CITY OF SANTA CRUZ
Water Department

Water System Development Charge

Report / April 30, 2015

RAFTELIS
FINANCIAL CONSULTANTS, INC.

CITY OF
SANTA CRUZ

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April 30, 2015

Ms. Rosemary Menard
Water Director
City of Santa Cruz
212 Locus Street, Suite A
Santa Cruz, CA 95060

Subject: Water System Development Charge

Dear Ms. Menard,

Raftelis Financial Consultants, Inc. (RFC) is pleased to provide this Water System Development Charge Report (Report) to the City of Santa Cruz (City). This report details the various methodologies used to compute development charges and summarizes the key findings and recommendations related to the development of the City's Water System Development Charges.

It has been a pleasure working with you, and we thank you and the City staff for the support provided during the course of this study.

Sincerely,

RAFTELIS FINANCIAL CONSULTANTS, INC.

Sanjay Gaur
Vice President

Andrea Boehling
Consultant

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1. EXECUTIVE SUMMARY

Raftelis Financial Consultants, Inc. ("RFC") was retained by the City of Santa Cruz ("City") to complete a water system development charge (SDC) study. This report provides a detailed summary of our analysis in which we determined an updated SDC, the basis of which is in accordance with the rules and regulations of California State Assembly Bill 1600 (AB 1600) and more specifically, Government Code Section 66013. This report serves as formal technical documentation in support of modifications to the SDC within the City's service area.

Currently, the City's water SDC is $6,530 per Single-Family Residence or one Equivalent Dwelling Unit (EDU). Based on the existing approach, an EDU represents the demand that is placed on the water system by a single-family residence with a meter/connection size of ⅝" x ¾". However, the SDC has not been adjusted to account for either changes in the system or for costs associated with inflation since the charge was last updated in 2004. As a result, the charge is no longer reflective of new development's share of capital water facilities. Using the Handy Whitman Water Utility Construction Index – Pacific Region (HW CCI), as a means to analyze what the SDC amount would be today if inflation was considered each year, the SDC would be approximately $11,183 per EDU in 2014 dollars[1]. The HW CCI monitors the costs of current materials typically used in the construction of water systems, such as concrete, steel mains, and PVC mains, and is therefore a reasonable inflationary index to use to bring the SDC into 2014 dollars. This inflated cost estimate does not take into account changes in service area, such as the value of the assets, beginning balance, outstanding debt or number of connections since 2004.

The analysis contained in this report uses the Equity Buy-In Method and justifies modifying the SDC to $11,231 per EDU. **Table 1** displays the proposed SDCs. For the purposes of the study, one EDU represents the American Water Works Association (AWWA) safe operating capacity for a ⅝" x ¾" meter. The SDC for larger meters was determined by multiplying the charge for a ⅝" x ¾" meter by the equivalent capacity meter ratio associated with each meter size[2].

[1] See **Appendix A** for additional information and the calculations regarding the inflationary adjustment. The Handy Whitman CCI closely reflects the short-term cost trends surrounding water system construction.
[2] See **Appendix B** for the safe operating capacity for each meter size and details concerning the calculation of the equivalent capacity meter ratio.

Table 1: Proposed System Development Charges

Meter Size	Proposed FY 2015-2016 Charge
5/8-in x 3/4-in	$11,231
3/4-in	$16,847
1-in	$28,078
1 1/2-in	$56,155
2-in	$89,848
3-in	$196,541
4-in	$353,774
6-in	$898,473
8-in	$1,572,327
10-in	$2,358,491

As shown in **Table 1**, the amount of the SDC increases by meter size which reflects the increased demand placed on the water system by larger connections/meters based on AWWA capacity ratios. However, not all residential dwelling units exhibit the same water demand characteristics as the typical Single-Family Residence. The City has three special residential classifications with a lower water demand: Single-Room Occupancy (SRO), Accessory Dwelling Units (ADU), and Multi-Family Unit. The proposed charges for the three types of residential customers are $5,616 per SRO unit, $6,739 per ADU, and $7,862 per Multi-Family Unit.

1.1 OVERVIEW

The City of Santa Cruz is located along the central coast of California along the northern shore of Monterey Bay and approximately 35 miles southwest of San Jose. The City's Water Department provides service to a population of approximately 95,000 covering over 20 square miles including the City of Santa Cruz, adjoining unincorporated areas of Santa Cruz County, a small part of the City of Capitola, and coastal agricultural lands north of the city. As part of City's review of rates, fees, and charges, the SDCs are being updated to ensure new system users or existing users requiring increased system capacity recover their fair share of the costs associated with the water facilities required to serve them.

SDCs are one-time fees, collected as a condition of establishing a new connection to the City's water system or the expansion of an already existing connection. The purpose of these fees is to pay for development's share of the costs of new and existing water facilities. These fees are designed to be proportional to the demand placed on the system by the new or expanded connection. The recommended SDCs for the City do not exceed the estimated reasonable costs of providing the facilities for which they are collected and are of proportional benefit to the property being charged. This report documents the data, methodology, and results of the SDC study.

The primary objective of establishing a full cost-recovery SDC is to provide an equitable means by which new system users or existing customers requiring additional system capacity, contribute their fair-share towards the costs associated with the water facilities required to serve them.

1.2 ECONOMIC AND LEGAL FRAMEWORK

For publicly owned water systems, most of the assets are typically paid for by the contributions of existing customers through rates, charges, and taxes. In service areas that incorporate new customers, the infrastructure developed by previous customers is generally extended towards the service of new customers. Existing customers' investment in the existing system capacity allows newly connecting customers to take advantage of unused surplus capacity. To further economic equality among new and existing customers, new connectors will typically buy-in to the existing and pre-funded facilities based on the percentage of remaining available system capacity, effectively putting them on par with existing customers. In other words, the new users are buying into the existing system through a payment for the portion of facilities that has already been constructed in advance of new development.

1.2.1 Economic Framework

The basic economic philosophy behind SDCs is that the costs of providing water service should be paid for by those that receive utility from the product. In order to effect fair distribution of the value of the system, the charge should reflect a reasonable estimate of the cost of providing capacity to new users, and not unduly burden existing users through a comparable rate increase. Accordingly, many utilities make this philosophy one of their primary guiding principles when developing their SDC structure.

The philosophy that service should be paid for by those that receive utility from the product is often referred to as "growth-should-pay-for-growth." The principal is summarized in the American Water Works Association (AWWA) Manual M26, Water Rates and Related Charges:

> *"The purpose of designing customer-contributed-[connection fees] is to prevent or reduce the inequity to existing customers that results when these customers must pay the increase in water rates that are needed to pay for added plant costs for new customers. Contributed capital reduces the need for new outside sources of capital, which ordinarily has been serviced from the revenue stream. Under a system of contributed capital, many water utilities are able to finance required facilities by use of a 'growth-pays-for-growth' policy."*

1.2.2 Legal Framework [3]

In establishing SDCs, it is important to understand and comply with local laws and regulations governing the establishment, calculation, and implementation of SDCs. The following sections summarize the regulations applicable to the development of SDC for the City of Santa Cruz.

1.2.2.1 California Government Code Requirements

SDCs must be established based on a reasonable relationship to the needs and benefits brought about by the development or expansion. Courts have long used a standard of reasonableness to evaluate

[3] *RFC does not practice law nor does it provide legal advice. The above discussion means to provide a general review of apparent state institutional constraints and is labeled "legal framework" for literary convenience only. The City should consult with its counsel for clarification and/or specific review of any of the above or other matters.*

the legality of development charges. The basic statutory standards governing SDCs are embodied by California Government Code Sections 66013, 66016, 66022 and 66023. Government Code Section 66013, in particular, contains requirements specific to determining utility development charges:

> *"Notwithstanding any other provision of law, when a local agency imposes fees for water connections or sewer connections, or imposes capacity charges, those fees or charges shall not exceed the estimated reasonable cost of providing the service for which the fee or charge is imposed, unless a question regarding the amount the fee or charge in excess of the estimated reasonable cost of providing the services or materials is submitted to, and approved by, a popular vote of two-thirds of those electors voting on the issue."*

Section 66013 also includes the following general requirements:

- Local agencies must follow a process set forth in the law, making certain determinations regarding the purpose and use of the fee; they must establish a nexus or relationship between a development project and the public improvement being financed with the fee.
- The system development charge revenue must be segregated from the general fund in order to avoid commingling of development charges and the general fund.

1.2.2.2 City of Santa Cruz Code Requirements

In addition to the requirements under the California Government Code, as a charter city, Santa Cruz adopted City Code, Section 16.04.041 – Connection of New Water Services, in 1993 and revised the Code in 2005. Generally, the City Code, requires that SDCs be based on the cost of providing service and that SDCs can include both existing assets, available to service growth, as well as future capital improvements required to service growth. The City Code states as follows:

> *"16.04.041 CONNECTION OF NEW WATER SERVICES.*
>
> *(a) Purpose. In order to mitigate the water supply impacts caused by new development in the city of Santa Cruz water service area, certain public water system improvements must be or have been constructed in order to accommodate system expansion. The city council has determined that a development impact fee for the connection of new services to the water system, the "water connection fee" shall be charged to pay for development's fair share of the construction costs of such improvements. Additionally, services that have been found to be abandoned, in accordance with Section 16.04.360 of this chapter, are hereby deemed to place the same demands and present the same conditions of water supply impacts as new services.*
>
> *(b) System Development Charges. A system development charge is hereby established and is payable subsequent to the issuance of any permit, or similar grant of authority, resulting in a new connection to the water system. Such fee is necessary to pay a new service connection's, or additional demand's, proportional share of the system expansion costs essential to provide water to the new or additional service. Additional demand shall be interpreted to mean use on an existing service which would require a meter upsize. The city council shall adopt a resolution containing the following:*
>
> *(1) The specific amount of the fee, including the fee development methodology, and*

(2) A list of the specific improvements to be financed by the fee, including the estimated cost of such improvements, and

(3) A description of the correlation between the fees and new development and the benefits from the improvements enabled by the fee, and

(4) The time system development charges are due for payment. The water connection fee shall be reviewed on an annual basis to determine whether the fee amounts are reasonably related to the impacts created by new connections and whether the listing of system expansion public improvements to be financed by system development charge revenues is accurate.

(c) Use of Fee Revenues. System development charge revenues shall be placed in a separate and special account and such revenues, along with any interest earnings on that account, shall be used exclusively for the following purposes:

(1) To pay for the city's future construction of facilities described in the resolution enacted pursuant to subsection (b) hereinabove, or to reimburse the water fund for those described or listed facilities constructed by the water fund with funds advanced to the water fund from other sources, or

(2) To reimburse developers who have been required or permitted to install such listed facilities which are oversized with supplemental size, length, or capacity beyond that needed for the certain development and are subject to the terms of a reimbursement agreement with the city,

(3) To pay for water conservation programs approved by the city council which have the net effect of increasing the amount of water supply available for allocation to new connections."

2. METHODOLOGIES

There are two primary steps in calculating SDCs: (1) determining the cost of capital related to either new service connections or expansions that increase density or require the installation of a larger meter, and (2) allocating those costs equitably to various types of connections. There are several available methodologies for calculating SDCs. The various approaches have evolved largely around the basis of changing public policy, legal requirements, and the unique and special circumstances of every local agency. However, there are four general approaches that are widely accepted and appropriate for water SDCs. They are the "equity buy-in", "capacity buy-in", "incremental-cost" and "hybrid" method.

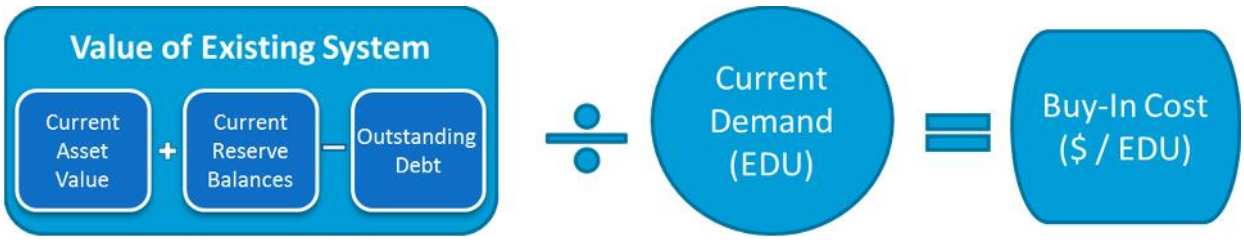
2.1 EQUITY BUY-IN (OR SYSTEM BUY-IN) APPROACH

The equity buy-in approach rests on the premise that new customers are entitled to service at the same price as existing customers. However, existing customers have already developed the facilities

that will serve new customers, including the costs associated with financing those services. Under this approach, new customers pay only an amount equal to the net investment already made by existing users. This net equity investment, or value of the system, is then divided by the current demand of the system – number of customers (or equivalent dwelling units) – to determine the buy-in cost per equivalent dwelling unit (EDU).

For example, if the existing system has 100 units of average usage and the new connector uses an equivalent unit, then the new customer would pay 1/100 of the total value of the existing system. By contributing this SDC, the new connector has bought into the existing system. The user has effectively acquired a financial position on par with existing customers and will face future capital challenges on equal financial footing with those customers. This approach is suited for agencies that have capacity in their system and are essentially close to build-out. **Figure 2-1** shows the framework for calculating the equity buy-in SDC.

Figure 2-1: Formula for Equity Buy-In Approach



As shown in **Figure 2-1**, under this approach, the value of the system is increased by the balance of the reserves. Reserves are included because they represent the health of the utility and more specifically add value to the system as they may be used to maintain the system at the current level of service. Conversely, a utility with no reserves or a negative fund balance would reduce the value of the system as a whole since there is no assurance that the current level of service can be maintained.

Debt is also accounted for under the equity buy-in approach as it is an obligation that is secured by the value of the system. When debt is issued to finance capital improvements, the obligation is typically paid over time by the existing water customers through water rates. To avoid double-charging of these debts, the debt obligation is subtracted to determine the net value of the existing system.

2.1.1 Asset Valuation Approaches

As stated earlier, the first step is to determine the asset value of the capital improvements required to furnish services to new users. However, under the equity buy-in approach, the facilities have already been constructed, therefore the goal is to determine the value of the existing system/facilities. To estimate the asset value of the existing facilities required to furnish services to new users, various methods are employed. The principal methods commonly used to value a utility's existing assets are original cost and replacement cost.

1. **Original Cost (OC).** The principal advantages of the original cost method lie in its relative simplicity and stability, since the recorded costs of tangible property are held constant. The major criticism levied against original cost valuation pertains to the disregard of changes in the value of money, which are attributable to inflation and other factors. As evidenced by history, prices tend to increase rather than to remain constant. Because the value of money varies inversely with changes in price, monetary values in most recent years have exhibited a definite decline; a fact not recognized by the original cost approach. This situation causes further problems when it is realized that most utility systems are developed over time on a piecemeal basis as demanded by service area growth. Consequently, each property addition was paid for with dollars of different purchasing power. When these outlays are added together to obtain a plant value the result can be misleading.

2. **Replacement Cost (RC).** Changes in the value of the dollar over time, at least as considered by the impacts of inflation, can be recognized by replacement cost asset valuation. The replacement cost represents the cost of duplicating the existing utility facilities (or duplicating its function) at current prices. Unlike the original cost approach, the replacement cost method recognizes price level changes that may have occurred since plant construction. The most accurate replacement cost valuation would involve a physical inventory and appraisal of plant components in terms of their replacement costs at the time of valuation. However, with original cost records available, a reasonable approximation of replacement cost plant value can most easily be ascertained by trending historical original costs. This approach employs the use of cost indices to express actual capital costs experienced by the utility in terms of current dollars. An obvious advantage of the replacement cost approach is that it gives consideration to changes in the value of money over time.

3. **Original Cost Less Depreciation (OCLD) or Replacement Cost Less Depreciation (RCLD).** Considerations of the current value of utility facilities may also be materially affected by the effects of age and depreciation. Depreciation takes into account the anticipated losses in plant value caused by wear and tear, decay, inadequacy, and obsolescence. To provide appropriate recognition of the effects of depreciation on existing utility facilities, both the original cost and reproduction cost valuation measures can also be expressed on an OCLD and RCLD basis. These measures are identical to the aforementioned valuation methods, with the exception that accumulated depreciation is computed for each asset account based upon its age or condition, and deducted from the respective total original cost or replacement cost to determine the OCLD or RCLD measures of plant value.

2.2 CAPACITY BUY-IN APPROACH

The capacity buy-in approach is based on the same premise as that for the equity buy-in approach – that new customers are entitled to service at the same rates as existing customers. The difference between the two approaches is that for the capacity buy-in approach, for each major asset, the value is divided by its capacity. This approach has two major challenges. First, to determine the capacity of each major asset is problematic, as the system is designed for peak use and customer behavior fluctuates based on economic and weather conditions. Second, it does not address the financial equity

that the current user has contributed into reserves. For instance, all else equal, a larger operating reserve balance would be a positive benefit for a new user, since it would produce lower rates in the future. If this were not taken into account, current users would be subsidizing future user rates. **Figure 2-2** shows the framework for calculating the capacity buy-in SDC.

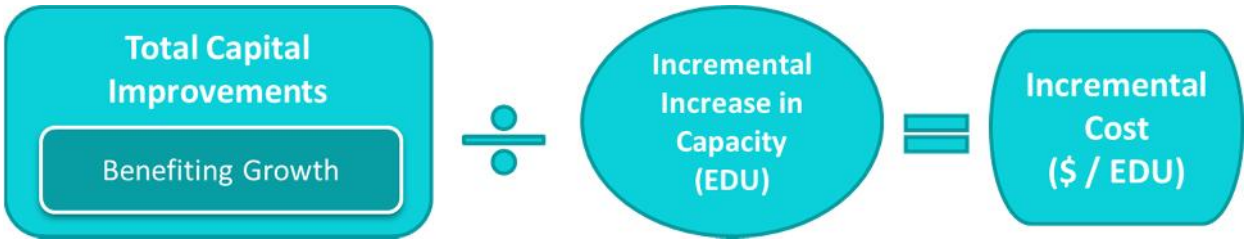
Figure 2-2: Formula for Capacity Buy-In Approach

2.3 INCREMENTAL COST APPROACH

The incremental method is based on the premise that new development (new users) should pay for the additional capacity and expansions necessary to serve the new development. This method is typically used where there is little or no capacity available to accommodate growth and expansion is needed to service the new development. Under the incremental method, growth-related capital improvements are allocated to new development based on their estimated usage or capacity requirements, irrespective of the value of past investments made by existing customers.

For instance, if it costs X dollars ($X) to provide 100 additional equivalent dwelling units of capacity for average usage and a new connector uses one of those equivalent dwelling units, then the new user would pay $X/100 to connect to the system. In other words, new customers pay the incremental cost of capacity. As with the equity buy-in approach, new connectors will effectively acquire a financial position that is on par with existing customers. Use of this method is generally considered to be most appropriate when a significant portion of the capacity required to serve new customers must be provided by the construction of new facilities. **Figure 2-3** shows the framework for calculating the incremental cost SDC.

Figure 2-3: Formula for Incremental Cost Approach

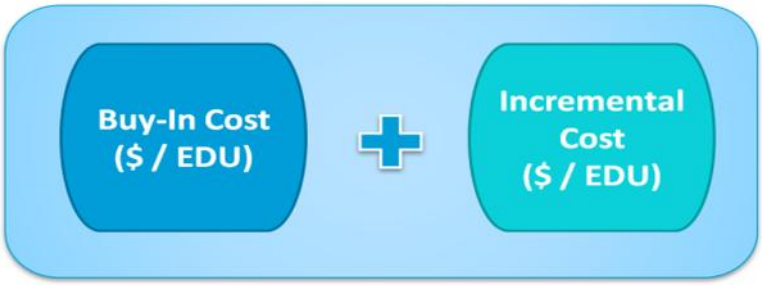


2.4 HYBRID APPROACH

The hybrid approach is typically used where some capacity is available to serve new growth but additional expansion is still necessary to accommodate new development. Under the hybrid approach the SDC is based on the summation of the existing capacity and any necessary expansions.

In utilizing this methodology, it is important that system capacity costs are not double-counted when combining costs of the existing system with future costs from the Capital Improvement Program (CIP). CIP costs associated with repair and replacement of the existing system should not be included in the calculation, unless specific existing facilities which will be replaced through the CIP can be isolated and removed from the existing asset inventory and cost basis. In this case, the rehabilitative costs of the CIP essentially replace the cost of the relevant existing assets in the existing cost basis. Capital improvements that expand system capacity to serve future customers may be included proportionally to the percentage of the cost specifically required for expansion of the system. **Figure 2-4** summarizes the framework for calculating the hybrid SDC.

Figure 2-4: Formula for Hybrid Approach



2.5 PROPOSED METHOD: EQUITY BUY-IN APPROACH

The City of Santa Cruz is nearly fully developed (built-out) and will continue to incorporate few new customers into the current system. New customers will largely be served by existing infrastructure which was purchased and maintained by existing customers. In addition, over the next five years there is no major capital improvement projects that is growth related. Recognizing these factors and taking into consideration the considerable economic investment by existing customers in the capital development of the system, an equity buy-in method was determined to be the most reasonable approach.

3. PROPOSED SYSTEM DEVELOPMENT CHARGE

3.1 VALUE OF THE SYSTEM

The first step under the Equity Buy-in Method is determining the value of the existing system. As mentioned above, there are several methods of determining the current value, but four of the most commonly used methods are:

- Original cost (the cost of construction in the year of construction)
- Original cost less accumulated depreciation (net book value)
- Replacement cost (original cost escalated to current-day dollars), or
- Replacement cost less accumulated depreciation (original cost escalated to current-day dollars and less accumulated replacement cost depreciation)

For the City's updated SDC, RFC utilized replacement cost while accounting for the City's 5-year repair and replacement capital plan, current reserves and outstanding debt obligations.

3.1.1 Replacement Cost Asset Valuation

RFC considered several factors, such as the age and condition of the system and the detail and availability of asset records, to determine which method would best reflect the value of the system. As with most water systems, the City's water system was constructed over the course of many years. Review of the accounting records indicated that past renewal and replacement costs were not consistently accounted for within asset listings. Therefore, a significant portion of the assets have been fully depreciated and show a zero carrying value despite having been well-maintained, being fully operational, and providing significant value to the system.

Due to these factors, the Replacement Cost method was used to determine the value of the water system. To accomplish this, the City provided fixed asset records on the original cost of the system. Replacement cost was then estimated by adjusting original costs to reflect what might be expected if a similar facility were constructed today. This is achieved by escalating the original construction costs by a construction cost index. Engineering News-Record's average Construction Cost Index for 20-cities (ENR CCI) is commonly used for this purpose. It reflects the average costs of a particular basket of construction goods over time. RFC selected the ENR CCI which is a better reflection of the cost trends over an extended period of time as opposed to the Handy Whitman CCI which is a better reflection of the cost trends over the short-term. RFC used a CCI value of 9,746 for 2014 to estimate the replacement costs. **Table 2** shows a summary of the City's water system at original cost and escalated into 2014 dollars (replacement cost) using the ENR CCI – 20-Cities[4].

Table 2: Santa Cruz Water System Value

Asset Type / Category	Original Cost	Replacement Cost (2014 $)
Infrastructure	$119,993,532	$360,673,627
Buildings	$16,789,845	$90,443,775
Equipment	$8,648,866	$11,904,993
Software	$561,412	$703,353
Total Water System	$145,993,654	$463,725,749

The water system replacement cost of $463,725,749 represents the estimated cost of replacing the entire system in 2014 dollars. However, the replacement cost does not take into consideration the required repairs and maintenance to the system and therefore overstates the value of the system.

[4] **Appendix C** presents the CCI-20-Cities and **Appendix D** presents the detailed calculation of the replacement cost value of the water system.

3.1.2 Less 5-Yr Capital Improvement Plan

To better reflect the current value of the system, the City's 5-Yr Capital Improvement Plan (CIP), totaling $77,631,054, was deducted from the replacement cost. By reducing the replacement cost by the 5-Yr CIP, the City acknowledges the system needs repairs and accounts for the use of the system by existing customers. Additionally, capital improvements are typically financed by those receiving benefit from the assets, in other words, the rate payers or water customers, and therefore, should not be recovered through SDCs. **Table 3** shows a summary of the City's 5-YR Capital Improvement Plan[5].

Table 3: Santa Cruz 5-Yr Capital Improvement Plan

	FY 2015 CIP	FY 2016 CIP	FY 2017 CIP	FY 2018 CIP	FY 2019 CIP	Total 5-Yr CIP
Capital Improvement Plan	$20,801,054	$9,110,000	$20,370,000	$15,975,000	$11,375,000	$77,631,054

3.1.3 Plus Water Reserves Balance

Current reserves were established and paid for by existing customers through water rates. Reserves are typically used to help pay for necessary capital improvements as well as any operating shortfalls or unforeseen expenditures. Adequate reserves can help mitigate the impacts from expenditure fluctuations on the water customers. Both existing and future customers will benefit from the reserves, therefore, upon connection, new users should contribute their fair share in order to establish equity in the reserves. As of June 30th 2014, the balance of the water reserves totaled $17,427,148. The balance of the reserves was added to the current value of the assets.

3.1.4 Less Outstanding Debt Obligations

Lastly, new users will pay their share of any outstanding debt through water rates after joining the system. Therefore, the value of the system should be reduced by the amount of the outstanding principal, which was $11,260,000 as of June 30th, 2014.

3.1.5 Value of the Existing System

The RC value of the system less the 5-Yr CIP plus the reserve balances and less the outstanding principal nets the total 2014 value of the water system of $392,261,843. The calculation of the value of the existing system is summarized in **Table 4**.

[5] A detailed listing of the capital improvement projects is shown by fiscal year in **Appendix E**.

Table 4: Value of Existing System

Description	In 2014 $
Asset (RC)	$ 463,725,749
(Less 5-Yr CIP)	$ (77,631,054)
Adjusted Assets Value	$ 386,094,695
Plus Reserves	
711 – Operations and Capital	$ 13,533,848
715 – WSDF	$ 3,893,300
(Less Outstanding Principal)	$ (11,260,000)
Net Water System Value	**$ 392,261,843**

3.2 CURRENT DEMAND

The second step in calculating the SDC is to determine the current demand or capacity of the system. Dividing the value of the system by the capacity provides a unit cost for the development charge. For water systems, capacity is usually expressed in meter equivalents rather than the number of service connections. The benefit of using meter equivalents is that it relates the relative capacity of service connections with meters of various sizes i.e. accounts for the larger meters generating more demand.

RFC utilized consumption data provided by the City to determine the number of meters by meter size. Next, the AWWA Standards for Maximum Rated Safe Operating Flow in gallons per minute (gpm) were used to determine the equivalent meter ratios. The typical single-family residential or base meter for the City of Santa Cruz is a ⅝" x ¾" meter. As shown in **Table 5**, the safe operating capacity of a ⅝" x ¾" meter is 20 gpm. For each size of meter there is a corresponding maximum safe operating capacity which provides the basis for calculating the meter equivalency ratios (AWWA Meter Ratio). For example, the safe operating capacity for a 1 ½" meter is 100 gpm. Comparing the 1 ½" meter and the ⅝" x ¾" meter on a capacity basis, a 1 ½" meter is equivalent to five (5) ⅝" x ¾" meters. This was determined by dividing the 1 ½" meter capacity of 100 gpm by the ⅝" x ¾" meter capacity of 20 gpm. Therefore, the base meter receives an equivalent meter ratio of 1 whereas the 1 ½" meter receives an equivalent meter ratio of 5. Note, the meter ratios should reflect each meters capacity in relation to the ⅝" x ¾" meter capacity. Finally, the number of meters (by size) was multiplied by the respective equivalent meter ratio to obtain the equivalent meters. **Table 5** summarizes the data used to determine the total equivalent meters of 34,927, which is reflective of the current demand of the system.

Table 5: Equivalent Meters

Meter Size	Number of Meters[6]	Meter Capacity	AWWA Meter Ratio[7]	Equivalent Meters (EDU's)
5/8-in x 3/4-in	21,916	20 gpm	1.00	21,916
3/4-in	197	30 gpm	1.50	296
1-in	1,345	50 gpm	2.50	3,363
1 1/2-in	466	100 gpm	5.00	2,330
2-in	417	160 gpm	8.00	3,336
3-in	51	350 gpm	17.50	893
4-in	23	630 gpm	31.50	725
6-in	11	1,600 gpm	80.00	880
8-in	4	2,800 gpm	140.00	560
10-in	3	4,200 gpm	210.00	630
			Total Equivalent Meters	**34,927**

3.3 EQUITY BUY-IN CHARGE ($ PER EDU)

The final step in determining the development charge for the City is to divide the total current value of the water system from Section 3.1.5 by the total equivalent meters from Section 3.2. In 2014 dollars, the total net value of the water system is $392,261,843. The value of the system is then divided by the total system capacity (or demand) expressed in total equivalent meters (34,927) to determine the per equivalent meter (or EDU) cost of $11,231[8]. **Figure 3-1** summarizes the calculation of the cost per EDU (or equivalent meter).

Figure 3-1: SDC Calculation per EDU

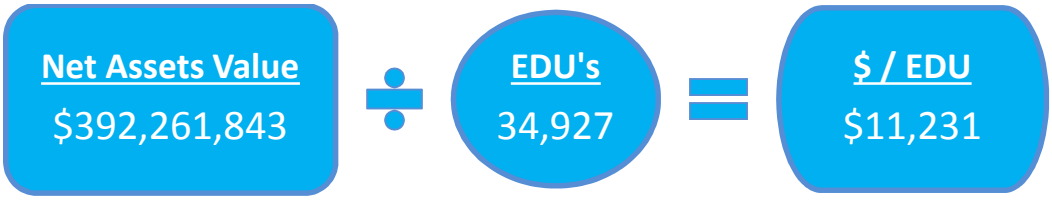


Table 6 displays the current and proposed SDCs for all meter sizes. Meter size is representative of water peaking demands on which the water system is designed and is commonly used to calculate development charges. The proposed SDC for each meter was determined by multiplying the AWWA Meter Ratio (from **Table 5**) by the charge per EDU of $11,231.

[6] Number of Accounts – based on the consumption data provided by the City of Santa Cruz
[7] AWWA Meter Ratio – based on the Maximum Rated Safe Operating Flow per the AWWA Standards as identified in the most recent 2012 edition of the M1 Manual, (6th Edition, Table B-1). The meter ratio used in the 2004 SDC calculation was based on a prior AWWA edition. The ratio was calculated by dividing the meter capacity of a given meter size by the meter capacity of the ⅝" x ¾"meter, or 20 gpm.
[8] The cost per EDU of 11,230.91 was rounded up to 11,231.

Table 6: Inflated Charges vs. Proposed Charges

Meter Size	Current Charge	Inflated Charge[9]	Proposed Charge	Difference (Inflated vs. Proposed)	% Difference (Inflated vs. Proposed)
5/8-in x 3/4-in	$6,530	$11,183	$11,231	$48	0.4%
3/4-in	$9,795	$16,775	$16,847	$72	0.4%
1-in	$16,325	$27,958	$28,078	$120	0.4%
1 1/2-in	$32,650	$55,915	$56,155	$240	0.4%
2-in	$52,240	$89,465	$89,848	$383	0.4%
3-in	$114,275	$195,704	$196,541	$837	0.4%
4-in	$195,900	$335,492	$353,774	$18,282	5.4%
6-in	$408,125	$698,942	$898,473	$199,531	28.5%
8-in	$587,700	$1,006,476	$1,572,327	$565,851	56.2%
10-in	$946,850	$1,621,545	$2,358,491	$736,946	45.4%

However, not all residential dwelling units exhibit the same water demand characteristics as the typical Single-Family Residence represented in the per EDU charge. The City has three special residential classifications with a lower water demand: Single-Room Occupancy (SRO), Accessory Dwelling Units (ADU), and Multi-Family Unit. RFC evaluated the prior methodology for determining the appropriate charge and through discussions with department staff confirmed they are still valid. Therefore, in such instances, the SDC was based on the typical usage characteristics of each residential unit type relative to single-family residential usage. The proposed charges were determined using the appropriate methodology described below:

- Single-Room Occupancy units are charged 50% of the SFR charge based on the reduced occupancy of no more than 2 occupants per SRO unit as opposed to an average of 4 occupants per SFR unit (2/4 = 50%).
- Accessory Dwelling Units are charged 60% of the SFR charge based on the reduced outdoor irrigation needs and reduced occupancy. ADU's average yearly consumption is approximately 47,100 gallons per year as opposed to approximately 81,200 gallons per year[10] for a typical SFR dwelling (47,100/81,200 = approx. 60%).
- Apartments, Condominiums, and Townhomes are 70% of the SFR charge based on reduced outdoor irrigation needs. The yearly consumption for a typical multi-family residential unit averages approximately 56,200 gallons per year (56,200/81,200 = approx. 70%).

Table 7 summarizes the proposed SDC for these other types of residential development.

[9] Current charge was inflated into 2014 dollars using the Handy Whitman Water Utility Construction Index – Pacific Region.
[10] Usage characteristics reflect normal non-drought conditions.

Table 7: Other Residential Proposed Charges (Per Unit)

Other Residential Development	Current Charge (per Unit)	Inflated Charge[11]	Proposed Charge (per Unit)	Difference (Inflated vs. Proposed)	% Difference (Inflated vs. Proposed)
Single-Room Occupancy (SRO)	$3,265	$5,592	$5,616	$24	0.4%
Accessory Dwelling Unit (ADU)	$3,918	$6,710	$6,739	$29	0.4%
Apartment, Condominium, Townhome	$4,571	$7,828	$7,862	$34	0.4%

3.4 SYSTEM DEVELOPMENT CHARGE PROGRAM ADMINISTRATION

In conjunction with adopting an updated SDC schedule, RFC recommends that the City apply the Handy Whitman Construction Cost Index to adjust the charges in subsequent years to keep pace with inflation[12]. The City should also conduct a comprehensive review of its SDCs every three to five years to ensure appropriate funding of capital projects and equity among customers.

[11] Current charge was inflated into 2014 dollars using the Handy Whitman Water Utility Construction Index – Pacific Region.

[12] The Handy Whitman CCI is a better reflection of the cost trends in the short term compared to the ENR CCI which is a better reflection of the cost trends over an extended period of time.

APPENDIX A – (HANDY WHITMAN INDEX)

Table A-1: Handy Whitman Water Utility Construction Index – Pacific Region

Pacific Region	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Pumping Plant											
Structures & Improvements	403	438	455	478	505	537	546	564	583	605	607
Electric Pumping Equipment	547	604	620	639	640	679	707	708	780	800	856
Water Treatment Plant											
Structures & Improvements	403	438	455	478	505	537	546	564	583	605	607
Large Treatment Plant Equip	455	475	493	505	556	604	626	639	667	693	721
Small Treatment Plant Equip	464	493	514	529	592	657	683	705	741	771	812
Transmission Plant											
Steel Reservoirs	278	329	348	494	537	722	722	771	795	778	715
Elevated Steel Tanks	438	524	524	657	680	866	866	1079	1082	1089	1131
Concrete Reservoirs											
Cast Iron Mains	387	412	446	482	509	577	609	609	640	704	727
Steel Mains	420	507	531	527	536	594	593	640	703	720	691
Concrete Cylinder Mains	418	439	461	463	464	495	494	509	519	546	535
Distribution Plant											
Mains- Average All Types	383	429	454	488	509	585	589	598	635	674	705
Cast Iron Mains	391	418	448	486	513	589	618	618	649	715	755
Cement- Asbestos Mains	377	403	451	493	510	563	534	548	594	599	596
Steel Mains	370	453	462	485	501	585	560	583	627	636	664
PVC Mains	248	268	311	353	359	403	338	355	399	380	372
Services Installed	376	408	425	462	487	518	529	547	572	586	592
Meters	207	207	235	260	373	373	374	379	379	380	381
Meter Installations	422	443	462	500	534	560	578	594	627	665	677
Hydrants Installed	580	602	617	661	692	725	738	729	759	780	815
Average	**398**	**436**	**459**	**497**	**526**	**588**	**592**	**618**	**649**	**670**	**682**

APPENDIX A - CONTINUED

The Handy Whitman Water Utility Construction – Pacific Region cost index was used to inflate the current system development charges into 2014 dollars. **Table A-1** presents the indices of various materials typically used in the construction of water systems. The average cost factor of all materials shown in the above table was calculated for the base year of 2004 and the desired year of 2014.

As shown in **Table A-1**, the average cost factor was 398 for calendar year 2004 and 682 for calendar year 2014. The inflationary factor was calculated by dividing the 2014 cost factor by the 2004 cost factor.

The current system development charge can then be inflated into 2014 dollars by simply multiplying the current charge by the inflationary factor of approximately 1.71. **Table A-2** shows the current systems development charge schedule inflated into 2014 dollars.

Table A-2: Current Charges Inflated into 2014 $

Meter Size	Current Charge (in 2004 $)		Inflationary Factor		Inflated Charge (in 2014 $)[13]
Single-Room Occupancy (SRO)	$3,265	x	~1.71	=	**$5,592**
Accessory Dwelling Unit (ADU)	$3,981	x	~1.71	=	**$6,710**
Apartment, Condominium, Townhome	$4,571	x	~1.71	=	**$7,828**
5/8-in x 3/4-in	$6,530	x	~1.71	=	**$11,183**
3/4-in	$9,795	x	~1.71	=	**$16,775**
1-in	$16,325	x	~1.71	=	**$27,958**
1 1/2-in	$32,650	x	~1.71	=	**$55,915**
2-in	$52,540	x	~1.71	=	**$89,978**
3-in	$114,275	x	~1.71	=	**$195,704**
4-in	$195,900	x	~1.71	=	**$335,492**
6-in	$408,125	x	~1.71	=	**$698,942**
8-in	$587,700	x	~1.71	=	**$1,006,476**
10-in	$946,850	x	~1.71	=	**$1,621,545**

[13] Inflated Charge in 2014 $ shown in the Table A-2 was calculated by multiplying the current charge in 2004 dollars by the fraction (682/398). Using the rounded number of 1.71 will result in slightly different numbers.

APPENDIX B – (AWWA METER RATIO)

SDCs are commonly determined based on a new single-family residential connection (⅝-in x ¾-in meter), however, new customers will likely have different connection/meter sizes and place significantly different capacity demands on the system. One method of administering SDCs, and the method selected for this study, is based on the meter size. This method fairly and equitably reflects the capacity costs of varying customers capacity needs. As a customer's meter size (capacity) increases the charge will also increase. To accomplish this, an equivalent meter ratio is developed that expresses capacity of meters in relation to the capacity of the "base" meter (⅝-in x ¾-in for the City of Santa Cruz).

For the purposes of this study, the safe maximum operating capacity by meter type, as identified in the AWWA M1 Manual, 6th Edition, Table B-1, was used as a basis for calculating the equivalent meter ratio. As shown in **Table B-1**, the safe maximum operating capacity for each meter was divided by the base meters safe operating capacity (20 gpm) to determine the equivalent meter ratio.

Table B-1: Safe Operating Capacity by Meter Size

Meter Size	Safe Max. Operating Capacity (Meter Capacity)		Base Meter Capacity	AWWA Meter Ratios
5/8-in x 3/4-in	20 gpm	÷	20 gpm	**1.00**
3/4-in	30 gpm	÷	20 gpm	**1.50**
1-in	50 gpm	÷	20 gpm	**2.50**
1 1/2-in	100 gpm	÷	20 gpm	**5.00**
2-in	160 gpm	÷	20 gpm	**8.00**
3-in	350 gpm	÷	20 gpm	**17.50**
4-in	630 gpm	÷	20 gpm	**31.50**
6-in	1,600 gpm	÷	20 gpm	**80.00**
8-in	2,800 gpm	÷	20 gpm	**140.00**
10-in	4,200 gpm	÷	20 gpm	**210.00**

APPENDIX C – (CONSTRUCTION COST INDEX)

Table C-1: Engineering News Record Construction Cost Index – 20 Cities

Year	20-city CCI
1920	251
1921	202
1922	174
1923	214
1924	215
1925	207
1926	208
1927	206
1928	207
1929	207
1930	203
1931	181
1932	157
1933	170
1934	198
1935	196
1936	206
1937	235
1938	236
1939	236
1940	242
1941	258
1942	276
1943	290
1944	299
1945	308
1946	346
1947	413
1948	461
1949	477
1950	510
1951	543
1952	569
1953	600
1954	628
1955	660
1956	692
1957	724
1958	759

Year	20-city CCI
1959	797
1960	824
1961	847
1962	872
1963	901
1964	936
1965	971
1966	1,019
1967	1,074
1968	1,155
1969	1,269
1970	1,381
1971	1,581
1972	1,753
1973	1,895
1974	2,020
1975	2,212
1976	2,401
1977	2,576
1978	2,776
1979	3,003
1980	3,237
1981	3,535
1982	3,825
1983	4,066
1984	4,146
1985	4,195
1986	4,295
1987	4,406
1988	4,519
1989	4,615
1990	4,732
1991	4,835
1992	4,985
1993	5,210
1994	5,408
1995	5,471
1996	5,620
1997	5,826

Year	20-city CCI
1998	5,920
1999	6,059
2000	6,221
2001	6,343
2002	6,538
2003	6,694
2004	7,115
2005	7,446
2006	7,751
2007	7,966
2008	8,310
2009	8,570
2010	8,802
2011	9,070
2012	9,308
2013	9,547
2014	9,746

APPENDIX D – (REPLACEMENT COST VALUE)

Table D-1: Asset Listing and Replacement Cost Calculation

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
DAM - LAGUNA CREEK DAM	Infrastructure	60	1/1/1920	$5,852	9,746	251	39	$ 227,225
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$2,541	9,746	251	39	$ 98,664
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$3,839	9,746	251	39	$ 149,063
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$531	9,746	251	39	$ 20,618
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$7,644	9,746	251	39	$ 296,806
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$106	9,746	251	39	$ 4,116
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$296	9,746	251	39	$ 11,493
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$15	9,746	251	39	$ 582
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$328	9,746	251	39	$ 12,736
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$310	9,746	251	39	$ 12,037
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$367	9,746	251	39	$ 14,250
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$453	9,746	251	39	$ 17,589
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$483	9,746	251	39	$ 18,754
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$497	9,746	251	39	$ 19,298
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$4,983	9,746	251	39	$ 193,483
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$77	9,746	251	39	$ 2,990
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$1,574	9,746	251	39	$ 61,116
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$1,623	9,746	251	39	$ 63,019
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$59	9,746	251	39	$ 2,291
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$7,911	9,746	251	39	$ 307,174
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$866	9,746	251	39	$ 33,626
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$1,624	9,746	251	39	$ 63,058
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1920	$1,989	9,746	251	39	$ 77,230
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1920	$4,029	9,746	251	39	$ 156,441
WATER PIPE - CAST IRON - 12"	Infrastructure	50	1/1/1920	$233	9,746	251	39	$ 9,043
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1920	$510	9,746	251	39	$ 19,803
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$3,351	9,746	251	39	$ 130,115
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$3,720	9,746	251	39	$ 144,443
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$3,826	9,746	251	39	$ 148,559
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$606	9,746	251	39	$ 23,530
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$1,090	9,746	251	39	$ 42,323
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$156	9,746	251	39	$ 6,057
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$1,969	9,746	251	39	$ 76,454
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$2,022	9,746	251	39	$ 78,512
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$2,081	9,746	251	39	$ 80,802
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$2,384	9,746	251	39	$ 92,568
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$3,420	9,746	251	39	$ 132,809
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1920	$5,432	9,746	251	39	$ 210,917
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1920	$5,250	9,746	251	39	$ 203,851
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1920	$6,356	9,746	251	39	$ 246,795
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1920	$1,493	9,746	251	39	$ 57,971
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1920	$17,863	9,746	251	39	$ 693,597
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1920	$2,797	9,746	251	39	$ 108,604
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1920	$2,764	9,746	251	39	$ 107,322
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1920	$2,974	9,746	251	39	$ 115,466
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1920	$5,567	9,746	251	39	$ 216,159
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1920	$9,404	9,746	251	39	$ 365,145
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1920	$24,234	9,746	251	39	$ 940,974
WATER PIPE - STEEL - 10"	Infrastructure	50	1/1/1920	$6,455	9,746	251	39	$ 250,639
WATER PIPE - STEEL - 14"	Infrastructure	50	1/1/1920	$9,281	9,746	251	39	$ 360,369
WATER PIPE - STEEL - 6"	Infrastructure	50	1/1/1920	$692	9,746	251	39	$ 26,869
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$186	9,746	251	39	$ 7,207
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1920	$145	9,746	251	39	$ 5,614
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1920	$1,742	9,746	251	39	$ 67,655

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1921	$571	9,746	202	48	$ 27,549
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1921	$4,046	9,746	202	48	$ 195,190
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1921	$1,164	9,746	202	48	$ 56,160
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1922	$60	9,746	174	56	$ 3,361
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1922	$2,664	9,746	174	56	$ 149,215
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1922	$21,164	9,746	174	56	$ 1,185,427
WATER PIPE - STEEL - 2"	Infrastructure	50	1/1/1922	$102	9,746	174	56	$ 5,713
WATER PIPE - CAST IRON	Infrastructure	50	1/1/1923	$11,180	9,746	214	46	$ 509,160
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1923	$11,835	9,746	214	46	$ 538,990
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1923	$6,674	9,746	214	46	$ 303,948
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1924	$384	9,746	215	45	$ 17,407
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1924	$166	9,746	215	45	$ 7,525
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1924	$15,878	9,746	215	45	$ 719,753
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1924	$234	9,746	215	45	$ 10,607
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1925	$10,819	9,746	207	47	$ 509,382
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1925	$13,473	9,746	207	47	$ 634,337
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1925	$35,070	9,746	207	47	$ 1,651,170
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1925	$2,738	9,746	207	47	$ 128,911
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1925	$19,272	9,746	207	47	$ 907,367
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1925	$10,736	9,746	207	47	$ 505,465
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1925	$90	9,746	207	47	$ 4,237
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1926	$226	9,746	208	47	$ 10,589
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1926	$25,666	9,746	208	47	$ 1,202,600
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1926	$4,029	9,746	208	47	$ 188,782
WATER PIPE - CAST IRON - 16"	Infrastructure	50	1/1/1926	$18,028	9,746	208	47	$ 844,716
WATER PIPE - CAST IRON - 16"	Infrastructure	50	1/1/1926	$6,970	9,746	208	47	$ 326,585
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1926	$23,307	9,746	208	47	$ 1,092,067
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1926	$662	9,746	208	47	$ 31,019
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1926	$20,607	9,746	208	47	$ 965,557
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1926	$15,017	9,746	208	47	$ 703,633
WATER PIPE - STEEL - 6"	Infrastructure	50	1/1/1926	$2,062	9,746	208	47	$ 96,617
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1927	$219	9,746	206	47	$ 10,361
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1927	$57,708	9,746	206	47	$ 2,730,205
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1927	$5,150	9,746	206	47	$ 243,648
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1927	$15,409	9,746	206	47	$ 729,010
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1928	$7,362	9,746	207	47	$ 346,619
WATER PIPE - CAST IRON - 16"	Infrastructure	50	1/1/1928	$4,826	9,746	207	47	$ 227,218
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1928	$799	9,746	207	47	$ 37,619
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1928	$27,525	9,746	207	47	$ 1,295,936
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1928	$4,741	9,746	207	47	$ 223,216
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1928	$4,635	9,746	207	47	$ 218,226
WATER PIPE - CAST IRON - 14"	Infrastructure	50	1/1/1929	$3,100	9,746	207	47	$ 145,955
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1929	$854	9,746	207	47	$ 40,208
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1929	$20,998	9,746	207	47	$ 988,630
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1929	$5,179	9,746	207	47	$ 243,831
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1929	$20,730	9,746	207	47	$ 976,012
MAJORS DAM	Infrastructure	99	1/1/1930	$9,100	9,746	203	48	$ 436,890
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1930	$1,198	9,746	203	48	$ 57,516
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1930	$9,296	9,746	203	48	$ 446,300
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1930	$2,891	9,746	203	48	$ 138,796
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1930	$4,891	9,746	203	48	$ 234,816
WATER PIPE - CAST IRON - 20"	Infrastructure	50	1/1/1931	$160,028	9,746	181	54	$ 8,616,756
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1931	$5,967	9,746	181	54	$ 321,295
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1931	$828	9,746	181	54	$ 44,584

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1932	$2,562	9,746	157	62	$ 159,040
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1933	$12,095	9,746	170	57	$ 693,399
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1933	$17,719	9,746	170	57	$ 1,015,820
WATER PIPE - CAST IRON - 24"	Infrastructure	50	1/1/1933	$3,850	9,746	170	57	$ 220,718
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1933	$13,828	9,746	170	57	$ 792,751
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1933	$35	9,746	170	57	$ 2,007
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1933	$9,483	9,746	170	57	$ 543,655
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1934	$28,529	9,746	198	49	$ 1,404,261
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1934	$3,385	9,746	198	49	$ 166,617
WATER PIPE - CAST IRON - 14"	Infrastructure	50	1/1/1934	$122,762	9,746	198	49	$ 6,042,618
WATER PIPE - CAST IRON - 16"	Infrastructure	50	1/1/1934	$159	9,746	198	49	$ 7,826
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1934	$4,715	9,746	198	49	$ 232,083
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1934	$1,483	9,746	198	49	$ 72,997
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1935	$20,834	9,746	196	50	$ 1,035,960
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1935	$2,605	9,746	196	50	$ 129,532
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1935	$17,378	9,746	196	50	$ 864,112
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1935	$9,145	9,746	196	50	$ 454,730
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1936	$8,283	9,746	206	47	$ 391,874
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1937	$859	9,746	235	41	$ 35,625
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1937	$2,818	9,746	235	41	$ 116,869
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1937	$6,667	9,746	235	41	$ 276,496
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1938	$6,112	9,746	236	41	$ 252,405
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1938	$7,603	9,746	236	41	$ 313,978
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1938	$19,557	9,746	236	41	$ 807,638
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1939	$23,154	9,746	236	41	$ 956,182
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1940	$7,520	9,746	242	40	$ 302,851
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1940	$9,459	9,746	242	40	$ 380,940
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1940	$2,806	9,746	242	40	$ 113,005
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1941	$21,153	9,746	258	38	$ 799,059
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1941	$161	9,746	258	38	$ 6,082
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1941	$11,905	9,746	258	38	$ 449,714
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1943	$3,446	9,746	290	34	$ 115,809
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1943	$278	9,746	290	34	$ 9,343
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1943	$1,489	9,746	290	34	$ 50,041
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1944	$5,297	9,746	299	33	$ 172,657
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1944	$1,434	9,746	299	33	$ 46,741
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1945	$314	9,746	308	32	$ 9,936
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1945	$16,764	9,746	308	32	$ 530,461
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1945	$10,300	9,746	308	32	$ 325,921
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1946	$5,881	9,746	346	28	$ 165,654
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1946	$466	9,746	346	28	$ 13,126
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1946	$22,510	9,746	346	28	$ 634,053
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1946	$12,588	9,746	346	28	$ 354,574
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1946	$9,476	9,746	346	28	$ 266,916
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1946	$519	9,746	346	28	$ 14,619
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1946	$974	9,746	346	28	$ 27,435
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1946	$2,876	9,746	346	28	$ 81,010
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1947	$887	9,746	413	24	$ 20,931
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1947	$2,781	9,746	413	24	$ 65,626
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1947	$2,122	9,746	413	24	$ 50,075
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1947	$12,046	9,746	413	24	$ 284,262
WATER PIPE - CAST IRON - 14"	Infrastructure	50	1/1/1947	$97,133	9,746	413	24	$ 2,292,151
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1947	$1,381	9,746	413	24	$ 32,589
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1947	$12,234	9,746	413	24	$ 288,699

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1947	$6,778	9,746	413	24	$ 159,948
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1947	$13,198	9,746	413	24	$ 311,447
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1947	$1,663	9,746	413	24	$ 39,244
WATER PIPE - PLASTIC- 1.25"	Infrastructure	50	1/1/1947	$188	9,746	413	24	$ 4,436
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1948	$2,590	9,746	461	21	$ 54,755
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1948	$16,907	9,746	461	21	$ 357,431
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1948	$5,956	9,746	461	21	$ 125,916
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1948	$14,237	9,746	461	21	$ 300,984
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1948	$1,397	9,746	461	21	$ 29,534
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1948	$21,978	9,746	461	21	$ 464,637
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1948	$36,535	9,746	461	21	$ 772,386
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1948	$694	9,746	461	21	$ 14,672
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1948	$631	9,746	461	21	$ 13,340
WATER PIPE - PLASTIC - 3"	Infrastructure	50	1/1/1948	$1,030	9,746	461	21	$ 21,775
WATER PIPE - PLASTIC- 1"	Infrastructure	50	1/1/1948	$338	9,746	461	21	$ 7,146
WATER PIPE - PLASTIC- 1.25"	Infrastructure	50	1/1/1948	$462	9,746	461	21	$ 9,767
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1949	$9,202	9,746	477	20	$ 188,014
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1949	$12,312	9,746	477	20	$ 251,557
WATER PIPE - CAST IRON	Infrastructure	50	1/1/1949	$19,675	9,746	477	20	$ 401,997
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1949	$34,979	9,746	477	20	$ 714,686
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1949	$1,953	9,746	477	20	$ 39,903
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1949	$2,900	9,746	477	20	$ 59,252
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1949	$21,290	9,746	477	20	$ 434,994
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1950	$63,501	9,746	510	19	$ 1,213,492
REGGIARDO DAM	Infrastructure	99	1/1/1950	$48,500	9,746	510	19	$ 926,825
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1950	$2,824	9,746	510	19	$ 53,966
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1950	$7,058	9,746	510	19	$ 134,877
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1950	$3,793	9,746	510	19	$ 72,483
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1950	$59,506	9,746	510	19	$ 1,137,148
WATER PIPE - CAST IRON - 18"	Infrastructure	50	1/1/1950	$1,454	9,746	510	19	$ 27,786
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1950	$16,336	9,746	510	19	$ 312,178
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1950	$7,257	9,746	510	19	$ 138,680
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1950	$3,435	9,746	510	19	$ 65,642
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1951	$244	9,746	543	18	$ 4,379
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1951	$13,958	9,746	543	18	$ 250,524
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1951	$2,293	9,746	543	18	$ 41,156
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1951	$5,827	9,746	543	18	$ 104,586
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1951	$15,813	9,746	543	18	$ 283,819
WATER PIPE - CAST IRON - 18"	Infrastructure	50	1/1/1951	$177,121	9,746	543	18	$ 3,179,045
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1951	$7,679	9,746	543	18	$ 137,826
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1951	$1,740	9,746	543	18	$ 31,230
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1951	$3,921	9,746	543	18	$ 70,376
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1951	$381	9,746	543	18	$ 6,838
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1952	$787	9,746	569	17	$ 13,480
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1952	$6,142	9,746	569	17	$ 105,202
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1952	$25,754	9,746	569	17	$ 441,122
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1952	$21,931	9,746	569	17	$ 375,641
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1952	$5,172	9,746	569	17	$ 88,588
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1952	$57,130	9,746	569	17	$ 978,540
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1952	$3,380	9,746	569	17	$ 57,894
WATER PIPE - CAST IRON - 18"	Infrastructure	50	1/1/1952	$66,477	9,746	569	17	$ 1,138,634
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1953	$72,394	9,746	600	16	$ 1,175,920
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1953	$9,979	9,746	600	16	$ 162,092
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1953	$64,041	9,746	600	16	$ 1,040,239

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1953	$153,073	9,746	600	16	$ 2,486,416
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1953	$2,786	9,746	600	16	$ 45,254
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1953	$2,177	9,746	600	16	$ 35,362
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1953	$5,742	9,746	600	16	$ 93,269
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1953	$25,401	9,746	600	16	$ 412,597
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1953	$797	9,746	600	16	$ 12,946
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1953	$3,337	9,746	600	16	$ 54,204
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1953	$2,224	9,746	600	16	$ 36,125
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1953	$20,913	9,746	600	16	$ 339,697
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1953	$1,627	9,746	600	16	$ 26,428
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1954	$8,416	9,746	628	16	$ 130,609
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1954	$15,668	9,746	628	16	$ 243,153
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1954	$2,178	9,746	628	16	$ 33,801
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1954	$406	9,746	628	16	$ 6,301
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1954	$2,382	9,746	628	16	$ 36,967
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1954	$25,030	9,746	628	16	$ 388,443
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1954	$5,219	9,746	628	16	$ 80,994
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1954	$450	9,746	628	16	$ 6,984
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1955	$120	9,746	660	15	$ 1,772
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1955	$1,146	9,746	660	15	$ 16,923
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1955	$7,038	9,746	660	15	$ 103,928
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1955	$21,550	9,746	660	15	$ 318,222
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1955	$13,999	9,746	660	15	$ 206,719
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1955	$50,554	9,746	660	15	$ 746,514
WATER PIPE - CAST IRON - 18"	Infrastructure	50	1/1/1955	$23,646	9,746	660	15	$ 349,173
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1955	$56,252	9,746	660	15	$ 830,655
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1955	$1,966	9,746	660	15	$ 29,031
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1956	$2,204	9,746	692	14	$ 31,041
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1956	$3,522	9,746	692	14	$ 49,603
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1956	$1,947	9,746	692	14	$ 27,421
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1956	$1,212	9,746	692	14	$ 17,070
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1956	$6,553	9,746	692	14	$ 92,291
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1956	$19,273	9,746	692	14	$ 271,437
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1956	$18,275	9,746	692	14	$ 257,382
WATER PIPE - CAST IRON - 14"	Infrastructure	50	1/1/1956	$24,299	9,746	692	14	$ 342,223
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1956	$3,758	9,746	692	14	$ 52,927
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1956	$54,957	9,746	692	14	$ 774,004
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1956	$320	9,746	692	14	$ 4,507
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1957	$81,397	9,746	724	13	$ 1,095,712
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1957	$182	9,746	724	13	$ 2,450
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1957	$8,123	9,746	724	13	$ 109,346
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1957	$44,485	9,746	724	13	$ 598,827
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1957	$17,763	9,746	724	13	$ 239,114
WATER PIPE - CAST IRON - 14"	Infrastructure	50	1/1/1957	$43,696	9,746	724	13	$ 588,206
WATER PIPE - CAST IRON - 16"	Infrastructure	50	1/1/1957	$29,535	9,746	724	13	$ 397,580
WATER PIPE - CAST IRON - 18"	Infrastructure	50	1/1/1957	$10,850	9,746	724	13	$ 146,055
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1957	$1,618	9,746	724	13	$ 21,780
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1957	$10,240	9,746	724	13	$ 137,844
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1957	$8,501	9,746	724	13	$ 114,435
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1957	$12,934	9,746	724	13	$ 174,109
WATER PIPE - PLASTIC - 2"	Infrastructure	50	1/1/1957	$1,768	9,746	724	13	$ 23,800
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1958	$87	9,746	759	13	$ 1,117
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1958	$13,169	9,746	759	13	$ 169,098
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1958	$84,411	9,746	759	13	$ 1,083,886

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1958	$3,508	9,746	759	13	$ 45,045
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1958	$29,828	9,746	759	13	$ 383,009
WATER PIPE - PLASTIC - 2"	Infrastructure	50	1/1/1958	$175	9,746	759	13	$ 2,247
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1959	$1,210	9,746	797	12	$ 14,796
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1959	$4,599	9,746	797	12	$ 56,238
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1959	$14,243	9,746	797	12	$ 174,168
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1959	$50,335	9,746	797	12	$ 615,514
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1959	$92	9,746	797	12	$ 1,125
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1959	$25,472	9,746	797	12	$ 311,481
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1959	$66,547	9,746	797	12	$ 813,760
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1959	$5,197	9,746	797	12	$ 63,551
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1959	$44,317	9,746	797	12	$ 541,924
WATER PIPE - CAST IRON - 16"	Infrastructure	50	1/1/1959	$16,671	9,746	797	12	$ 203,859
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1959	$3,100	9,746	797	12	$ 37,908
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1959	$3,004	9,746	797	12	$ 36,734
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1959	$18,040	9,746	797	12	$ 220,600
WATER PIPE - STEEL - 10"	Infrastructure	50	1/1/1959	$77,195	9,746	797	12	$ 943,968
DAM - LOCH LOMOND	Infrastructure	60	1/1/1960	$3,318,306	9,746	824	12	$ 39,247,833
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1960	$118,914	9,746	824	12	$ 1,406,476
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1960	$46,979	9,746	824	12	$ 555,652
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1960	$389,105	9,746	824	12	$ 4,602,205
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1960	$5,443	9,746	824	12	$ 64,378
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1960	$54,128	9,746	824	12	$ 640,208
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1960	$30,669	9,746	824	12	$ 362,743
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1960	$17,040	9,746	824	12	$ 201,543
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1960	$54,237	9,746	824	12	$ 641,497
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1960	$6,506	9,746	824	12	$ 76,951
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1960	$41,161	9,746	824	12	$ 486,839
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1960	$91,691	9,746	824	12	$ 1,084,491
WATER PIPE - CAST IRON - 14"	Infrastructure	50	1/1/1960	$56,519	9,746	824	12	$ 668,488
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1960	$45,035	9,746	824	12	$ 532,659
WATER PIPE - PLASTIC - 2"	Infrastructure	50	1/1/1960	$1,217	9,746	824	12	$ 14,394
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1960	$2,500	9,746	824	12	$ 29,569
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1961	$9,155	9,746	847	12	$ 105,342
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1961	$19,699	9,746	847	12	$ 226,666
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1961	$15,949	9,746	847	12	$ 183,517
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1961	$161,033	9,746	847	12	$ 1,852,925
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1961	$32,552	9,746	847	12	$ 374,559
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1961	$30,896	9,746	847	12	$ 355,505
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1961	$6,727	9,746	847	12	$ 77,404
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1961	$29,955	9,746	847	12	$ 344,677
WATER PIPE - CAST IRON - 18"	Infrastructure	50	1/1/1961	$53,199	9,746	847	12	$ 612,134
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1961	$8,734	9,746	847	12	$ 100,498
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1961	$46,119	9,746	847	12	$ 530,668
WATER PIPE - PLASTIC - 2"	Infrastructure	50	1/1/1961	$676	9,746	847	12	$ 7,778
WATER PIPE - STEEL - 10"	Infrastructure	50	1/1/1961	$6,711	9,746	847	12	$ 77,220
WATER PIPE - STEEL - 14"	Infrastructure	50	1/1/1961	$168,614	9,746	847	12	$ 1,940,156
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1962	$12,711	9,746	872	11	$ 142,066
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1962	$15,128	9,746	872	11	$ 169,080
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1962	$49	9,746	872	11	$ 548
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1962	$2,804	9,746	872	11	$ 31,339
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1962	$24,678	9,746	872	11	$ 275,816
WATER PIPE - CAST IRON - 14"	Infrastructure	50	1/1/1962	$24,408	9,746	872	11	$ 272,799
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1962	$59,057	9,746	872	11	$ 660,057

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - PVC -1"	Infrastructure	50	1/1/1962	$772	9,746	872	11	$ 8,628
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1963	$121,862	9,746	901	11	$ 1,318,165
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1963	$2,176	9,746	901	11	$ 23,538
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1963	$3,343	9,746	901	11	$ 36,161
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1963	$21,735	9,746	901	11	$ 235,105
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1963	$23,090	9,746	901	11	$ 249,762
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1963	$7,230	9,746	901	11	$ 78,206
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1964	$17,277	9,746	936	10	$ 179,895
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1964	$8,500	9,746	936	10	$ 88,505
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1964	$7,430	9,746	936	10	$ 77,364
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1964	$7,176	9,746	936	10	$ 74,719
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1964	$125,329	9,746	936	10	$ 1,304,975
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1964	$10,546	9,746	936	10	$ 109,809
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1964	$12,964	9,746	936	10	$ 134,986
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1964	$39,353	9,746	936	10	$ 409,759
WATER PIPE - PLASTIC - 2"	Infrastructure	50	1/1/1964	$673	9,746	936	10	$ 7,008
WATER PIPE - STEEL - 14"	Infrastructure	50	1/1/1964	$661,251	9,746	936	10	$ 6,885,205
PUMP STATION	Infrastructure	50	1/1/1965	$11,700	9,746	971	10	$ 117,434
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1965	$85,309	9,746	971	10	$ 856,253
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1965	$7,721	9,746	971	10	$ 77,496
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1965	$844	9,746	971	10	$ 8,471
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1965	$13,150	9,746	971	10	$ 131,988
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1965	$59,045	9,746	971	10	$ 592,639
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1965	$14,131	9,746	971	10	$ 141,834
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1965	$10,192	9,746	971	10	$ 102,298
WATER PIPE - STEEL - 6"	Infrastructure	50	1/1/1965	$31,071	9,746	971	10	$ 311,862
WATER PIPE - STEEL - 6"	Infrastructure	50	1/1/1965	$81,474	9,746	971	10	$ 817,761
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1966	$123,828	9,746	1019	10	$ 1,184,326
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1966	$5,282	9,746	1019	10	$ 50,519
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1966	$26,601	9,746	1019	10	$ 254,419
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1966	$23,451	9,746	1019	10	$ 224,292
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1966	$1,242	9,746	1019	10	$ 11,879
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1966	$5,125	9,746	1019	10	$ 49,017
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1966	$17,068	9,746	1019	10	$ 163,243
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1967	$11,767	9,746	1074	9	$ 106,779
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1967	$7,487	9,746	1074	9	$ 67,941
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1967	$3,623	9,746	1074	9	$ 32,877
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1967	$19,164	9,746	1074	9	$ 173,903
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1967	$44,154	9,746	1074	9	$ 400,675
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1967	$51,492	9,746	1074	9	$ 467,264
WATER PIPE - CAST IRON - 14"	Infrastructure	50	1/1/1967	$29,647	9,746	1074	9	$ 269,031
WATER PIPE - CAST IRON - 16"	Infrastructure	50	1/1/1967	$25,895	9,746	1074	9	$ 234,984
WATER PIPE - CAST IRON - 18"	Infrastructure	50	1/1/1967	$38,696	9,746	1074	9	$ 351,146
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1967	$1,040	9,746	1074	9	$ 9,437
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1968	$3,767	9,746	1155	8	$ 31,786
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1968	$2,948	9,746	1155	8	$ 24,876
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1968	$30,522	9,746	1155	8	$ 257,548
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1968	$10,804	9,746	1155	8	$ 91,165
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1968	$42,419	9,746	1155	8	$ 357,936
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1968	$5,586	9,746	1155	8	$ 47,135
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1968	$107,926	9,746	1155	8	$ 910,690
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1968	$9,050	9,746	1155	8	$ 76,365
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1968	$1,106	9,746	1155	8	$ 9,333
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1969	$139,061	9,746	1269	8	$ 1,067,997

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1969	$2,598	9,746	1269	8	$ 19,953
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1969	$36,388	9,746	1269	8	$ 279,462
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1969	$24,176	9,746	1269	8	$ 185,673
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1969	$239,516	9,746	1269	8	$ 1,839,498
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1969	$17,926	9,746	1269	8	$ 137,673
WATER PIPE - CAST IRON - 14"	Infrastructure	50	1/1/1969	$8,506	9,746	1269	8	$ 65,327
CHLORINE SHED - DELAVEAGA	Infrastructure	30	1/1/1970	$750	9,746	1381	7	$ 5,293
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1970	$120,482	9,746	1381	7	$ 850,266
RESERVOIR - BAY STREET	Infrastructure	30	1/1/1970	$1,646,000	9,746	1381	7	$ 11,616,159
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1970	$32,183	9,746	1381	7	$ 227,122
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1970	$20,214	9,746	1381	7	$ 142,654
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1970	$5,731	9,746	1381	7	$ 40,445
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1970	$7,807	9,746	1381	7	$ 55,096
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1970	$30,303	9,746	1381	7	$ 213,854
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1970	$7,377	9,746	1381	7	$ 52,061
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1970	$70,717	9,746	1381	7	$ 499,064
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1970	$74,878	9,746	1381	7	$ 528,429
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1970	$2,854	9,746	1381	7	$ 20,141
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1970	$3,854	9,746	1381	7	$ 27,198
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1970	$4,206	9,746	1381	7	$ 29,683
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1970	$11,578	9,746	1381	7	$ 81,708
WATER PLANT	Infrastructure	50	1/1/1970	$372,000	9,746	1381	7	$ 2,625,280
WATER TANK - PASATIEMPO 1	Infrastructure	30	1/1/1970	$53,000	9,746	1381	7	$ 374,032
WATER TANK - UNIVERSITY 2	Infrastructure	30	1/1/1970	$105,000	9,746	1381	7	$ 741,007
WATER TANK - UNIVERSITY 2	Infrastructure	30	5/1/2014	$1,400,000	9,746	9746	1	$ 1,400,000
WATER TANK - UNIVERSITY 5	Infrastructure	30	1/1/1970	$177,000	9,746	1381	7	$ 1,249,125
WATER TANK - COAST	Infrastructure	30	1/1/1970	$29,200	9,746	1381	7	$ 206,070
WATER TANK - DELAVEAGA 1 & 2	Infrastructure	30	1/1/1970	$210,000	9,746	1381	7	$ 1,482,013
WATER TANK - DELAVEAGA 1 & 2	Infrastructure	30	6/1/2014	$1,500,000	9,746	9746	1	$ 1,500,000
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1971	$9,831	9,746	1581	6	$ 60,603
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1971	$3,791	9,746	1581	6	$ 23,369
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1971	$11,160	9,746	1581	6	$ 68,795
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1971	$66,793	9,746	1581	6	$ 411,742
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1971	$38,322	9,746	1581	6	$ 236,234
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1971	$1,494	9,746	1581	6	$ 9,210
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1972	$10,968	9,746	1753	6	$ 60,978
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1972	$36,473	9,746	1753	6	$ 202,776
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1972	$13,419	9,746	1753	6	$ 74,604
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1972	$79,669	9,746	1753	6	$ 442,929
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1972	$16,008	9,746	1753	6	$ 88,998
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1972	$4,151	9,746	1753	6	$ 23,078
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1972	$68,395	9,746	1753	6	$ 380,250
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1972	$46,799	9,746	1753	6	$ 260,184
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1972	$4,583	9,746	1753	6	$ 25,480
WATER TANK - ROLLINGWOODS	Infrastructure	30	1/1/1972	$49,500	9,746	1753	6	$ 275,201
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1973	$141,563	9,746	1895	5	$ 728,060
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1973	$1,587	9,746	1895	5	$ 8,162
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1973	$7,625	9,746	1895	5	$ 39,215
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1973	$8,676	9,746	1895	5	$ 44,621
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1973	$55,413	9,746	1895	5	$ 284,989
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1973	$22,522	9,746	1895	5	$ 115,831
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1973	$8,439	9,746	1895	5	$ 43,402
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1974	$5,181	9,746	2020	5	$ 24,997
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1974	$14,602	9,746	2020	5	$ 70,451

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1974	$58,227	9,746	2020	5	$ 280,931
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1974	$8,152	9,746	2020	5	$ 39,331
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1974	$2,656	9,746	2020	5	$ 12,815
DAM - FELTON DIVERSION	Infrastructure	50	1/1/1975	$523,870	9,746	2212	4	$ 2,308,154
RESERVOIR - BAY STREET	Infrastructure	50	1/1/1975	$141,000	9,746	2212	4	$ 621,241
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1975	$13,174	9,746	2212	4	$ 58,044
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1975	$40,758	9,746	2212	4	$ 179,578
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1975	$14,550	9,746	2212	4	$ 64,107
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1975	$40,514	9,746	2212	4	$ 178,503
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1975	$25,656	9,746	2212	4	$ 113,040
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1975	$12,474	9,746	2212	4	$ 54,960
WATER TANK - UNIVERSITY 4	Infrastructure	30	1/1/1975	$82,500	9,746	2212	4	$ 363,492
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1976	$183,199	9,746	2401	4	$ 743,631
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1976	$28,872	9,746	2401	4	$ 117,196
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1976	$759	9,746	2401	4	$ 3,081
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1976	$21,625	9,746	2401	4	$ 87,779
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1976	$69,722	9,746	2401	4	$ 283,012
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1976	$6,127	9,746	2401	4	$ 24,870
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$1,086	9,746	2576	4	$ 4,109
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$43,946	9,746	2576	4	$ 166,265
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$112,011	9,746	2576	4	$ 423,781
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$70,122	9,746	2576	4	$ 265,299
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$4,479	9,746	2576	4	$ 16,946
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$22,252	9,746	2576	4	$ 84,188
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$1,907	9,746	2576	4	$ 7,215
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$73,021	9,746	2576	4	$ 276,267
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$89,601	9,746	2576	4	$ 338,995
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$6,122	9,746	2576	4	$ 23,162
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$68,453	9,746	2576	4	$ 258,984
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$24,843	9,746	2576	4	$ 93,991
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$7,140	9,746	2576	4	$ 27,013
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$178,570	9,746	2576	4	$ 675,599
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$69,853	9,746	2576	4	$ 264,281
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$1,001,973	9,746	2576	4	$ 3,790,850
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$118,175	9,746	2576	4	$ 447,102
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1977	$3,891	9,746	2576	4	$ 14,721
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1977	$173,132	9,746	2576	4	$ 655,025
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1977	$15,354	9,746	2576	4	$ 58,090
WATER PIPE - CAST IRON - 12 "	Infrastructure	50	1/1/1977	$196,183	9,746	2576	4	$ 742,236
WATER PIPE - CAST IRON - 14"	Infrastructure	50	1/1/1977	$215,165	9,746	2576	4	$ 814,052
WATER PIPE - CAST IRON - 16"	Infrastructure	50	1/1/1977	$31,596	9,746	2576	4	$ 119,540
WATER PIPE - CAST IRON - 18"	Infrastructure	50	1/1/1977	$64,956	9,746	2576	4	$ 245,754
WATER PIPE - CAST IRON - 2"	Infrastructure	50	1/1/1977	$7,416	9,746	2576	4	$ 28,058
WATER PIPE - CAST IRON - 20"	Infrastructure	50	1/1/1977	$9,712	9,746	2576	4	$ 36,744
WATER PIPE - CAST IRON - 24"	Infrastructure	50	1/1/1977	$10,759	9,746	2576	4	$ 40,705
WATER PIPE - CAST IRON - 24"	Infrastructure	50	1/1/1977	$89,079	9,746	2576	4	$ 337,020
WATER PIPE - CAST IRON - 4"	Infrastructure	50	1/1/1977	$266,315	9,746	2576	4	$ 1,007,572
WATER PIPE - CAST IRON - 6"	Infrastructure	50	1/1/1977	$459,362	9,746	2576	4	$ 1,737,943
WATER PIPE - CAST IRON - 8"	Infrastructure	50	1/1/1977	$255,225	9,746	2576	4	$ 965,614
WATER PIPE - DUCTILE IRON - 10"	Infrastructure	50	1/1/1977	$3,279	9,746	2576	4	$ 12,406
WATER PIPE - DUCTILE IRON - 4"	Infrastructure	50	1/1/1977	$1,034	9,746	2576	4	$ 3,912
WATER PIPE - DUCTILE IRON - 6"	Infrastructure	50	1/1/1977	$4,639	9,746	2576	4	$ 17,551
WATER PIPE - DUCTILE IRON - 8"	Infrastructure	50	1/1/1977	$2,793	9,746	2576	4	$ 10,567
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1977	$2,787	9,746	2576	4	$ 10,544

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1977	$22,622	9,746	2576	4	$ 85,588
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1977	$1,672	9,746	2576	4	$ 6,326
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1977	$2,079	9,746	2576	4	$ 7,866
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1977	$23,946	9,746	2576	4	$ 90,597
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1977	$727	9,746	2576	4	$ 2,751
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1977	$956	9,746	2576	4	$ 3,617
WATER PIPE - PVC - 12"	Infrastructure	50	1/1/1977	$537	9,746	2576	4	$ 2,032
WATER PIPE - PVC - 24"	Infrastructure	50	1/1/1977	$723	9,746	2576	4	$ 2,735
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1977	$4,731	9,746	2576	4	$ 17,899
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1977	$10,547	9,746	2576	4	$ 39,903
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1977	$20,730	9,746	2576	4	$ 78,430
WATER PIPE - STEEL - 10"	Infrastructure	50	1/1/1977	$204,740	9,746	2576	4	$ 774,610
WATER PIPE - STEEL - 14"	Infrastructure	50	1/1/1977	$74,174	9,746	2576	4	$ 280,629
WATER PIPE - STEEL - 6"	Infrastructure	50	1/1/1977	$7,993	9,746	2576	4	$ 30,241
WATER PIPE - STEEL - 6"	Infrastructure	50	1/1/1977	$1,710	9,746	2576	4	$ 6,470
WATER PIPE - STEEL - 6"	Infrastructure	50	1/1/1977	$1,319	9,746	2576	4	$ 4,990
SAN LORENZO RIVER DAM & PUMP STATION	Infrastructure	99	1/1/1978	$170,000	9,746	2776	4	$ 596,837
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1978	$160,230	9,746	2776	4	$ 562,537
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1978	$35,793	9,746	2776	4	$ 125,662
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1978	$94,530	9,746	2776	4	$ 331,877
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1978	$2,589	9,746	2776	4	$ 9,089
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1978	$83,954	9,746	2776	4	$ 294,746
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1978	$26,910	9,746	2776	4	$ 94,476
WATER PIPE - PVC - 2"	Infrastructure	50	1/1/1978	$1,618	9,746	2776	4	$ 5,680
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1979	$215,675	9,746	3003	3	$ 699,956
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1979	$31,477	9,746	3003	3	$ 102,156
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1979	$19,268	9,746	3003	3	$ 62,533
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1979	$86,309	9,746	3003	3	$ 280,109
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1979	$56,011	9,746	3003	3	$ 181,779
WATER PIPE - PVC - 2"	Infrastructure	50	1/1/1979	$1,007	9,746	3003	3	$ 3,268
WATER TANK - CARBONERA	Infrastructure	30	1/1/1979	$186,000	9,746	3003	3	$ 603,648
WATER TANK - SANTA CRUZ 1	Infrastructure	30	1/1/1979	$77,500	9,746	3003	3	$ 251,520
WATER TANK - SANTA CRUZ 2	Infrastructure	30	1/1/1979	$77,500	9,746	3003	3	$ 251,520
RESERVOIR	Infrastructure	50	1/1/1980	$185,000	9,746	3237	3	$ 557,000
RESERVOIR	Infrastructure	50	1/1/1980	$128,000	9,746	3237	3	$ 385,384
RESERVOIR	Infrastructure	50	1/1/1980	$125,000	9,746	3237	3	$ 376,352
RESERVOIR	Infrastructure	50	1/1/1980	$128,000	9,746	3237	3	$ 385,384
RESERVOIR	Infrastructure	50	1/1/1980	$128,000	9,746	3237	3	$ 385,384
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1980	$36,218	9,746	3237	3	$ 109,046
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1980	$9,814	9,746	3237	3	$ 29,548
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1980	$13,136	9,746	3237	3	$ 39,550
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1980	$136,420	9,746	3237	3	$ 410,735
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1980	$50,563	9,746	3237	3	$ 152,236
WATER PIPE - DUCTILE IRON - 6"	Infrastructure	50	1/1/1980	$2,893	9,746	3237	3	$ 8,710
WATER PIPE - PLASTIC- 1"	Infrastructure	50	1/1/1980	$528	9,746	3237	3	$ 1,590
WATER TANK - PASATIEMPO 2	Infrastructure	30	1/1/1980	$191,000	9,746	3237	3	$ 575,065
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1981	$235,300	9,746	3535	3	$ 648,722
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1981	$24,471	9,746	3535	3	$ 67,467
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1981	$8,072	9,746	3535	3	$ 22,255
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1981	$2,206	9,746	3535	3	$ 6,082
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1981	$33,333	9,746	3535	3	$ 91,899
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1981	$14,139	9,746	3535	3	$ 38,981
WATER PIPE - DUCTILE IRON - 10"	Infrastructure	50	1/1/1981	$46,507	9,746	3535	3	$ 128,220
WATER PIPE - PLASTIC- 1"	Infrastructure	50	1/1/1981	$670	9,746	3535	3	$ 1,847

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1981	$7,793	9,746	3535	3	$ 21,485
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1981	$52,280	9,746	3535	3	$ 144,136
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1981	$24,705	9,746	3535	3	$ 68,112
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1982	$7,628	9,746	3825	3	$ 19,436
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1982	$12,732	9,746	3825	3	$ 32,441
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1982	$2,673	9,746	3825	3	$ 6,811
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1982	$4,988	9,746	3825	3	$ 12,709
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1982	$1,316	9,746	3825	3	$ 3,353
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1982	$15,946	9,746	3825	3	$ 40,630
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1982	$71,814	9,746	3825	3	$ 182,980
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1983	$15,408	9,746	4066	2	$ 36,932
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1983	$3,416	9,746	4066	2	$ 8,188
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1983	$117,403	9,746	4066	2	$ 281,409
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1983	$44,618	9,746	4066	2	$ 106,947
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1984	$282,743	9,746	4146	2	$ 664,644
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1984	$21,654	9,746	4146	2	$ 50,902
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1984	$3,216	9,746	4146	2	$ 7,560
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1984	$754	9,746	4146	2	$ 1,772
WATER PIPE - DUCTILE IRON - 14 '	Infrastructure	50	1/1/1984	$105,228	9,746	4146	2	$ 247,359
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1984	$9,199	9,746	4146	2	$ 21,624
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1984	$198,814	9,746	4146	2	$ 467,352
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1984	$10,974	9,746	4146	2	$ 25,797
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1985	$5,825	9,746	4195	2	$ 13,533
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1985	$81,857	9,746	4195	2	$ 190,174
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1985	$5,991	9,746	4195	2	$ 13,919
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1985	$36,939	9,746	4195	2	$ 85,818
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1985	$97,613	9,746	4195	2	$ 226,779
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1986	$4,591	9,746	4295	2	$ 10,418
WATER PIPE - DUCTILE IRON - 10"	Infrastructure	50	1/1/1986	$87	9,746	4295	2	$ 197
WATER PIPE - DUCTILE IRON - 4"	Infrastructure	50	1/1/1986	$4,939	9,746	4295	2	$ 11,207
WATER PIPE - DUCTILE IRON - 6"	Infrastructure	50	1/1/1986	$9,075	9,746	4295	2	$ 20,593
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1986	$42,500	9,746	4295	2	$ 96,439
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1986	$2,125	9,746	4295	2	$ 4,822
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1986	$148,948	9,746	4295	2	$ 337,985
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1987	$286,952	9,746	4406	2	$ 634,733
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1987	$4,259	9,746	4406	2	$ 9,421
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1987	$4,584	9,746	4406	2	$ 10,140
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1987	$81,979	9,746	4406	2	$ 181,336
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1987	$39,105	9,746	4406	2	$ 86,500
WATER PIPE - CAST IRON - 10"	Infrastructure	50	1/1/1988	$148,122	9,746	4519	2	$ 319,451
WATER PIPE - DUCTILE IRON - 12'	Infrastructure	50	1/1/1988	$492,089	9,746	4519	2	$ 1,061,274
WATER PIPE - DUCTILE IRON - 16 '	Infrastructure	50	1/1/1988	$31,067	9,746	4519	2	$ 67,001
WATER PIPE - DUCTILE IRON - 8"	Infrastructure	50	1/1/1988	$5,935	9,746	4519	2	$ 12,800
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1988	$21,416	9,746	4519	2	$ 46,187
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1988	$38,867	9,746	4519	2	$ 83,823
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1988	$197,679	9,746	4519	2	$ 426,329
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1988	$84,345	9,746	4519	2	$ 181,904
WATER PIPE - STEEL - 6"	Infrastructure	50	1/1/1988	$4,940,718	9,746	4519	2	$ 10,655,507
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1989	$296,517	9,746	4615	2	$ 626,187
WATER PIPE - PVC - 12"	Infrastructure	50	1/1/1989	$20,034	9,746	4615	2	$ 42,308
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1989	$11,594	9,746	4615	2	$ 24,484
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1989	$90,994	9,746	4615	2	$ 192,162
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1989	$37,805	9,746	4615	2	$ 79,837
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1990	$305,733	9,746	4732	2	$ 629,686

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1990	$7,119	9,746	4732	2	$ 14,662
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1990	$10,549	9,746	4732	2	$ 21,727
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1990	$138,186	9,746	4732	2	$ 284,606
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1990	$13,848	9,746	4732	2	$ 28,521
WELL	Infrastructure	50	1/1/1990	$24,000	9,746	4732	2	$ 49,430
WELL	Infrastructure	50	1/1/1990	$24,000	9,746	4732	2	$ 49,430
WELL	Infrastructure	50	1/1/1990	$24,000	9,746	4732	2	$ 49,430
WATER PIPE - DUCTILE IRON - 20"	Infrastructure	50	1/1/1991	$111,886	9,746	4835	2	$ 225,531
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1991	$24,039	9,746	4835	2	$ 48,456
WATER PIPE - PVC - 12"	Infrastructure	50	1/1/1991	$47,457	9,746	4835	2	$ 95,660
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1991	$17,906	9,746	4835	2	$ 36,093
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1991	$75,181	9,746	4835	2	$ 151,544
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1991	$29,418	9,746	4835	2	$ 59,298
WATER PIPE - PVC - 12"	Infrastructure	50	1/1/1992	$138,345	9,746	4985	2	$ 270,473
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1992	$3,882	9,746	4985	2	$ 7,590
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1992	$116,552	9,746	4985	2	$ 227,867
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1992	$28,532	9,746	4985	2	$ 55,782
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1993	$319,900	9,746	5210	2	$ 598,416
NEWELL CREEK DAM	Infrastructure	99	1/1/1993	$125,000	9,746	5210	2	$ 233,829
NEWELL CREEK DAM-Lock Lomond Slide Gat	Infrastructure	30	5/1/2014	$1,500,000	9,746	9746	1	$ 1,500,000
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1993	$5,299	9,746	5210	2	$ 9,912
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1993	$148,181	9,746	5210	2	$ 277,192
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1993	$33,857	9,746	5210	2	$ 63,334
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1994	$8,346	9,746	5408	2	$ 15,041
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1994	$1,292	9,746	5408	2	$ 2,328
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1994	$38,157	9,746	5408	2	$ 68,764
WATER PIPE - DUCTILE IRON - 10"	Infrastructure	50	1/1/1994	$9,725	9,746	5408	2	$ 17,526
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1994	$31,863	9,746	5408	2	$ 57,422
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1994	$291,180	9,746	5408	2	$ 524,749
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1994	$293,418	9,746	5408	2	$ 528,782
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1994	$6,482	9,746	5408	2	$ 11,682
WATER PIPE - DUCTILE IRON - 10"	Infrastructure	50	1/1/1995	$16,120	9,746	5471	2	$ 28,716
WATER PIPE - DUCTILE IRON - 6"	Infrastructure	50	1/1/1995	$216	9,746	5471	2	$ 385
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1995	$51,787	9,746	5471	2	$ 92,253
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1995	$5,081	9,746	5471	2	$ 9,051
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1995	$123,013	9,746	5471	2	$ 219,134
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1995	$50,506	9,746	5471	2	$ 89,971
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1996	$353,127	9,746	5620	2	$ 612,380
WATER PIPE - DUCTILE IRON - 12'	Infrastructure	50	1/1/1996	$19,989	9,746	5620	2	$ 34,664
WATER PIPE - DUCTILE IRON - 6"	Infrastructure	50	1/1/1996	$4,615	9,746	5620	2	$ 8,003
WATER PIPE - GALVANIZED STEEL	Infrastructure	50	1/1/1996	$3,598	9,746	5620	2	$ 6,240
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1996	$98,332	9,746	5620	2	$ 170,524
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1996	$20,547	9,746	5620	2	$ 35,632
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1996	$150,404	9,746	5620	2	$ 260,825
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1996	$2,879	9,746	5620	2	$ 4,993
PUMP STATION - COAST	Infrastructure	30	1/1/1997	$52,554	9,746	5826	2	$ 87,915
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1997	$67,023	9,746	5826	2	$ 112,119
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1997	$1,947	9,746	5826	2	$ 3,257
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1997	$71,446	9,746	5826	2	$ 119,518
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1997	$44,948	9,746	5826	2	$ 75,191
CLORAMINE CONVERSION	Infrastructure	30	1/1/1998	$80,967	9,746	5920	2	$ 133,295
SAN LORENZO RIVER INTAKE IMPROVEMENT	Infrastructure	50	1/1/1998	$5,540	9,746	5920	2	$ 9,120
WATER METER REPAIR SHOP	Infrastructure	50	1/1/1998	$14,184	9,746	5920	2	$ 23,351
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1998	$24,090	9,746	5920	2	$ 39,659

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPE - DUCTILE IRON - 10"	Infrastructure	50	1/1/1998	$27,818	9,746	5920	2	$ 45,796
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1998	$57,563	9,746	5920	2	$ 94,765
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1998	$19,618	9,746	5920	2	$ 32,297
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1998	$261,636	9,746	5920	2	$ 430,727
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1998	$12,026	9,746	5920	2	$ 19,798
FELTON DIVERSION PIPE	Infrastructure	50	1/1/1999	$160,955	9,746	6059	2	$ 258,899
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/1999	$371,285	9,746	6059	2	$ 597,218
PUMP STATION - FELTON BOOSTER - RENOV	Infrastructure	30	1/1/1999	$10,000	9,746	6059	2	$ 16,085
WATER PIPE - ASPHALTIC CONCRETE	Infrastructure	50	1/1/1999	$57,196	9,746	6059	2	$ 92,001
WATER PIPE - PVC - 10"	Infrastructure	50	1/1/1999	$68,440	9,746	6059	2	$ 110,087
WATER PIPE - PVC - 4"	Infrastructure	50	1/1/1999	$3,290	9,746	6059	2	$ 5,292
WATER PIPE - PVC - 6"	Infrastructure	50	1/1/1999	$108,150	9,746	6059	2	$ 173,961
WATER PIPE - PVC - 8"	Infrastructure	50	1/1/1999	$51,606	9,746	6059	2	$ 83,009
WELL - BELTZ #8 & 9	Infrastructure	50	1/1/1999	$536,266	9,746	6059	2	$ 862,593
WELL - BELTZ #12	Infrastructure	50	6/1/2014	$4,500,000	9,746	9746	1	$ 4,500,000
EQUIPMENT - LAGUNA CREEK DAM	Infrastructure	30	1/1/2000	$16,005	9,746	6221	2	$ 25,074
PUMP STATION - SAN LORENZO RIVER	Infrastructure	30	1/1/2001	$166,600	9,746	6343	2	$ 255,980
UNIVERSITY PUMP IMPROVEMENTS	Infrastructure	30	1/1/2001	$824,572	9,746	6343	2	$ 1,266,952
WATER METER REPAIR SHOP	Infrastructure	50	1/1/2001	$39,852	9,746	6343	2	$ 61,232
BRACKNEY SLIDE PIPELINE IMPROVEMENTS	Infrastructure	50	1/1/2002	$165,300	9,746	6538	1	$ 246,408
FIRE HYDRANTS ASSORTED	Infrastructure	30	1/1/2002	$386,353	9,746	6538	1	$ 575,925
LAGUNA CREEK DAM - COVER	Infrastructure	20	1/1/2002	$30,000	9,746	6538	1	$ 44,720
LAGUNA FLUME COVER	Infrastructure	50	1/1/2002	$22,750	9,746	6538	1	$ 33,913
RESERVOIR - BAY STREET - DRAIN	Infrastructure	50	1/1/2002	$10,847	9,746	6538	1	$ 16,170
SAN LORENZO RIVER PUMP	Infrastructure	50	1/1/2002	$44,659	9,746	6538	1	$ 66,572
SEDIMENTATION BASIN LADDERS	Infrastructure	50	1/1/2002	$10,610	9,746	6538	1	$ 15,816
TREATMENT PLANT BASIN RAILINGS	Infrastructure	50	1/1/2002	$14,000	9,746	6538	1	$ 20,869
TREATMENT PLANT OPTIMIZATION	Infrastructure	30	1/1/2002	$22,838	9,746	6538	1	$ 34,045
U-4 METER VAULT	Infrastructure	50	1/1/2002	$5,700	9,746	6538	1	$ 8,497
UNIVERSITY FACILITY IMPROVEMENTS	Infrastructure	30	1/1/2002	$1,119,348	9,746	6538	1	$ 1,668,578
WHARF WATER MAIN COATING	Infrastructure	50	1/1/2002	$44,457	9,746	6538	1	$ 66,271
UNDERGROUND WATER MAIN REPLACEMEN	Infrastructure	50	6/30/2002	$347,067	9,746	6538	1	$ 517,362
WATER MAIN REPLACEMENT	Infrastructure	50	6/30/2002	$37,127	9,746	6538	1	$ 55,343
WATER SERVICES	Infrastructure	50	6/30/2002	$466,053	9,746	6538	1	$ 694,731
WATER MAINS	Infrastructure	50	10/22/2002	$134,591	9,746	6538	1	$ 200,631
UNDERGROUND WATER MAINS REPLACEMEI	Infrastructure	50	1/28/2003	$185,702	9,746	6694	1	$ 270,369
WATER PIPE - PVC-ALTA,LIEBRANDT,MORRIS	Infrastructure	50	1/28/2003	$695,158	9,746	6694	1	$ 1,012,102
U - 2 METER VAULT	Infrastructure	50	7/1/2003	$12,335	9,746	6694	1	$ 17,959
WATER PIPE - PVC-WITH FITTINGS-MISSION	Infrastructure	50	7/1/2003	$151,502	9,746	6694	1	$ 220,576
WATER PIPE - PVC-WITH FITTINGS-MISSION	Infrastructure	50	7/1/2003	$634,239	9,746	6694	1	$ 923,409
WATER PIPE - RIVER ST - 10"	Infrastructure	50	7/1/2003	$111,634	9,746	6694	1	$ 162,532
WATER PIPE - ALICE ST & CORCORAN AVE IM	Infrastructure	50	11/18/2003	$114,735	9,746	6694	1	$ 167,046
WATER PIPE - PVC - WITH FITTINGS-IVY LAN	Infrastructure	50	1/13/2004	$127,983	9,746	7115	1	$ 175,309
WATER PIPE - PVC - WITH FITTINGS-MATTIS	Infrastructure	50	1/13/2004	$379,684	9,746	7115	1	$ 520,084
WATER PIPE - HDPE - SLR CROSSING REPLACI	Infrastructure	50	3/9/2004	$423,381	9,746	7115	1	$ 579,940
RESERVOIR ROOF-PARTIAL RECONSTRUCTIO	Infrastructure	50	4/13/2004	$2,257,497	9,746	7115	1	$ 3,092,279
DOCK - LAUNCH RAMP - REPLACEMENT - 80'	Infrastructure	20	6/24/2004	$30,167	9,746	7115	1	$ 41,322
WELLS - MONITORING & TEST - LIVE OAK ARI	Infrastructure	30	3/24/2005	$584,903	9,746	7446	1	$ 765,574
WATER PIPE - PVC -WITH FITTINGS-GROSS R	Infrastructure	50	5/2/2005	$145,826	9,746	7446	1	$ 190,870
WATER PIPE - PVC - WITH FITTINGS -6"	Infrastructure	50	6/14/2005	$46,979	9,746	7446	1	$ 61,491
WATER PIPE - WITH FITTINGS - 10"	Infrastructure	50	6/14/2005	$116,567	9,746	7446	1	$ 152,573
WATER PIPES - PVC - LAUREL STREET - 10"	Infrastructure	50	7/1/2005	$29,750	9,746	7446	1	$ 38,939
WATER PIPES - EAST CLIFF DRIVE, FELT ST,	Infrastructure	50	7/12/2005	$723,177	9,746	7446	1	$ 946,560
WATER PIPES - SOQUEL AVE - 6"	Infrastructure	50	7/26/2005	$46,751	9,746	7446	1	$ 61,192

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPES - PVC - PACIFIC BETWEEN LAUI	Infrastructure	50	9/13/2005	$175,481	9,746	7446	1	$ 229,685
WATER PIPES - PVC - PACIFIC TO SECOND ST	Infrastructure	50	9/13/2005	$204,491	9,746	7446	1	$ 267,656
WATER PIPES - DAHLIA STREET - 6"	Infrastructure	50	9/13/2005	$39,315	9,746	7446	1	$ 51,459
WATER PIPES - PVC - FRONT STREET AND EAS	Infrastructure	50	6/13/2006	$633,560	9,746	7751	1	$ 796,630
PUMP STATION - FELTON BOOSTER STATION	Infrastructure	30	6/27/2006	$5,190,913	9,746	7751	1	$ 6,526,982
DAM - HYDRAULIC CONTROLS FOR SLIDE GAT	Infrastructure	20	6/27/2006	$64,486	9,746	7751	1	$ 81,084
PUMP STATION - FELTON BOOSTER STATION	Infrastructure	50	7/1/2006	$265,087	9,746	7751	1	$ 333,317
WATER PIPES - WATER KINSLEY AND CHANTI	Infrastructure	50	2/26/2007	$199,447	9,746	7966	1	$ 244,013
BAY STREET RESERVOIR SYSTEM TRANSMISSI	Infrastructure	50	12/11/2007	$16,980,297	9,746	7966	1	$ 20,774,539
BAY STREET TRANSMISSION MAIN	Infrastructure	50	7/2/2008	$55,929	9,746	8310	1	$ 65,593
BAY STREET RESERVOIR TRANSMISSION MAII	Infrastructure	50	7/2/2008	$13,982	9,746	8310	1	$ 16,398
WATER PIPE - PVC - 6"	Infrastructure	50	7/24/2008	$29,548	9,746	8310	1	$ 34,654
WATER PIPE - PVC - 8"	Infrastructure	50	7/24/2008	$4,295	9,746	8310	1	$ 5,037
WATER PIPE - PVC - 10"	Infrastructure	50	7/24/2008	$279,164	9,746	8310	1	$ 327,404
WATER PIPES - PVC - 16"	Infrastructure	50	7/24/2008	$3,006	9,746	8310	1	$ 3,526
WATER PIPES - PVC - 18"	Infrastructure	50	7/24/2008	$373,392	9,746	8310	1	$ 437,916
RETAINING WALL - LAGUNA ACCESS ROAD	Infrastructure	20	3/18/2009	$105,591	9,746	8570	1	$ 120,080
WELL - PIEZOMETER 1 1/2 " DIAMETER	Infrastructure	50	7/1/2009	$32,121	9,746	8570	1	$ 36,529
WELL - PIEZOMETER 1 1/2 " DIAMETER	Infrastructure	50	7/1/2009	$32,121	9,746	8570	1	$ 36,529
WELL - PIEZOMETER 1 1/2 " DIAMETER	Infrastructure	50	7/1/2009	$32,121	9,746	8570	1	$ 36,529
WELL - PIEZOMETER 1 1/2 " DIAMETER	Infrastructure	50	7/1/2009	$32,121	9,746	8570	1	$ 36,529
WELL - PIEZOMETER - 1 1/2 " DIAMETER	Infrastructure	50	7/1/2009	$32,121	9,746	8570	1	$ 36,529
WELL - PIEZOMETER 1 1/2 " DIAMETER	Infrastructure	50	7/1/2009	$32,121	9,746	8570	1	$ 36,529
WELL - PIEZOMETER 1 1/2 " DIAMETER	Infrastructure	50	7/1/2009	$32,121	9,746	8570	1	$ 36,529
WELL - PIEZOMETER 3/4 " DIAMETER	Infrastructure	50	7/1/2009	$32,121	9,746	8570	1	$ 36,529
WATER PIPES - DUCTILE IRON - 10"	Infrastructure	50	9/10/2009	$123,318	9,746	8570	1	$ 140,240
WATER PIPES - BELTZ WELL #10	Infrastructure	50	9/10/2009	$325,691	9,746	8570	1	$ 370,384
PHOTOVOLTAIC SOLAR SYSTEM	Infrastructure	50	9/21/2009	$1,351,032	9,746	8570	1	$ 1,536,425
TEST WELL - TAIT	Infrastructure	50	7/1/2010	$26,177	9,746	8802	1	$ 28,985
MONITORING WELL - OCEAN STREET EXTENT	Infrastructure	50	7/1/2010	$28,434	9,746	8802	1	$ 31,483
MONITORING WELL - BELTZ - AUTO PLAZA LN	Infrastructure	50	7/1/2010	$104,209	9,746	8802	1	$ 115,386
MONITORING WELL - BELTZ - COFFEE LANE	Infrastructure	50	7/1/2010	$104,209	9,746	8802	1	$ 115,386
MONITORING WELL - BELTZ - CORY STREET	Infrastructure	50	7/1/2010	$104,209	9,746	8802	1	$ 115,386
PUMP - SAN LORENZO	Infrastructure	50	7/1/2011	$88,217	9,746	9070	1	$ 94,792
WATER PIPES - PVC 4"	Infrastructure	50	9/13/2011	$24,686	9,746	9070	1	$ 26,525
WATER PIPES - PVC 6"	Infrastructure	50	9/13/2011	$52,707	9,746	9070	1	$ 56,635
WATER PIPES - PVC 8"	Infrastructure	50	9/13/2011	$9,424	9,746	9070	1	$ 10,126
WATER PIPES - PVC10"	Infrastructure	50	9/13/2011	$416,820	9,746	9070	1	$ 447,886
WATER PIPES - PVC12"	Infrastructure	50	9/13/2011	$237,182	9,746	9070	1	$ 254,859
WATER PIPES - COPPER 3/4"	Infrastructure	50	9/13/2011	$2,502	9,746	9070	1	$ 2,688
WATER PIPES - PVC 4"	Infrastructure	50	9/13/2011	$6,145	9,746	9070	1	$ 6,603
WATER PIPES - PVC 6"	Infrastructure	50	9/13/2011	$13,121	9,746	9070	1	$ 14,099
WATER PIPES - PVC 10"	Infrastructure	50	9/13/2011	$103,765	9,746	9070	1	$ 111,499
WATER PIPES - PVC 8"	Infrastructure	50	9/13/2011	$2,346	9,746	9070	1	$ 2,521
WATER PIPES - PVC 12"	Infrastructure	50	9/13/2011	$59,045	9,746	9070	1	$ 63,446
WATER PIPES - COOPER PIPES 3/4"	Infrastructure	50	9/13/2011	$623	9,746	9070	1	$ 669
WATER PIPES - PVC - 6"	Infrastructure	50	3/31/2012	$42,786	9,746	9308	1	$ 44,799
REMOTE TELEMETRY SYSTEM	Infrastructure	25	7/1/2012	$1,336,140	9,746	9308	1	$ 1,399,014
TRASH RACK SCREEN ASSEMBLIES	Infrastructure	50	8/14/2012	$1,833,121	9,746	9308	1	$ 1,919,381
BELTZ MONITORING WELL - 30 TH AVE	Infrastructure	50	10/12/2012	$275,102	9,746	9308	1	$ 288,047
WATER PIPES - DUCTILE IRON - 24"	Infrastructure	50	11/13/2012	$3,035,022	9,746	9308	1	$ 3,177,839
WATER PIPES - DUCTILE IRON - 16"	Infrastructure	50	11/13/2012	$1,259,658	9,746	9308	1	$ 1,318,933
WATER PIPES - DUCTILE IRON - 12"	Infrastructure	50	11/13/2012	$252,966	9,746	9308	1	$ 264,870
WATER PIPES - DUCTILE IRON - 8"	Infrastructure	50	11/13/2012	$53,468	9,746	9308	1	$ 55,984

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
WATER PIPES - DUCTILE IRON - 6"	Infrastructure	50	11/13/2012	$85,664	9,746	9308	1	$ 89,695
WATER PIPES - PVC C700002	Infrastructure	50	9/20/2013	$846,172	9,746	9547	1	$ 863,810
WATER PIPES - DUCTILE IRON - C700002	Infrastructure	50	9/20/2013	$9,075	9,746	9547	1	$ 9,264
WATER PIPES - COPPER - C700002	Infrastructure	50	9/20/2013	$5,650	9,746	9547	1	$ 5,768
MONITORING WELL - CORY STREET - C70100	Infrastructure	30	12/1/2013	$80,900	9,746	9547	1	$ 82,586
BAY STREET RES IMPROVEMENTS	Infrastructure	50	3/11/2014	**$26,043,458**	9,746	9746	1	$ 26,043,458
RECLAIMATION TANK	Infrastructure	30	4/1/2014	$206,789	9,746	9746	1	$ 206,789
WATER TREATMENT PLANT - FIRE RESISTIVE	Buildings	50	1/1/1960	$3,186,000	9,746	824	12	$ 37,682,956
2 SEDIMENTATION TANKS, PLUS OTHER - REI	Buildings	45	1/1/1965	$4,040,000	9,746	971	10	$ 40,549,784
GLEN CORY RESTROOM - JOISTED MASONRY	Buildings	50	1/1/1970	$20,100	9,746	1381	7	$ 141,850
GLEN CORY RESTROOM - JOISTED MASONRY	Buildings	50	1/1/1970	$23,000	9,746	1381	7	$ 162,316
RANGER HEADQUARTERS - FRAME/COMBUS	Buildings	50	1/1/1970	$26,800	9,746	1381	7	$ 189,133
UPPER LOCH RESTROOM - JOISTED MASONI	Buildings	50	1/1/1970	$20,100	9,746	1381	7	$ 141,850
BOAT HOUSE - FRAME/COMBUSTIBLE - 1 FL	Buildings	50	1/1/1980	$11,300	9,746	3237	3	$ 34,022
CANOPY - FRAME/COMBUSTIBLE - 1 FLOOR	Buildings	50	1/1/1980	$11,000	9,746	3237	3	$ 33,119
CONTROL BUILDING - JOISTED MASONRY -	Buildings	50	1/1/1980	$10,500	9,746	3237	3	$ 31,614
LOWER LOCH RESTROOM - JOISTED MASON	Buildings	50	1/1/1980	$23,600	9,746	3237	3	$ 71,055
PUMPHOUSE - JOISTED MASONRY - 1 FLOO	Buildings	50	1/1/1980	$14,000	9,746	3237	3	$ 42,151
RANGER RESIDENCE - FRAME/COMBUSTIBLE	Buildings	50	1/1/1980	$110,000	9,746	3237	3	$ 331,189
KITE HILL PUMPSTATION - JOISTED MASONI	Buildings	55	1/1/1980	$57,483	9,746	3237	3	$ 173,071
IRON REMOVAL BUILDING - JOISTED MASOI	Buildings	50	1/1/1986	$49,700	9,746	4295	2	$ 112,777
PUMPHOUSE - FRAME/COMBUSTIBLE - 1 FL	Buildings	50	1/1/1986	$14,800	9,746	4295	2	$ 33,583
WATER QUALITY LAB - FRAME/COMBUSTIBL	Buildings	50	1/1/1988	$240,000	9,746	4519	2	$ 517,601
CONTROL BUILDING LONE STAR QUARRY - JC	Buildings	50	1/1/1990	$16,700	9,746	4732	2	$ 34,395
PARK STORE - FRAME/COMBUSTIBLE - 1 FLO	Buildings	50	1/1/1990	$37,400	9,746	4732	2	$ 77,029
WATER TREATMENT PLANT - MASONRY NON	Buildings	50	1/1/1990	$49,700	9,746	4732	2	$ 102,362
PUMPHOUSE - JOISTED MASONRY - 1 FLOO	Buildings	50	1/1/1992	$36,500	9,746	4985	2	$ 71,360
CHLORINE SECONDARY CONTAINMENT	Buildings	50	1/1/1998	$32,276	9,746	5920	2	$ 53,135
HIGH RATE SETTLER	Buildings	50	1/1/1999	$714,434	9,746	6059	2	$ 1,149,179
CONVERT UNIVERSITY PUMP STATIONS TO S	Buildings	15	1/1/2000	$38,425	9,746	6221	2	$ 60,198
FILTER GALLERY RENOVATION - RESTORE STE	Buildings	15	7/1/2003	$64,153	9,746	6694	1	$ 93,403
MAINTENANCE/STORAGE SHADE STRUCTURE	Buildings	25	6/25/2004	$46,890	9,746	7115	1	$ 64,229
BUILDING, MODULAR	Buildings	25	11/3/2004	$19,487	9,746	7115	1	$ 26,693
RENOVATIONS - WATER DEPARTMENT LOCKI	Buildings	15	1/24/2006	$203,591	9,746	7751	1	$ 255,993
BUILDING - MODULAR	Buildings	15	11/15/2006	$25,304	9,746	7751	1	$ 31,817
STEEL BUILDING	Buildings	15	2/23/2007	$61,008	9,746	7966	1	$ 74,640
GHWTP - BULIDING RENOVATIONS	Buildings	20	7/2/2007	$40,815	9,746	7966	1	$ 49,935
CONTAINMENT WALL - SODIUM HYPOCLORI	Buildings	10	12/1/2009	$12,400	9,746	8570	1	$ 14,102
WATER TREATMENT PLANT - ELECTRICAL IMP	Buildings	50	7/27/2011	$5,675,172	9,746	9070	1	$ 6,098,150
WATER QUALITY LAB REMODEL	Buildings	50	12/5/2012	$1,646,819	9,746	9308	1	$ 1,724,312
CORP YARD MATERIAL BUNKER YARD	Buildings	30	10/29/2013	$210,387	9,746	9547	1	$ 214,772
FORKLIFT RIG	Equipment	8	1/1/1981	$10,118	9,746	3535	3	$ 27,895
COMPRESSOR 106	Equipment	8	1/1/1984	$9,825	9,746	4146	2	$ 23,096
COMPRESSOR 106	Equipment	8	1/1/1988	$10,386	9,746	4519	2	$ 22,399
COMPRESSOR 161	Equipment	8	1/1/1988	$10,412	9,746	4519	2	$ 22,455
PAVEMENT BREAKER	Equipment	15	1/1/1988	$71,888	9,746	4519	2	$ 155,039
AUTO FEED THREADING MACHINE	Equipment	15	1/1/1991	$5,000	9,746	4835	2	$ 10,079
LAB GENERATOR	Equipment	15	1/1/1992	$13,000	9,746	4985	2	$ 25,416
WATER METER TEST BENCH	Equipment	10	1/1/1992	$7,000	9,746	4985	2	$ 13,685
DIONEX ION CHROMATOGRAPH	Equipment	10	1/1/1994	$20,000	9,746	5408	2	$ 36,043
METER TESTER	Equipment	10	1/1/1994	$5,730	9,746	5408	2	$ 10,326
PATROL BOAT LICENSE # CF 3561 XC	Equipment	8	1/1/1994	$13,000	9,746	5408	2	$ 23,428
TRUCK - PICKUP STANDARD	Equipment	8	1/1/1994	$9,928	9,746	5408	2	$ 17,892
TRUCK - DUMP	Equipment	8	1/1/1996	$23,853	9,746	5620	2	$ 41,365

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
TRUCK - UTILITY	Equipment	8	1/1/1996	$18,306	9,746	5620	2	$ 31,746
VACUUM - LEAF	Equipment	15	1/1/1996	$10,633	9,746	5620	2	$ 18,439
COPIER	Equipment	5	1/1/1997	$8,445	9,746	5826	2	$ 14,127
COPIER	Equipment	5	1/1/1997	$6,245	9,746	5826	2	$ 10,447
ELECTRODELESS POWER SUPPLY	Equipment	15	1/1/1997	$5,390	9,746	5826	2	$ 9,017
NEWELL CREEK AERATOR	Equipment	15	1/1/1997	$233,184	9,746	5826	2	$ 390,081
TRACVAC RETRIEVABLE SYSTEM	Equipment	15	1/1/1997	$15,373	9,746	5826	2	$ 25,717
COPIER	Equipment	5	1/1/1998	$13,207	9,746	5920	2	$ 21,742
ELEVATOR HYDRAULIC PUMP	Equipment	15	1/1/1998	$9,415	9,746	5920	2	$ 15,500
EQUIPMENT - TREATMENT PLANT CONTROL I	Equipment	15	1/1/1998	$171,934	9,746	5920	2	$ 283,052
NETSERVER-SCWTQC	Equipment	5	1/1/1998	$5,026	9,746	5920	2	$ 8,274
TRACTOR - HEAVY RIG	Equipment	8	1/1/1998	$51,960	9,746	5920	2	$ 85,541
TRAILER - FLATBED	Equipment	8	1/1/1998	$7,877	9,746	5920	2	$ 12,968
TRUCK - PICKUP STANDARD	Equipment	8	1/1/1998	$19,237	9,746	5920	2	$ 31,670
EQUIPMENT - HIGH RATE SETTLER	Equipment	15	1/1/1999	$675,880	9,746	6059	2	$ 1,087,164
FILTER VALVE CONTROLLER	Equipment	15	1/1/1999	$21,904	9,746	6059	2	$ 35,233
GENERATOR - 151 KW	Equipment	8	1/1/1999	$32,287	9,746	6059	2	$ 51,934
GENERATOR - 151 KW	Equipment	8	1/1/1999	$32,287	9,746	6059	2	$ 51,934
GENERATOR - 151 KW	Equipment	8	1/1/1999	$32,287	9,746	6059	2	$ 51,934
OUTBOARD MOTOR 50 HP	Equipment	15	1/1/1999	$6,250	9,746	6059	2	$ 10,053
PROLIANT COMPUTER FOR NT SERVER	Equipment	5	1/1/1999	$6,638	9,746	6059	2	$ 10,677
SPEEDI-SEALER FOLDING MACHINE	Equipment	10	1/1/1999	$16,195	9,746	6059	2	$ 26,050
TREATMENT PLANT CONTROL EQUIPMENT UI	Equipment	10	1/1/1999	$547,445	9,746	6059	2	$ 880,574
TRUCK - PICKUP STANDARD	Equipment	8	1/1/1999	$20,605	9,746	6059	2	$ 33,143
PROGRAMMABLE CONTROLLER	Equipment	5	1/1/2000	$20,858	9,746	6221	2	$ 32,677
SRI GAS CHROMATOGRAPH	Equipment	10	1/1/2000	$9,500	9,746	6221	2	$ 14,883
TRAILER - FLATBED	Equipment	8	1/1/2000	$8,100	9,746	6221	2	$ 12,690
TRUCK - DUMP	Equipment	8	1/1/2000	$66,400	9,746	6221	2	$ 104,024
TRUCK - PICKUP STANDARD	Equipment	8	1/1/2000	$18,272	9,746	6221	2	$ 28,625
TRUCK - PICKUP STANDARD	Equipment	8	1/1/2000	$23,109	9,746	6221	2	$ 36,203
TRUCK - UTILITY	Equipment	8	1/1/2000	$30,000	9,746	6221	2	$ 46,999
TRUCK - UTILITY	Equipment	8	1/1/2000	$25,240	9,746	6221	2	$ 39,542
TRUCK - VAN	Equipment	8	1/1/2000	$18,627	9,746	6221	2	$ 29,182
EQUIPMENT - REMOTE FACILITIES CONTROL	Equipment	15	1/1/2001	$255,000	9,746	6343	2	$ 391,807
MOUNTED BREAKER	Equipment	10	1/1/2001	$9,196	9,746	6343	2	$ 14,130
PAVEMENT BREAKER	Equipment	15	1/1/2001	$10,908	9,746	6343	2	$ 16,760
TRUCK - DUMP	Equipment	8	1/1/2001	$57,153	9,746	6343	2	$ 87,815
TRUCK - UTILITY	Equipment	8	1/1/2001	$20,211	9,746	6343	2	$ 31,054
COMPUTER SERVER	Equipment	5	1/1/2002	$2,494	9,746	6538	1	$ 3,717
EQUIPMENT - GENERATORS	Equipment	15	1/1/2002	$336,533	9,746	6538	1	$ 501,660
FILTER VALVE EFFLUENT CONTROLLERS	Equipment	15	1/1/2002	$27,408	9,746	6538	1	$ 40,856
PIPE THREADING MACHINE	Equipment	15	1/1/2002	$10,099	9,746	6538	1	$ 15,054
PRODUCTION METERS	Equipment	15	1/1/2002	$14,500	9,746	6538	1	$ 21,615
RECLAIM TANK MIXER	Equipment	15	1/1/2002	$61,462	9,746	6538	1	$ 91,619
TRACTOR - LIGHT	Equipment	8	1/1/2002	$24,371	9,746	6538	1	$ 36,329
TRUCK - PICKUP STANDARD	Equipment	8	1/1/2002	$16,016	9,746	6538	1	$ 23,875
TRUCK - PICKUP STANDARD	Equipment	8	1/1/2002	$28,006	9,746	6538	1	$ 41,747
TRUCK - PICKUP STANDARD	Equipment	8	1/1/2002	$25,287	9,746	6538	1	$ 37,695
TRUCK - PICKUP STANDARD	Equipment	8	1/1/2002	$18,337	9,746	6538	1	$ 27,334
VEHICLE TRANSCEIVER UNIT	Equipment	10	1/1/2002	$23,705	9,746	6538	1	$ 35,336
BELTZ PLANT FILTER REHAB	Equipment	15	6/30/2002	$57,910	9,746	6538	1	$ 86,325
CHEMICAL FEED SYSTEM - WASHWATER CLAI	Equipment	8	6/30/2002	$9,273	9,746	6538	1	$ 13,823
CHIPPER- 6" DISC-STYLE CHIPPER	Equipment	8	6/30/2002	$12,521	9,746	6538	1	$ 18,664
FOURTREX RANCHER 4X4	Equipment	8	6/30/2002	$6,038	9,746	6538	1	$ 9,001

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
METERING PUMP SKID SYSTEM	Equipment	8	6/30/2002	$13,454	9,746	6538	1	$ 20,055
METERING PUMP-VERTICAL TURBINE	Equipment	8	6/30/2002	$5,702	9,746	6538	1	$ 8,500
PAVEMENT BREAKER - BACKHOE	Equipment	15	6/30/2002	$8,800	9,746	6538	1	$ 13,118
FOLDER/SORTER	Equipment	5	7/12/2002	$1,839	9,746	6538	1	$ 2,742
TRUCK - 2003 FORD F350 3/4T PICKUP	Equipment	8	8/23/2002	$26,190	9,746	6538	1	$ 39,040
FEED PUMP AND CONTROLLER	Equipment	10	8/26/2002	$5,569	9,746	6538	1	$ 8,302
TRUCK - 2002 FORD RANGER XL/BED LINER	Equipment	8	9/25/2002	$15,156	9,746	6538	1	$ 22,593
TRUCK - 2003 FORD F350 C&C/SERV BODY	Equipment	8	11/25/2002	$27,773	9,746	6538	1	$ 41,401
TRUCK - FORD F350 C&C/SERV BODY	Equipment	8	11/25/2002	$27,773	9,746	6538	1	$ 41,401
OBS 3A TURBIDITY METER	Equipment	15	12/17/2002	$5,159	9,746	6538	1	$ 7,690
TRUCK - 2003 FORD F150 W/ 6 1/2 FT BED	Equipment	8	12/31/2002	$15,408	9,746	6538	1	$ 22,968
TRUCK - FORD 2003 1/2 TON 4X4	Equipment	8	12/31/2002	$17,108	9,746	6538	1	$ 25,502
TRUCK - 2003 1/2 TON FORD F150 4X4 6 1/	Equipment	8	12/31/2002	$17,108	9,746	6538	1	$ 25,502
ATOMIC ABSORPTION SPECTROMETER	Equipment	10	1/2/2003	$80,633	9,746	6694	1	$ 117,396
TRUCK - 2003 FORD RANGER 4X4/BED LINER	Equipment	8	1/16/2003	$18,772	9,746	6694	1	$ 27,330
TRUCK - 2003 FORD RANGER W/ EXT CAB/TF	Equipment	8	1/16/2003	$18,483	9,746	6694	1	$ 26,910
PHOENIX 8000 UV-PERSULFATE TOC ANALYZ	Equipment	10	1/22/2003	$28,655	9,746	6694	1	$ 41,720
CARBON MIXER DRIVE	Equipment	15	1/26/2003	$122,600	9,746	6694	1	$ 178,497
MIXER	Equipment	10	2/24/2003	$8,814	9,746	6694	1	$ 12,832
PUMPS - FLOWAY	Equipment	10	2/24/2003	$7,559	9,746	6694	1	$ 11,005
PRINTER	Equipment	5	3/10/2003	$6,842	9,746	6694	1	$ 9,961
COLOR LASERJET PRINTER	Equipment	5	3/17/2003	$5,454	9,746	6694	1	$ 7,941
FORKLIFT - PNEUMATIC	Equipment	10	3/18/2003	$27,604	9,746	6694	1	$ 40,190
14" MAG FLOW TUBE SENSOR FOR LAGUNA I	Equipment	15	6/6/2003	$5,568	9,746	6694	1	$ 8,107
GENERATOR	Equipment	15	6/30/2003	$231,138	9,746	6694	1	$ 336,520
EQUIPMENT - SCADA COMPUTER SYSTEM UF	Equipment	15	7/1/2003	$514,549	9,746	6694	1	$ 749,148
GENERATOR - 250RD	Equipment	8	7/15/2003	$48,525	9,746	6694	1	$ 70,650
SOFTWARE-CASH RECEIPTS-ONE STEP	Equipment	5	7/21/2003	$7,675	9,746	6694	1	$ 11,174
GENERATOR - 10KW	Equipment	8	8/7/2003	$5,185	9,746	6694	1	$ 7,549
SOFTWARE-LIMS N5170110	Equipment	5	9/11/2003	$47,363	9,746	6694	1	$ 68,957
COMPUTER-TOWER SERVER-DELL 2600	Equipment	5	11/30/2003	$5,819	9,746	6694	1	$ 8,472
TRUCK-PICKUP F350	Equipment	6	12/8/2003	$18,163	9,746	6694	1	$ 26,444
TRUCK - PICKUP F150	Equipment	8	12/8/2003	$18,594	9,746	6694	1	$ 27,072
TRUCK-DUMP-5/6 YARD	Equipment	8	12/29/2003	$63,949	9,746	6694	1	$ 93,105
SERVICE BODY-TRUCK-SB-108-79-49-33-VO	Equipment	8	1/23/2004	$6,218	9,746	7115	1	$ 8,518
EQUIPMENT-CHLORINE FEED-S10KA	Equipment	8	1/27/2004	$7,449	9,746	7115	1	$ 10,203
SLUDGE COLLECTION SYSTEM REPLACEMENT	Equipment	15	3/3/2004	$234,233	9,746	7115	1	$ 320,848
GENERATOR - GS12-LP	Equipment	8	3/30/2004	$9,628	9,746	7115	1	$ 13,188
SEDAN-GENERAL PURPOSE	Equipment	7	5/5/2004	$10,000	9,746	7115	1	$ 13,698
SPECTROPHOTOMETER-AQUAMATE UV-VIS S	Equipment	8	6/11/2004	$5,486	9,746	7115	1	$ 7,515
REEL WITH HOSE - REEL-EX, HAPPY HOSE	Equipment	8	6/25/2004	$5,472	9,746	7115	1	$ 7,495
HOIST - WIRE ROPE - 3 TON ELECTRIC W/10'	Equipment	8	6/25/2004	$10,705	9,746	7115	1	$ 14,663
MOTOR - 150 HP FOR SLR SPARE PUMP	Equipment	5	10/22/2004	$5,753	9,746	7115	1	$ 7,881
TRUCK - 2005 FORD F150 4X4	Equipment	8	11/3/2004	$19,027	9,746	7115	1	$ 26,063
TRAILER - END DUMP, RANCO	Equipment	5	11/19/2004	$34,685	9,746	7115	1	$ 47,511
PUMP - FLOWAY ASSEMBLY - SLR SPARE	Equipment	5	12/9/2004	$14,208	9,746	7115	1	$ 19,461
ION CHROMATOGRAPHY SYSTEM, DIONEX IC	Equipment	5	12/22/2004	$33,952	9,746	7115	1	$ 46,506
TRUCK - 2005 FORD RANGER 4X4 WITH CAB	Equipment	8	12/26/2004	$19,308	9,746	7115	1	$ 26,447
METER - FIRE SERVICE	Equipment	7	1/28/2005	$7,249	9,746	7446	1	$ 9,488
EQUIPMENT - TRANSFER SWITCH	Equipment	5	3/25/2005	$15,195	9,746	7446	1	$ 19,889
DEBRIS BLOWER - TOW BEHIND - 2551E	Equipment	5	4/15/2005	$5,279	9,746	7446	1	$ 6,910
PUMP - GOULD SPLIT CASE-3410 2x3-11	Equipment	5	6/29/2005	$8,989	9,746	7446	1	$ 11,765
COMPUTER SERVER - POWEREDGE 2800 FOI	Equipment	5	9/20/2005	$5,059	9,746	7446	1	$ 6,621
FEED PUMP AND CONTROLLER	Equipment	10	10/18/2005	$14,890	9,746	7446	1	$ 19,489

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
SEDAN - 2006 FORD FOCUS	Equipment	8	10/26/2005	$13,865	9,746	7446	1	$ 18,147
SUV - 2006 ESCAPE HYBRID	Equipment	8	11/28/2005	$29,621	9,746	7446	1	$ 38,770
LOADER - BACKHOE IC580 SM	Equipment	8	2/28/2006	$64,409	9,746	7751	1	$ 80,987
OUTBOARD MOTOR - HONDA 50 HP LONGSH	Equipment	5	6/9/2006	$5,764	9,746	7751	1	$ 7,248
COMPRESSOR - LL AIR COMPRESSOR	Equipment	8	6/30/2006	$12,215	9,746	7751	1	$ 15,359
HYPOCHLORITE GENERATION SYSTEM	Equipment	7	7/1/2006	$44,088	9,746	7751	1	$ 55,435
TRUCK - 2006 CHEVY SILVERADO 1500	Equipment	7	8/29/2006	$14,843	9,746	7751	1	$ 18,663
ALIGNMENT TOOL - LINELAZER SET	Equipment	7	9/19/2006	$5,667	9,746	7751	1	$ 7,126
NANOPURE WATER SYSTEM	Equipment	7	9/29/2006	$5,152	9,746	7751	1	$ 6,478
BOAT - BOSTON WHALER 2006	Equipment	7	11/16/2006	$23,934	9,746	7751	1	$ 30,094
SCANNER - FUJITSU FI 5750C	Equipment	7	12/12/2006	$8,522	9,746	7751	1	$ 10,715
TRUCK - FORD RANGER SUPERCAB	Equipment	7	12/22/2006	$12,018	9,746	7751	1	$ 15,111
TRUCK - 2007 FORD F150 4 X 4	Equipment	7	12/22/2006	$19,576	9,746	7751	1	$ 24,615
TRUCK - 2007 F250 SUPER DUTY	Equipment	7	12/29/2006	$22,864	9,746	7751	1	$ 28,748
TRUCK - 2007 FORD F350	Equipment	7	12/29/2006	$26,277	9,746	7751	1	$ 33,041
CHLORINE ANALYZER - MICRO 2000	Equipment	7	1/9/2007	$8,145	9,746	7966	1	$ 9,965
BASE STATION REPEATER - 2	Equipment	7	1/19/2007	$1,005	9,746	7966	1	$ 1,229
BASE STATION REPEATER - 3	Equipment	7	1/19/2007	$1,005	9,746	7966	1	$ 1,229
BASE STATION REPEATER - 4	Equipment	7	1/19/2007	$450	9,746	7966	1	$ 550
BASE STATION REPEATER -1	Equipment	7	1/19/2007	$2,244	9,746	7966	1	$ 2,745
GENERATOR - OLYMPIAN STANDBY	Equipment	7	2/15/2007	$12,530	9,746	7966	1	$ 15,330
GENERATOR - MODEL 3500	Equipment	7	6/20/2007	$18,376	9,746	7966	1	$ 22,483
SCANNER/PLOTTER	Equipment	7	6/28/2007	$233	9,746	7966	1	$ 285
SCANNER/PLOTTER	Equipment	7	6/28/2007	$93	9,746	7966	1	$ 114
SCANNER/PLOTTER	Equipment	7	6/28/2007	$157	9,746	7966	1	$ 192
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$154	9,746	7966	1	$ 189
SCANNER/PLOTTER	Equipment	7	6/28/2007	$62	9,746	7966	1	$ 75
SCANNER/PLOTTER	Equipment	7	6/28/2007	$104	9,746	7966	1	$ 127
SCANNER/PLOTTER	Equipment	7	6/28/2007	$93	9,746	7966	1	$ 114
SCANNER/PLOTTER	Equipment	7	6/28/2007	$93	9,746	7966	1	$ 114
SCANNER/PLOTTER	Equipment	7	6/28/2007	$93	9,746	7966	1	$ 114
SCANNER/PLOTTER	Equipment	7	6/28/2007	$233	9,746	7966	1	$ 285
SCANNER/PLOTTER	Equipment	7	6/28/2007	$93	9,746	7966	1	$ 114
SCANNER/PLOTTER	Equipment	7	6/28/2007	$157	9,746	7966	1	$ 192
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$154	9,746	7966	1	$ 189
SCANNER/PLOTTER	Equipment	7	6/28/2007	$62	9,746	7966	1	$ 75
SCANNER/PLOTTER	Equipment	7	6/28/2007	$104	9,746	7966	1	$ 127
SCANNER/PLOTTER	Equipment	7	6/28/2007	$93	9,746	7966	1	$ 114
SCANNER/PLOTTER	Equipment	7	6/28/2007	$93	9,746	7966	1	$ 114
SCANNER/PLOTTER	Equipment	7	6/28/2007	$93	9,746	7966	1	$ 114
SCANNER/PLOTTER	Equipment	7	6/28/2007	$233	9,746	7966	1	$ 285
SCANNER/PLOTTER	Equipment	7	6/28/2007	$93	9,746	7966	1	$ 114
SCANNER/PLOTTER	Equipment	7	6/28/2007	$157	9,746	7966	1	$ 192
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$260	9,746	7966	1	$ 319
SCANNER/PLOTTER	Equipment	7	6/28/2007	$104	9,746	7966	1	$ 127

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
SCANNER/PLOTTER	Equipment	7	6/28/2007	$175	9,746	7966	1	$ 214
SCANNER/PLOTTER	Equipment	7	6/28/2007	$157	9,746	7966	1	$ 192
SCANNER/PLOTTER	Equipment	7	6/28/2007	$157	9,746	7966	1	$ 192
SCANNER/PLOTTER	Equipment	7	6/28/2007	$157	9,746	7966	1	$ 192
SCANNER/PLOTTER	Equipment	7	6/28/2007	$233	9,746	7966	1	$ 285
SCANNER/PLOTTER	Equipment	7	6/28/2007	$93	9,746	7966	1	$ 114
SCANNER/PLOTTER	Equipment	7	6/28/2007	$157	9,746	7966	1	$ 192
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
SCANNER/PLOTTER	Equipment	7	6/28/2007	$140	9,746	7966	1	$ 171
FELTON DAM CONTROL PANEL UPGRADE	Equipment	5	7/25/2007	$15,275	9,746	7966	1	$ 18,688
COPIER DIGITAL IMAGING SYSTEM	Equipment	5	10/3/2007	$8,894	9,746	7966	1	$ 10,881
TRUCK - FORD F150	Equipment	7	10/29/2007	$23,162	9,746	7966	1	$ 28,337
TRUCK - FORD F150	Equipment	7	11/1/2007	$14,877	9,746	7966	1	$ 18,201
TRUCK - FORD F150	Equipment	7	11/1/2007	$19,718	9,746	7966	1	$ 24,124
SEDAN - 2008 FORD ESCAPE HYBRID	Equipment	7	1/3/2008	$26,483	9,746	8310	1	$ 31,059
TRUCK - 2008 FORD F350	Equipment	7	1/11/2008	$26,654	9,746	8310	1	$ 31,260
CAPTOR TANK SYSTEM - 6500 GALLON	Equipment	15	4/30/2008	$22,532	9,746	8310	1	$ 26,426
CAPTOR TANK SYSTEM - 6500 GALLON	Equipment	15	4/30/2008	$22,532	9,746	8310	1	$ 26,426
CAPTOR TANK SYSTEM - 6500 GALLON	Equipment	15	4/30/2008	$22,532	9,746	8310	1	$ 26,426
ANALYZER - MICRO 200	Equipment	7	6/12/2008	$7,655	9,746	8310	1	$ 8,977
TRUCK - CBCLN VAC	Equipment	5	7/2/2008	$40,000	9,746	8310	1	$ 46,912
SERVER - DELL PE 2950	Equipment	5	8/22/2008	$5,550	9,746	8310	1	$ 6,509
TRAILER - ECONOLINE	Equipment	7	9/5/2008	$12,342	9,746	8310	1	$ 14,475
TRAILER - ECONOLINE	Equipment	7	9/5/2008	$12,342	9,746	8310	1	$ 14,475
CARBON CONTACT MIXER #6	Equipment	10	9/25/2008	$17,848	9,746	8310	1	$ 20,932
GEOEXPLORER XH 2008	Equipment	5	10/7/2008	$5,566	9,746	8310	1	$ 6,528
VEHICLE - 2008 FORD F550	Equipment	7	10/8/2008	$40,375	9,746	8310	1	$ 47,352
HEAVY EQUIPMENT - CASE BACHOE	Equipment	10	10/17/2008	$81,670	9,746	8310	1	$ 95,782
COPIER - SAVIN 9040B DIGITAL IMAGING SY	Equipment	5	10/23/2008	$7,506	9,746	8310	1	$ 8,804
VEHICLE - 2009 TOYOTA PRIUS	Equipment	7	11/6/2008	$25,911	9,746	8310	1	$ 30,388
HYDEC PRESSURE REDUCING STATION	Equipment	20	1/14/2009	$23,599	9,746	8570	1	$ 26,837
TRUCK - 2009 F450 HOOKLIFT	Equipment	8	1/21/2009	$61,956	9,746	8570	1	$ 70,458
VALUE MAINTENANCE TRAILER	Equipment	8	4/30/2009	$56,278	9,746	8570	1	$ 64,000
DUST COLLECTOR - AAF	Equipment	10	6/8/2009	$18,480	9,746	8570	1	$ 21,016
GENERATOR	Equipment	10	6/25/2009	$18,022	9,746	8570	1	$ 20,495
GENERATOR - 25 KVA PORTABLE	Equipment	8	8/20/2009	$15,330	9,746	8570	1	$ 17,434
LETTER EXTRACTOR	Equipment	5	9/9/2009	$7,646	9,746	8570	1	$ 8,696
AS/DV AUTOMATED SAMPLER	Equipment	10	11/12/2009	$6,400	9,746	8570	1	$ 7,278
CHEMICAL FEED PUMP	Equipment	10	12/1/2009	$8,505	9,746	8570	1	$ 9,672
CHLORINE ANALYZER	Equipment	10	12/1/2009	$4,710	9,746	8570	1	$ 5,357
HYPOCHLORITE FEED SYSTEM	Equipment	20	12/1/2009	$11,677	9,746	8570	1	$ 13,279
HYPOCHLORITE GENERATOR CELL	Equipment	20	12/1/2009	$9,955	9,746	8570	1	$ 11,321
HYPOCHLORITE GENERATOR SYSTEM	Equipment	20	12/1/2009	$117,739	9,746	8570	1	$ 133,896
PLC ANALOG CARDS	Equipment	10	12/1/2009	$5,306	9,746	8570	1	$ 6,034
HYPOCHLORITE DILUTION PANEL AND FEED S	Equipment	20	12/1/2009	$49,600	9,746	8570	1	$ 56,406
LEVEL CONTROL SYSTEM	Equipment	10	12/1/2009	$14,045	9,746	8570	1	$ 15,973
TANK LEVEL INDICATORS	Equipment	10	12/1/2009	$8,308	9,746	8570	1	$ 9,449
COMPRESSOR - AIR ROTARY SKREW	Equipment	8	2/5/2010	$16,534	9,746	8802	1	$ 18,307
COMPRESSOR - AIR ROTARY SKREW	Equipment	8	2/5/2010	$16,534	9,746	8802	1	$ 18,307
ELECTRIC CART - TAYLOR GREEN	Equipment	7	2/26/2010	$18,358	9,746	8802	1	$ 20,326
FINISHED WATER PUMP	Equipment	10	4/19/2010	$6,322	9,746	8802	1	$ 7,000
TOOLS-REUSABLE 4" HOSE	Equipment	8	6/18/2010	$34,133	9,746	8802	1	$ 37,794
TOC ANALYZER	Equipment	5	6/25/2010	$24,260	9,746	8802	1	$ 26,861

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
GENERATOR - KOHLER 8.5 RES- 8.5KW	Equipment	5	12/13/2010	$6,824	9,746	8802	1	$ 7,556
GHWTP FIRE ALARM SYSTEM	Equipment	10	2/22/2011	$71,062	9,746	9070	1	$ 76,358
TRUCK - FORD F550 XL CAB & CHASSIS	Equipment	7	3/31/2011	$29,086	9,746	9070	1	$ 31,253
GATEWAY SENUS FLEXNET TOWER	Equipment	10	4/14/2011	$29,975	9,746	9070	1	$ 32,209
REGIONAL NETWORK INTERFACE - FLEX TOW	Equipment	10	4/14/2011	$24,090	9,746	9070	1	$ 25,885
TRUCK - FORD RANGER XL : 4X2 REGULAR CA	Equipment	7	5/10/2011	$13,323	9,746	9070	1	$ 14,316
DUMP BED - CRYSTEEL 3 TO 4 YD	Equipment	7	5/12/2011	$10,601	9,746	9070	1	$ 11,391
DRILL PRESS - BAILEIGH DP - 1500VS	Equipment	5	5/26/2011	$5,987	9,746	9070	1	$ 6,433
TRUCK - FORD F150 XL 4X2 - 2011	Equipment	7	6/8/2011	$15,894	9,746	9070	1	$ 17,079
GENERATOR - KOHLER 8.5 KW	Equipment	5	7/7/2011	$8,592	9,746	9070	1	$ 9,232
LAB DISHWASHER / FLASK SCRUBBER	Equipment	7	8/8/2011	$7,324	9,746	9070	1	$ 7,870
CARBONERA & THURBER GENERATOR	Equipment	10	8/8/2011	$55,050	9,746	9070	1	$ 59,153
CARBONERA & THURBER GENERATOR	Equipment	10	8/8/2011	$55,050	9,746	9070	1	$ 59,153
BELTZ WELL 9 GENERATOR	Equipment	10	9/16/2011	$25,105	9,746	9070	1	$ 26,976
STERILIZER	Equipment	7	10/25/2011	$9,740	9,746	9070	1	$ 10,466
SENSUS FLEXNET TOWER GATEWAY BASE	Equipment	10	1/12/2012	$43,400	9,746	9308	1	$ 45,442
REMITTANCE PROCESSING SYSTEM	Equipment	5	2/22/2012	$52,669	9,746	9308	1	$ 55,148
2011 FORD F450: REGULAR CAB; A/C;	Equipment	7	3/8/2012	$54,939	9,746	9308	1	$ 57,524
2011 FORD ESCAPE HYBRID: 6 CYL; 4X4	Equipment	7	3/8/2012	$27,811	9,746	9308	1	$ 29,119
EXCAVATOR (BOBCAT)	Equipment	8	4/30/2012	$48,429	9,746	9308	1	$ 50,708
PTO CHIPPER	Equipment	8	6/27/2012	$7,706	9,746	9308	1	$ 8,068
COPIER	Equipment	5	9/4/2012	$5,638	9,746	9308	1	$ 5,903
GC AUTOSAMPLER/CONCENTRATOR	Equipment	7	10/1/2012	$29,309	9,746	9308	1	$ 30,688
TRUCK - 2012 PETERBILT 3 AXLE DUMP	Equipment	7	12/18/2012	$149,475	9,746	9308	1	$ 156,509
TRUCK - 2013 FORD F150 REGULAR CAB	Equipment	7	1/17/2013	$18,545	9,746	9547	1	$ 18,932
BACKHOE - 2012 CASE 580SN BACKHOE LOA	Equipment	7	1/17/2013	$99,833	9,746	9547	1	$ 101,913
TRUCK - 2013 FORD 4X4, V8, AUTOMATIC	Equipment	7	4/5/2013	$41,090	9,746	9547	1	$ 41,946
BUILDING - METAL STORAGE BUILDING	Equipment	10	11/20/2012	$13,632	9,746	9308	1	$ 14,274
LABORATORY MICROSCOPE	Equipment	10	7/30/2013	$14,802	9,746	9547	1	$ 15,110
KONICA MINOLTA BIZHUB C364 COLOR MFP	Equipment	10	9/9/2013	$5,598	9,746	9547	1	$ 5,715
VAC-CON HYDOR-EXCAVATION UNIT MOUNT	Equipment	10	9/12/2013	$326,991	9,746	9547	1	$ 333,807
2013 TOYOTA TACOMA: DOUBLE-CAB, 4X4,	Equipment	7	9/12/2013	$35,799	9,746	9547	1	$ 36,546
2014 FORD ESCAPE; 2.0 L ECOBOOST, AUTO	Equipment	7	9/16/2013	$25,377	9,746	9547	1	$ 25,906
2013 F150 4X4 SC SB #414	Equipment	7	10/4/2013	$25,478	9,746	9547	1	$ 26,009
2013 FORD F150 4X4 SUPERCAB, V6, SHORT	Equipment	7	11/6/2013	$32,216	9,746	9547	1	$ 32,887
2014 FORD F250 SUPERCAB TRUCK EQUIPPE	Equipment	7	11/6/2013	$19,516	9,746	9547	1	$ 19,923
2014 FORD F250 SUPERCAB TRUCK EQUIPPE	Equipment	7	11/6/2013	$19,516	9,746	9547	1	$ 19,923
2014 FORD F250: 4X54, SUPER CAB, 6.7L	Equipment	7	12/17/2013	$35,842	9,746	9547	1	$ 36,589
WONDERWARE HISTORIAN (DATABASE) SERV	Equipment	10	1/9/2014	$20,397	9,746	9746	1	$ 20,397
2014 FORD F550 3-4 YARD DUMP BODY; TA	Equipment	7	1/23/2014	$54,910	9,746	9746	1	$ 54,910
2014 FORD F250 SUPERCAB TRUCK EQUIPPE	Equipment	7	1/23/2014	$19,516	9,746	9746	1	$ 19,516
2014 FORD F250 SUPERCAB TRUCK EQUIPPE	Equipment	7	1/23/2014	$19,516	9,746	9746	1	$ 19,516
2014 FORD F350 SUPERDUTY TRUCK; 4X2, W	Equipment	7	2/5/2014	$37,190	9,746	9746	1	$ 37,190
HARDWARE UPGRADE TO NETWORK	Equipment	10	3/4/2014	$15,315	9,746	9746	1	$ 15,315
AIR STRIPPER EZ-36.6SS	Equipment	10	3/4/2014	$86,740	9,746	9746	1	$ 86,740
2013 FORD F150, REG CAB, V6, SHORT BED	Equipment	7	3/31/2014	$11,997	9,746	9746	1	$ 11,997
2013 FORD F150, REG CAB, V6, SHORT BED	Equipment	7	3/31/2014	$11,997	9,746	9746	1	$ 11,997
2013 FORD F150, REG CAB, V6, SHORT BED	Equipment	7	4/3/2014	$11,997	9,746	9746	1	$ 11,997
2013 FORD F150, REG CAB, V6, SHORT BED	Equipment	7	4/3/2014	$11,997	9,746	9746	1	$ 11,997
SQUARE D MODEL 4 MCC BUCKET	Equipment	10	4/17/2014	$8,250	9,746	9746	1	$ 8,250
BAY ST. RESERVOIR AERATOR	Equipment	7	4/29/2014	$40,977	9,746	9746	1	$ 40,977
HF SCIENTIFIC TSCM- P/N 19549 MICRO 200	Equipment	10	5/13/2014	$6,138	9,746	9746	1	$ 6,138
SPECTROPHOTOMETER	Equipment	10	5/13/2014	$6,650	9,746	9746	1	$ 6,650
LANDA HOT WATER PRESSURE WASHER	Equipment	10	5/22/2014	$14,836	9,746	9746	1	$ 14,836

APPENDIX D – (CONTINUED)

Table D-1: Asset Listing and Replacement Cost Calculation (Continued)

Asset Description	Asset Type	Useful Life (Years)	Acquire Date	Original Cost	2014 CCI	Original CCI	CCI Ratio (2014 CCI ÷ Original CCI)	Replacement Cost (CCI ratio * Original Cost)
SERVER STORAGE AC	Equipment	10	6/3/2014	$6,580	9,746	9746	1	$ 6,580
AUTO CRANE 3203 PRX-FM	Equipment	10	6/30/2014	$14,600	9,746	9746	1	$ 14,600
SOFTWARE - EDEN GL/AP,EDEN MENUS,PA M	Software	5	7/1/2002	$41,640	9,746	6538	1	$ 62,071
SOFTWARE - CASH RECEIPTING	Software	5	10/1/2002	$43,788	9,746	6538	1	$ 65,274
AMMS ADVANCED MAINTENANCE MGMT SY	Software	5	11/22/2002	$14,234	9,746	6538	1	$ 21,219
SOFTWARE - EDEN AR/BP/FA MODULE	Software	5	1/1/2003	$14,024	9,746	6694	1	$ 20,418
EDEN SOFTWARE - PY/HR MODULE	Software	5	10/31/2003	$69,419	9,746	6694	1	$ 101,070
SOFTWARE - CASH RECEIPTS - ONE STEP	Software	5	1/31/2005	$6,599	9,746	7446	1	$ 8,638
SOFTWARE - CASH RECEIPTS - ONE STEP	Software	5	2/15/2005	$7,125	9,746	7446	1	$ 9,326
SOFTWARE - SCADA SYSTEM UPGRADE	Software	5	2/25/2005	$52,600	9,746	7446	1	$ 68,848
SOFTWARE - INFO WATER SUITE 5.0	Software	5	3/10/2008	$16,000	9,746	8310	1	$ 18,765
EDEN SYSTEMS	Software	5	6/21/2010	$295,981	9,746	8802	1	$ 327,725
Total				**$145,993,654**				**$463,725,749**

APPENDIX E – (CAPITAL IMPROVEMENT PROJECTS)

Table E-1: Capital Improvement Projects[14]

Capital Improvement Description	R&R	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019
STORAGE OF WATER						
BSR Reconstruction (R&R)	100%	$5,468,836				
BSR Reconstruction (G)	0%	$1,313,725				
Recoat University Reservoir No .4	100%	$ 95,000	$ 100,000	$ 75,000	$1,300,000	
Recoat University Reservoir No .5	100%	$ 110,000	$ 75,000	$1,750,000		
DISTRIBUTION SYSTEM						
Gravity Trunk Main Valve Replacement	100%	$ 150,000	$ 200,000			
Water Main Replacement- City Engineering (R&R)	100%	$ 742,481	$1,000,000	$1,000,000	$1,000,000	$1,000,000
Water Main Replacement- Distribution (R&R)	100%	$ 300,000	$ 325,000	$ 325,000	$ 325,000	$ 325,000
Water Main Replacement- Customer Initiated (G)	0%	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000
Water Transmission System Imprvmnts (R&R)	100%	$ 513,510	$ 400,000	$ 400,000	$ 400,000	$ 400,000
Water Transmission System Imprvmnts (G)	0%	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000
Water Main Replacement- Outside Agency (R&R)	100%	$ 374,620	$ 200,000	$ 200,000	$ 200,000	$ 200,000
Newell Ck Dam Inlet/Outlet Pipeline	100%		$ 125,000	$1,500,000		
Newell Ck Pipeline Rehab	100%			$ 700,000		$4,000,000
North Coast System Rehab	100%	$1,267,876	$4,235,000	$4,000,000		$1,500,000
WATER SOURCES						
Coast Pump Station Rehab	100%					
Felton Diversion Replacement & Pump Station Rehab	100%		$ 300,000			$1,200,000
San Lorenzo River Diversion and Tait Wells	100%	$ 253,434	$ 300,000	$1,600,000		
Majors Creek Diversion	100%				$ 300,000	$ 300,000
Water Supply Project (R&R)	100%	$ 804,515		$ -	$ -	$ -
Water Supply Project (G)	0%	$ 854,220		$ -	$ -	$ -
Water Supply Reliability (R&R)	100%	$ 754,748	$ 350,000			
Water Supply Reliability (G)	0%	$ 323,463	$ 150,000			
Laguna Dam	100%				$ -	$ 300,000
TREATMENT OF WATER						
Beltz Well #11 Addition	100%			$ 70,000	$ 300,000	
Beltz #12	100%	$1,755,427				
Beltz Monitoring Wells	100%					
Beltz Reclaim Tank	100%					
WTP Concrete Tank Assessment & Rehabilitation	100%	$ 258,320	$ 250,000	$2,000,000	$2,000,000	$2,000,000
WTP Solids Handling	100%		$ 250,000	$ 500,000		
WTP Filter Rehab & Upgrades	100%	$4,723,994				
WTP Flocculator / Sedimentation	100%		$ 60,000	$ 600,000	$6,000,000	
WTP Hypochlorite Generation	100%	$ 75,000				
WTP UV System- Pasatiempo	100%	$ 40,000				
Water Treatment Upgrades	100%	$ 91,561	$ 200,000			
FACILITIES						
Water Resources Building	100%		$ 100,000	$1,000,000		
Advance Metering Infrastructure (AMI)	100%		$ 50,000	$4,000,000	$4,000,000	
Bunker Roof Project	100%	$ 200,000	$ 150,000			
Loch Lomond Facilities Improvements	100%	$ 180,324	$ 100,000			
Photovoltaic Systems Evaluation/Construction	100%		$ 40,000	$ 500,000		
TOTAL		**$20,801,054**	**$9,110,000**	**$20,370,000**	**$15,975,000**	**$11,375,000**

[14] CIP provided by City Staff, "5-year CIP Projections.xlsx".
Note: The CIP does not include a future water supply project which, when decided, will be funded through future water rates. Also, although staff is beginning to plan work on a Newell Creek dam repair project, estimates have not been included in this analysis due to the uncertainty of the extent and timing of the work.