Bearings, Mounted		7.80
3210	Sawmill and Planing Mill Machinery	15	28.41
3220	Woodworking Machines	15	27.37
3405	Saws and Filing Machines	20	30.87
3408	Machining Centers and Way-Type Machines	7.49	
3410	Electrical and Ultrasonic Erosion Machines	10	9.75
3411	Boring Machines	20	49.61
3413	Drilling and Tapping Machines	15	40.16
3414	Gear Cutting and Finishing Machines	10	29.58
3415	Grinding Machines	15	35.06
3416	Lathes	20	39.84
3417	Milling Machines	20	28.22
3418	Planners and Shakers	20	27.66
3419	Misc. Machine Tools	15	17.92
3422	Rolling Mills and Drawing Machines	10	68.35
3424	Metal Heat Treating and Nonthermal Treating Equipment	25	11.72
3426	Metal Finishing Equipment	20	6.63
3655	Gas Generating and Dispersing Systems	12	7.35
	Industrial Size Reduction Machinery	9	27.30
3680	Foundry Machinery, Related Equipment and Supplies	10	12.61
3693	Industrial Assembly Machine	0.45	
3694	Clean Work Stations, Controlled Environment and Related Equipment		6.43
3695	Misc. Special Industry Equipment	4	7.58
3910	Conveyors	12	6.85
3920	Materials Handling Equipment Nonsell Propelled	22	9.07
3930	Warehouse Trucks and Tractors, Self Propelled	*	18.60
	<i>Gasoline</i>		
	Fork Truck (2,000 pounds to 16,000 pounds)	8	

	Fork Truck (over 6,000 pounds)		10
	Tractor	8	
	Crane	12	
	Platform Truck	8	
	Straddle Truck	15	
	<i>Electric</i>		
	All types	15	
3940	Blocks, Tackle, Rigging and Slings		9.61
3950	Winches, Hoists, Cranes and Derricks	13	10.23
3990	Misc. Materials Handling Equipment	30	8.71
4010	Chain and Wire Rope		5.11
4020	Fiber Rope, Cordage and Twine		6.81
4030	Fittings for Rope, Cable and Chain		13.16
4110	Refrigeration Equipment	11	7.07
4120	Air Conditioning Equipment	10	3.82
4130	Refrigeration and Air Conditioning Components	16	4.26
4140	Fans, Air Circulators and Blow Equipment	4.79	
4210	Fire Fighting Equipment	14	6.55
4220	Marine Lifesaving and Diving Equipment	10	5.65
4230	Decontaminating and Impregnating Equipment	17	5.87
4240	Safety and Rescue Equipment	19	2.53
4310	Compressors and Vacuum Pumps	10	7.59
4320	Power and Hand Pumps	15	4.27
4330	Centrifuges, Separators and Pressure and Vacuum Filters	20	4.90
4410	Industrial Boilers	9	3.78
4420	Heat Exchanges and Steam Condensers	9.73	
4430	Industrial Furnaces, Kilns, Lehrs and Ovens	10	6.59
4440	Driers, Dehydrators and Anhydrators	10	4.55
4460	Air Purification Equipment	11	3.71
4510	Plumbing Fixtures and Accessories	15	5.91
4520	Space Heating Equipment and Domestic Water Heaters	8	8.36
4540	Misc. Plumbing, Heating and Sanitation Equipment	8	3.01
4610	Water Purification Equipment	14	4.55
4620	Water Distillation Equipment, Marine and Industrial	15	15.61
4710	Pipe and Tube		7.79
4720	Hose and Tubing, Flexible		6.13

4730	Fittings and Specialties, Hose, Pipe and Tube		4.83
4810	Valves, Powered		2.20
4820	Valves, Nonpowered		4.91
4910	Motor Vehicle, Maintenance and Repair Shop Specialized Equipment	11	6.63
4920	Aircraft Maintenance and Repair Shop Specialized Equipment	20	1.58
4930	Lubrication and Fuel Dispensing Equipment	15	5.00
4940	Misc. Maintenance and Repair Shop Specialized Equipment	20	4.48
5110	Hand tools, Edge, Nonpowered	10	9.26
5120	Hand tools, Nonedged, Nonpowered	21	5.53
5130	Hand tools, Power Driven	10	10.31
5133	Drill Bits, Counterbores and Countersinks, Hand and Machine	10	24.07
5136	Taps, Dies and Collets, Hand and Machine	10	8.08
5140	Tool and Hardware Boxes	20	26.42
5180	Sets, Kits and Outfits of Hand Tools	23	3.83
5210	Measuring Tools, Craftsmen	10	4.87
5220	Inspection Gauges and Precision Layout Tools	12	3.17
5280	Sets, Kits and Outfits of Measuring Tools	25	1.01
5410	Prefabricated and Portable Building	8	2.48
5411	Rigid Wall Shelters	20	2.44
5430	Storage Tanks	7	6.83
5440	Scaffolding Equipment and Concrete Forms	5	6.83
5445	Prefabricated Tower Structures	23	5.23
5450	Misc. Prefabricated Structures	25	1.30
5670	Architectural and Related Metal Products	10	59.16
5680	Misc. Construction Materials	69	9.59
5805	Telephone and Telegraph Equipment	23	2.37
5810	Communications Security Equipment and Components	16	0.40
5815	Teletype and Facsimile Equipment	22	0.99
5820	Radio and Television Communications Equipment, except Airborne	8	2.44
5821	Radio and Television Communications Equipment, Airborne	24	1.01
5825	Radio Navigation Equipment, except Airborne	24	1.37
5826	Radio Navigation Equipment, Airborne	24	1.44
5830	Intercommunication and Public Address Systems, except Airborne	24	1.74

5831	Intercommunication and Public Address Systems, Airborne	25	0.61
5835	Sound Recording and Reproducing Equipment	22	1.43
5840	Radar Equipment, except Airborne	23	0.92
5841	Radar Equipment, Airborne	24	0.53
5895	Misc. Communications Equipment	23	0.67
5905	Resistors	8	1.02
5910	Capacitors	8	2.32
5915	Filters and Networks	25	0.93
5920	Fuses and Lightning Arrestors	25	3.12
5925	Circuit Breakers	10	7.49
5930	Switches	10	1.55
5935	Connectors, Electrical	22	20.61
5940	Lugs, Terminals and Terminal Strips	8	1.66
5945	Relays and Solenoids	25	1.36
5950	Coils and Transformers	8	1.35
5955	Piezoelectric Crystals	8	0.65
5960	Electron Tubes and Associated Hardware	8	1.00
5961	Semiconductor Devices and Associated Hardware	8	1.04
5962	Microcircuits, Electronic	8	0.54
5963	Electronic Modules	8	
5965	Headsets, Handsets, Microphones and Speakers	24	4.28
5970	Electrical Insulators and Insulating Materials	8	34.93
5975	Electrical Hardware and Supplies	23	3.73
5977	Electrical Contact Brushes and Electrodes	8	2.08
5985	Antennas, Waveguide and Related Equipment	8	2.02
5990	Synchros and Resolvers	14	1.65
5995	Cable, Cord and Wire Assemblies, Communications Equipment	24	4.16
5999	Misc. Electrical and Electronic Components	20	1.01
6105	Motors, Electrical	10	5.31
6110	Electrical Control Equipment	8	2.45
6115	Generators and Generator Sets, Electrical	19	6.50
6116	Fuel Cell Power Units, Components and Accessories	15	22.88
6120	Transformers: Distribution and Power		
6125	Converters, Electrical, Rotating	25	2.88
6130	Converters, Electrical, Nonrotating	22	1.75
6135	Batteries, Primary	15	2.51
6140	Batteries, Secondary	25	6.91

6145	Wire and Cable, Electrical	25	16.29
6150	Misc. Electric Power and Distribution Equipment	15	2.55
6210	Indoor and Outdoor Electric Lighting Fixtures	16	3.95
6220	Electric Vehicular Light and Fixtures	10	4.58
6230	Electric Portable and Hand Lighting Equipment	17	3.44
6240	Electric Lamps	10	6.92
6250	Ballasts, Lampholders and Starters	10	3.91
6310	Traffic and Transit Signal Systems	4	3.52
6350	Misc. Alarm, Signal and Security Detection Systems	6	1.38
6515	Medical and Surgical Instruments Equipment and Supplies	9	2.54
6520	Dental Instruments, Equipment and Supplies	8	7.66
6525	X-Ray Equipment and Supplies: Medical Dental, Veterinary	9	3.57
6530	Hospital Furniture, Equipment, Utensils and Supplies	10	4.18
6540	Opticians' Instruments, Equipment and Supplies	10	6.23
6545	Medical Sets. Kits and Outfits	10	5.60
6605	Navigational Instruments	15	0.87
6610	Flight Instruments	17	2.30
6615	Automatic Pilot Mechanisms and Airborne Gyro Components	25	1.17
6620	Engine Instruments	15	3.04
6625	Electrical and Electronic Properties Measuring and Testing Instruments	15	1.55
6630	Chemical Analysis Instruments	5	1.70
6635	Physical Properties Testing Equipment	13	6.62
6636	Environmental Chambers and Related Equipment	10	2.20
6640	Laboratory Equipment and Supplies	20	2.12
6645	Time Measuring Instruments	25	5.54
6650	Optical Instruments	8	2.31
6655	Geophysical and Astronomical Instruments	25	2.02
6660	Meteorological Instruments and Apparatus	20	1.05
6665	Hazard-Detecting Instruments and Apparatus	16	1.44
6670	Scales and Balances	18	4.77
6675	Drafting, Surveying and Mapping Instruments	19	2.44
6680	Liquid and Gas Flow, Liquid Level and Mechanical Motion Measuring Instruments	10	2.87
6685	Pressure, Temperature and Humidity Measuring Controlling Instruments	10	2.53
6695	Combination and Misc. Instruments	8	2.06

6710	Cameras, Motion Pictures	25	5.29
6720	Cameras, Still Picture	24	1.82
6730	Photographic Projection Equipment	25	3.52
6740	Photographic Developing and Finishing Equipment	24	3.32
6750	Photographic Supplies	25	8.64
6760	Photographic Equipment and Accessories	24	1.36
6780	Photographic Sets, Kits and Outfits	22	3.24
6910	Training Aids	20	0.96
6920	Armament Training Devices	20	3.22
6930	Operation Training Devices	21	0.62
6940	Communication Training Devices	21	0.79
7010	ADPE Configuration	8	0.73
7021	ADP Central Processing Unit, Digital	15	0.73
7022	ADP Central Processing Unit, Hybrid	15	
7025	ADP Input/Output and Storage Devices	13	1.01
7030	ADP Software	15	0.97
7035	ADP Accessorial Equipment	13	0.72
7045	ADP Supplies and Support Equipment	11	1.50
7050	ADP Components	15	0.95
7105	Household Furniture	10	9.94
7110	Office Furniture	10	16.20
7125	Cabinets, Lockers, Bins and Shelving	20	9.47
7195	Misc. Furniture and Fixtures	10	6.17
7310	Food Cooking, Baking and Serving Equipment	12	5.40
7320	Kitchen Equipment and Appliances	18	5.60
7420	Accounting and Calculating Machine	12	1.46
7439	Typewriters and Office Type Composing Machines	12	6.10
7450	Office Type Sound Recording and Reproducing Machines	12	1.17
7460	Visible Record Equipment		2.26
7490	Misc. Office Machines	12	3.30
7710	Musical Instruments	12	14.67
7910	Floor Polishers and Vacuum Cleaning Equipment		5.72
8145	Specialized Shipping and Storage Containers	22	6.55
8340	Tents and Tarpaulins	5	4.86
8345	Flags and Pennants	5	8.30
8415	Clothing, Special Purpose	5	10.81
8820	Live Animals, Not Raised for Food	3	55.05
9320	Rubber Fabricated Materials	5	19.40

9340	Glass Fabricated Materials	5	4.14
9515	Armor Plate	10	19.00
9530	Metal Bar	10	47.51
9535	Metal Plate	10	52.44



County of San Diego

DEPARTMENT OF PUBLIC WORKS Land Development Division Unit Price List

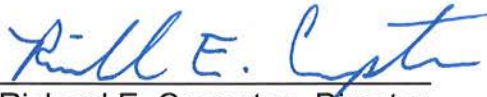
Approved: July 2015

Note: Unit Price list will increase annually using the May Engineering and News Report CCI Index

Table of Contents

EARTHWORK	3
LANDSCAPING	4
PLANTING	4
IRRIGATION	4
DRAINAGE	4
STORM DRAIN SYSTEMS	5-6
SURFACE IMPROVEMENT	7
TRAFFIC	8
UTILITIES	9
A-SEWER	9
B-WATER	9-10
MISCELLANEOUS	11

The following list of unit prices is approved for use by the County of San Diego, Department of Public Works in providing general cost estimates for the work normally associated with land development activity.



APPROVED BY: Richard E. Crompton, Director

EFFECTIVE DATE: July 2015

REVISION DATE: July 2015

SUNSET DATE: June 2016

NOTE: This list of "pre-approved" unit costs is intended as a tool in creating engineer estimates and improvement agreements. Those wishing to use different costs must provide supporting evidence justifying those costs. The department will consider the use of other unit costs based upon evidence provided and make a final ruling.

EARTHWORK

ITEM	DESCRIPTION	UNIT	PRICE	
Grading	Embankment/ Excavation			
	0-1000	C.Y.	22.64	
	1000-20,000	C.Y.	12.35	
	20,001	C.Y.	7.36	
	Export or Import			
	0-1,000	C.Y.	28.81	
	1,001 +	C.Y.	22.64	
	> 20,000	C.Y.	12.35	
Clearing and Grubbing		S.F.	.46	
Erosion Control	Sand/Gravel bag	EA.	3.09	
	Jute Mat (not as independent BMP)	S.F.	.41	
	Straw Mat	S.F.	.29	
	Straw bales	EA.	5.15	
	Silt Fence	L.F.	1.65	
	Fiber rolls	L.F.	3.09	
	Wood Fiber Mat	S.F.	.26	
	Coconut Fiber Mat	S.F.	.41	
	Hydro-Seed	S.F.	.34	
	Bonded Fiber Matrix	S.F.	.09	
	Guar binder	S.F.	.03	
	Sub drain	4-6"	L.F.	30.87
		8"	L.F.	36.02
Subdrain headwall		EA.	2,572.50	

LANDSCAPING

ITEM	DESCRIPTION	UNIT	PRICE
PLANTING			
Shrubs	1 Gallon	EA.	6.17
	5 Gallon	EA.	20.58
Slope Planting (Ground Cover)		S.F.	.49
Slope Planting (Ground Cover + Trees and Shrubs)		S.F.	.81
Slope Planting (Hydro-seeding)		S.F.	.13

Tree	5 Gallon	EA.	15.44
	15 Gallon	EA.	87.47
	24" Box	EA.	257.25
	36" Box	EA.	360.15
	48" Box	EA.	668.85
Tree Grate	W/2 frame	EA.	493.92
Tree Maintenance		Tree/ year	205.80
IRRIGATION			
Backflow prevention			
Assembly	W/Enclosure	EA.	3,241.35
Slope irrigation		S.F.	.61

STORM DRAIN SYSTEMS

ITEM	DESCRIPTION	UNIT	PRICE
AC Spillway	D-22	EA.	329.28
Box Culvert	P.C.C.	C.Y.	1,131.90
Catch Basin	Type G (D-8)	EA.	4,939.20
	Type F (D-7)	EA.	4,630.50
	Type I (D-29)	EA.	4,939.20
Catch Basin 18"x18"	Brooks Box(PVT)	EA.	257.25
Catch Basin 24"x24"	Brooks (PVT)	EA.	411.60
Cleanouts	Type A (D-9)	EA.	4,630.50
(Storm Drain)	Type B (D-10)	EA.	5,145.00
Concrete	Structural	C.Y.	668.85
Concrete Energy Dissipater	D-41	EA.	8,437.80
Concrete Lug	D-63	EA.	1,131.90
Concrete Pipe Collar	D-62	EA.	2,572.50
Culvert, Pipe	12"	L.F.	56.60
Reinforced Concrete	18"	L.F.	97.76
(RCP)	24"	L.F.	113.19
	30"	L.F.	123.48
	36"	L.F.	149.21
	42"	L.F.	169.79
	48"	L.F.	180.08
	54"	L.F.	205.80
	60"	L.F.	262.40
	72"	L.F.	298.41
Culvert (PVC Pipe)	4"-6"	L.F.	20.58
	8"-12"	L.F.	36.02
	18"	L.F.	66.89
	24"	L.F.	82.32
	30"	L.F.	92.61

	36"	L.F.	144.06
	42"	L.F.	164.64
Culvert (HDPE Pipe)	12"	L.F.	20.58
	18"	L.F.	66.89
	24"	L.F.	82.32
	30"	L.F.	92.61
	36"	L.F.	144.06
	42"	L.F.	164.64
	48"	L.F.	185.22
Culvert (CMP Pipe)	12"	L.F.	20.58
	18"	L.F.	36.02
	24"	L.F.	66.89
	30"	L.F.	82.32
	36"	L.F.	92.61
	42"	L.F.	102.90
	48"	L.F.	123.48
Curb Inlet	Type A (D-1)	EA.	5,657.44
	Type B (D-2)	EA.	5,657.44
	Type C (D-3)	EA.	6,223.39
Curb Outlet	Type A (D-25)	EA.	2,572.50
Curb outlet, Sidewalk Underdrain Pipe	D-27	EA.	514.50
Curtain Wall	D-38	EA.	617.40
	D-72	EA.	668.85
Drainage Channel	P.C.C (D-70 & D-71)	L.F.	1,054.73
Drainage Ditch	D-75	L.F.	25.73
HEC-2 Study and FEMA revision		L.S.	30,870.00
Headwalls			
	Gravity Type (<60")	EA.	3,858.75
	Gravity Type (>60")	EA.	7,357.35
	Wing Type (<60")	EA.	5,556.60
	Wing Type (>60")	EA.	8,232.00
Inlet Apron	D-39	EA.	2,006.55
Pipe Collar	D-62	EA.	2,572.50
Rip Rap			
(Energy Dissipater)	D-40 (.25 Ton)	C.Y.	154.35
	(.50 Ton)	C.Y.	164.64
	(1.0 Ton)	C.Y.	174.93
	(2.0 Ton)	C.Y.	185.22
	(4.0 Ton)	C.Y.	205.80

TREATMENT CONTROL BMPS

ITEM	DESCRIPTION	UNIT	PRICE
Filter Insert	Enviro-safe High Capacity	EA.	1,234.80
Bio-Swale		L.F.	5.15
Infiltration trench	Rock Lined	L.F.	5.15
Detention Basin	Small (single lot)	S.F.	3.09
Detention Basin	Large (subdivision)	S.F.	8.23
Hydro-Dynamic separator	CDS or Equal	EA.	8,232.00

SURFACE IMPROVEMENT

ITEM	DESCRIPTION	UNIT	PRICE
A.C Berm (G-5)	4" A.C.	L.F.	8.23
	6" A.C.	L.F.	9.78
	8" A.C.	L.F.	11.32
A.C. Overlay	1"-2"	S.F.	1.03
Alley Apron	G-17	S.F.	8.23
Curb+Gutter	Removal	L.F.	3.09
	Type B-2 (G-6)	L.F.	21.61
	6" Type G (G-2)	L.F.	23.67
	8" Type G (G-2)	L.F.	26.75
	6" Type H (G-2)	L.F.	27.78
	8" Type H (G-2)	L.F.	33.96
	Rolled Curb (G-4)	L.F.	29.33
	Curb (G-1)	6"	L.F.
Cutoff Wall @ End of Pvmnt.	G-22,23	EA.	1,029.00
Gutter (Cross-Gutter)	G-12, G-13	S.F.	8.23
Driveway	G-14 A,B,C	S.F.	7.20
Median, (SDG-112)	Stamped concrete	S.F.	5.15
	Decorative concrete	S.F.	6.69
	Interlocking Pavers	S.F.	10.80
Pavement Design	Schedule J	S.F.	5.15
AC Pavement	Removal	S.F.	3.09
Paving, AC	1" Surface	S.F.	.84
	2" Surface	S.F.	1.13
	3" Surface	S.F.	1.70
	4" Surface	S.F.	2.26
	5" Surface	S.F.	2.83
Base, (CTB)	4" Surface	S.F.	1.13
	5" Surface	S.F.	1.18

	6" Surface	S.F.	1.41
	8" Surface	S.F.	1.81
	10" Surface	S.F.	1.86
Base, (Class Two)	4" Surface	S.F.	.72
	5" Surface	S.F.	.87
	6" Surface	S.F.	1.03
	8" Surface	S.F.	1.18
	10" Surface	S.F.	1.34
Paving P.C.C.	5"	S.F.	5.15
	5.5"	S.F.	5.66
	6"	S.F.	6.17
	8"	S.F.	6.69
	9"	S.F.	7.72
Paving Preparation of Sub grade	-	S.F.	.41
Ped Ramp	G-27 thr G-30		
	(1-4)	EA.	1,440.60
	4+	EA.	1,234.80
Ped Ramp	Alley (G-31)	EA.	1,646.40
Driveway Ramps	DS-07	S.F.	5.15
	G-14	S.F.	9.26
Sidewalk	Removal	S.F.	1.54
Sidewalk	1-5000	S.F.	5.66
(G-7)	5000+	S.F.	4.53
Trench Resurfacing	G-22, G-24, & G-25	L.F.	25.73

TRAFFIC

ITEM	DESCRIPTION	UNIT	PRICE
Detector Loops		EA.	463.05
Video Detection		Per approach	8,232.00
Pull Box	Type 3	EA.	246.96
	Type 5	EA.	272.69
	Type 6	EA.	282.98
Signal Ahead Flasher		EA.	4,630.50
Remove Striping		L.F.	2.06
Relocate Pull Box		EA.	411.60
Street Light	L.P. Sodium (E-1)	EA.	6,174.00
	H.P. Sodium	EA.	6,174.00
Street Name Sign	SDM-102, DS-13	EA.	411.60
Street Striping	0 – 4000'	L.F.	1.03
	4000' +	L.F.	0.62
	2 x 2 Tee	L.S.	102,900.00
Traffic Signal (based on number of lanes at	2 x 2	L.S.	123,480.00

intersection)			
	4 x 2	L.S.	138,915.00
	4 x 4	L.S.	154,350.00
	4 x 6	L.S.	169,785.00
	6 x 6	L.S.	180,075.00
	8 x 6	L.S.	236,670.00
Traffic Control	Estimated improvement	0 – 1,000,000	5%
	Estimated improvement	1,000,000+	3%
Traffic Signal Interconnect		L.F.	20.58

UTILITIES

ITEM	DESCRIPTION	UNIT	PRICE
A- SEWER			
Concrete Anchor	S-9	EA.	1,298.60
Concrete Cradle	8" Sewer	L.F.	14.35
(S-6)	12" Sewer	L.F.	18.11
	15" Sewer	L.F.	20.94
	24" Sewer	L.F.	30.87
	48" Sewer	L.F.	80.52
Concrete encasement (SP-03)			30.05
	8" Sewer	L.F.	
	10" Sewer	L.F.	30.05
	12" Sewer	L.F.	30.05
(S-7)	15" Sewer	L.F.	35.35
	24" Sewer	L.F.	51.86
	48" Sewer	L.F.	119.83
Cutoff Wall	Type B, SP-07	EA.	1,516.75
Manhole	SM-01	EA.	3,498.60
	SM-02	EA.	3,601.50
	4 x 3 w/plastic liner	EA.	3,688.97
	5 x 3 w/plastic liner	EA.	5,685.23
	Locking cover (M-4)	EA.	845.99
Sewer Clean-out (SC-01)		EA.	668.85
Pressure Sewer Pipe	4" PVC Pipe	L.F.	54.23
	6" PVC Pipe	L.F.	73.57

Sewer Access Rd.	4" Decomposed Granite	S.F.	5.40
	Concrete Surface	S.F.	46.31
Sewer Lateral (house connection,SS-09)	4", 30' Long	EA.	1,373.72
	6", 30' Long	EA.	2,582.79
Sewer Main (S-4) * (All materials)	6"	L.F.	72.03
	8"	L.F.	74.29
	10"	L.F.	82.22
	12"	L.F.	91.22
	15"	L.F.	100.74
	18"	L.F.	111.65
* Add 2% for every foot of cover over 5 feet			
B - WATER			
Air & Vacuum valve (WA-02)	1"	EA.	1,852.20
	(W-4) 2"	EA.	2,263.80
Blow-off Assembly	2" Type A (WB-01)	EA.	979.09
	3" Type A	EA.	1,811.04
Blow-off Assembly	(SDW-106) 2" Type B,C,D(W-7)	EA.	2,122.31
	4" Type B,C,D	EA.	3,164.18
	6" Type B,C,D	EA.	5,855.01
Backflow Prevention Valve		EA.	2,572.50
Fire Hydrant	Relocate	EA.	2,490.18
Fire Hydrant (WF-01)	New, 2-way	EA.	3,961.65
Fire Hydrant	New, 3-way	EA.	4,527.60
Multiple Service Valves	W-23	EA.	622.55
	4"	EA.	622.55
	6"	EA.	1,131.90
	8"	EA.	2,037.42
	10"	EA.	3,225.92
	12"	EA.	4,188.03
	16"	EA.	4,784.85
	8" Pressure, Reducing w/ box	EA.	11,115.26
	Water Main (all materials)	WP-02, 4"	L.F.
	WP-02, 6"	L.F.	56.60
	WP-02, 8"	L.F.	65.65
	WP-02, 10"	L.F.	71.31
	WP-02, 12"	L.F.	79.23
	WP-02, 16"	L.F.	100.74
	WP-02, 20" (CL-150)	L.F.	113.19
Water Service w/ meter	1" w/1 x .75" meter (W-1) (WS-01)	EA.	2,458.28
	1" w/1" meter (W-1) (WS-01)	EA.	2,549.86
	2" w/1.5" meter (W-2)	EA.	2,862.68

	(WS-02)		
	2" w/2" meter (W-2)	EA.	2,949.11
	(WS-02)		
	2-2" w/2-2" meter, manifold	EA.	4,693.27
Water Service w/o Meter	1", WS-01	EA.	2,332.74
	2", WS-02	EA.	2,524.14
	2-2", WS-02	EA.	3,275.31

MISCELLANEOUS

ITEM	DESCRIPTION	UNIT	PRICE
Bridge (Vehicular)		S.F.	282.98
Bridge (Pedestrian)		S.F.	257.25
Crash Cushion	G.R.E.A.T.	EA.	37,867.20
Excavation	For Structures	C.Y.	31.90
Fence	Chain Link, 4'	L.F.	12.86
(M-6)	Chain Link, 5'	L.F.	14.41
	Chain Link, 6'	L.F.	16.46
Guard Rail	Metal Beam (M-30-38)	L.F.	30.87
Guard Post	M-9	EA.	246.96
Guard Barricade	M-9	EA.	463.05
Median Barrier	Type 50, PCC	EA.	56.60
Saw Cut	AC/PCC Pvt.	L.F.	4.12
Shoring	5-10' deep	L.F.	11.52
	11-15' deep	L.F.	17.90
	16-20' deep	L.F.	25.73
Survey Monument	M-10	EA.	823.20
Wall, Retaining	Masonry	S.F.	46.31
	Cast-in-place	C.Y.	694.58
	Gravity	S.F.	30.87
	Crib	S.F.	41.16

CITY OF SANTA ANA

Project No. 11-6416 Seventeenth Street Water Main Improvements

BID DATE: 10/21/2014

BIDDER				ENGINEER'S ESTIMATE		Paulus Engineering, Inc.		Mamco, Inc.		Dominguez General Engineering Inc.		
ADDRESS						Anaheim		Riverside		Pomona		
BID BOND						Yes		Yes		Yes		
BID ITEMS			UNIT	QTY.	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
SEVENTEENTH ST. WATER MAIN IMPROVEMENTS - BASE BID NIGHT WORK												
1	8" Class 200 AWWA C900 P.V.C. Water Main	LF	1,050	\$120.00	\$126,000.00	\$140.00	\$147,000.00	\$207.00	\$217,350.00	\$210.00	\$220,500.00	
2	12" Class 200, AWWA C900 P.V.C. Water Main	LF	4,985	\$135.00	\$672,975.00	\$189.00	\$942,165.00	\$189.00	\$942,165.00	\$150.00	\$747,750.00	
3	Construct 1" Water Service per City Std. Plan 1401	EA	51	\$1,500.00	\$76,500.00	\$1,400.00	\$71,400.00	\$1,600.00	\$81,600.00	\$3,000.00	\$153,000.00	
4	Construct 2" Water Service per City Std. Plan 1402	EA	24	\$2,500.00	\$60,000.00	\$2,900.00	\$69,600.00	\$3,400.00	\$81,600.00	\$8,000.00	\$192,000.00	
5	4" Service Connection Including 4" RWGV	EA	2	\$5,000.00	\$10,000.00	\$3,600.00	\$7,200.00	\$3,600.00	\$7,200.00	\$10,000.00	\$20,000.00	
6	4" Fire Line Connection Including 4" RWGV	EA	2	\$5,000.00	\$10,000.00	\$3,700.00	\$7,400.00	\$3,300.00	\$6,600.00	\$9,000.00	\$18,000.00	
7	New Fire Hydrant Assembly, Including Gate Valve and Lateral Pipe	EA	17	\$6,000.00	\$102,000.00	\$6,800.00	\$115,600.00	\$6,300.00	\$107,100.00	\$8,000.00	\$136,000.00	
8	1" Air Vacuum and Release Valve	EA	4	\$3,500.00	\$14,000.00	\$4,200.00	\$16,800.00	\$2,700.00	\$10,800.00	\$3,000.00	\$12,000.00	
9	Vertical Offset per City Std. Plan 1413B	EA	4	\$6,800.00	\$27,200.00	\$6,000.00	\$24,000.00	\$3,500.00	\$14,000.00	\$3,000.00	\$12,000.00	
10	8" Resilient Wedge Gate Valve	EA	12	\$2,000.00	\$24,000.00	\$3,100.00	\$37,200.00	\$1,500.00	\$18,000.00	\$1,500.00	\$18,000.00	
11	12" Resilient Wedge Gate Valve	EA	11	\$3,100.00	\$34,100.00	\$3,600.00	\$39,600.00	\$2,800.00	\$30,800.00	\$2,500.00	\$27,500.00	
12	Bore and Jack, Install Steel Casing and PVC Carrier Pipe	EA	4	\$20,000.00	\$80,000.00	\$18,000.00	\$72,000.00	\$18,700.00	\$74,800.00	\$10,000.00	\$40,000.00	
13	Traffic Loop Detector	EA	45	\$1,425.00	\$64,125.00	\$275.00	\$12,375.00	\$315.00	\$14,175.00	\$250.00	\$11,250.00	
14	Striping, and Pavement Markings	LS	1	\$15,000.00	\$15,000.00	\$9,200.00	\$9,200.00	\$6,000.00	\$6,000.00	\$10,000.00	\$10,000.00	
15	Traffic Control and Traffic Control Plan	LS	1	\$25,000.00	\$25,000.00	\$22,000.00	\$22,000.00	\$34,274.64	\$34,274.64	\$40,000.00	\$40,000.00	
TOTAL BASE BID NIGHT WORK					\$1,340,900.00		\$1,593,540.00		\$1,646,464.64		\$1,658,000.00	

BIDDER				Stephen Doreck Equipment Rent		GMZ Engineering Inc		J A Salazar Construction & Supply		Williams Pipeline Constructors Inc.		
ADDRESS				Pico Rivera		Agoura Hills		La Habra		Somis		
BID BOND				Yes		Yes		Yes		Yes		
BID ITEMS			UNIT	QTY.	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
SEVENTEENTH ST. WATER MAIN IMPROVEMENTS - BASE BID NIGHT WORK												
1	8" Class 200 AWWA C900 P.V.C. Water Main	LF	1,050	\$293.50	\$308,175.00	\$160.00	\$168,000.00	\$130.00	\$136,500.00	\$185.00	\$194,250.00	

CITY OF SANTA ANA

Project No. 11-6416 Seventeenth Street Water Main Improvements

BID DATE: 10/21/2014

2	12" Class 200, AWWA C900 P.V.C. Water Main	LF	4,985	\$159.00	\$792,615.00	\$180.00	\$897,300.00	\$145.00	\$722,825.00	\$201.00	\$1,001,985.00
3	Construct 1" Water Service per City Std. Plan 1401	EA	51	\$1,895.00	\$96,645.00	\$4,500.00	\$229,500.00	\$2,200.00	\$112,200.00	\$2,000.00	\$102,000.00
4	Construct 2" Water Service per City Std. Plan 1402	EA	24	\$4,075.00	\$97,800.00	\$5,500.00	\$132,000.00	\$3,800.00	\$91,200.00	\$4,000.00	\$96,000.00
5	4" Service Connection Including 4" RWGV	EA	2	\$4,880.00	\$9,760.00	\$5,000.00	\$10,000.00	\$5,500.00	\$11,000.00	\$6,850.00	\$13,700.00
6	4" Fire Line Connection Including 4" RWGV	EA	2	\$4,950.00	\$9,900.00	\$5,000.00	\$10,000.00	\$5,500.00	\$11,000.00	\$7,174.00	\$14,348.00
7	New Fire Hydrant Assembly, Including Gate Valve and Lateral Pipe	EA	17	\$7,185.00	\$122,145.00	\$7,000.00	\$119,000.00	\$11,500.00	\$195,500.00	\$8,000.00	\$136,000.00
8	1" Air Vacuum and Release Valve	EA	4	\$4,295.00	\$17,180.00	\$7,500.00	\$30,000.00	\$5,300.00	\$21,200.00	\$2,000.00	\$8,000.00
9	Vertical Offset per City Std. Plan 1413B	EA	4	\$6,000.00	\$24,000.00	\$2,000.00	\$8,000.00	\$7,000.00	\$28,000.00	\$2,000.00	\$8,000.00
10	8" Resilient Wedge Gate Valve	EA	12	\$1,245.00	\$14,940.00	\$5,000.00	\$60,000.00	\$3,200.00	\$38,400.00	\$2,000.00	\$24,000.00
11	12" Resilient Wedge Gate Valve	EA	11	\$2,290.00	\$25,190.00	\$4,000.00	\$44,000.00	\$4,250.00	\$46,750.00	\$3,000.00	\$33,000.00
12	Bore and Jack, Install Steel Casing and PVC Carrier Pipe	EA	4	\$30,720.00	\$122,880.00	\$5,000.00	\$20,000.00	\$60,000.00	\$240,000.00	\$30,000.00	\$120,000.00
13	Traffic Loop Detector	EA	45	\$200.00	\$9,000.00	\$250.00	\$11,250.00	\$600.00	\$27,000.00	\$245.00	\$11,025.00
14	Striping, and Pavement Markings	LS	1	\$11,850.00	\$11,850.00	\$10,000.00	\$10,000.00	\$41,000.00	\$41,000.00	\$10,000.00	\$10,000.00
15	Traffic Control and Traffic Control Plan	LS	1	\$23,100.00	\$23,100.00	\$50,000.00	\$50,000.00	\$85,000.00	\$85,000.00	\$55,000.00	\$55,000.00
TOTAL BASE BID NIGHT WORK					\$1,685,180.00		\$1,799,050.00		\$1,807,575.00		\$1,827,308.00

BIDDER			Sully-Miller Contracting Company			Vido Samarzich, Inc.		Environmental Assessment and Remediation Management, Inc.		J.De Sigio Construction, Inc.		
ADDRESS			Brea			Alta Loma		Riverside		Baldwin Park		
BID BOND			Yes			Yes		Yes		Yes		
BID ITEMS			UNIT	QTY.	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
SEVENTEENTH ST. WATER MAIN IMPROVEMENTS - BASE BID NIGHT WORK												
1	8" Class 200 AWWA C900 P.V.C. Water Main	LF	1,050	\$200.00	\$210,000.00	\$196.00	\$205,800.00	\$178.00	\$186,900.00	\$234.00	\$245,700.00	
2	12" Class 200, AWWA C900 P.V.C. Water Main	LF	4,985	\$180.00	\$897,300.00	\$196.00	\$977,060.00	\$202.00	\$1,006,970.00	\$220.00	\$1,096,700.00	
3	Construct 1" Water Service per City Std. Plan 1401	EA	51	\$2,800.00	\$142,800.00	\$3,000.00	\$153,000.00	\$3,100.00	\$158,100.00	\$2,200.00	\$112,200.00	
4	Construct 2" Water Service per City Std. Plan 1402	EA	24	\$5,600.00	\$134,400.00	\$4,000.00	\$96,000.00	\$4,900.00	\$117,600.00	\$4,200.00	\$100,800.00	
5	4" Service Connection Including 4" RWGV	EA	2	\$7,000.00	\$14,000.00	\$6,000.00	\$12,000.00	\$8,700.00	\$17,400.00	\$7,700.00	\$15,400.00	

CITY OF SANTA ANA

Project No. 11-6416 Seventeenth Street Water Main Improvements

BID DATE: 10/21/2014

6	4" Fire Line Connection Including 4" RWGV	EA	2	\$9,000.00	\$18,000.00	\$6,500.00	\$13,000.00	\$9,800.00	\$19,600.00	\$7,700.00	\$15,400.00
7	New Fire Hydrant Assembly, Including Gate Valve and Lateral Pipe	EA	17	\$8,000.00	\$136,000.00	\$15,000.00	\$255,000.00	\$11,600.00	\$197,200.00	\$8,600.00	\$146,200.00
8	1" Air Vacuum and Release Valve	EA	4	\$4,700.00	\$18,800.00	\$4,000.00	\$16,000.00	\$4,205.00	\$16,820.00	\$7,400.00	\$29,600.00
9	Vertical Offset per City Std. Plan 1413B	EA	4	\$8,800.00	\$35,200.00	\$5,000.00	\$20,000.00	\$3,750.00	\$15,000.00	\$11,000.00	\$44,000.00
10	8" Resilient Wedge Gate Valve	EA	12	\$2,500.00	\$30,000.00	\$2,500.00	\$30,000.00	\$2,600.00	\$31,200.00	\$2,300.00	\$27,600.00
11	12" Resilient Wedge Gate Valve	EA	11	\$3,800.00	\$41,800.00	\$3,500.00	\$38,500.00	\$4,000.00	\$44,000.00	\$4,000.00	\$44,000.00
12	Bore and Jack, Install Steel Casing and PVC Carrier Pipe	EA	4	\$34,000.00	\$136,000.00	\$33,600.00	\$134,400.00	\$40,000.00	\$160,000.00	\$33,000.00	\$132,000.00
13	Traffic Loop Detector	EA	45	\$230.00	\$10,350.00	\$400.00	\$18,000.00	\$600.00	\$27,000.00	\$330.00	\$14,850.00
14	Striping, and Pavement Markings	LS	1	\$6,500.00	\$6,500.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$11,000.00	\$11,000.00
15	Traffic Control and Traffic Control Plan	LS	1	\$66,850.00	\$66,850.00	\$20,000.00	\$20,000.00	\$45,000.00	\$45,000.00	\$73,000.00	\$73,000.00
TOTAL BASE BID NIGHT WORK					\$1,898,000.00		\$1,998,760.00		\$2,052,790.00		\$2,108,450.00

BIDDER				Christensen Brothers General Engineering Inc. Apple Valley		GRFCO Inc, Brea		T.E. Roberts Inc. Orange		Kennedy Pipeline Construction, Inc. Aliso Viejo		
ADDRESS												
BID BOND				Yes		Yes		Yes		Yes		
BID ITEMS			UNIT	QTY.	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL	UNIT PRICE	TOTAL
SEVENTEENTH ST. WATER MAIN IMPROVEMENTS - BASE BID NIGHT WORK												
1	8" Class 200 AWWA C900 P.V.C. Water Main	LF	1,050	\$280.00	\$294,000.00	\$222.00	\$233,100.00	\$166.00	\$174,300.00	\$549.00	\$576,450.00	
2	12" Class 200, AWWA C900 P.V.C. Water Main	LF	4,985	\$210.00	\$1,046,850.00	\$266.00	\$1,326,010.00	\$192.00	\$957,120.00	\$161.00	\$802,585.00	
3	Construct 1" Water Service per City Std. Plan 1401	EA	51	\$3,800.00	\$193,800.00	\$3,000.00	\$153,000.00	\$7,800.00	\$397,800.00	\$6,056.00	\$308,856.00	
4	Construct 2" Water Service per City Std. Plan 1402	EA	24	\$6,200.00	\$148,800.00	\$4,200.00	\$100,800.00	\$9,200.00	\$220,800.00	\$8,015.00	\$192,360.00	
5	4" Service Connection Including 4" RWGV	EA	2	\$5,600.00	\$11,200.00	\$8,000.00	\$16,000.00	\$12,000.00	\$24,000.00	\$16,135.00	\$32,270.00	
6	4" Fire Line Connection Including 4" RWGV	EA	2	\$5,700.00	\$11,400.00	\$8,000.00	\$16,000.00	\$13,900.00	\$27,800.00	\$15,043.00	\$30,086.00	
7	New Fire Hydrant Assembly, Including Gate Valve and Lateral Pipe	EA	17	\$8,200.00	\$139,400.00	\$4,500.00	\$76,500.00	\$15,000.00	\$255,000.00	\$14,078.00	\$239,326.00	
8	1" Air Vacuum and Release Valve	EA	4	\$4,500.00	\$18,000.00	\$4,000.00	\$16,000.00	\$13,300.00	\$53,200.00	\$12,564.00	\$50,256.00	
9	Vertical Offset per City Std. Plan 1413B	EA	4	\$6,900.00	\$27,600.00	\$5,000.00	\$20,000.00	\$5,900.00	\$23,600.00	\$20,620.30	\$82,481.20	

CITY OF SANTA ANA

Project No. 11-6416 Seventeenth Street Water Main Improvements

BID DATE: 10/21/2014

10	8" Resilient Wedge Gate Valve	EA	12	\$2,200.00	\$26,400.00	\$2,500.00	\$30,000.00	\$2,200.00	\$26,400.00	\$3,700.30	\$44,403.60
11	12" Resilient Wedge Gate Valve	EA	11	\$3,350.00	\$36,850.00	\$3,500.00	\$38,500.00	\$3,900.00	\$42,900.00	\$5,142.57	\$56,568.27
12	Bore and Jack, Install Steel Casing and PVC Carrier Pipe	EA	4	\$31,000.00	\$124,000.00	\$25,000.00	\$100,000.00	\$20,000.00	\$80,000.00	\$30,475.13	\$121,900.52
13	Traffic Loop Detector	EA	45	\$280.00	\$12,600.00	\$400.00	\$18,000.00	\$350.00	\$15,750.00	\$760.88	\$34,239.60
14	Striping, and Pavement Markings	LS	1	\$6,600.00	\$6,600.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$14,570.42	\$14,570.42
15	Traffic Control and Traffic Control Plan	LS	1	\$81,000.00	\$81,000.00	\$40,000.00	\$40,000.00	\$20,000.00	\$20,000.00	\$62,243.78	\$62,243.78
TOTAL BASE BID NIGHT WORK					\$2,178,500.00		\$2,193,910.00		\$2,328,670.00		\$2,648,596.39

				Engineer's Estimate		1 Paulus Engineering Anaheim, CA 724114/100000540		2 T.E. Roberts, Inc. Orange, CA 603008/100000280		3 R C Foster Corp. Corona, CA 569693/100000272	
Item No.	Description	Qty	Unit	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount	Unit Price	Total Amount
1	Mobilization, Demobilization & Cleanup (4.0%)	1	LS	\$8,400.00	\$8,400.00	\$15,000.00	\$15,000.00	\$15,000.00	\$15,000.00	\$9,500.00	\$9,500.00
2	Excavation and Safety Measures	1	LS	\$5,000.00	\$5,000.00	\$1,600.00	\$1,600.00	\$15,000.00	\$15,000.00	\$31,000.00	\$31,000.00
3	Stormwater & Erosion Control BMPs	1	LS	\$1,000.00	\$1,000.00	\$4,000.00	\$4,000.00	\$2,500.00	\$2,500.00	\$500.00	\$500.00
4	Remove 36" Pipe & Fittings	60	LF	\$100.00	\$6,000.00	\$150.00	\$9,000.00	\$425.00	\$25,500.00	\$175.00	\$10,500.00
5	Remove 36" Meter, Vault and Lid	1	EA	\$2,500.00	\$2,500.00	\$4,800.00	\$4,800.00	\$7,300.00	\$7,300.00	\$6,000.00	\$6,000.00
6	Remove 20" Pipe & fittings	12	LF	\$100.00	\$1,200.00	\$100.00	\$1,200.00	\$350.00	\$4,200.00	\$125.00	\$1,500.00
7	Remove 20" Meter, Replace With Spool	1	EA	\$1,500.00	\$1,500.00	\$6,400.00	\$6,400.00	\$5,000.00	\$5,000.00	\$1,800.00	\$1,800.00
8	Remove Existing Asphalt	405	SF	\$10.00	\$4,050.00	\$4.00	\$1,620.00	\$10.00	\$4,050.00	\$10.00	\$4,050.00
9	Remove Retaining Wall, Swale and Drains	24	LF	\$200.00	\$4,800.00	\$100.00	\$2,400.00	\$425.00	\$10,200.00	\$294.00	\$7,056.00
10	Remove /Replace Stairs	1	LS	\$7,500.00	\$7,500.00	\$14,000.00	\$14,000.00	\$16,000.00	\$16,000.00	\$13,100.00	\$13,100.00
11	Remove/Re-install Irr. Backflow & Valves	1	LS	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00	\$3,800.00	\$3,800.00	\$1,600.00	\$1,600.00
12	Remove/Replace Pump Press. Assembly	1	LS	\$7,500.00	\$7,500.00	\$5,400.00	\$5,400.00	\$20,000.00	\$20,000.00	\$13,500.00	\$13,500.00
13	36" CML&C Pipe & Bends	17	LF	\$700.00	\$11,900.00	\$1,250.00	\$21,250.00	\$1,300.00	\$22,100.00	\$1,676.00	\$28,492.00
14	30" CML&C Pipe & Bends	12	LF	\$600.00	\$7,200.00	\$1,725.00	\$20,700.00	\$3,000.00	\$36,000.00	\$2,250.00	\$27,000.00
15	30" CML&EC Pipe & Bends	15	LF	\$600.00	\$9,000.00	\$2,000.00	\$30,000.00	\$1,500.00	\$22,500.00	\$2,133.00	\$31,995.00
16	20" CML&C Pipe & Bends	11	LF	\$500.00	\$5,500.00	\$1,200.00	\$13,200.00	\$1,000.00	\$11,000.00	\$1,090.00	\$11,990.00
17	30" x 36" CML&EC Tee	1	EA	\$3,500.00	\$3,500.00	\$10,000.00	\$10,000.00	\$11,500.00	\$11,500.00	\$6,000.00	\$6,000.00
18	36" x 20" CML&C Reducer	1	EA	\$3,500.00	\$3,500.00	\$7,000.00	\$7,000.00	\$5,300.00	\$5,300.00	\$3,000.00	\$3,000.00
19	30" Butterfly Valve	2	EA	\$15,000.00	\$30,000.00	\$23,000.00	\$46,000.00	\$26,000.00	\$52,000.00	\$18,500.00	\$37,000.00
20	4" Air /Vac Valve Assembly	1	EA	\$3,500.00	\$3,500.00	\$7,600.00	\$7,600.00	\$6,800.00	\$6,800.00	\$4,500.00	\$4,500.00
21	2" Air /Vac Valve Assembly	1	EA	\$2,500.00	\$2,500.00	\$5,400.00	\$5,400.00	\$3,800.00	\$3,800.00	\$2,500.00	\$2,500.00
22	30" Mag Meter	1	EA	\$30,000.00	\$30,000.00	\$43,000.00	\$43,000.00	\$50,000.00	\$50,000.00	\$45,000.00	\$45,000.00
23	Electrical & Controls	1	LS	\$15,000.00	\$15,000.00	\$52,000.00	\$52,000.00	\$40,000.00	\$40,000.00	\$19,000.00	\$19,000.00
24	Retaining Wall	50	LF	\$300.00	\$15,000.00	\$700.00	\$35,000.00	\$1,400.00	\$70,000.00	\$940.00	\$47,000.00
25	Cement Concrete Surface	567	SF	\$21.43	\$12,150.00	\$12.00	\$6,804.00	\$15.00	\$8,505.00	\$19.40	\$10,999.80
26	Concrete Swale and Drains	62	LF	\$150.00	\$9,300.00	\$85.00	\$5,270.00	\$150.00	\$9,300.00	\$160.00	\$9,920.00
27	Cement Concrete Pads, Blocks	1	CY	\$3,000.00	\$3,000.00	\$2,800.00	\$2,800.00	\$1,000.00	\$1,000.00	\$4,500.00	\$4,500.00
28	Startup Testing	1	LS	\$2,000.00	\$2,000.00	\$2,500.00	\$2,500.00	\$3,600.00	\$3,600.00	\$600.00	\$600.00
29	Operation & Maintenance Manuals	1	LS	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00	\$500.00
30	Final Record Drawings	1	LS	\$1,500.00	\$1,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00	\$2,500.00
	Subtotal				\$217,000.00		\$379,744.00		\$484,955.00		\$392,602.80
	Adjustment (+ or -)				\$0.00		\$0.00		\$0.00		\$0.00
	TOTAL AMOUNT OF BID				\$217,000.00		\$379,744.00		\$484,955.00		\$392,602.80
						Manufacturers:		Manufacturers:		Manufacturers:	
						Electromagnetic Meter Assembly: ABB Watermaster		Electromagnetic Meter Assembly: ABB Watermaster		Electromagnetic Meter Assembly: ABB Watermaster	
						CML&C and CML&EC Pipe, Fittings: West Coast Pipe		CML&C and CML&EC Pipe, Fittings: West Coast Pipe		CML&C and CML&EC Pipe, Fittings: LEVCO FAB, Inc.	
						Subcontractors:		Subcontractors:		Subcontractors:	
						Concrete: EBS General Concrete		Concrete: Structures Unlimited		Paving: Regan Paving	
						Electrical: Hydrotech Electric		Masonry: AG Construction		Masonry: AG Construction	
								Electrical: Hydrotech Electric		Electrical: Hydrotech Electric	

No.	Material	Inside Diam. (in)	Length (LF)	Average Bids	BLOIS	Kennedy Pipeline
1	DIP	1"	74	\$95.00	\$125.00	\$65.00
2	DIP	4"	290	\$120.00	\$165.00	\$75.00
3	DIP	6"	6,320	\$129.08	\$175.00	\$83.15
4	DIP	8"	89,002	\$127.88	\$180.00	\$75.75
5	DIP	10"	311	\$168.63	\$190.00	\$147.25
6	DIP	12"	33,892	\$159.75	\$200.00	\$119.50
7	DIP	16"	1,904	\$199.13	\$225.00	\$173.25
8	Steel	1"	108	\$110.00	\$110.00	
9	Steel	1.5"	430	\$66.08	\$115.00	\$17.15
10	Steel	2"	524	\$79.20	\$140.00	\$18.40
11	Steel	3"	739	\$103.00	\$160.00	\$46.00
12	Steel	4"	37,071	\$123.90	\$180.00	\$67.80
13	Steel	6"	80,265	\$147.50	\$200.00	\$95.00
14	Steel	8"	68,066	\$163.75	\$215.00	\$112.50
15	Steel	10"	14,000	\$200.00	\$225.00	\$175.00
16	Steel	12"	17,953	\$227.50	\$235.00	\$220.00
17	Steel	14"	72	\$310.00	\$240.00	\$380.00
18	Steel	16"	908	\$274.75	\$250.00	\$299.50
19	Steel	18"	65	\$381.08	\$260.00	\$502.15
20	PVC	1"	507	\$59.83	\$105.00	\$14.65
21	PVC	3"	57	\$72.85	\$115.00	\$30.70
22	PVC	4"	32,005	\$72.38	\$130.00	\$14.75
23	PVC	6"	140,901	\$93.63	\$155.00	\$32.25
24	PVC	8"	188,345	\$188.48	\$165.00	\$49.15
25	PVC	10"	25,376	\$122.78	\$170.00	\$75.55
26	PVC	12"	41,802	\$182.47	\$175.00	\$65.50
27	PVC	14"	4,899	\$133.68	\$180.00	\$87.35

Table H-1: Water System - Hydraulic Capacity Deficiency Related Improvement Projects

Project No.	Water Pressure Zone	Description	Model Junction IDs	Model Pipe IDs	System Benefit	Notes	Street Type	Project Type	Pipe Size	Quantity	Phase	Severity	Construction Costs	
												(3-1)	Unit Cost	Total Cost
Hydraulic Capacity Projects														
WH1	South	Upsize 12" to 16" along Dentro de Lomas/Paseo Grande Rd	59, 30	1458, 1759	Increase system pressures, increase emergency (or permanent) pump performance	Downstream of Dentro De Lomas Emergency Pump Station	Arterial	Replacement	16-inch	2100 ft	1	2	\$335	\$704,000
WH2	Canonita	Upsize 6" to 10" along Wilt Road	1933, 1870, 1808	15110, 1204, 8724, 1474, 1170, 1219, 1218, 1478, 1169	Increase system pressures, improve function of Wilt & Citrus PRV into Pala Mesa Tank	Only first ~2,200 feet fails criteria	Rural	Replacement	10-inch	5200 ft	3	2	\$195	\$1,010,000
WH3	Morro	Remove Bottleneck, Upsize 8-inch to 12-inch on Mission Road & North River Road	8632, 71	187, 188	Reduce headlosses through bottleneck, increase flow capacity during Morro filling		State Road	Replacement	12-inch	3500 ft	3	2	\$310	\$1,090,000
														\$2,804,000

Table H-2: Water System - Pressure Regulation Related Improvement Projects

Project No.	Water Pressure Zone	Description	Model Junction IDs	Model Pipe IDs	System Benefit	Notes	Street Type	Project Type	Size	Quantity	Phase	Severity	Construction Costs	
												(3-1)	Unit Cost	Total Cost
Pressure Regulation Projects														
WP1	Pala Mesa	Install PRSs at Intersections of Knottwood Way and Staghorn Lane / Gird Road	828, 1551	201, 200, 1844, 139	Reduce local pressure, reduce risk of pipe and lateral breaks	Install two PRVs on Knottwood Way, close valves GV145 and PV231. 90 psi+ reduction possible	Rural	New	6	1	1	3	\$75,000	\$75,000
							Rural	New	4	1	1	3	\$35,000	\$35,000
WP2	Northside	Install PRSs at Brooke Hollow Rd and Ranger Road	2159, 2033	2147, 2236	Reduce local pressure to large geographical service area, reduce risk of pipe / lateral breaks	95 psi+ reduction possible	Rural	New	8	1	1	3	\$100,000	\$100,000
							Rural	New	6	1	1	3	\$75,000	\$75,000
WP3	Gomez	Install PRS at Alex Road and gate valve at Jeremy Way	2210, 8660	8804, 598	Reduce extremely high (400+) local pressures, reduce risk of pipe and lateral breaks	intersection with Jeremy Way. 200 psi+ reduction possible	Rural	New	6	2	1	3	\$75,000	\$150,000
WP4	North	Install PRS to serve Rice Canyon Road South of Pala Mesa Heights Drive	8692	8872	Reduce extremely high (300+) local pressures, reduce risk of pipe and later breaks	Install PRV after PV23. 175 psi+ reduction possible	Rural	New	6	1	1	3	\$75,000	\$75,000
WP5	South	Install PRS to serve South Fork Area along Vista Valley Drive	14, 1113, 1059	7, 8, 69	Reduce local pressure, reduce risk of pipe and lateral breaks	Install PRVs at Vista Valley Drive intersections with Gopher Canyon Road and Laurel Valley Drive. Close PV35. 100 psi+ reduction possible	Arterial	New	8	2	2	2	\$100,000	\$200,000
WP6	Morro	Install PRS on Baja Mission Road	541, 593	272, 268	Reduce local pressure, reduce risk of pipe and lateral breaks	Install PRV at intersection of Baja Mission Rd and La Canada Road. Close GV 28. 100 psi+ reduction possible	Rural	New	6	1	2	2	\$75,000	\$75,000
WP7	Morro	Install PRS on Limber Pine Road	602, 599	1389, 2515	Reduce local pressure, reduce risk of pipe and lateral breaks	Install PRV on Limber Pine Road Flowerwood Lane and close valve PV127. 90 psi+ reduction possible	Rural	New	6	2	2	2	\$75,000	\$150,000
WP8	Morro	Install PRS Club Vista East on Lake Vista Drive	201	353	Reduce local pressure, reduce risk of pipe and lateral breaks	intersection with Club Vista Lane. 90 psi+ reduction possible	Rural	New	6	1	2	2	\$75,000	\$75,000
WP9	Pala Mesa	Install PRSs at Diego Estates Drive and Sarah Ann Drive	1543, 1532, 1509	1328, 385, 1317	Reduce local pressure, reduce risk of pipe and lateral breaks	Install PRVs at Gird Road intersections with Diego Estates Drive and Sarah Ann Drive. Close PV65. 130 psi+ reduction possible		New	6	2	2	2	\$75,000	\$150,000
WP10	South	Install PRS at Via Maria Elena	1228	316	Reduce local pressure, reduce risk of pipe and lateral breaks	Install PRV after GV23. 60 psi+ reduction possible	Rural	New	6	1	2	2	\$75,000	\$75,000
WP11	Morro	Install PRS at Intersection of Mission Road and East Vista Way	1020	10208	Reduce local pressure, reduce risk of pipe and lateral breaks	Install PRV after PV51. 140 psi+ reduction possible. Serves very small area	Rural	New	6	1	2	2	\$75,000	\$75,000
WP12	South	Install PRS to serve Champagne Boulevard	1106	38	Reduce local pressure, reduce risk of pipe and lateral breaks	Install PRV after PV20. 100 psi+ reduction possible. Serves very small area	Undeveloped	New	6	1	2	2	\$75,000	\$75,000
							Rural	New	6	1	2	2	\$75,000	\$75,000
WP13	Morro	Connect and Install PRS to serve Orange Hill, Estate Drive and Rio Vista Drive	609, 596, 564	2489, 496, 515	Reduce local pressure, provide redundancy and reduce risk of pipe and lateral breaks	Install PRV after PV145. Close valve GV16 and PV42. Install 1,300 ft of 8-inch pipe to connect dead ends. 100 psi+ reduction possible	Rural	New	8-inch	1300 ft	2	2	\$145	\$189,000
WP14	Morro	Install PRS on Thoroughbred Lane	289	1688	Reduce local pressure (~300), reduce risk of pipe and lateral breaks	Install PRV after PV4. 180 psi+ reduction possible. Serves very small area	Local	New	6	1	2	2	\$75,000	\$75,000
WP15	Morro	Install PRS to serve River Village	1492	10248	Reduce local pressure (250+) reduce risk of pipe and lateral breaks	Install PRV after GV19. 150 psi+ reduction possible. Serves very small area	Local	New	6	1	2	2	\$75,000	\$75,000
WP16	Morro	Install PRS to serve Ascot Park Area	320, 344	401, 1603	Reduce local pressure (220+) reduce risk of pipe and lateral breaks	Install PRV after PV17 and PV70. 100 psi+ reduction possible. Serves very small area. 6" pipe, cannot reduce pressure too far, FF	Local	New	6	2	2	2	\$75,000	\$150,000
WP17	Rainbow Heights	Install PRS at Rainbrook	2183		Reduce local pressure, reduce risk of pipe and lateral breaks		Local	New	6	1	2	2	\$75,000	\$75,000
														\$2,024,000

Table H-3: Water System - Operations, Redundancy and Reliability Related Improvement Projects

Project No.	Water Pressure Zone	Description	Model Junction IDs	Model Pipe IDs	System Benefit	Notes	Street Type	Project Type	Size	Quantity	Phase	Severity	Construction Costs	
												(3-1)	Unit Cost	Total Cost
Operations, Redundancy and Reliability Projects														
WR1	Morro	Line NN Transmission Upgrades		1650, 1656, 1785, 278, 279, 488, 668, 774	Provide transmission flow path to allow better utilization of Dentro de Lomas PRV through new Line NN during Morro Filling		Rural	Replacement	16-inch	9000 ft	1	2	\$315	\$2,800,000
WR2	Vallecitos	Pump Station #3 (Vallecitos) Replacement			Improved efficiency and reliability to pressure zone	Increase discharge size from 6-inch. Provide at least 2 pumps for redundancy	--	Replacement	75 HP	600 gpm	1	3	--	\$1,030,000
WR3	U-1	U-1 Transmission Pipeline Replacement to Ranchbrook Road		2048, 2372	Replace aging pipeline, fewer service outages and resources spent on repairs	Replace aging pipeline that is the sole transmission source into zone	Rural	Replacement	12-inch	3200 ft	1	2	\$235	\$752,000
WR4	Northside	Northside Zone Supply Redundancy. Upsize Rainbow Hills Road Pipeline to 12-inch and Install New PRS	2285, 2332	2280, 2279, 2366	Provides an emergency supply connection to service large, critical zone	Replace 6-inch pipe on Rainbow Hills Road with 12-inch. Could provide emergency service during a pump station outage. Only ~70' difference PL along Old Highway 395 to Pala Road. Similar zone connection through the Vessels development also possible	Rural	Replacement	12-inch	2200 ft	1	3	\$235	\$517,000
WR5	South/Pala Mesa	Hutton Tank to Pala Mesa Zone Emergency Connection	HUTTON_TANK, 2166	10606, 10608	Provide redundant supply and increased looping for emergency support	Assumed at existing location. Additional study necessary to confirm pump flow/size	State Road	New	16-inch	9,900	2	2	\$400	\$4,000,000
WR6	South	Moosa Permanent Emergency Pump Station	10039		Permanent Station to provide emergency supply to South Zone	Upsize ex pipeline rather than providing a new parallel. Pump station similar to other emergency PSs proposed.	New Site	New	200 HP	2000 gpm	2	2	--	\$2,500,000
WR12	Northside	Northside Emergency Pump Station Connection and Pipeline at Reche Road	100174, 2033, 2035	10220, 10230, 15346, 1006	Provide emergency supply to Northside zone in case of transmission failure		Rural	New	16-inch	3,700	2	2	\$285	\$1,050,000
WR8	Pala Mesa	76 & Gird Permanent Emergency Pump Station			Improved zone reliability during outage or transmission main break scenarios	At same site as 76 & Gird PRV Station	--	New	100 HP	2000 gpm	2	2	--	\$1,600,000
WR9	South	Line P Permanent Emergency Pump Station	10035		Permanent Station to provide emergency supply to South Zone	Assumed at existing location. Additional study necessary to confirm pump flow/size	New Site	New	100 HP	2000 gpm	2	2	--	\$1,600,000
WR10	South	Camino Del Rey Emergency Pump Station	1300		Permanent Station to provide emergency supply to South Zone	Assumed at existing location. Additional study necessary to confirm pump flow/size	New Site	New	100 HP	2000 gpm	2	2	--	\$1,600,000
WR11	South	Dentro De Lomas Permanent Emergency Pump Station	10019		Permanent Station to provide emergency supply to South Zone	Assumed at existing location. Additional study necessary to confirm pump flow/size	New Site	New	100 HP	2000 gpm	2	2	--	\$1,600,000
WR7	North	North Feeder and Rainbow Hills Water Line Replacements		2276, 2275, 15192, 475	Fewer service outages and resources spent on repairs	Replace corroded pipelines which have suffered several breaks	State Road	Replacement	30-inch 27-inch	3788 ft	2	2	\$515	\$2,000,000
WR13	North	Rice Canyon Tank Transmission PL to I-15/SR76 Corridor	RICECYN_TNK		Improve cycling of Rice Canyon tank and serve new development	Project will likely be developer funded	Undeveloped	New	12-inch	3000 ft	2	2	\$150	\$450,000
WR14	Rainbow Heights	Pump Station #1 (Rainbow Heights) Natural Gas Motor Replacements	5009, 5011, 5013, 5015 - Pumps		Improved efficiency and reliability to pressure zone	Cost provided by District, 196k, exclusive of SDG&E requirements and contingencies.	--	Replacement	250 HP	2	1	2	\$150,000	\$300,000
WR15	South	Loop Pipelines in Via Ararat Drive to West Lilac Road	1358, 8702	8884	Provide redundant supply and increased looping	Reliability Connection to provide additional looping for increased system pressures.	Rural	New	8-inch	615 ft	2	2	\$145	\$89,000
WR16	South	Loop Pipelines in Magee Lane to Disney Lane	8628, 1140	8746	Loop lines for redundancy and improved fire flow		Undeveloped	New	8-inch	300 ft	2	2	\$100	\$30,000
WR17	South	South Zone Water Storage Tank			Provide operational storage for increased demands and additional storage during Morro Filling and	Near Turner (South) Tank, support Turner during outages and Morro Filling	--	New	4.0 MG	1	3	2	\$1.6 per gal	\$6,200,000
WR18	Morro	Improve Flow Path to Morro Reservoir, Install Parallel 10-inch pipeline on Kari Lane	8632, 42		Provide additional flow path and reduced resistance during Morro filling	Parallel existing pipeline on Kari Lane	Rural	New	10-inch	2800 ft	3	1	\$180	\$504,000
WR19	Pala Mesa	Lake Rancho Viejo Permanent Connection	1558, 2164		Provide redundant supply to reduced zone	Not shown on Figure 7-1A	Rural	New	8-inch	150 ft	3	2	\$145	\$22,000
WR20	South	Integrity Court, connect dead end lines	1108, 1102		Provide redundant supply and increased looping		Rural	New	8	1000 ft	3	1	\$145	\$145,000
WR21	Districtwide	Water System Condition Assessment Program			Provide the District with an accounting of the characteristics of its water system	Integral part of the implementation of an Asset Management Program	--	--	--	--	1	3	--	\$1,500,000
WR22	Districtwide	Pressure Reducing Station Replacement Program			Replace valves that are aging, under designed and lacking redundancy	Old and small valves and valves with no PR station should be replaced, assumed 20	--	--	--	20	1	3	\$40,000	\$800,000
WR23	Districtwide	Isolation Valve Installation Program			Reduce shutdowns of service to any area serving 50+ persons	Allow District to serve during isolated emergencies, assume 50 installations	--	--	--	50	1	3	\$15,000	\$750,000
WR24	Districtwide	Water System Billing Meter - Systemwide AMI Conversion			Replace existing meters with AMI technology	Instantaneous sales history access. Identify and control leaks and other water losses. Cost estimate provided by District staff	--	--	--	--	1	3	--	\$3,000,000
WR25	Districtwide	Water System Monitoring Program			Install measuring devices to track flow balance into system and through zones	Identify and control leaks and other water losses, assume 25 installations	--	--	--	25	1	3	\$35,000	\$875,000
WR26	Districtwide	New District Headquarters			Construct new District Headquarters to appropriately house staff	Replace aging buildings and provide room for new staff as development occurs	--	--	--	--	2	2	--	\$3,000,000
WR27	Districtwide	Install Permanent Emergency Generators at Pump Stations			Provide system reliability in cases of extended power outage	Include update of all stations to include transfer switches and soft start motors	--	--	--	7	3	2	\$125,000	\$875,000
														\$35,987,000

Table H-4: Water System - Fire Flow Capacity Related Improvement Projects

Project No.	Water Pressure Zone	Description	Model Junction IDs	Model Pipe IDs	System Benefit	Notes	Street Type	Project Type	Size	Quantity	Phase	Severity	Construction Costs	
												(3-1)	Unit Cost	Total Cost
Fire Flow Projects														
FF1	Pala Mesa	Upsize 6-inch to 8-inch in Via San Alberto	1427	1398	Increase available fire flow	Available flow less than 500 gpm	Rural	Replacement	8-inch	1000 ft	1	2	\$155	\$155,000
FF2	Morro Tank	Upsize 4-inch and 6-inch to 8-inch and 10-inch along Sleeping Indian, Conejo and Caroline Roads	484	1405; 684, 1402, 1403, 1404, 692	Increase available fire flow	Available fire flow is less than 500 gpm	Rural	Replacement	10-inch	1300 ft	1	3	\$195	\$254,000
							Rural	Replacement	8-inch	2000 ft	1	3	\$155	\$310,000
FF3	North	Upsize 6-inch to 8-inch on Chica Road	2535	8732, 8742	Increase available fire flow	Available flow less than 600 gpm	Rural	Replacement	8-inch	1300 ft	1	3	\$155	\$202,000
FF4	Canonita	Upsize 4-inch to 8-inch on Lupine Lane		1171	Increase available fire flow	Available flow less than 700 gpm	Rural	Replacement	8-inch	700 ft	2	2	\$155	\$109,000
FF5	South	Upsize 4-inch and 6-inch to 8-inch at Mageee Lane	1132, 1133, 1140	1464, 1465, 1466, 1471	Increase available fire flow	Available flow less than 700 gpm	Rural	Replacement	8-inch	1500 ft	2	2	\$155	\$233,000
FF6	Northside	Upsize 4-inch on Via Chaparral	1278, 1994	10228	Increase available fire flow	Available flow less than 700 gpm	Rural	Replacement	8-inch	850 ft	2	2	\$155	\$132,000
														\$1,395,000

Table H-5: Water System - Water Supply Related Improvement Projects

Project No.	Water Pressure Zone	Description	Model Junction IDs	Model Pipe IDs	System Benefit	Notes	Street Type	Size	Quantity	Phase	Severity	Construction Costs	
											(3-1)	Unit Cost	Total Cost
Water Supply Projects													
WS1	South	Weese WTP Permanent Emergency Interconnect and Pump Station	Pump 5051		Provide permanent connection to emergency supply source to serve South zone during 2nd Aqueduct outage			50 HP	1000 gpm	1	2	--	\$1,200,000
WS2	Northside	Northside Permanent FPUD Emergency Interconnection		See Figure 4-5 for connection location	Provide emergency supply to Northside zone in case of transmission failure & additional supply during 2nd Aqueduct outage			--	--	1	3	--	\$150,000
WS3	Morro Tank	Morro Tank Zone Permanent FPUD Emergency Interconnection			Provide emergency supply to Morro Tank zone in case of fire as portions of the zone do not meet fire flow criteria without increased HGL			--	--	2	3	--	\$150,000
													\$1,500,000

Table H-6: Water System - Existing System Improvement Projects

Project No.	Water Pressure Zone	Description	Model Junction IDs	Model Pipe IDs	System Benefit	Notes	Street Type	Project Type	Pipe Size	Quantity	Phase	Construction Costs	
												Unit Cost	Total Cost
Water System Existing Improvement Projects													
WE1	Canonita	Gird to Monserate Hill Water Line		1382	Loop dead end system and shift demand off of the Canonita Zone		Rural	Replacement	12-inch	2150 ft	1	--	\$950,000
WE2	South	Wrightwood to Cottontail PRS		287, 1562, 289	Replaced broken pipe. Install PRS to re-constitute previously looped system	Pipeline is complete, need to install PRS to allow connection to operate		New	8-inch	1	1	--	\$100,000
WE3 200950	South	Lake Vista Estates Loop and PRS	172, 153		Improve water quality by eliminating dead ends and improve fire flow	Short segment of pipeline and PRS to connect Morro and South Zones	Rural	New	--	--	1	--	\$144,000
WE4 201573	South	Tarek Terrace Water Line		2, 25	Replace old pipe to have fewer service outages and resources spent on repairs		Rural	Replacement	8-inch	500 ft	1	--	\$143,000
WE5 201359	South	Rancho Amigos Pressure Station Replacement		See CIP Project Sheets	Improve maintenance access	Improve safety and lessen staff required for maintenance	Rural	Replacement	8-inch	--	1	\$75,000	\$75,000
													\$462,000

Table H-7: Sewer System Improvement Projects

Project No.	Description	Model Junction IDs	Model Pipe IDs	System Benefit	Notes	Street Type	Size	Quantity	Phase	Severity	Construction Costs	
										(3-1)	Unit Cost	Total Cost
Sewer Projects Recommended Under All Alternatives												
S1	Plant B List Station (LS3), Forcemain and Horse Creek Sewer Abandonment			Abandon old, low, high infiltration sewer and aging LS with deficient wet well capacity	Replaced by Pankley LS and FM & Horse Creek Ridge sewer. 850 ft of FM and approx 13,650 ft of gravity sewer abandoned	--	--	--	1	3	--	\$350,000
S2	Lake Garden Sewer Rehabilitation		69, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80	Reduce inflow and infiltration, thereby reducing maintenance and treatment costs	3,475 of pipe and 12 manholes to be rehabilitated	Rural	8-inch	3475 ft	1	3	\$80	\$280,000
						Rural	--	12	1	3	\$5,250	\$63,000
S3	Rancho Viejo LS (LS5) Wet Well Expansion	801, 4005		Provide 6 hours PWWF storage at Rancho Viejo LS to protect against sewer spills	New wet well should be at least 1400 gal	Existing Site	--	1400 gal	1	3	--	\$150,000
S4	Almendra Court Sewer Rehabilitation, I-15 Crossing, Structural Pipe Lining	308, 926	290, 291, 292, 295	Rehabilitate freeway sewer crossing which is corroding	Provide system reliability	--	8-inch	938 ft	1	3	\$80	\$80,000
S5	Fallbrook Oaks LS (LS6) Rehabilitation and Forcemain Replacement	25, 4006	697	Rehabilitate existing LS and FM and extend useful life	Replace 6" forcemain with 8"	--	--	--	1	3	--	\$200,000
						Local	8-inch	252 ft	1	3	\$155	\$39,000
S6	Replace Rancho Monserate LS Emergency Generator	803, 4004		Prevent sewage spill in the case of a power outage		Existing Site	--	1	1	3	--	\$125,000
S7	Sewer System Condition Assessment Program			Provide the District with an accounting of the characteristics of its sewer system	Integral part of the implementation of an Asset Management Program	--	--	--	1	3	--	\$400,000
S8	Sewer System Permanent Flow Monitoring			Allow the District to monitor and predict system flows and performance	Greater understanding of sewer generation and control of system	--	--	5	1	3	\$25,000	\$130,000
Sewer Projects - Baseline, District Office Plant Location												
S9	Construct 0.9 MGD Water Reclamation Plant (WRP) at District Office Location			Provide a reliable local water source and water supply offset. Provide sewer outfall within District to avoid exceeding interceptor capacity	Cost per TM #1	--	0.9 MGD	--	1	3	--	\$37,000,000
S10 201040	Lift Station 1 Replacement			Replace critical station reaching useful life and wet well with deficient capacity	Cost per TM #1	Existing Site	--	700	2	3	--	\$3,300,000
S11	WRP Conveyance (Pump Station and Pipeline) and Failsafe Storage (Beck Reservoir Rehab and Raw Water Connection)			Provide conveyance to storage and storage for treated wastewater	Cost per TM #1	--	0.9 MGD	--	1	--	--	\$3,200,000
S12	Sewer System Rehabilitation Program			Rehabilitate and repair existing sewer trunk infrastructure	Keep aging pipes and manholes with no capacity deficiencies in good condition	State Route	12-inch 15 inch	--	1	3	--	\$4,500,000
Sewer Projects - No Project Alternative												
S9A 201040	Lift Station 1 Replacement and Upgrade			Replace and expand critical station reaching useful life	Cost per TM #1	Existing Site	--	1800 gpm	1	--	--	\$8,200,000
S11A	San Luis Rey Interceptor Replacement from LS 1 to LS 2			Provide adequate conveyance capacity	Cost per TM #1	State Route	18-inch	7500 ft	1	3	--	\$3,000,000
S10A 201260	San Luis Rey Interceptor Replacement from Mission Road to LS 1			Provide adequate conveyance capacity	Cost per District Budget, Highway 76 Realignment - CalTrans UPSIZE	State Route	18-inch	7100 ft	1	3	--	\$3,200,000
S12A 201266	Sewer Outfall Line RMWD Replacement			Provide adequate conveyance capacity	Previously recommended as a 30-inch pipe. Recommended to be reduced to 24-inches. Unit cost for previous project retained	State Route	24-inch	16000 ft	2	3	\$27/in-ft	\$10,400,000
S13A	Sewer Capacity Purchase			Provide conveyance and treatment capacity to District customers	recommendation of maximum ADF of 1.25 MGD and total forecasted flow of 1.39 MGD	--	--	0.14 MGD	2	3	\$20 per gpd	\$2,800,000

Table H-7: Sewer System Improvement Projects

Project No.	Description	Model Junction IDs	Model Pipe IDs	System Benefit	Notes	Street Type	Size	Quantity	Phase	Severity	Construction Costs	
										(3-1)	Unit Cost	Total Cost
Sewer Projects - LS 2 Plant Location (Not shown on Figure 7-2)												
S9B	Construct 1.6 MGD Water Reclamation Plant (WRP) at LS 2 Location			Provide reliable local water source & water supply offset. Provide sewer outfall within District to avoid exceeding outfall capacity	Cost per TM #1	--	0.9 MGD	--	1	3	--	\$66,000,000
S10B	and Failsafe Storage (Beck Reservoir Rehab and Raw Water Connection)			Provide conveyance to storage and storage for treated wastewater	Cost per TM #1	--	0.9 MGD	--	1	--	--	\$13,900,000
S11B 201040	Lift Station 1 Replacement and Upgrade			Replace and expand critical station reaching useful life	Cost per TM #1	Existing Site	--	1800 gpm	1	--	--	\$8,200,000
S13B	San Luis Rey Interceptor Replacement from LS 1 to LS 2			Provide adequate conveyance capacity	Cost per TM #1	State Route	18-inch	7500 ft	1	3	--	\$3,000,000
S12B 201260	San Luis Rey Interceptor Replacement from Mission Road to LS 1			Provide adequate conveyance capacity	Cost per District Budget, Highway 76 Realignment - CalTrans UPSIZE	State Route	18-inch	7100 ft	1	3	--	\$3,200,000
S14B	Sewer System Rehabilitation Program			Rehabilitate and repair existing sewer trunk infrastructure	Keep aging pipes and manholes with no capacity deficiencies in good condition	State Route	15-inch	--	1	3	--	\$2,400,000
Sewer Projects - Sewer Project Changes to Serve Out of District Developments (Not shown on Figure 7-2)												
S9C	San Luis Rey Interceptor Replacement from LS 1 to LS 2			Provide adequate conveyance capacity	Additional cost per VCMWD Meadowood Memo	State Route	21-inch	7500 ft	1	3	--	\$280,000
S10C 201260	San Luis Rey Interceptor Replacement from Mission Road to LS 1			Provide adequate conveyance capacity	Additional cost per VCMWD Meadowood Memo	State Route	21-inch	7100 ft	1	3	--	\$260,000
S11C	Lift Station 1 Replacement			Provide adequate conveyance capacity	Additional cost per VCMWD Meadowood Memo	Existing Site	--	--	1	3	--	\$177,000
											Baseline - District Office Plant Location	\$48,000,000
											No Project Alternative	\$16,400,000
											LS 2 Plant Location	\$97,417,000

Table H-8: Recycled Water System Improvement Projects

Project No.	Description	Model Junction IDs	Model Pipe IDs	System Benefit	Notes	Street Type	Size	Quantity	Phase	Severity	Construction Costs	
										(3-1)	Unit Cost	Total Cost
Recycled Water Projects - Baseline												
RW1	Recycled Water Pump Stations			Convey flows to storage in various pressure zones	Cost per TM #1		--	0.9 MGD	1	--	--	\$4,600,000
RW2	Recycled Water Storage			Provide operational storage to recycled water customers	Cost per TM #1		--	0.9 MGD	1	--	--	\$3,600,000
RW3	Recycled Water Transmission and Distribution System Pipeline			Provide transmission and distribution capacity to recycled water customers	Cost per TM #1		--	0.9 MGD	1	--	--	\$11,000,000
RW4	Recycled Water System Customer Retrofit Assistance			Assist customers in connecting to the recycled water system	Cost per TM #1		--	0.9 MGD	1	--	--	\$1,000,000
												\$20,200,000

Appendix F

APPENDIX F: REFERENCES AND ACKNOWLEDGEMENTS

The Willdan Team would like to acknowledge the assistance and contributions of the Rainbow Municipal Water District Staff and especially:

- Ms. Sherry R. Kirkpatrick, P.E., RWMD Engineering Manager; and
- Mr. Michael Powers, P.E., RWMD Project Engineer; and
- Several members of the operational staff who provided insights, answered questions, provided data and assisted the work in several additional manners.

References used in this work are as follows:

1. RMWD GIS data base and layers and graphics for information and the figures in **Section 2**.
2. RMWD operational data and overview of the systems.
3. RMWD fees, charges and financial information.
4. RMWD inventory table as presented in **Appendix "C"**.
5. RMWD small equipment listing, fleet listing, large equipment listing and descriptions.
6. California Department of Public Health 2013 Sanitary survey dated 1/13/2014 also 8/31/2010.
7. Vallecitos Water District Bonding Costs 1/24/2013.
8. Atkins, consulting engineers March 2016 RMWD Water and Wastewater Master Plan Update with Appendices.
9. January, 2016 Draft of #8 report above.
10. RMWD service corrections listing May, 2016.
11. RMWD required pipeline replacement for Property 0 to 100 years old (OCN – 194,100,00) budget for replacement \$2,000,000 per year.
12. RMWD asset management program and CIP sheets with historical costs.
13. RMWD real property listing.
14. County of San Diego 7/2015 Department of Public Works Unit Price List.

15. Leases with Cox PCS Assets, LLC; Sprint PCS; Assets; LLC; The Rib Shack; R.E. Staite Engineering, Inc; Perrault Corporation;
16. RMWD Annual Drinking Water Quality Reports 2010 - 2014 and RMWD rates 2016.
17. Oceanside Agreement dated 2/13/2002 and 2015 and 2016 Bills and Payments with 2002 - 2015 BOD5, TDS and TSS Average values versus agreement.
18. Atkins 9/2015 Wastewater Treatment/Reclamation Alternatives Study-Technical Memo #1.
19. Alternative Water Source Feasibility Study - January 28, 2013 by J.C Heden and Associates, Inc.
20. Groundwater Supply Study - 1/18/2016 by West lost Associates, consulting engineers.
21. RMWD Sewer System Management Plan - 11/2/2015.
22. RMWD - Urban Water Management Plan 2015 Update - Atkins Draft 5/2016.
23. RMWD - Potable Water Cost of Service Study - 11/10/2015 by Raftelis Financial Consultants, Inc.
24. Atkins 2/10/2016 Water and Sewer Analysis for the Meadowood Project (and others - 3566 EDM's projected) Impact Analysis and CIAC needs.
25. City of Santa Ana bid tabulations - Mr. Brian Ige, P.E.
26. Utility Contractor quotations for unit pricing - Kennedy Pipeline, Blois Construction and others.
27. Engineering Firm Pricing - Atkins price ranges, True Engineering and Architecture, Inc. pricing, HC pricing and other consulting engineers.
28. Bid Analysis past 3 years 2013-2016 Dodge Room - Data and Analytics - CALOSV - Los Angeles Package Utility bids and Analysis.
29. HC, GAI, HAI, DRMP AND CDM costing information.
30. Hartman - Economy of Scale Study- aggregated large projects, 2005.
31. Means, etc. costing publications.
32. Hartman- Water and Wastewater Property Utility depreciation Study, 1994.

33. Engineering Depreciation - Text 1980.
34. Utility, NARUC, CPUC and depreciation schedules.
35. Various Vendor and Manufacturer ASL claims for utility products.
37. ParcelQuest.com Property Information.
36. A variety of HC, Willdan, TE&C Library References.

Appendix G

APPENDIX G: COMPARABLE SALES BACKUP

Appendix “G” includes summary comparable sales back-up materials. **(Note: Edited for Public Entity Use – Only Public Information Shown).**

PRESS RELEASE

For Immediate Release



**GLOBAL WATER REACHES AGREEMENT TO TRANSFER
VALENCIA WATER COMPANY TO CITY OF BUCKEYE**

PHOENIX, AZ – March 17, 2015 – GWR Global Water Resources Corp. (“GWRC”) (TSX: GWR) today announced that Global Water Resources, Inc. (“Global Water” or the “Company”) has reached a settlement agreement for stipulated condemnation (the “Agreement”) to transfer the assets of Valencia Water Company, Inc. (“Valencia”) to the City of Buckeye (“Buckeye”). GWRC owns an approximate 48.1% interest in Global Water.

The Agreement, which was unanimously approved by the boards of directors of GWRC and Global Water, is subject to approval by Buckeye’s City Council at a Special Council Meeting which is scheduled to be held on March 19, 2015. Once approved, the transaction is subject to Buckeye receiving sufficient financing and approval by the Maricopa County Superior Court.

The material terms of the Agreement are as follows:

- Buckeye to acquire all of the assets of Valencia and assume the operations of the utility on closing;
- Buckeye to pay to Global Water US\$55 million on closing, subject to certain post-closing adjustments;
- Buckeye to pay to Global Water a growth premium equal to US\$3,000 for each new water meter installed within the prior service areas of Valencia for a 20-year period ending January 1, 2035, subject to a maximum payout of US\$45 million.

“Although Valencia is a valuable water asset in a high growth corridor, it is not a utility in which Global Water can implement its integrated water, wastewater, and recycled water provider model as the City owns and operates the local wastewater system” said Ron Fleming, President and CEO of Global Water. “Additionally, the City of Buckeye has its own water systems on all sides of Valencia, which limits Global Water’s ability to grow our certificated service area within Buckeye.”

“For Buckeye, the consolidation of Valencia into their existing systems will provide long-term benefits to the City and its customers, including an enhanced ability for regional water resource planning, which Global Water promotes within the industry as well,” continued Mr. Fleming. “For Global Water, the disposition strengthens our balance sheet and provides great optionality for growing our company and shareholder value by focusing on our core business model.”

Global Water expects that the closing will occur in the third quarter of 2015.

About GWR Global Water Resources Corp

GWRC was incorporated in British Columbia to acquire shares of U.S. based Global Water and to actively participate in the management, business and operations of Global Water through its representation on the board of directors of Global Water and its shared management of Global Water. GWRC owns an approximate 48.1% interest in Global Water, a pure-play, high growth, water resources company located in Phoenix Arizona that owns and operates regulated water, wastewater and recycled water utilities.

Cautionary Note Regarding Forward-Looking Statements

This press release includes certain forward-looking statements. These forward looking statements include, but are not limited to the expected timing and completion of the sale of Valencia, including the expected timing and completion of the City's approval of the purchase of Valencia, and other statements contained in this release that are not historical facts as well as statements identified by words such as "expects", "anticipates", "intends", "plans", "believes", "seeks", "estimates", or the negative of these terms, or other words of similar meaning. These statements are based on our current beliefs or expectations and are inherently subject to significant uncertainties and changes in circumstances, many of which are beyond our control, including the fact that the expected completion of the sale of Valencia is subject to closing conditions, including receipt of financing by Buckeye and court approval. Actual results may differ materially from these expectations due to changes in global political, economic, business, competitive, market and regulatory factors and other factors discussed under the heading "Risk Factors" in the Company's most recent Annual Information Form. We undertake no obligation to publicly update any forward-looking statement, except as required by law, whether as a result of new information, future developments or otherwise.

For more information, please contact:

Marina Proskurovsky

Investor Relations

Tel: 416.815.0700 ext. 288

Email: mproskurovsky@tmxequicom.comwww.gwresources.com

Westfield and Citizens to Complete Utility Transfer

INDIANAPOLIS – The City of Westfield and Citizens Energy Group will complete the transfer of the community's water and wastewater utilities to Citizens on Friday, March 21. Citizens will begin operating the water and wastewater utilities on Saturday, March 22.

The transfer will create **Citizens Westfield**, a water, wastewater and gas utility providing excellent service for the fast-growing Hamilton County community. Citizens acquired Westfield Gas in 2004. The new utility will have 11,000 water, 10,000 wastewater and 3,700 gas customers. In addition, the transfer will:

- ✓ Provide Westfield about \$40 million for much needed infrastructure including new streets, sidewalks and walking trail expansions
- ✓ Eliminate Westfield's \$45 million in utility debt
- ✓ Retain the current five-year schedule of modest utility rate increases previously approved by the Westfield City Council
- ✓ Retain the experience and knowledge of existing Westfield utility employees

"The completion of the utility transfer will be a transformational step for the Westfield community. The transfer will allow us to move forward with our *Westfield Where You Want to Be* initiative to build much-needed infrastructure without raising taxes. At the same time, we are securing our vital water and wastewater utilities with a trusted company committed to predictable rates, outstanding customer service and future community growth," said Westfield Mayor Andy Cook.

On September 24, 2012, Mayor Cook and Citizens announced the plan to transfer the community's water and wastewater utilities to Citizens for a purchase price of \$91 million. After a public input process that included four town hall meetings, the Westfield City Council approved the utility transfer by a 6-1 vote on November 5, 2012. The transfer was approved by the Indiana Utility Regulatory Commission on November 25, 2013.

For the past several months, Westfield and Citizens have been planning an efficient transition for Westfield Utilities' customers.

"We are excited to provide outstanding water, wastewater and gas service to the Westfield community. Citizens is committed to helping Westfield grow by utilizing local and regional water resources and by making the infrastructure investments necessary to ensure safety, reliability and environmental protection," said Carey Lykins, President & CEO, Citizens Energy Group.

Citizens Westfield customers will only notice a few changes to their service in the coming weeks including:

- **New phone number** – Starting March 22, customers with service issues should call Citizens Westfield at (800) 282-9276.

More

- **Citizens Westfield billing** – Starting the week of March 24, Citizens Westfield will issue its first bill for water and wastewater services, but it will not bill customers for trash and stormwater services. Customers in the Westfield area currently receiving gas from Vectren will remain with Vectren.
- **Quarterly trash and stormwater bill** – The City of Westfield will bill customers for trash and stormwater on a quarterly basis starting in April.
- **New post office box** – Citizens Westfield will have a new address for billing and payment purposes:
Citizens Westfield
P.O. Box 7067
Indianapolis, IN 46207-7067

In about a year, Citizens will reformat the current water and wastewater bill to include comparative usage data to help customers track their usage. At the same time, Citizens will also offer new payment options including new payment locations; EasyPay, for online and telephone payments using your checking account; Paperless Billing and Budget Billing, which allows customers to pay the same amount each month based on annual usage.

"Citizens is committed to a smooth transition for our new Westfield customers. We look forward to being a vital community partner dedicated to helping ensure Westfield remains one of the most livable and vibrant communities in Central Indiana," Lykins said.

###

About Citizens Energy Group

Citizens Energy Group provides safe and reliable utility services to about 400,000 residential, commercial and industrial customers in the Indianapolis area. Additional information is available online at www.CitizensEnergyGroup.com - [Facebook](#) - [Twitter](#) - [YouTube](#)

Media Contacts:

Erin Verplank
City of Westfield
Office: (317) 804-3004
Cell: (317)-617-8524
everplank@westfield.in.gov

Dan Considine
Manager, Corporate Communications
Citizens Energy Group
Office: (317) 927-4718
Cell: (317) 407-9254
dconsidine@citizensenergygroup.com

NOTE: Of the 58 water systems acquired over the past two and one-half years, only 2 systems exceeded 1,000 customers.

Acquired Company/ Systems	Acquired Date	Docket No.	Town	Customers	Est. Population (a)
Aqurion Water Company Connecticut Prior to Acquisition				184,286	588,372
Topstone Hydraulic Company	08/31/11	DN 10-12-11			
1 Ridgefield Knolls			Ridgefield	237	906
2 Hollandale Estates			Danbury	75	196
3 Rolling Ridge Estates			Danbury	43	112
4 Birchwood Water Association	12/01/11	DN 11-05-06	Malborough	91	250
Brookfield Water Company	12/20/11	DN 11-06-07			
5 Brookfield Water Company			Brookfield	203	521
6 1087 Federal Road			Brookfield	1	1
Rural Water Company	12/28/11	DN 11-06-17			
7 Ridgefield Lakes - Main System			Ridgefield	151	577
8 Ridgefield Lakes - Well No. 11			Ridgefield	6	23
9 Ridgefield Lakes - Well No. 4			Ridgefield	3	11
10 Ridgefield Lakes No. 1			Ridgefield	11	42
11 Ridgefield Lakes - Well No. 2			Ridgefield	11	42
12 Ridgefield Lakes No. 9			Ridgefield	15	57
13 Soodon - Well No. 2 & 3			Ridgefield	78	258
14 Soodon - Well No. 4			Ridgefield	-	-
15 Craigmoor System			Ridgefield	29	111
16 Soundview - Interconnection			Ridgefield	36	138
17 Southern Brookfield			Brookfield	90	231
18 Brook Acres			Brookfield	53	136
19 Brookfield Division			Brookfield	258	662
20 Towne Brooke Commons			Brookfield	102	262
21 The Cedars			Danbury	8	21
22 Pearce Manor			Danbury	50	130
23 Ken Oaks			Danbury	57	149
24 Cedar Heights			Danbury	138	360
25 Oakwood Acres			New Fairfield	99	257
26 Fieldstone Ridge			New Fairfield	29	75
27 Candlewood Acres			Brookfield	28	72
Ron Black Water Systems	02/15/12	DN 11-04-13			
28 Tyler Lake - Cleanview Hills			Wolcott	79	215
29 Tyler Lake - Woodrich Village			Wolcott	27	74
30 Tyler Lake - Indian Springs			Danbury	92	240
31 Tyler Lake - Tyler Lake			Goshen	58	144
32 Judea Water - Judea Green			Washington	82	180
33 Judea Water - Judea Depot			Washington	44	97
34 Judea Water - Quarry Ridge			New Preston	34	115
35 Olmstead Water - Newtown			Newtown	162	376
36 Olmstead Water - Birches			New Fairfield	23	60
37 Olmstead Water - Brookwood			Brookfield	87	223
38 Olmstead Water - Butternut			Brookfield	31	79
39 Olmstead Water - Possum Ridge			New Fairfield	64	166
40 Chestnut Tree Hill			Newtown	48	112
41 Circle Drive			Litchfield	49	166
42 Meckauer Water Company	07/12/12	DN 11-09-01	Bethel	47	96
43 Dunham Pond	12/01/12	DN 12-02-03	New Fairfield	37	96
United Water Connecticut	09/04/12	DN 12-03-08			
44 New Milford			New Milford	3,348	6,938
45 Meadowbrook			New Milford	141	292
46 Pleasant View			New Milford	93	193
47 Dean Heights			New Milford	63	131
48 Twin Oaks			New Milford	56	116
49 Forest Hills			New Milford	97	201
50 Park Glen			New Milford	12	25
51 Carmen Hill Orchard/ Candlewood Terrace			New Milford	126	261
52 Indian Ridge			New Milford	53	110
53 Greenridge			Brookfield	226	580
54 Chimney Heights			Bethel	582	1,190
55 Berkshire Corporate Park			Bethel	71	145
56 Newtown			Newtown	1,783	4,142
57 Woodbury			Woodbury	681	1,161
58 Indian Fields Homeowners Association	06/15/13	DN 13-02-04	Brookfield	55	141
Acquisition Customer/ Population Additions				10,253	23,766
Pending Water Companies to be Acquired per PURA and DPH Approval					
West Service Corporation	Pending	DN 13-01-11			
1 West Service Water System			Suffield	212	719
2 Valley View Water System			Mansfield	60	203
3 East Derby Waterworks	Pending	DN 13-07-13	Derby	500	1,249
4 Redrock Water Association	Pending	DN 10-03-18	New Milford	15	45
5 Litchfield Hills Water Association	Pending	DN 10-01-16	New Milford	50	150
6 West Shores Water System	Pending		Woodbury		
Pending Acquisition Customer/ Population Additions				837	2,366

(a) Aqurion Water Company estimated population per system is calculated by extrapolating the variance in the Company's 2012 and 2010 population count per the Company's Annual Reports.

Company	Docket	Transaction Costs	Purchase Price	Asset or Stock Purchase
Topstone Hydraulic Company	10-12-11	27,944	561,000	Assets
Brookfield Water Company	11-06-07	65,130	1,300,000	Assets
Rural Water Company	11-06-17	51,137	800,000	Assets
Birchwood	11-05-06	28,037	34,100	Assets
Ron Black systems	11-04-13	67,452	297,500	Assets
Meckauer Water Company	11-09-01	12,480	10,000	Assets
Dunham Pond	12-02-03	33,184	115,000	Assets
United Water Connecticut	12-03-08	513,383	37,878,204	Stock
Indian Fields Homeowners Assoc.	13-02-04	22,793	38,500	Assets
Total		\$ 821,540	\$ 41,034,304	

Company	Docket	Purchase Price (a)	Net Book Value	Difference	Regulatory Treatment of Premium/ (Discount)
Topstone Hydraulic Company	10-12-11	588,944	561,000	27,944	Deferred and Amortized over 3 yrs.
Brookfield Water Company	11-06-07	1,365,130	1,174,054	191,076	Deferred and Amortized over 3 yrs.
Rural Water Company	11-06-17	851,137	780,079	71,058	Deferred and Amortized over 3 yrs.
Birchwood	11-05-06	62,137	76,314	(14,177)	Deferred and Amortized over 3 yrs.
Ron Black systems	11-04-13	364,952	291,720	73,232	Deferred and Amortized over 3 yrs.
Meckauer Water Company	11-09-01	22,480	18,371	4,109	Deferred and Amortized over 3 yrs.
Dunham Pond	12-02-03	148,184	602,115	(453,931)	Deferred and Amortized over 3 yrs.
United Water Connecticut (b)	12-03-08	38,391,587	28,105,973	10,285,614	See Note (c)
Indian Fields Homeowners Assoc.	13-02-04	61,293	38,500	22,793	Deferred and will propose to be amortized in next rate proceeding.
Total		\$ 41,855,844	\$ 31,648,126	\$ 10,207,718	

(a) Includes Transactions costs.

(b) Includes \$2.5m fair value adjustment for land proposed to be divested to the Town of Woodbury.

(c) Approximately \$6.6 million of the acquisition premium is reflected in an acquisition adjustment account (117 account) and was included in rate base at the time of the Company's rate proceeding. The remaining \$3.7 million was included in a goodwill account (124 account) with no rate recovery.

Company	Average Rate Impact on Existing Customers			Explain Rationale of Impact	Enhanced return, recovery of acq premium/ discount	Rate Impact applied to all groups equally?
	Total \$	% Increase	Per Connection			
Topstone Hydraulic Company	N/A	N/A	N/A	Note 1	None	Note 2
Brookfield Water Company	N/A	N/A	N/A	Note 1	Recovery of Acq. Premium	Note 2
Rural Water Company	N/A	N/A	N/A	Note 1	Recovery of Acq. Premium	Note 2
Birchwood	N/A	N/A	N/A	Note 1	Recovery of Acq. Discount	Note 2
Ron Black systems	N/A	N/A	N/A	Note 1	Recovery of Acq. Premium	Note 2
Meckauer Water Company	N/A	N/A	N/A	Note 1	Recovery of Acq. Premium	Note 2
Dunham Pond	N/A	N/A	N/A	Note 1	Recovery of Acq. Premium	Note 2
United Water Connecticut	N/A	N/A	N/A	Note 1	Recovery of Acq. Discount	Note 2
Indian Fields Homeowners Assoc.	N/A	N/A	N/A	Note 1	Recovery of Acq. Premium	Note 2
Total	\$	- \$	- \$		None	Note 2

Note 1: The acquired water company did not have an impact on the rates of existing customers. Refer to the Company's response to EN-6.

Note 2: The acquired water company rates were equalized with the Company's Eastern Division or has moved closer to equalization through the PURW's directive.

General Note: As part of the 2013 general rate proceeding, docket 13-02-20, the Company received a 50 bps premium on return an equity for its acquisition of small water systems.

Acquired Company	Description	Initiating Parties	Reasons for Purchase	Reason for Sale
Topstone Hydraulic Company	355 customers in the Towns of Ridgefield and Danbury	Topstone	Operational synergies, consolidation in the Danbury region.	Burdensome regulatory requirements, health regulations and diversion permit issues.
Brookfield Water Company	304 customers in the Town of Brookfield	Mutual	SWC water resources and infrastructure were critical pieces in providing comprehensive water solution to the Town of Brookfield's long-standing water quality and quantity issues. Aisat in PURA/DPR's shared objectives for consolidation of small water systems in the state.	Burdensome regulatory requirements, health regulations and diversion permit issues.
Rural Water Company	1,252 customers in the Towns of Brookfield, Ridgefield, New Fairfield, and Danbury	Mutual	Provide comprehensive water supply solutions to the Town of Brookfield, expands the geographical footprint that fills the gap between lower Fairfield and northern Fairfield townfield county service areas.	Increased regulatory requirements, health regulations and diversion permit issues. Faced with political and regulatory challenges in providing water services coupled with no clear jurisdiction plan.
Birchwood	51 customers in the Town of Milborough	Birchwood	Provide comprehensive water supply solutions that will address long-standing water quality and water quantity problems within the area.	Lacked the managerial, technical and financial expertise to operate the water system.
Ron Black systems	564 customers in the Towns of Newtown, Brookfield, Danbury, New Fairfield, Washington, Litchfield, Wolcott, and Goshen	Ron Black	The Black water systems were largely located in the Metro-Danbury area. Many of the systems lacked adequate investment for many years. Acquisition saw this as an opportunity to provide comprehensive water supply solutions that will address long-standing water quality and water quantity problems within the area.	Increased regulatory requirements, health regulations and diversion permit issues.
Meckauer Water Company	47 customers in the Town of Bechtel	Meckauer	Provide comprehensive water supply solutions that will address long-standing water quality and water quantity problems within the area.	Interested in the divestiture of the business.
Dunham Pond	37 customers in the Town of New Fairfield	Union Savings Bank	Provided synergies with the Company's existing 84 Pond system. Provide comprehensive water supply solutions that will address long-standing water quality and water quantity problems within the area.	Bank-owned, for closed water system. The Bank did not possess the technical and managerial resources to own and operate the water system.
United Water Connecticut	7,332 customers in the Towns of New Milford, Bethel, Brookfield, Newtown, and Woodbury	United Waterworks	Backbone for connecting systems in the Metro-Danbury region, complements other recent small systems acquisitions, supports the continued consolidation of water systems in the area, and opportunities operating and financial synergies.	United Water's Connecticut operation represented a small parallel to its much larger operations in NY, NJ, ID and elsewhere in the U.S.
Indian Field Homeowners Assoc.	55 customers in the Town of Brookfield	I/FH Association	Aisat in PURA/DPR's shared objectives of water system consolidation.	Lacked the managerial, technical and financial expertise to operate the water system.

Aquarion Water Company of Connecticut
Response to Interrogatories

Docket No: 13-08-13
January 2, 2014

Witness: D. Morrissey
Page 1 of 1

- Q) EN-7: For each acquired company, provide the amount of post-acquisition investments made for needed improvements. Describe the ratemaking treatment for these post-acquisition investments.
- A) EN-7: The post-acquisition investments by acquisition, provided in the table below, were included in the Company's rate base and authorized to be recovered in the Company's most recent rate case docket 13-02-20. The acquired companies capital investments do not include periodic replacements for meters, services, hydrants and valves.

Company	Docket	Capital Investments
Topstone Hydraulic Company	10-12-11	466,516
Rural Water Company	11-06-17	948,599
Birchwood	11-05-06	287,966
Ron Black systems	11-04-13	949,226
Meckauer Water Company	11-09-01	86,382
Dunham Pond	12-02-03	9,071
United Water Connecticut	12-03-08	6,188,449
Total		\$ 8,936,209

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application for transfer of water and wastewater facilities to Florida Governmental Utility Authority, and cancellation of Certificate Nos. 353-W and 247-S, by North Fort Myers Utility, Inc. in Lee County.

DOCKET NO. 100388-WS
ORDER NO. PSC-10-0673-FOF-WS
ISSUED: November 9, 2010

The following Commissioners participated in the disposition of this matter:

ART GRAHAM, Chairman
LISA POLAK EDGAR
NATHAN A. SKOP
RONALD A. BRISÉ

FINAL ORDER APPROVING TRANSFER TO FLORIDA GOVERNMENTAL
UTILITY AUTHORITY AND CANCELLING CERTIFICATE NOS. 353-W AND 247-S

BY THE COMMISSION:

Background

North Fort Myers Utility, Inc. (NFMU or Utility) is a Class A Utility providing water service to approximately 1,846 residential customers and wastewater service to approximately 11,771 residential customers in Charlotte and Lee Counties. The Utility is within the South Florida Water Management District in the Southern Water Use Caution Area. NFMU's 2009 annual report indicates that the Utility had combined gross operating revenues of \$4,969,152 and a net operating loss of (\$228,530).

NFMU was issued wastewater Certificate No. 247-S in 1977 under the name of Old Bridge Corporation.¹ Its name was changed to North Fort Myers Utility, Inc. in 1986.² The Utility was granted water Certificate No. 353-W in the acquisition of MHC Systems, Inc. d/b/a FFEC-Six water and wastewater systems in 2001.³ NFMU has had numerous amendments over the years as it has taken over a few water systems and numerous wastewater systems along U.S. 41 in northern Lee and southern Charlotte Counties. On August 27, 2010, NFMU filed an

¹ Order No. 8025, issued October 25, 1977, in Docket No. 770709-S, In re: Application of OLD BRIDGE CORPORATION for a certificate to operate a sewer utility in Lee County, Florida, pursuant to Section 367.171, Florida Statutes.

² Order No. 15696, issued February 12, 1986, in Docket No. 830362-S, In re: Application of North Fort Myers Utility, Inc. (formerly known as Old Bridge Utilities, Inc.) for Amendment of Sewer certificate to include additional territory in Lee County, Florida.

³ Order No. PSC-01-0995-AS-WS, issued April 23, 2001, in Docket No. 000277-WS, In re: Application for transfer of facilities and Certificates Nos. 353-W and 309-S in Lee County from MHC Systems, Inc. d/b/a/ FFEC-Six to North Fort Myers Utility, Inc. holder of Certificate No. 247-S; amendment of Certificate No. 247-S; and cancellation of Certificate No. 309-S.

DOCUMENT NUMBER DATE

09254 NOV-9 0

FPSC-COMMISSION CLEAR

application for transfer of its water and wastewater facilities to the Florida Governmental Utility Authority (FGUA) and cancellation of its Certificate Nos. 353-W and 247-S.

This order acknowledges the transfer of NFMU's water and wastewater systems to FGUA as a matter of right and to cancel Certificate Nos. 353-W and 247-S. We have jurisdiction pursuant to Section 367.071, Florida Statutes (F.S.).

Transfer to FGUA

NFMU applied for a transfer of its water and wastewater facilities and territory to FGUA on August 27, 2010, pursuant to Section 367.071, F.S., and Rule 25-30.037(4), Florida Administrative Code (F.A.C.). However, the application was deficient. Responses to the deficiencies were filed on October 1, 2010. The closing on the sale of the Utility's facilities took place on July 29, 2010. The application includes a copy of the Agreement for Purchase and Sale of Water and Wastewater Assets, as well as a statement that the closing date of July 29, 2010 is also the effective date of the transfer.

FGUA has been determined to be a governmental authority in previous Commission dockets.⁴ Pursuant to Section 367.071(4)(a), F.S., the sale of facilities to a governmental authority shall be approved as a matter of right. As such, no notice of the transfer is required and no filing fees apply. The application is in compliance with Section 367.071(4)(a), F.S., and Rule 25-30.037(4), F.A.C.

The application contains a statement that FGUA has obtained NFMU's most recent available income and expense statements, balance sheet, statement of the existing rate base for regulatory purposes, and the amount of contributions-in-aid-of-construction, pursuant to Rule 25-30.037(4)(e), F.A.C. A statement was provided that the Utility has submitted a final bill to its customers and has credited or refunded excess deposits to them as appropriate. Additionally, in accordance with Rule 25-30.037(4)(d), F.A.C., the application states that, subsequent to closing, NFMU will retain no assets that would constitute a system providing or proposing to provide water or wastewater services to the public for compensation.

NFMU has filed its annual reports through 2009, including all previous years. Pursuant to Rule 25-30.120, F.A.C., regulatory assessment fees (RAFs) have been paid through the transfer date of July 29, 2010. Since NFMU will not be jurisdictional as of December 31, 2010,

⁴ Order No. PSC-00-2351-FOF-WS, issued December 7, 2000, in Docket No. 990489-WS, In re: Application by Florida Cities Water Company, holder of Certificate Nos. 027-W and 024-S in Lee County and 0007-W and 0003-S in Brevard County, and Poinciana Utilities, Inc., holder of Certificate Nos. 146-W and 103-S in Polk and Osceola Counties, for transfer of facilities to Florida Governmental Utility Authority and Cancellation of Certificate Nos. 027-W, 024-S, 007-W, 003-S, 146-W, and 103-S; Order No. PSC-03-1284-FOF-WS, issued November 10, 2003, in Docket No. 030932-WS, In re: Joint application for acknowledgement of sale of land and facilities of Florida Water Services Corporation in Lee County to Florida Governmental Utility Authority, and for cancellation of Certificate Nos. 306-W and 255-S; and Order No. PSC-09-0334-PAA-WS, issued May 14, 2009, in Docket No. 090120-WS, In re: Joint notice by Aloha Utilities, Inc. and the Florida Governmental Utility Authority of transfer of water and wastewater assets to the Florida Governmental Utility Authority, in Pasco County, and cancellation of Certificate Nos. 136-W and 97-S.

it is not required to file a 2010 annual report, pursuant to Rule 25-30.110(3), F.A.C. Therefore, no further annual reports or RAFs will be due.

We find that the transfer of NFMU's water and wastewater facilities and territory to FGUA is hereby acknowledged, as a matter of right, pursuant to Section 367.071(4)(a), F.S., and Certificate Nos. 353-W and 247-S be cancelled effective July 29, 2010, the closing date of the sale.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the transfer of the water and wastewater facilities from North Fort Myers Utility to the Florida Governmental Utility Authority is hereby acknowledged as a matter of right as set forth herein. It is further

ORDERED that Certificate Nos. 353-W and 247-S shall be cancelled effective July 29, 2010. It is further

ORDERED that this docket shall be closed.

By ORDER of the Florida Public Service Commission this 9th day of November, 2010.

ANN COLE
Commission Clerk

By: Dorothy E. Menasco
Dorothy E. Menasco
Chief Deputy Commission Clerk

(SEAL)

KEF

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request:

- 1) reconsideration of the decision by filing a motion for reconsideration with the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or
- 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Office of Commission Clerk, and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

**BEFORE THE
STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES**

IN THE MATTER OF THE PETITION OF : BPU DOCKET NO.:
NEW JERSEY-AMERICAN WATER :
COMPANY, INC. FOR APPROVAL OF :
INCREASED TARIFF RATES AND : PETITION
CHARGES FOR WATER AND SEWER :
SERVICE, CHANGE IN DEPRECIATION :
RATES, AND OTHER TARIFF :
MODIFICATIONS :

**TO THE HONORABLE COMMISSIONERS OF THE
NEW JERSEY BOARD OF PUBLIC UTILITIES:**

New Jersey-American Water Company, Inc. (hereinafter the "Company," "NJAWC," or the "Petitioner"), a public utility corporation of the State of New Jersey, with its principal office at 1025 Laurel Oak Road, Voorhees, New Jersey 08043, hereby petitions this Honorable Board (sometimes hereinafter referred to as "Board" or "BPU") for authority pursuant to N.J.S.A. 48:2-18, N.J.S.A. 48:2-21, N.J.S.A. 48:2-21.1, N.J.A.C. 14:1-5.7, and N.J.A.C. 14:1-5.12 to increase its tariff rates and charges for water and sewer service to change its depreciation rates and to implement certain other tariff revisions. In support thereof, Petitioner states as follows:

I. PETITIONER

1. NJAWC is a regulated public utility corporation, engaged in the production, treatment and distribution of water and collection of sewage within its defined service territory within the State of New Jersey. Said service territory includes portions of the following counties: Atlantic, Bergen, Burlington, Camden, Cape May, Essex, Gloucester, Hunterdon, Mercer, Middlesex, Monmouth, Morris, Ocean, Passaic, Salem, Somerset, Union, and Warren. Petitioner currently serves approximately 612,791 water and fire service customers and 35,987 sewer service customers.

II. THE CONTEXT OF THIS PETITION

2. Petitioner's current base rates were approved by an Order of this Board dated May 1, 2012 in Docket No. WR11070460. Those base rates were based upon a test year ending January 31, 2012. The test year proposed by the Company in this case is the twelve months ending July 31, 2015, a period which is three and one half years from the test period utilized to set current base rates.

3. The drivers of the current case are three-fold. They are: (1) capital investments needed to maintain and improve Petitioner's water and wastewater systems; (2) declining usage per customer which has the effect of evaporating the Company's revenue base by approximately \$4-\$5 million per year; and (3) the need to reset Petitioner's Distribution System Improvement Charge ("DSIC").

4. The Company has added a significant amount of capital, approximately \$775 million, to its water and wastewater systems since the conclusion of the last base rate increase. Petitioner has made these capital improvements in order to allow it to continue to provide safe, adequate and proper service to its customers. It is not possible to make investments at this level without recovering a return on and a return of those investments. In order to continue providing improved water and wastewater service, it is essential for Petitioner to invest in new technology, such as its information technology upgrade ("Business Transformation" or "BT") and to ensure that existing plant is replaced in a timely manner.

5. The Company is very supportive of, and is a leader in, promoting efficient water use and water conservation. The continuing implementation of water-saving devices such as low flow toilets means that water usage per customer is declining. This, of course, is a good thing. However, it also has a cost associated with it. The net effect of reduced usage per customer is an

erosion of revenues to the Company. In order for the Company to earn a fair return, it must be awarded rate relief which recognizes and accounts for the revenue decline.

6. One reason why the Company has been able to forestall a rate petition until this time is the Company's extraordinary record in decreasing operating and maintenance ("O&M") expenses. The Company's O&M expenses have decreased substantially as compared to the amounts recognized in the last base rate case. Total O&M expenses projected for the test year proposed in the current case are about \$19 million less than those which formed the basis for the Company's last rate proceeding. That is, over a period of approximately three and one-half years, the Company's O&M expenses have *decreased* by about \$19 million on an annual basis. By virtue of efficiency implementations, the Company's employees have been able to "do more with less." Employees are working smarter and getting more accomplished. Petitioner believes that it should be commended for the efficiencies that it has achieved, and these efficiencies should be recognized in fair and reasonable rate treatment.

7. Since the conclusion of Petitioner's last base rate proceeding, the Company has reduced the number of its employee positions by approximately 100 as a direct result of process improvements, technology deployment, organizational streamlining, and transfers away from Petitioner.

8. Petitioner believes that it has achieved the maximum possible staffing reductions, and further reductions will jeopardize the Company's ability to provide safe, adequate and proper service to its customers.

9. Petitioner continuously strives to find more efficient and cost-effective ways to operate and maintain its business. As part of that effort, Petitioner strives to maintain its cost structure as efficiently as possible. Petitioner continuously examines operational efficiency and attempts to improve customer service and efficiency of production and field operations.

Operating through and with its parent company, the Company has continued to increase its purchasing power and obtain significant discounts on necessary equipment needed to manage and maintain its system. These efficiencies could not be obtained in a separately-owned water system.

10. These O&M expense reductions have enabled the Company to invest in water and wastewater plant and equipment at reduced cost to customers. For every \$1.00 reduction in O&M expenses, the Company may invest approximately \$6.50 in utility plant and equipment with no change in cost to customers. The Company has striven to make needed investments without unnecessarily burdening its customers.

11. However, the point has been reached at which rate relief is necessary.

12. The Company's Foundational DSIC Filing was approved by the Board in Docket No. WR12070669 on October 23, 2012. The Company made its fourth semi-annual DSIC filing on November 14, 2014, and that filing demonstrated a revenue requirement recovery amount of \$30,902,668, which is equal to the cap on revenues available to the Company pursuant to the 2012 Foundational Filing.

13. In the current proceeding, the Company proposes to roll in to its pro forma test year revenue the revenue requirement recovery amount. The Company proposes to also roll in to rate base the assets related to the DSIC program, which gave rise to that revenue requirement recovery amount. In addition, Petitioner proposes to reset the DSIC rate to \$0, and will be making a new Foundational Filing under separate cover, which it requests to be effective concurrent with the new base rates established in this base rate proceeding.

III. PETITIONER'S PROPOSAL IN THIS CASE

14. In this case Petitioner is proposing to utilize the test year ending July 31, 2015, with post-test year known and measurable adjustments for rate base, O&M expenses, revenues,

and capital structure. Petitioner's presentation in this case demonstrates the need for a revenue increase of \$66.2 million. This represents a 9.96% increase in revenue over projected pro-forma rate revenue of \$664,395,806.

IV. HADDONFIELD

15. Petitioner and the Borough of Haddonfield (the "Borough") have executed an agreement (the "Agreement") dated November 18, 2014 for the sale and purchase of certain water and wastewater mains, pipes and appurtenances (collectively "the Facilities") throughout the geographical area of the Borough. The Agreement provides for the purchase of the Facilities by the Company, subject to various contingencies, including the approval by the Board of a Municipal Consent (the "Municipal Consent") permitting Petitioner to construct, lay, maintain and operate the Facilities throughout the Borough, and to provide water and wastewater services to the Borough.

16. On July 15, 2014 the Borough adopted the Municipal Consent.

17. Pursuant to N.J.S.A. 40:62-5, on November 4, 2014 the Borough held a referendum on whether or not to approve an acquisition by the Company of the Facilities. The referendum resulted in an overwhelming approval of said acquisition, by a vote of 2,553 to 1,400.

18. Thus, the governing body of the Borough has decided that it is in the public interest for the Facilities to be owned and operated by Petitioner. As a result of the acquisition, the governing body realizes that the Facilities will be operated by a company which is part of the largest provider of regulated water services in the United States. The Facilities will be subject to best practices of Petitioner and its parent organization; 24/7 service availability; and the financial wherewithal to maintain and improve the Facilities.

19. In addition to the Municipal Consent, the Borough adopted Ordinance 2014-13.

In pertinent part that Ordinance provides as follows:

WHEREAS, the Borough of Haddonfield in the County of Camden (the "Borough") currently owns and operates a water and wastewater utility system servicing the residents and property owners (the "Customers") within the geographic boundaries of the Borough (the "Systems"); and

WHEREAS, the Borough has determined that it is in the best interest of such Customers within the Borough to sell the Systems to an entity with experience and expertise in owning and operating such systems in order to meet all necessary demands associated with such Systems including all present and future requirements of various state and federal regulatory agencies and to make necessary capital improvements to the Systems;

20. The residents of Haddonfield also recognized that this acquisition was in the public interest, and overwhelmingly approved the same, by referendum.

21. The Borough encompasses approximately 20 square miles and has a population of approximately 12,000 people. Upon closing of the purchase of the Facilities, Petitioner will acquire 4,500 additional water and wastewater customers.

22. Under separate Petition, Petitioner has sought approval of the Municipal Consent. However, in that Petition, the Company did not seek any rate making treatment relative to the Facilities.

23. The total purchase price for the Facilities is \$28.5 million. The Company is submitting testimony in this proceeding from Dennis K. Yoder, Director of Engineering for Remington & Vernick Engineers ("Remington"). Remington is the Borough's engineering firm, and Mr. Yoder performed a valuation analysis of the Facilities.

24. According to Mr. Yoder's testimony, the original cost less depreciation of the Facilities is approximately \$26.9 million. The Company has reflected this \$26.9 million in pro

forma net Utility Plant in Service, a component of rate base in this case. The balance, of approximately \$1.6 million is proposed for treatment in this case as an acquisition adjustment.

25. The Company is seeking to amortize the acquisition adjustment on its pro forma income statement over a period of forty (40) years. The Company is also seeking to earn a return on the unamortized balance equivalent to the Company's overall cost of capital.

26. By virtue of its acquisition of the Facilities, Petitioner is able to bring about significant avoided cost. The Company is in a unique position, and by virtue of its acquisition of the Facilities it is able to eliminate the need to invest approximately \$5 to 6 million to repair, replace or rebuild certain of these Facilities and avoid these costs.

27. Pursuant to the Agreement, Petitioner agreed to freeze the Borough's water rates in effect at the Closing of the purchase of the Facilities for three years commencing as of the Closing Date. Consistent with this provision, and to avoid customer confusion, Petitioner is proposing no water or wastewater rate changes to customers currently served by the Borough.

V. WATER STORAGE TANK REINVESTMENT PROGRAM

28. Water storage tanks, both steel and concrete, are a vital component of the Company's overall water system. A key component of the Company's asset management approach is programmed revitalization of long-lived assets. A significant factor in the expected useful life of each tank is the coating system. The coating system is not intended merely to improve the overall aesthetics of the tank but rather is critical to protecting against water tank failure. Without the necessary Company reinvestment in a tank's coating system, the tank would fail in a fraction of its intended service life.

29. A tank coating system is most comparable to a building's rooftop. New roofs that are installed after an old roof is fully removed are similar to the reinvestment in tank coating systems. Each extends the useful life of the asset by protecting it from deterioration and from

adverse weather conditions. New roofs are capitalized. Tank coating is also very comparable to main cleaning and lining, which of course, is a capitalized cost.

30. With that backdrop, the Company is proposing that engineered steel structure coating systems be considered a regulatory asset, fully capitalized and be depreciated consistent with its service life. This change in accounting method has been accepted by other states and regulatory commissions.

VI. DEPRECIATION

31. The Company is proposing to update a component of its depreciation rates. The net negative salvage component is currently based upon data from the years 2008, 2009 and 2010. These data are being replaced with data from the years 2011, 2012 and 2013. In all other respects, the Company proposes that the base depreciation rates, exclusive of the net negative salvage component, established in 2008 need no changes. Petitioner is proposing no change to depreciation lives.

VII. RATE DESIGN PROPOSAL

32. Petitioner is presenting in this case a fully allocated cost of service study. It was prepared utilizing the base-extra capacity method, as described in the 2012 and prior Water Rates Manuals published by the American Water Works Association.

33. The Company is attempting to moderate increases for public hydrant service. Currently there is a significant under-recovery of the cost to provide public fire service. Nevertheless, the Company proposes an increase to the state-wide rate (M-1) rate for public hydrant service of only 2% or \$0.87 per month, because of sensitivity to these costs borne by local government. For public hydrant rates that are currently less than the state-wide rate, the Company proposes to increase those rates to the proposed state-wide rate or provide an increase

of \$0.87 per month. All other public hydrant rates that are greater than the proposed state-wide rate will be left unchanged, by virtue of the Company's proposal.

34. Consistent with current recovery methods, the Company proposes to roll in current DSIC surcharges into the monthly fixed charge (customer charge). The Company proposes to increase the customer charge for 5/8 inch meters to \$16.50 per month. This will still be significantly below customer cost.

35. The Company's rate design proposal is informed by the principal of rate equalization. In future cases, the Company plans to continue rate equalization by closing the gap among volumetric rates for all classes as well as the remaining private and public fire rates.

36. As to wastewater, the Company proposes that rates for Adelphia, Lakewood and Ocean City will remain unchanged. On an average bill basis, the rates for Pottersville, Applied, Homestead and Jensen's Deep Run will decrease.

37. The effect of these reductions is an overall revenue decrease of approximately \$1,300,000 for wastewater service. Of this amount, \$260,900 is supported by cost of service considerations. It is proposed that the remaining \$1,039,100 be recovered from water customers. The impact of this proposal on water customers is de minimis.

VIII. TESTIMONY AND EXHIBITS INCORPORATED HEREIN

38. Attached hereto, and incorporated herein are the following exhibits, along with the schedules and workpapers incorporated therein:

Exhibit PT-1	William M. Varley, President
Exhibit PT-2	Stephen P. Schmitt, Vice President of Operations
Exhibit PT-3	Donald C. Shields, Vice President Engineering
Exhibit PT-4	Frank X. Simpson, Director of Rates & Regulation for New Jersey and New York

**AGREEMENT OF PURCHASE AND SALE
OF
WATER AND WASTEWATER ASSETS**

by and between

THE VILLAGE OF ROYAL PALM BEACH

and

PALM BEACH COUNTY, FLORIDA

AGREEMENT OF PURCHASE AND SALE OF WATER AND WASTEWATER ASSETS

THIS AGREEMENT is made and entered into this 28th day of February, 2006 by and between **PALM BEACH COUNTY**, a political subdivision of the State of Florida, (hereafter "County"), and **THE VILLAGE OF ROYAL PALM BEACH**, a Florida municipal corporation, (hereafter "Village").

RECITALS

1. Pursuant to that certain "Palm Beach County/Village of Royal Palm Beach Amended Potable Water, Reclaimed Water and Wastewater Utilities Franchise and Service Area Agreement" dated August 24, 2004 and approved by the County by Resolution R-2004-1802 (the "Franchise Agreement"), the Village provides retail water and wastewater service within the Retained Utility Service Area as depicted in Exhibit "C" of the Franchise Agreement which is attached hereto as "Exhibit A"; and
2. The County owns and operates the largest public water and wastewater utility system in the County, providing service to approximately 200,000 dwelling units and having annual operating revenues of approximately \$ 83,000,000; and
3. The Village owns and operates a potable water production, treatment, storage, transmission, and distribution systems within the Retained Utility Service Area. The water system shall hereinafter be sometimes referred to as the "Water System"; and
4. The Village owns and operates sanitary wastewater collection, treatment and effluent disposal systems within the Retained Utility Service Area. The wastewater system being hereinafter sometimes referred to as the "Wastewater System"; and
5. The Wastewater System and the Water System shall be referred to in this Agreement as the "Utility Systems"; and
6. Due to the efficiencies and economies of scale achieved by the County in operating the largest public water and wastewater utility system in the County, the County and Village have determined that it is in the best interests of the present and future customers of both the County and Village systems that they be combined, with the County purchasing the utility system of the Village and thereafter owning and operating it as part of the unified County utility system; and
7. The Village is willing to sell the Utility Systems to the County, and the County is willing to purchase the Utility Systems from the Village, in accordance with the terms and conditions herein; and

VILLAGE DRAFT
JANUARY 31, 2006

8. The County has the power and authority to acquire the Utility Systems and to operate the Utility Systems in order to provide potable water, reclaimed water, and wastewater infrastructure and service within Palm Beach County, and the VILLAGE has the power and authority to sell the Utility Systems; and

9. Pursuant to Sections 125.3401 and 180.301, Florida Statutes, the County and Village, respectively, have each examined all the assets of the Utility Systems, have examined the existing financial structure of the Utility Systems, have examined the long-range needs and goals of the County and Village relative to the provision of water and wastewater service to their present and future citizens, and have determined that the sale by the Village and the purchase of the Utility Systems by the County in the public interest; and

10. Pursuant to Sections 125.3401 and 180.301, Florida Statutes, the County and Village, respectively, have likewise complied with the legal requirements set forth therein, and have determined that the purchase and sale of the Utility Systems by the County and from the Village is in the public interest; and

11. The parties have negotiated in good faith and are empowered to be bound by the terms and conditions set forth in this Agreement.

ACCORDINGLY, in consideration of the above Recitals and benefits to be derived from the mutual observation of the covenants contained herein, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties, the parties agree as follows:

SECTION 1. RECITALS. The above recitals are true and correct, and incorporated herein by specific reference.

SECTION 2. PURCHASE AND SALE OF WATER AND WASTEWATER SYSTEMS ASSETS. The VILLAGE agrees to sell and the County agrees to buy the Utility Systems, consisting of all real, personal and mixed property used or held for use in connection with the Utility Systems, as described on Exhibit B of this Agreement, hereinafter referred to as the "Purchased Assets" which will be transferred to the County at the Closing Date. The Purchased Assets to be transferred at the Closing Date are shown on Exhibit B. The Purchased Assets shall not include any cash derived from the fees, charges and monthly rates charged by the Village and received by the Village up to, and including the Closing Date, except as set forth in this Agreement, nor shall the Purchased Assets include the Excluded Assets described in Subsection 3.9 below.

SECTION 3. PURCHASED ASSETS. The Village shall sell, assign, transfer, and convey to County, and County shall purchase, accept and pay for all of the right, title and interest in and to the following property and assets certain of which shall be transferred at the Closing Date as specifically set forth on Exhibit B. These assets are more fully described below:

3.1. Utility System Conveyed. The Utility Systems and the Royal Palm Beach Retained Utility Service Area as defined in the Franchise Agreement is hereby purchased by County and sold by the Village and shall be transferred as set forth on Exhibits B and I.

3.2. Real Property. All real property and interests in real property (the "Real Property"), owned by the Village in fee, as described on Exhibit C hereof, whereupon a variety of water transmission and distribution facilities and wastewater collection, transmission and pumping facilities are located; to be transferred on the Closing Date. The plant sites for water and wastewater plants and potable water wells shall be retained by the Village. A portion of the Village's wastewater treatment plant site shall be conveyed to the County and transferred at the Closing Date so as to allow for construction of a new regional water plant and wastewater pump station by the County. This plant site portion to be conveyed to the County is likewise described in Exhibit C hereof and shall hereafter be referred to as the "Conveyed Plant Site." The Conveyed Plant Site shall, nevertheless, be of sufficient size to meet all environmental, setback and other planning requirements. In addition, the Village Council shall approve, as a condition of Closing, the use of the Conveyed Plant Site for the purpose of constructing the County's water plant and wastewater pump station. The Village shall also make available for use by the County a four mile strip of land more particularly described in Exhibit "M" for the purpose of the County constructing up to 15 Floridan Aquifer water withdrawal wells. The parties understand that this strip of land is currently subject to an easement in favor of Florida Power & Light (hereafter "FP&L") and the Village shall assist the County in obtaining FP&L's consent to the use of such land if the easement granted is an exclusive easement in favor of FP&L or if FP&L otherwise objects to the County's use of the strip of land. If, for some reason, the County is unable to use the FP&L easement for water well withdrawal purposes, the Village shall consent to the use by the County of its 200 foot wide by 4,000 foot long strip of land through which State Road 7 extends for such purposes, said lands depicted as parcel numbers 72 41 43 14 0203 00010 and 72 41 43 14 0101 90010.

3.3. Easements and Other Rights. The Village hereby transfers to County all rights, privileges, easements, licenses and prescriptive rights, and other areas owned and/or used by the Village in which the Village in fact has rights in connection with the construction, reconstruction, installation, maintenance and operation of the Utility Systems and the Purchased Assets (collectively referred to as the "Easements"). The Easements are more particularly described on Exhibit D hereof, provided that any such easements located or shown on recorded plats and rights to locate lines in dedicated public rights-of-way are not included or required to be included on Exhibit D, but any interest for potable water, reclaimed water or wastewater utility purpose of Village in said easements and public rights of way will nevertheless be conveyed to the County and transferred at the Closing Date. In addition, the Village agrees to cooperate with the County as to the use of Village property, privileges, easements, licenses and/or prescriptive rights for the construction, reconstruction, installation, maintenance and operation of the Utility Systems following the Closing Date. Nothing contained in this subsection is intended to affect or modify the provisions of Section 337.403, Fla. Stat.,

regarding relocation of utilities in any public right-of-way or easement.

3.4. Plants and Other Facilities. Except as specified elsewhere in this Agreement, the following assets owned by the Village and used or held for use in connection with the Utility Systems, are defined as the "Plants and Other Facilities" and are more specifically described on Exhibit E hereof. Except as provided for herein, the Plants and the real property on which it is located is not being purchased by the County and will be de-commissioned by the Village as more particularly described in this Agreement. The Other Facilities shall include all water transmission, distribution, pumping, and other water facilities and all wastewater collection, transmission, and pumping facilities of every kind and description whatsoever including without limitation, all trade fixtures, leasehold improvements, lift stations, pumps, generators, controls, collection and transmission pipes or facilities, valves, meters, service connections, and all other water and/or wastewater service connections, and all other water and wastewater physical facilities and property installations in use in connection with the operation of the Utility Systems and owned by the Village shall be transferred to the County at Closing hereon. Except for the interests in real property to be transferred hereunder, the parties hereto agree that the County is accepting all other assets to be conveyed by the Village in an "as is, where is" condition, based upon its own due diligence, and without relying upon any warranty or representation from the Village regarding the physical condition of the Purchased Assets or condition of any of the improvements constructed thereon. There shall be no adjustment or proration of the Purchase Price based upon incidental or non-material defects in those assets as described in Exhibits B and E. If serious defects of a material nature are discovered by or disclosed to County between the date of execution hereof and the Closing Date, then County shall have the option of discussing a modification of the Purchase Price with the Village, however, the Village shall be under no obligation to accept such reduction in the purchase price. If, in the opinion of the County, the said material defects, if any, are of such an extent and condition so as to render the purchase no longer financially feasible at the Purchase Price referenced in Section 4 hereof, and if the Village is unwilling to negotiate a reduction in the Purchase Price by virtue thereof, the County shall then have the option of abandoning this Agreement and terminating the transaction.

3.5. Equipment. All equipment and attendant infrastructure utilized by the Village exclusively in connection with and necessary to operate the Utility Systems excluding only those items more particularly described on Exhibit H hereof is hereby conveyed to the County to be transferred on the Closing Date.

3.6. Customer Records and Supplier Lists; Plans and Specifications. Village shall provide to County, at least thirty (30) days prior to the Closing Date, all current customer records and supplier lists, and other available information relating to supplier lists, surveys, as-built water and wastewater plans, engineering and other drawings, designs, blueprints, plans and specifications, any and all reproducible documents, mylars, sepias, and other original documents used or held for use with the Utility Systems, accounting and customer records and all other information and business records in the possession of the Village that relate to the

operation of the Utility Systems. Village shall not be obligated to provide any documents which Village does not currently maintain in the regular course of business or which do not relate to the operation of the Utility Systems. The documents to be provided shall include any such documents related to work-in-progress, if any. A listing of the as-built engineering plans is attached to and incorporated in this Agreement as Exhibit F hereto.

3.7. Permits and Approvals.

(1) Village conveys and County purchases the Utility Systems, subject to all necessary regulatory approvals and to all conditions, limitations or restrictions contained therein. All existing original certificates, permits, and other governmental authorizations and approvals of any kind in the possession of Village necessary to operate and maintain the Utility Systems in accordance with all governmental requirements, more specifically described in Exhibit G, attached to and incorporated in this Agreement shall be transferred to the County at the Closing Date. Such certificates, permits and approvals represent approved capacities for the water system and wastewater system. It is understood by the parties that until the Closing Date, the Village will continue to operate the Utility Systems in accordance with the terms and conditions of this Agreement. Thus, some modifications to the various permits may be necessary in order to allow this transition and the parties agree to cooperate in order to accomplish these mutual goals.

(2) At or before the Closing Date, the County agrees to prepare and execute necessary forms required by governmental agencies to transfer and to assume Village's future obligations under said permits and approvals. These permits and approvals shall include any such permits and approvals related to work-in-progress, if any.

3.8. Customer Deposits. Cash sums which represent the Utility System customers' water and wastewater service security deposits held by the Village shall be transferred with accrued interest as a credit at Closing to the County.

3.9. Excluded Assets. The following assets of Village regarding the Utility Systems shall not be included in the assets conveyed to County as part of the Purchased Assets:

(1) The water and wastewater treatment plants, and all underlying real property, except as otherwise specified in this Agreement, which shall be decommissioned and otherwise disposed of by the Village at Village's expense following transfer of flows from the Village plants to County plants;

(2) Village's cash and Village's bank accounts, including all cash collected through the Closing Date, including but not limited to connection fees, plant capacity charges, guaranteed revenues, and all other fees and charges levied by the

VILLAGE DRAFT
JANUARY 31, 2006

Village, but excluding Customer Deposits, as referenced above;

- (3) Village's accounts receivable due to Village on the Closing Date;
- (4) Federal, State or Local Tax or other deposits maintained by Village with any governmental authority or private vendor for Village's use and benefit; and
- (5) Those items listed in Exhibit H attached to and incorporated into this Agreement.

3.10. Excluded Obligations. The parties agree that by virtue of this purchase, the County is not assuming any of the outstanding indebtedness of the Village, bonded or otherwise.

3.11. Village Deep Well. In connection with the Utility System, Village owns a Class One Deep Injection Well which has been permitted by the Florida Department of Environmental Protection for wastewater effluent disposal. County desires to acquire the subject deep well as part of the Utility System Assets to be purchased hereunder, and Village agrees that title thereto shall be conveyed to the County at Closing. County intends to utilize said deep injection well in connection with its ownership and operation of a new regional water treatment plant to be constructed by County on the said Conveyed Plant Site to be transferred by the Village to the County on the Closing Date.

SECTION 4. PURCHASE PRICE, PAYMENT AND OTHER CONSIDERATION.

4.1. Payment Due at the Closing Date. At the Closing, the County shall pay to the Village, subject to the adjustments and proration referenced herein, a cash purchase price of seventy million dollars (\$70,000,000), by wire-to-wire transfer to an account designated by Seller.

4.2. Purchase Price Adjustments. The Purchase Price may be reduced in the amount necessary to fund any amounts owed by Seller or Purchaser adjusted under Section 10 hereunder.

4.3 Maintenance of Existing Village Utility Rates. The County covenants and agrees as consideration and part of the Purchase Price herein to maintain Village utility customer service rates, excluding plant capacity, capital charges, impact fees and miscellaneous charges, existing at the Closing Date within the Village for no less than ten (10) years following the Closing Date, and thereafter until such time as total single family, residential customer rates levied by the County (as defined hereafter) reach the level of the Village total single family, residential customer rates as of the Closing Date (as defined hereafter). This includes no CPI increases. At that time, the Village utility rates will merge into and change with customer rates levied on a Countywide basis, but not in excess of those rates. For the purpose of this subsection, the total single family, residential customer rates for both the County and Village shall be determined by adding the base facility charge for a single family residential customer to the commodity charge of a single family residential customer

VILLAGE DRAFT
JANUARY 31, 2006

using 7,000 gallons per month using a five-eighth-inch by three-quarter-inch meter. Notwithstanding anything to contrary herein, Village customers connecting to the County system after the Closing Date, but before the expiration of the time period(s) set forth above, shall pay the same rates and charges that are imposed on other Village customers.

4.4 County Assumption of Village Employees. The County shall offer employment to all Village utility personnel as identified by the Village. Such employment shall be conditioned upon the employee's meeting the necessary legal requirements for County employment, and the County completing the necessary background and substance abuse checks. Such employment shall be at or above their existing salaries and such employees shall receive equal credit with the County for years of Village service for purposes of calculating employment benefits, e.g. vacation time and sick leave, but not retirement, all as determined as of the Closing Date. The salary and benefits of key Village utility personnel to be included but not limited to the Utilities Director, shall be determined and agreed upon in writing prior to the Closing Date. The Village's Director of Utilities shall stay employed by the Village until October 1, 2006, and shall then become a county employee. The Village agrees that it is responsible for all obligations for all Village utility personnel for accrued retirement, sick leave, vacation, workers compensation claims, and all other employment related claims all as accrued during employment by the Village. During the period when the billing of Village customers is converted to the County's billing system, former Village employees may operate out of the existing Village's offices in order to aide in the conversion. The Village and the affected employees shall continue contributing existing costs/contributions in accordance with present Village policies for paying health insurance costs (COBRA or otherwise) during the County's waiting period for a timeframe of no longer than 90 days. The County also agrees to start Village employees with one (1) week's additional vacation time.

4.5 County Lease of Village's Existing Plants and Underlying Real Estate. The County shall enter into a lease of the underlying real estate with respect to the Village's Plants for one dollar (\$1.00) per year, a copy of which is attached to and incorporated in this Agreement as Exhibit K. The County shall operate the Village's Plants and assume all operational and maintenance obligations associated with the Plants. On or before June 30, 2007 or when the County diverts the wastewater flow to its own facilities, whichever first occurs, the County will abandon the Village's Wastewater Treatment Plant. Notwithstanding the foregoing, the County may continue to use and operate at its expense the Village's Water Treatment Plant until such time as the County completes construction of its regional water plant, for a period not to exceed ten years from the Closing Date, whichever first occurs or until such other time as the parties may agree. Upon the County's abandonment of a Village's Plant, the Village will, at its own expense, decommission the Plant. After the County's abandonment of both Village Plants, the lease shall expire and be of no further force and effect. The County agrees not to install fluoridation equipment at the existing Village water treatment plant during the entire term of the lease. The Village acknowledges that the County will fluoridate the potable water at its new regional water treatment plant. In addition, the Village acknowledges that the County fluoridates water at all of its water

treatment plants and that fluoridated water may be distributed from these plants to customers within the Royal Palm Beach Retained Utility Service Area following the Closing Date. The Village's three million gallons water storage tank located at the Village's wastewater plant site shall be decommissioned at the County's expense no later than April 30, 2008.

4.6 2004 Water and Wastewater Utilities Franchise and Service Area Agreement. The Franchise Agreement shall remain in effect and is hereby ratified and confirmed, except as hereinafter provided. In further consideration of the purchase price, the Village hereby agrees to amend the August 24, 2004 Franchise Agreement to reflect the Village's approval of the County/Seacoast agreement, dated September 13, 2005 and County/West Palm Beach agreement, dated December 20, 2005. The Amended Franchise Agreement shall be executed by the parties on or before February 28, 2006 and become effective at the time of Closing.

4.7. County Installation of Additional Generators. The County and Village are both responsible for the health, safety and welfare of their residents during hurricanes and other civil emergencies. A total of fifty-two (52) wastewater pump stations are currently located within the Village's Retained Utility Service Area ("Village Area"). Power outages that occur during hurricanes and other emergencies require operation of a system of emergency generators at wastewater pump stations in order that wastewater not back up into streets, swales and the homes of residents. The County shall assign emergency generators to pump stations within the Village Area as set forth below. The Village shall provide the staffing to assist the County in operating these generators during emergencies as set forth below.

4.7.1. The Village currently has two (2) stationary and eleven (11) portable generators in inventory for use as backup power for the fifty-two (52) existing lift stations within the Village Area. The Village's wastewater system was constructed as a cascading flow network of lift stations. Based upon previous experiences, the Village has developed a generator staging and rotation program ("Program") utilizing a total of twenty-five (25) emergency generators. The Program requires nineteen (19) emergency generators to be stationed at lift stations 1, 5, 7, 11, 12, 13, 15, 19, 21, 24, 27, 28, 32, 33, 34, 37, 39, 46 and 47, as shown on Exhibit "L". These nineteen (19) generators will be placed at the identified lift stations prior to June 1st of each year beginning in 2007 for operation during hurricane season. The County may remove these generators for maintenance and storage at its discretion in November of each year. The Program also requires six (6) portable generators to accommodate flows from the remaining lift stations.

4.7.2. The County shall pay the cost required to fully equip the Program with twelve (12) additional emergency generators. The County will purchase six (6) additional emergency generators within twelve (12) months of the execution date of this Agreement. The County will purchase an additional six (6) generators to be dedicated for primary use within the Village Area within twenty-four (24) months of the execution date of this Agreement. The County hereby covenants that the twelve (12) new and thirteen (13) existing generators will be for use primarily within the Village Area and will not be deployed to another location while there is a need for backup power at lift stations within the Village Area.

ENR CONSTRUCTION COST INDEX

Good

DATE: 12/18/15
BY: JDH

YEAR	AVG
1985	4195
1986	4295
1987	4406
1988	4519
1989	4615
1990	4732
1991	4835
1992	4985
1993	5210
1994	5408
1995	5471
1996	5620
1997	5826
1998	5920
1999	6059
2000	6221
2001	6343
2002	6538
2003	6694
2004	7115
2005	7446
2006	7751
2007	7966
2008	8310
2009	8570
2010	8799
2011	9070
2012	9308
2013	9547
2014	9806
2015	10025 Jan - Nov

Year	Jan	Feb	Mar	Apr	May	Jun
22001166	10132.55	10181.92				
22001155	9972	9962	9972	9992	9979	10039
22001144	9664	9681	9702	9750	9796	9800
22001133	9437	9453	9456	9484	9516	9542
22001122	9176	9198	9268	9273	9290	9291
22001111	8938	8998	9011	9027	9035	9053
22001100	8660	8672	8671	8677	8761	8805
22000099	8549	8533	8534	8528	8574	8578
22000088	8090	8094	8109	8112	8141	8185
22000077	7880	7880	7856	7865	7942	7939
22000066	7660	7689	7692	7695	7691	7700
22000055	7297	7298	7309	7355	7398	7415
22000044	6825	6862	6957	7017	7065	7109
22000033	6581	6640	6627	6635	6642	6694
22000022	6462	6462	6502	6480	6512	6532
22000011	6281	6272	6279	6286	6288	6318
22000000	6130	6160	6202	6201	6233	6238
11999999	6000	5992	5986	6008	6006	6039
11999988	5852	5874	5875	5883	5881	5895
11999977	5765	5769	5759	5799	5837	5860
11999966	5523	5532	5537	5550	5572	5597
11999955	5443	5444	5435	5432	5433	5432
11999944	5336	5371	5381	5405	5405	5408
11999933	5071	5070	5106	5167	5262	5260
11999922	4888	4884	4927	4946	4965	4973
11999911	4777	4773	4772	4766	4801	4818
11999900	4680	4685	4691	4693	4707	4732

July	Aug	Sept	Oct	Nov	Dec	Avg.
10037	10039	10065	10128	10092	10135	10034
9835	9846	9870	9886	9912	9936	9806
9552	9545	9552	9689	9666	9668	9547
9324	9351	9341	9376	9398	9412	9308
9080	9088	9116	9147	9173	9172	9070
8844	8837	8836	8921	8951	8952	8799
8566	8564	8586	8596	8592	8641	8570
8293	8362	8557	8623	8602	8551	8310
7959	8007	8050	8045	8092	8089	7966
7721	7722	7763	7883	7911	7888	7751
7422	7479	7540	7563	7630	7647	7446
7126	7188	7298	7314	7312	7308	7115
6695	6733	6741	6771	6794	6782	6694
6605	6592	6589	6579	6578	6563	6538
6404	6389	6391	6397	6410	6390	6343
6225	6233	6224	6259	6266	6283	6221
6076	6091	6128	6134	6127	6127	6059
5921	5929	5963	5986	5995	5991	5920
5863	5854	5851	5848	5838	5858	5826
5617	5652	5683	5719	5740	5744	5620
5484	5506	5491	5511	5519	5524	5471
5409	5424	5437	5437	5439	5439	5408
5252	5230	5255	5264	5278	5310	5210
4992	5032	5042	5052	5058	5059	4985
4854	4892	4891	4892	4896	4889	4835
4734	4752	4774	4771	4787	4777	4732

UTILITY NAME:

KW Resort Utilities Corp

YEAR OF REPORT
31-Dec-13

SYSTEM NAME / COUNTY :

KW Resort Utilities / Monroe

CALCULATION OF THE WASTEWATER SYSTEM METER EQUIVALENTS

METER SIZE (a)	TYPE OF METER (b)	EQUIVALENT FACTOR (c)	NUMBER OF METERS (d)	TOTAL NUMBER OF METER EQUIVALENTS (c x d) (e)
Residential 5/8"				
5/8"	Displacement	1.0	1,625	1,625
3/4"	Displacement	1.0	451	451
1"	Displacement	1.5		0
1 1/2"	Displacement or Turbine	2.5		0
2"	Displacement, Compound or Turbine	5.0	3	15
3"	Displacement	8.0	10	80
3"	Compound	15.0		0
3"	Turbine	16.0		0
4"	Displacement or Compound	17.5	1	18
4"	Turbine	25.0	1	25
6"	Displacement or Compound	30.0		0
6"	Turbine	50.0		0
8"	Compound	62.5	3	188
8"	Turbine	80.0	2	160
10"	Compound	90.0		0
10"	Turbine	115.0		0
12"	Turbine	145.0		0
		215.0		0
Total Wastewater System Meter Equivalents				2,561

CALCULATION OF THE WASTEWATER SYSTEM EQUIVALENT RESIDENTIAL CONNECTIONS

Provide a calculation used to determine the value of one wastewater equivalent residential connection (ERC).
Use one of the following methods:

(a) If actual flow data are available from the preceding 12 months, divide the total annual single family residence (SFR) gallons sold by the average number of single family residence customers for the same period and divide the result by 365 days.

(b) If no historical flow data are available, use:

$$ERC = (\text{Total SFR gallons treated (Omit 000)} / 365 \text{ days} / 280 \text{ gallons per day})$$

For wastewater only utilities:

Subtract all general use and other non residential customer gallons from the total gallons treated.

Divide the remainder (SFR customers) by 365 days to reveal single family residence customer gallons per day

NOTE:

Total gallons treated includes both treated and purchased treatment.

ERC Calculation:	$\frac{151,927,000}{365 \text{ days} / 280 \text{ gpd}} =$	1,487
	(total gallons treated)	

Appendix H

APPENDIX H: APPRAISERS CERTIFICATION, ACCREDITATION, REACCREDITATION AND RESUMES

Appendix “H” includes the Appraiser’s Certification as well as the Appraiser’s Accreditation and Reaccreditation documentation. Resumes for key project staff are also included.

APPRAISERS 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, extraordinary assumptions, hypothetical conditions and limiting conditions, and are my personal, unbiased professional analyses, opinions and conclusions.

I have no present or prospective interest in the property which is 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.

The use of this Report is subject to the requirements of the American Society of Appraisers and the State of California relating to review by its duly authorized representatives. As of the date of this report, Mr. Gerald C. Hartman has completed the requirements of the continuing education program and testing of the American Society of Appraisers for a public utility specialized MTS Accredited Senior Appraiser.

I have made personal inspections of the property that is the subject of this Report. Willdan Financial Services performed the real property value allocations which was relied upon for this report. Except as noted herein, no other person provided significant professional assistance to the person signing this Report.

I do not authorize the out-of-context quoting from or partial reprinting of this Appraisal Report. Further, neither all nor part of this Report shall be disseminated to a third party without prior written consent of Hartman Consultants, LLC. Note that this report was prepared for a specific use and no other use is authorized.


Gerald C. Hartman, P.E., BCEE, ASA #7542

Date 7/13/2016



The American Society of Appraisers

Attests that

GERALD C. HARTMAN, ASA

has successfully participated in the
Society's mandatory Reaccreditation Program
and has complied with its continuing education requirements,
as set forth in the organization's Constitution, Bylaws and
Administrative Rules. Therefore, formal reaccreditation has
been granted by the International Board of Governors and will
remain valid through

August 15, 2021

[Signature]
International President

[Signature]
Chairman, Int'l Board of Examiners



**The American Academy of Environmental
Engineers and Scientists®**

Certifies That

Gerald C. Hartman

Has maintained the requirements for

Board Certified Environmental Engineer

in the specialty(ies) of

Water Supply and Wastewater

This certification is valid through **December 31, 2016.**

Certification Number: **88-10034**

Gerald C. Hartman, PE, BCEE, ASA

Education

M.S. Duke University, 1976

B.S. Duke University, 1975

Registrations/Certifications

Arizona No. 28939

Colorado No. 31200

Florida No. 27703

Georgia No. 17597

Illinois No. 062-053100

Indiana No. 10100292

Kentucky No. 22463

Louisiana No. 30816

Maine No. 10395

Maryland No. 12410

Mississippi No. 12717

Nevada No. 20259

New Mexico No. 15990

New York No. 088623-1

North Carolina EIT

No. A03351

North Carolina No. 15264

Ohio No. 70152

Pennsylvania No. 38216

South Carolina 15389

Tennessee No. 105550

Virginia No. 131184

W. Virginia No. 21803

Washington No. 53433

Wisconsin 32971-6

NCEES National P.E.

No. 20481

American Society of

Appraisers Accredited Senior

Appraiser No. 7542

BCEE from American

Academy Certificate

No. 88-10034

Professional Summary

Management Consulting/Appraisal/Expert Testimony

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

Professional Experience

Machinery and Technical Specialties, ASA – Public Utilities

Public Utilities Appraisal Specialty Certified, ASA

Tangible Personal Property – VAB, Magistrate

Orange County, FL (2009 and 2010)

Tangible Personal Property – Special Magistrate Osceola

County, FL (2011, 2012, and 2013/2014) Hendry

County, FL (2012 and 2013/2014)

Financial Reports

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

Utility Appraisals, Valuations and Evaluations

Mr. Hartman has been involved in over 500 utility negotiations, appraisals, fairness opinions and review appraisals, and has been a qualified expert witness by the courts with regard to utility arbitrations and condemnation cases. He has participated in the valuation of numerous utility systems. His experience includes:

Skills

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

Relevant Training/Courses

Numerous AWRA, AWWA,
 ASCE, WEF, AASE, ASA,
 NSPE, PE Seminars,
 Courses, Ethics, Continuing
 Education (multiple states)
 USPAP Exams 2003, 2004,
 2009/10, 2015
 ASA ME201, ME202,
 ME203, ME204 Mach. &
 Technical Specialties,
 BV201 Public Utilities,
 PP201.
 ASA Public Utilities Specialty
 Designation Exam Parts I,
 II, and III Numerous
 Technical Appraisal
 Courses/Exams in personal
 property (tangible &
 intangible), business
 valuation, and other areas
 Appraisal Review &
 Management ARM 201 and
 204

Year	Project	Party Represented
2016	Rainbow Utilities M5D, CA	Owner
2016	Mountain Air UC, NC	Owner
2016	Lake Adger WR & IM, NC	Owner
2016	7 Systems Jefferson County West Virginia	Owner
2016	Cauley Creek WRF (IRS)	Seller
2016	Village of Sadorus - IAWC	Seller
2016	Gold Coast Utility Corp. (Ongoing)	Buyer/Seller
2016	Bushell/SECO Electric (Ongoing)	Buyer
2016	APPOA W/WW N.C	Buyer
2015	Celina SA	Buyer
2015	THISCD East SA Water/Wastewater/Davie (Ongoing)	Seller
2015	City of Fairbanks 8 MGD/22 MGD WRF	Buyer
2015	Village of Ransom Water System	Buyer
2015	Vulcan/Fla Rock 1/1/2011	ACPA
2015	Crystal Clear Water Company	Buyer
2015	5-Service Areas Mustang SUD & 1 Water System	City Consultant
2016	OTUC Donation W&WW Systems	Owner
2015	Bayou Cove Peaking Power Plant 1/1/2015 TPP Appraisal	Parish
2015	Bayou Cove Peaking Power Plant 1/1/2014 TPP Appraisal	Parish
2015	Bayou Cove Peaking Power Plant 1/1/2013 ARM-TPP	Parish
2015	Peoples Condemnation	Owner
2015	Kessler AFB	Private
2015	Eglin AFB	Private
2015	Eastwood Manor	Private
2015	NUNDA Utilities	Private
2015	Manalapan/Hypoluxo	City
2015	Royal Manor W/WW	City
2015	BH Waste Management Co.	Bank
2015	O'Fallon Utilities, Value Consulting	Private
2015	Mt. Vernon Utilities, Value Consulting	Private
2015	Tupelo/Verona Water	Both Cities
2015	Confidential (On-Going) Condemnation	Confidential
2015	Rolling Oaks Utilities	Bank
2015	Village of Arthur	Village
2015	NFP	NFP
2015	MS Water System Annex	City
2015	Value Consulting	Confidential/Investor
2015	KWRU – Wastewater Utility	Owner
2015	New River Light & Power (Electric)	Owner
2014	Power System Value Consulting	Confidential
2014	Citrus County/Duke Energy 1/1/13 TPP	County
2014	Minto Prop./SID W&WW&RU	District
2014	North Maine Utilities Transaction Adv. F.O.	Village
2014	3 Appraisals Review	Glenview
2014	Eastlake W&WW (Condemn)	County
2014	Pebble Creek Utilities W&WW (Condemn)	County
2014	Mooreville Water (Condemn) ARM	Attorney
2014	Heritage Hills W&WW (NY) to Corix	Owner
2014	Cauley Creek WRF	Owner
2013	Tega Cay Water and Wastewater	Both
2013	Harrison, Ohio Water	City
2013	Water Management Services	Bank
2013	North Lee Rural Water Association, Tupelo, MS (Partial)	City

Affiliations

American Society of
Appraisers
American Society of Civil
Engineers
American Water Works
Association
Florida Engineering Society
National Society of
Professional Engineers
Water and Environment
Federation

<u>Year</u>	<u>Project</u>	<u>Party Represented</u>
2013	NPUC (Cost/Comp) Wastewater	Bank
2013	Progress Energy Florida (Citrus County) TPP 1/1/12	County
2013	Village of Oakwood Water/Wastewater System	Village
2013	Richmond Generation Station (Review)	City
2013	Peru Generation Station (Review)	City
2013	Dover, Delaware Electric System	City
2013	C-51 Reservoir	Owner
2013	C-25 Reservoir	Owner
2013	Eglin Air Force Base	Proposer
2013	Duke Energy (Citrus County) TPP Electric #3	County
2012	Beverly Hills Waste Management	Owner
2012	Town of Belleair	Town
2012	Orchid Springs Utilities	City
2012	Tymber Creek Utilities – Stock Transfer	Owner(s)
2012	Senoia Water System	County
2013	Duke Energy (Citrus County) TPP Electric #3	County
2012	Peoples of Balstrup – (Condemnation)	Owner
2011	Town of Franklinton Water/Wastewater System/County	Both
2011	Pine Island Utility System	Owner
2011	Town of Franklinton Water/Wastewater System/County	Both
2011	Kill Devil Hills Wastewater Treatment Plant	Bank
2011	Chesapeake Electric Utility – Marianna, Florida	City
2011	City of South Daytona Electric Utility	City
2011	On Top of the World Communities Water, Wastewater, and Reuse System – Marion County, Florida (Bay Laurel Center Community Development District)	District
2011	City of Vero Beach Water, Wastewater, and Reuse System	City
2011	City of Vero Beach Electric Utility	City
2010	Fearington Utilities	Own
2010	Rolling Oaks Water and Wastewater System,	Owner/Bank
2010	Liberty Water – Tall Timbers Wastewater (Condemn) System, TX (Condemnation)	Owner
2010	Heritage Hills Water and Sewer System, NY - City	Owner
2010	Waterside Villages of Currituck Waste Water Treatment Plant, NC	District
2010	Tindall Hammock Irrigation and Soil Conservation District Water/Wastewater System	District
2010	Town of Indian River Shores Water and Sewer System Assets	Town
2010	City of Vero Beach Water and Sewer System Assets, Town of Indian River Shores (Partial)	City
2010	City of Griffin Water System Assets, GA	Water Authority
2010	Golden Beach Water and Wastewater Assets	City
2010	Thunder Enterprises, Inc. Water System Assets, AL (Condemnation)	Owner
2010	River Forrest, S.C., Spartanburg	Both
2010	Stonecreek, S.C., Spartanburg	Both
2009	On Top of the World Communities Water, Wastewater, and Reuse System – Marion County, Florida (Bay Laurel Center Community Development District)	District
2009	Aquarina Water and Wastewater	Bank
2009	Cocoa Beach (electric)	City
2009	Parkland Utilities	Owner
2009	GISTRO	NFP
2009	Fruitland Park (electric)	City
2008	Park Water Company	City

<u>Year</u>	<u>Project</u>	<u>Party Represented</u>
2008	Crooked Lake Sewerage Company	City
2008	Vanguard Wastewater System	City
2008	Traxler Enterprises	City
2008	Louisiana Land and Water Company	Owner
2008	Sandy Creek Water and Wastewater	County
2008	Bayside Water and Wastewater	County
2008	Fern Crest Utilities, Inc.	Buyer
2008	Turnpike Utilities, LLC – W/S North Carolina (IRS)	Owner
2008	Nags Head, Moneray Shores, Currituck Sewer, Corollo #1 & #2	Buyer
2008	Service Management Systems, Inc.	Bank
2008	Slash Creek Utility System	Owner
2008	Kill Devil Hills Utility Company	Owner
2008	Orchid Springs Utilities	City
2008	City of North Miami Beach – Utilities	Owner
2007	Ocean Reef/NKLUA/Card Sound I.Q.	FKAA
2007	Marion Utilities, Sunshine Utilities and Windstream	County
2007	Gulf Coast Electric Cooperative	County
2007	Pine Island Currituck Sewer	Owner
2007	Pine Island Water System	Owner
2007	Irish Acres	County
2007	Service Management Systems, Inc.	C.B. Ellis
2007	Bulow Village Resort	County
2007	Intercoastal Utilities	Owner
2006	Donaldsonville/Peoples Utilities (Condemn)	Owner
2006	MSM Utilities, Inc.	Owner
2006	BSU/Citrus Park	Owner
2006	Jasmine Lakes and Palm Terrace	City
2006	The Arbors	County
2006	Oak Centre	County
2006	Silver Oaks Estates	County
2006	Regal Woods	County
2006	Golden Glen	County
2006	Willow Oaks	County
2006	South Oak	County
2006	Gulf State Community Bank – Utility Holdings	Bank
2006	Rolling Green	County
2006	South 40, Citrus Park and Raven Hill	County
2006	Holiday Utility Company, Inc.	Bank
2006	Old Bahama Bay	Management
2006	Utility Consolidation Program	County
2006	Loch Harbor Water & Wastewater System	Owner
2005	Lake Wales Utility Company	Bank
2005	Pennichuck Water Company	City
2005	K.W. Resort Utilities, Inc.	Owner
2005	Water Management Services, Inc.	Owner
2005	Town and Country Utility Co.	Buyer
2005	Village of Royal Palm Beach, Palm Beach Co.	Village
2005	Orange/Osceola/Lake/Seminole Counties Utilities, Inc. (Partial) (Condemnation)	Confidential
2005	Utilities, Inc. (Partial) (Condemnation)	Owner
2005	Village of Royal Palm Beach	Village
2005	Bald Head Island Utilities, Inc.	Village
2005	Broward County	Confidential
2005	Burkim Enterprises, Inc. (Condemnation)	Owner

<u>Year</u>	<u>Project</u>	<u>Party Represented</u>
2005	Lyman Utilities, Inc. Harrison County, MS (Condemnation)	Owner
2004	Quail Meadow Utility Company	County
2004	Silver Springs Shores Regional	County
2004	Matanzas Shores	County
2004	El Dorado Utilities, NM (Condemnation)	Owner
2004	CDF to City of Tupelo, MS	CDF
2004	Pesotum, Illinois – IAWC	Village
2004	Philo, Illinois – AIWC	Village
2004	Central Florida	Confidential
2004	Skyview	City
2004	Polk Utilities	NFP
2004	St. Johns Services Company	County
2004	Intercoastal Utilities Company	County
2004	Stonecrest Utilities	County
2004	Meredith Manor	County
2004	Lake Harriet Estates	County
2004	Lake Brantley	County
2004	Fern Park	County
2004	Druid Hills	County
2004	Dol Ray Manor	County
2004	Apple Valley	County
2004	Kingsway Utility Area (IRS)	Both
2004	Lake Suzy Utilities (water portion)	County
2004	Sanibel Bayous Wastewater Corporation	City
2004	Ocean City Utilities	FCURIA/County
2004	People's Water of Donaldsonville, LA (Condemnation)	Owner
2003	Harmony Homes	County
2003	Florida Central Commerce Park	County
2003	Chuluota	County
2003	District 3C (Miramar portion)	City
2003	Lincoln Utilities/Indiana Water Service (UI)	Owner
2003	Gibsonia Estates	City
2003	Lake Gibson Estates	City
2003	Jungle Den Utilities	Association
2003	Holiday Haven Utilities	Association
2003	Salt Springs	County
2003	Smyrna Villas	County
2003	South Forty	County
2003	Citrus Park	County
2003	Spruce Creek South	County
2003	Spruce Creek	County
2003	Spruce Creek Country Club Estates	County
2003	Longwood Franchise (electric)	City
2003	Casselberry Franchise (electric)	City
2003	Apopka Franchise (electric)	City
2003	Winter Park Acquisition (electric)	City
2003	Stonecrest/Steeplechase	County
2003	Marion Oaks	County
2003	Kingswood Utilities	County
2003	Oakwood Utilities	County
2003	Sunny Hills Utilities	Confidential
2003	Interlachen Lake/Park Manor	Confidential
2003	Tomoka/Twin Rivers	Confidential
2003	Beacon Hills	Buyer
2003	Woodmere	Buyer
2003	Bay Lake Estates	City
2003	Fountains	City

<u>Year</u>	<u>Project</u>	<u>Party Represented</u>
2003	Intercession City	City
2003	Lake Ajay Estates	City
2003	Pine Ridge Estates	City
2003	Tropical Park	City
2003	Windsong	City
2003	Buenaventura Lakes	City
2002	Lelani Heights Utilities	County
2002	Fisherman Haven Utilities	County
2002	Fox Run Utilities, Inc.	County
2002	Ponce Inlet	City
2002	Amelia Island Utilities	City
2002	Florida Public Utilities (Condemnation)	City
2002	AquaSource – LSU	County
2002	Park Place Utility Company, GA	Owner
2002	Kingsway Utility System	Owner/County
2002	Pennichuck Water Company, NH	City
2002	Pasco County – 2 systems	County
2002	Marion Consolidation – 10 systems	County
2002	Sugarmill (Condemnation)	UCCNSB
2002	Deltona (Condemnation)	Owner
2002	Palm Coast	FCURIA
2002	Bald Head Island Utilities, NC	Village
2002	White's Creek – Lincolnshire, SC (Condemnation)	Owner
2002	Bluebird Utilities, Tupelo, MS	NFP
2001-2002	Due Diligence – 260 systems (VA, NC, SC)	Buyer
2001	Shady Oaks	County
2001	Davie/Sunrise	City
2001	Lindale Utilities	County
2001	Aquarina	Owner
2001	Intercoastal Utilities	County
2001	Beverly Beach	City
2001	Citrus County Utility Consolidation Plan (numerous)	County
2001	Pasco County Utility Acquisition Plan (numerous)	County
2001	Skylake Utilities	City
2001	Town of Lauderdale-By-The-Sea	Town
2001	John Knox Village	City
2001	Silver Springs Regional	County
2001	DeSoto Countywide FWSC Franchise and Assets	County
2001	Zellwood Station Co-Op	Co-Op
2001	Palm Cay	County
2000	The Great Outdoors	Owner
2000	Destin Water Users	City
2000	Pine Run	County
2000	Oak Run	County
2000	Dundee Wastewater (partial)	City
2000	Polk City Water	City
2000	A.P. Utilities (2 systems)	County
2000	CGD Utilities	Bank
2000	Boynton Beach (partial)	City
2000	Aqua-Lake Gibson Utilities	City
2000	Bartelt Enterprises, Ltd. (2 systems)	Owner
2000	49 'Ner Water System, Tucson, AZ (Condemnation)	Owner
2000	Stock Island Wastewater and Reuse System	Owner
1999	Osceola Power Station (Electric)	Owner
1999	Okeelanta Power Station (Electric)	Owner
1999	Del Webb (3 systems)	County

<u>Year</u>	<u>Project</u>	<u>Party Represented</u>
1999	Destin Water Users Co-Op	City
1999	O&S Water Company	City
1999	Rolling Springs Water Company	County
1999	ORCA Water & Solid Waste	Authority
1999	Marianna Shores Water and Wastewater	City
1999	Mount Olive Utilities	City
1999	AP Utilities (3 systems)	County
1999	Tangerine Water Association	City
1999	Laniger Enterprises Water & Wastewater	Bank
1999	IRI golf Water System, AZ (Condemnation)	Investor
1999	South Lake Utilities	City
1999	Garlits to Marion County	County
1999	Rampart Utilities	County
1999	Dobo System, Hanover County, NC	County
1999	Polk City/City of Lakeland	Lakeland
1999	St. Lucie West CDD	City
1998	Golf and Lake Estates	City
1998	Sanibel Bayous/E.P.C.	City
1998	Tega Cay Utility Company, SC	City
1998	Marlboro Meadows, MD (Condemnation)	Owner
1998	Sugarmill Water and Wastewater/Volusia County Condemnation	UCCNSB
1998	SunStates Utilities, Inc.	Owner
1998	Town of Hope Mills/FPWC, NC	Town
1998	River Hills, SC	County
1998	Town of Palm Beach	Town
1998	K.W. Utilities, Inc.	Buyer
1998	Orange Grove Utility Company, MS (Condemnation #2)	Owner
1998	Garden Grove Water Company	City
1998	Sanlando Utilities, Inc.	County
1997	Golden Ocala Water and Wastewater System	County
1997	Holiday Heights, Daetwyller Shores, Conway, Westmont	County
1997	University Shores	County
1997	Sunshine Utilities	County
1997	Bradfield Farms Utility, NC	Owner
1997	Palmetto Utility Corporation	Owner
1997	A.P. Utilities	County
1997	Village of Royal Palm Beach – City of WPB	Village
1997	Jasmine Lake Utilities Corporation	Lender
1997	Arizona (confidential)	Owner
1997	Village Water Ltd., FL	Owner
1997	N.C. System – CMUD (3 systems)	Owner
1997	Courtyards of Broward	City
1997	Miami Springs	City
1997	Widefield Homes Water Company, CO (IRS)	Company
1997	Peoples Water System	ECUA
1997	Quail Meadows, GA	County
1997	Rolling Green, GA	County
1996	Keystone Heights	City
1996	Buchanan	Owner
1996	Keystone Club Estates	City
1996	Lakeview Villas	City
1996	Geneva Lakes	City
1996	Postmaster Village	City
1996	Landen Sewer System, CMUD, NC	Company
1996	Citizens Utilities, AZ – Bullhead City	City
1996	Widefield Water and Sanitation, CO	District
1996	Consolidation Program Game Plan	County

<u>Year</u>	<u>Project</u>	<u>Party Represented</u>
1996	Marion Oaks	County
1996	Marco Shores	Company
1996	Marco Island	Company
1996	Cayuga Water System, GA	Authority
1996	Glendale Water System, GA	Authority
1996	Lehigh Acres Water and Wastewater, GA	Authority
1996	Lindrick Services Company	Company
1996	Carolina Blythe Utility, NC	City
1996	Ocean Reef R.O. WTPs	NKLUA
1995	Sanibel Bayous	City
1995	Rotunda West Utilities	Investor
1995	Palm Coast Utility Corporation	ITT
1995	Sunshine State Parkway	Company
1995	Orange Grove Utilities, Inc., Gulfport, MS	Company
1995	Georgia Utilities, Peachtree, GA (Condemnation)	City
1995	Beacon Hills Utilities	Company
1995	Woodmere Utilities	Company
1995	Springhill Utilities	Company
1995	Okeechobee Utility Authority	OUA
1995	Okeechobee Beach Water Association	OUA
1995	City of Okeechobee	OUA
1995	Mad Hatter Utilities, Inc.	Company
1994	Eastern Regional Water Treatment Plant	Owner
1994	GDU – Port St. Lucie Water and Wastewater (Franchise/Condemnation)	City
1994	St. Lucie County Utilities	City
1994	Marco Island/Marco Shores	Sun Bank
1994	Heater of Seabrook, SC (Condemnation)	Company
1994	Placid Lake Utilities, Inc.	Company
1994	Ocean Reef Club Solid Waste System	ORCA
1994	Ocean Reef Club Wastewater System	ORCA
1994	South Bay Utilities, Inc.	Company
1994	Kensington Park Utilities, Inc.	Company
1993	River Park Water System	SSU/Allete
1993	Taylor Woodrow, Sarasota Cnty (Condemnation)	Taylor Woodrow
1993	Atlantic Utilities, Sarasota Cnty (Condemnation)	Company
1993	Alafaya Utilities, Inc.	Bank
1993	Anden Group Wastewater System, PA	Company
1993	West Charlotte Utilities, Inc.	District
1993	Rolling Oaks (SW)	Owner
1993	Sanlando Utilities, Inc.	Investor
1993	Venice Gardens Utilities	Company
1992	Myakka Utilities, Inc.	City
1992	Kingsley Service Company	County
1992	RUD#1 (4 systems review)	Meadowoods/ Kensington Park
1992	Mid Clay Utilities, Inc.	County
1992	Clay Utilities, Inc.	County
1992	Fox Run Utility System	County
1992	Uddo Landfill (SW) (Condemnation)	Owner
1992	Martin Downs Utilities, Inc.	County
1992	Leilani Heights	County
1992	River Park Water and Sewer	SSU/Allete
1992	Central Florida Research Park	Bank of America
1992	Rolling Oaks Utility	Investor
1992	City of Palm Bay Utilities	PBUC

Year	Project	Party Represented
1992	North Port – GDU Water and Sewer (Franchise/Condemnation)	City
1992	Palm Bay – GDU Water and Sewer (Franchise/Condemnation)	City
1992	Sebastian – GDU Water and Sewer	City
1991	Sanibel – Sanibel Sewer System, Ltd.	City
1991	St. Augustine Shores, St. Johns County	SSU/Allete
1991	Remington Forest, St. Johns County	SSU/Allete
1991	Palm Valley, St. Johns County	SSU/Allete
1991	Federal Bankruptcy – Lehigh Acres	Topeka/Allete
1991	Meadowoods Utilities, Regional Utility District #1	Investor
1991	Kensington Park Utilities, Reg. Utility District #1	Investor
1991	Industrial Park, Orange City	City
1991	Country Village, Orange City	City
1991	John Know Village, Orange City	City
1991	Land O'Lakes, Orange City	City
1991	Sanibel – Sanibel Sewer System, Ltd.	City
1991	Hershel Heights, Hillsborough County	SSU/Allete
1990	Orange-Osceola Utilities, Osceola County	County
1990	Morningside East and West, Osceola County	County
1990	Magnolia Valley Services, Inc., New Port Richey	City
1990	West Lakeland Industrial, City of Lakeland	City
1990	Highlands County Landfill (Condemnation)	Owner
1990	Venice Gardens Utilities, Sarasota County	SSU/Allete
1990	South Hutchinson Services, St. Lucie County	SHS
1990	Indian River Utilities, Inc.	City
1990	Coraci Landfill (SW) (Condemnation)	Owner
1990	Terra Mar Utility Company	City
1989	Seminole Utility Company, Winter Springs	Topeka/Allete
1989	North Hutchinson Svcs., Inc., St. Lucie County	NHS
1989	Sugarmill Utility Company (Condemnation)	UCCNSB
1989	Ocean Reef Club, Inc., ORCA	Company
1989	Prima Vista Utility Company, City of Ocoee	PVUC
1989	Deltona Utilities, Volusia County	SSU
1989	Poinciana Utilities, Inc., Jack Parker Corporation	JPC
1989	Julington Creek	Investor
1989	Silver Springs Shores	Bank
1988	Twin County Utilities	Company
1988	Burnt Store Utilities	Company
1988	Deep Creek Utilities	Company
1988	North Beach Water Co., Indian River County	NBWC
1988	Bent Pine Utility Company, Indian River County	BPUC
1988	Country Club Village, SSU	CCV
1987	Sugarmill Utility Co., Florida Land Corporation	FLC
1987	N. Orlando Water & Sewer Co., Winter Springs	NOWSCO
1987	Osceola Services Company, FCS (nfp)	OSC
1987	Orange City Water Company, Orange City	City
1987	West Volusia Utility Company, Orange City	City
1987	Seacoast Utilities, Inc., Florida Land Corporation	FLC
1987	Utilities Commission, City of New Smyrna Beach (partial SA/Assets) (Electric) - FPL	Commission

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

Utility Management Consulting

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

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

Utility Finance, Rates, Fees and Charges

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

- + City of Polk City, 2014/2015
- + Bay County Revenue Bond Issue Series 2015
- + City of Fort Meade Wastewater Study, 2015
- + City of Fellsmere Stormwater, 2015
- + City of Pleasant Prairie – WPSC, 2014
- + City of Tega Cay SCPSC, 2013/2014
- + NPUC Cert. Expansion – FPSC, 2015

- + Oakwood – ICC, 2014
- + Village of Bald Head Island – NCPUC, 2010
- + City of Polk City, 2014/2015
- + City of Dunnellon Rate Surcharge Case, 2014
- + City of Dunnellon Impact Fee Case, 2013
- + City of Fernandina Beach, Impact Fee Case and Bond Issue City of Fernandina Beach, Revenue Bond Issue, 2013
- + City of North Miami Beach Water and Wastewater Rate, Fee and Charge Study, 2013
- + City of North Miami Beach \$65 Million Water Revenue Bond Issue, 2012
- + DeKalb County Revenue Bond Issue \$373 Million Services, 2011
- + Polk City Services 2010 - \$10 Million Revenue Bond Issue
- + Bay Laurel Services 2011 - \$45 Million Revenue Bond Issue
- + Bay County Water Rate, Charge and Fee Study, Wholesale and Retail, 2013
- + Bay County Wastewater Rate, Charge and Fee Study, AWT and Retail, 2013
- + Bucks County – City of Philadelphia Wholesale Utility Services Analysis, 2011
- + Timber Creek FPSC Utility Rates and Charges, 2011 and 2012
- + Polk City Water and Wastewater Rate, Fee and Charge Study, 2010
- + Lake Worth Wholesale Charges Analysis for 7 entities, 2012
- + THISCD Water and Wastewater Rate, Fee and Charge Study, 2012
- + City of Ft. Meade Water and Wastewater Rate, Fee and Charge Study, 2013
- + City of Ft. Meade Stormwater Rate Study, 2012
- + City of Ft. Myers Beach Water/Wastewater Rate, Fee and Charge Study, 2013
- + Dunnellon Rate and Surcharge Review, 2012/2013
- + Bay Laurel Center Community Development District – Water, Wastewater and Reclaimed Water Rate Study, Line Charge Study, and Miscellaneous Charge Study, 2010
- + Skyland Utilities, LLC – FPSC, 2009
- + Bluefield Utilities, LLC – FPSC, 2009
- + Grove Land Utilities, LLC – FPSC, 2009
- + Tindall Hammock Irrigation and Soil Conservation District – Water and Wastewater Rate and Charge Study, 2008
- + Bay County – Wholesale Rate Study and Impact Fee Study – 2007
- + Flagler County – Impact Fee Analysis, 2005

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

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

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

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

Economic Evaluations/Credit Worthiness Analyses

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

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

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

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

Service Areas and Negotiations

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

Expert Testimony

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

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

Publications / Presentations

Papers/Presentations (Since 1994)

- 2016 "What Special Masters are Looking For"
By Gerald C. Hartman and Dr. L. Golicz, December 10, 2015
FC – IAAO – TPP Conference
- 2015 "Perspectives for Utility Sales – (City/Co./Auth./NFP/CDD)"
By Gerald C. Hartman, August 26, 2015
Philadelphia, PA - Business Seminar
- 2015 "Water Privatization and the Systems Viability Act Legislation"
Gerald C. Hartman, et al., 102nd
Illinois Municipal League Annual Conference
September 18, 2015
- 2014 Hartman, G.C. and Hollis, Tara L. "Financial Forces Impacting Small Utility Systems." 2014 Indiana Section AWWA Conference, February 2014.
- 2014 Hartman, G.C. and T.L. Hollis "Utility Optimization and Ownership Considerations", Indiana Section AWWA February 12-13, 2014.
- 2013 Hartman, G.C. "Stormwater Reuse/Water Harvesting", Fl. Water & Environment Association, January 24, 2013.
- 2012 Hartman G.C., T.L. Hollis "Optimization of Utility Performance", Florida-CFOA.
- 2008 Hartman, G.C., Hollis, Tara L. and Isaacs, Tony W. "Discussion of Outside City Utility Rate Surcharge." Special Meeting – Various Municipality Leaders in State of Florida (Hosted by the City of North Miami Beach and the City of North Miami). October 28, 2008.
- 2007 Hartman, G.C. and Wanielista, M. P. "Stormwater Reuse: The Utility Business Practice." 9th Biennial Conference on Stormwater Research & Watershed Management. May 2, 2007.
- 2005 Wanielista, Marty and G.C. Hartman, "Regional Stormwater Facilities", Stormwater Management for Highways Transportation Research Board TRB AFB60, July 12, 2005.
- 2004 Hartman, G.C., D. Cooper, N. Eckloff and R. Anderson, "Water," The Bond Buyer's Sixth Southeast Public Finance Conference, February 23, 2004.
- 2003 Hartman, G.C., "Utility Valuation," Wake Forest University Law School Seminar Series, February 6-8, 2003.
- 2003 Hartman, G.C., H.E. Schmidt, Jr. and M.S. Davis, "Biosolids Application in Rural DeSoto County, Florida," WEF/AWWA/CWEA Joint Residuals and Biosolids Management Conference, February 19-22, 2003.
- 2003 Hartman, G.C. and Dr. M. Wanielista, "Irrigation Quality Water – Examples and Design Considerations," ASCE Conference, April 4, 2003.
- 2003 Hartman, G.C., M.A. Rynning and V. Hargray, "Assessing the Water Demands of Commercial Customer," WEF Volume 6, No. 4, July/August 2003 – Utility Executive.

- 2002 Hartman, G.C., M. Sloan, N.J. Gassman, and D.M. Lee, "Developing a Framework to Balance Needs for Consumptive Use and Natural Systems with Water Resources Availability," WEF Watershed 2002 Specialty Conference, February 23-27, 2002.
- 2000 Hartman, G.C., M.A. Rynning, and V. Hargray, "Assessment of Commercial Customer Water Impacts," AWWA 2000.
- 1999 Hartman, G.C. contributing author, Chapter 14B, Nichols on Eminent Domain, RCNLD Valuation of Public Utilities, March 1999 Edition, Release No. 48.
- 1998 Hartman, G.C., "In-House, Outsourcing and the Not-for-Profit Utilities Option," Florida Government Finance Officers Association (FGFOA) Conference, March 27, 1998.
- 1998 Hartman, G.C. and D.P. Dufresne, "Understanding Groundwater Mounds – A Key to Successful Design, Operation and Maintenance of Rapid Infiltration Basins," April 4-7, 1998, FWWA/WET/FPCOA Joint Meeting.
- 1998 Hartman, G.C. and Seth Lehman, "Financing Water Utilities – Acquisition and Privatization Projects," AWWA Annual Conference, June 24, 1998.
- 1997 Hartman, G.C., Seth Lehman, "Financing Utility Acquisitions," AWWA/WEF Joint Management Conference, February 1997.
- 1997 Hartman, G.C., B.V. Breedlove, "Water: Where It Comes From and Where It Goes," FRT & G/FDEP Conference, September 1997.
- 1997 Hartman, G.C., W.D. Wagner, T.A. Cloud, and R.C. Copeland, "Outsourcing Programs in Seminole County," AWWA/WEF/FPCOA Conference, November 1997.
- 1997 Hartman, G.C., M.B. Alvarez, J.R. Voorhees, and G.L. Basham, "Using Color as an Indicator to Comply with the Proposed D/DBP Rule," AWWA, Water Quality Technology Conference, November 1997.
- 1996 Hartman, G.C., M.A. Rynning, and R.A. Terrero, "5-Year Reserve Capacity – Can Customers Afford the Cost?" FSASCE Annual Meeting, 1996.
- 1996 Hartman, G.C., T.A. Cloud, and M.B. Alvarez, "Innovations in Water and Wastewater Technology," Florida Quality Cities, August 1996.
- 1995 Hartman, G.C. and R.C. Copeland, "Utility Acquisitions – Practices, Pitfalls and Management," AWWA Annual Conference, 1995.
- 1995 Hartman, G.C., "Safe Drinking Water Act," and "Stormwater Utilities," FLC Annual Meeting, 1995.
- 1994 Hartman, G.C. and R.J. Ori, "Water and Wastewater Utility Acquisition," AWWA National Management Specialty Conference, 1994.

Books

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

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

Tara Hollis, CPA, MBA

Principal Consultant • Willdan Financial Services

Ms. Hollis specializes in rate and cost of service studies, feasibility and financial reports, and debt structuring analysis for the issuance of utility indebtedness for major capital improvement programs. She has an extensive range of experience in financial analysis including budget analyses, customer and usage analyses, development of revenue requirements, cost of service allocations, and sensitivity analyses related to the implementation of conservation efforts. Included in these broad areas of financial analyses are detailed analyses pertaining to the sufficient recovery of revenue such as utility rates and rate design alternatives, the determination of specialized user fees and charges, service availability and impact fees, and various miscellaneous service charges. Ms. Hollis has extensive experience related to reviewing and analyzing compliance with bond covenant requirements and contractual obligations. She has assisted in the development of numerous bond documents including engineering reports and official statements for the issuance of municipal debt instruments. Ms. Hollis creates computerized dynamic spreadsheet models for use in valuing and analyzing future sales, profitability, and financial performance ratios of utility systems and to determine fund needs for capital expansion programs. She has been a principal investigator in water, wastewater, and electric system comparable sales. She has been involved with the preparation of over 150 utility system valuations utilizing the cost, income, and comparable sales approaches. Additionally, Ms. Hollis is currently pursuing the Certified Valuation Analyst designation from the National Association of Certified Valuators and Analysts.

Professional Experience

- Development of extensive and dynamic computer models for water, wastewater and reclaimed water rate studies, feasibility studies, forecasts, and valuations.
- Development of retail and bulk rates; impact fees; capital funding plans; and user rates and charges including the preparation of water, wastewater, reclaimed water, and stormwater user rate studies for public utilities.
- Water conservation rate analysis, structuring, and enactment.
- Miscellaneous service charges for a variety of customer request services including customer deposits, water meter installation charges, water and wastewater taps, turn-on charges, and the initiation of service charges.
- Development and analysis of the adequacy of wholesale rates and rate components for revenue and litigation purposes.
- Development of assessment programs for utility system projects including streetlights and utility system undergrounding.
- Development of presentation workshops and accompanying briefing documents for utility rate study and cost of service clients to foster client and audience understanding of the analysis conducted.
- Creation of databases and correlation customer data to other data sources including property appraiser data, property tax data, utility billing system data, etc. for development of customer billing lists, non-ad valorem assessments, customer mailings, etc.
- Development of Customer Impact Analyses by income level utilizing GIS.
- Facilitate focus groups and stakeholder coordination meetings relative to the impact of potential rate adjustments on customers.
- Prepared Request for Inclusion, Loan Documents, Ordinances/Resolutions, and Monthly Pay Applications, Davis-Bacon Wage requirement audits, etc.
- Preparation of grant administration paperwork.
- Development of Customer Accommodation Programs for water and wastewater.

Education

*Master of Business Administration,
University of Central Florida*

*Bachelor of Science, Business
Administration, University of Central
Florida*

Certifications

C.P.A. Florida, No. AC-0031100

Areas of Expertise

- *Business & Financial Analysis*
- *Dynamic Computer Modeling*
- *Utility Rate and Cost Studies*
- *Feasibility and Financial Analysis and Reporting*
- *Debt Structuring Analyses*
- *Expert Witness Testimony and Litigation Support*
- *Assessment Programs*
- *Acquisition, Valuation and Divestiture Services*
- *Equity Recapture Strategies*
- *Utility Optimization Services*
- *Utility Regulatory Services*

Affiliations

- *American Water Works Association*
- *National Association of Certified Valuators and Analysts, Member*

18 Years' Experience

- Assistance with litigation, negotiations, and expert witness services. Served as an expert witness in utility rate and financial matters.
- Assistance and documentation for revenue and other special forms of tax-exempt bond financing including detailed projections and reports to support the issuance of over \$1 billion in long-term indebtedness.
- Preparation of Bond Resolutions, Official Statement, Certificates of Compliance, Additional Bonds Test certificates, and other related documents in support of long-term indebtedness.
- Conducting valuation studies using various techniques including the cost approach, income approach, and comparable sales approach for water, wastewater, and electric utility systems, and developing detailed financial forecasts and cash flow models to be used in damages calculations.
- Utility acquisition assistance including contract negotiations, transitional, transactional, and financial feasibility analysis.
- Preparation of Utility Annual Reports and review of compliance issues as required by the Bonds Resolutions.
- Provided Utility Consulting Professional Services to Florida entities including:

- Apopka	- Bay County	- Bay Laurel Center CDD
- Cape Coral	- Citrus County	- Clermont
- DeLand	- Eustis	- Fellsmere
- Fernandina Beach	- Fort Meade	- Fort Myers Beach
- Fruitland Park	- Hillsborough County	- Indian River Shores
- JEA	- Lake Wales	- Lake Worth
- Longboat Key	- Melbourne	- Mulberry
- Nassau County	- North Miami Beach	- Oviedo
- Palm Bay	- Polk City	- Port St. Lucie
- Sanibel	- Sarasota County	- Seminole County
- Tindall Hammock ISCD	- Vero Beach	- Winter Haven
- Winter Park		

Selected Relevant Experience

- **Utility Undergrounding District – Longboat Key, FL:** Project Manager. Developed assessment methodology associated assessment listing for two projects to underground the electric utility system throughout the Town. As the Town is located within two counties, the database and assessment role information had to be standardized to make the methodology application compatible for both County Property Appraiser and Tax Assessor offices. Both of the projects required a referendum and public vote. In addition to preparing the methodology and assessment rolls, participated in the bond validation hearings to obtain debt financing for the undergrounding project.
- **Street light Assessment Program – Oviedo, FL:** Project Manager. Developed a non-ad valorem street light assessment program to recover the annual costs associated with maintaining and operating the street lights throughout the City. The project included developing a defensible methodology to assign costs to each property as well as the associated assessment role.
- **Water, Wastewater, and Reclaimed Water Rate Study; Miscellaneous Charge Study; and Line Charge Study - Bay Laurel Center CDD – Ocala, FL:** Project Manager. The main objectives of this study were 1) to develop rates that would further promote water resource conservation and continue to provide revenue sufficiency; 2) to modify reclaimed water rates; 3) to review, update, and recommend a comprehensive list of miscellaneous charges; and 4) to review and

T. Hollis, CPA, MBA
Resume Continued

Papers, Publications, and Presentations

“Financial Forces Impacting Utility Systems,” presented at the Growth and Infrastructure Consortium Annual Conference, Bradenton, FL, November 2014

“Financial Forces Impacting Small Utility Systems.” 2014 Indiana Section AWWA Conference, February 2014.

“Financial Sustainability as a Basis for Utility Management.” South Carolina Rural Water Association Decision Maker’s Summit 2011; April 2011.

“Discussion of Outside City Utility Rate Surcharge.” Special Meeting – Various Municipality Leaders in State of Florida (Hosted by the City of North Miami Beach and the City of North Miami). October 2008.

update the District's current water and wastewater line charges.

- **Water, Wastewater, and Reclaimed Water Financial and Operational Optimization Report – Vero Beach, FL:** Project Manager. Identified and modeled optimization options including reviewing and recommending engineering, efficiency, cost center, revenue and expense, staffing, funding, and billing options. Included benchmarking against industry standards and comparative utilities; Billing Frequency Analysis on customer data; comparing alternate rate structures; and completing a Readiness-to-Serve Charge Study.
- **Wastewater Treatment Program – Mulberry, FL:** Project Manager. Implemented funding strategies and bridge financing alternatives for Wastewater Improvements Program. Prepared multiple comparisons and utility rate financial explorations. Assisted in rate adjustments and revenue sufficiency analysis for water and wastewater. Obtained 66% grant for program implementation through the State Revolving Fund. Acted as FDEP liaison during construction.
- **Water, Wastewater, and Reclaimed Water Systems Valuation – Vero Beach, FL:** Project Manager. Prepared a valuation report to determine the approximate value of the City's water, wastewater, and reclaimed water systems. Valuation included a value for the entire system as well as a value for two fractional components: mainland unincorporated areas and within the City limits on both the mainland and beach areas. The valuation services included acquiring historic background information and documentation, performing field inspections, and asset verifications. Three methodologies were used in the final report which included the Cost Approach, Income Approach, and Comparable Sales Approach. Additionally, the report included an analysis of the economic and financial impacts to the City and the General Fund as a result of the potential sale of the systems.
- **Consulting Engineer's Report – Polk City, FL:** Project Manager. Created rate/optimization model which identified optimization options & projected financial feasibility and sustainability. Worked with staff to reduce costs, add revenue streams, revamp billing practices for more appropriate cost recovery, and refinance outstanding debts & receive additional funding for upgrading their systems, bringing the City from negative cash flows and near-dissolution to a position of financial strength.
- **Asset Valuation for Tangible Personal Property Tax Purposes – Citrus County, FL:** Project Manager. Prepared the valuation of the largest power system in a Florida County - the Citrus County Crystal River Generation Complex including all of the substations and transmission and distribution assets countywide. This analysis had an effective date of January 1, 2012. Also prepared a separate valuation analysis as of January 1, 2013 which included the effects of the permanent decommissioning of the Nuclear Unit #3. The opinion of value for both the non-pollution control and pollution control assets was over \$3.6 billion.

T. Hollis, CPA, MBA
Resume Continued