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Update "With-Site-Visit" Reserve Study

Clearwood
Water Systems
Yelm, WA

Report #: 7223-5
For Period Beginning: January 1, 2019
Expires: December 31, 2019

Date Prepared: January 3, 2018

SUSAN OORD
CAI-RS
00191
DESIGNATION
RESERVE SPECIALIST

Hello, and welcome to your Reserve Study!

This Report is a valuable budget planning tool, for with it you control the future of your association. It contains all the fundamental information needed to understand your current and future Reserve obligations, the most significant expenditures your association will face.

With respect to Reserves, this Report will tell you "where you are," and "where to go from here."

In this Report, you will find...

1) A List of What you're Reserving For

2) An Evaluation of your Reserve Fund Size and Strength

3) A Recommended Multi-Year Reserve Funding Plan

More Questions?

Visit our website at www.ReserveStudy.com or call us at:

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ASSOCIATION RESERVES
Est. 1986

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3- Minute Executive Summary

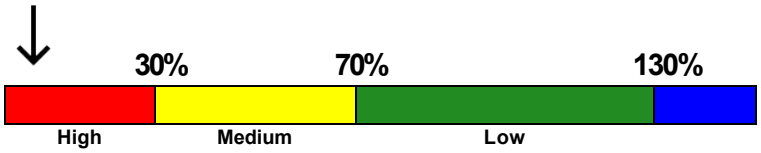
Association:	**Clearwood Water Systems**	**Assoc. #: 7223-5**
Location:	**Yelm, WA**	**# of Units:1355**
Report Period:	**January 1, 2019 through December 31, 2019**	

Findings/Recommendations as-of: January 1, 2019

Starting Reserve Balance	**$340,560**
Current Fully Funded Reserve Balance	**$6,553,892**
Percent Funded	**5.2 %**
Average Reserve Deficit or (Surplus) Per Unit	**$4,585**
Recommended 2019 100% Annual "Full Funding" Contributions	**$450,000**
2019 "Baseline Funding" minimum contributions to keep Reserves above $0	**$420,000**
Most Recent Budgeted Contribution Rate	**$250,675**

Reserves % Funded: 5.2%

Special Assessment Risk:



Economic Assumptions:

Net Annual "After Tax" Interest Earnings Accruing to Reserves	**1.00 %**
Annual Inflation Rate	**3.00 %**

• This is a Update "With-Site-Visit" Reserve Study, meeting or exceeding all requirements of the RCW. This study was prepared by a credentialed Reserve Specialist (RS™).

• Your Reserve Fund is currently 5.2 % Funded. This means the association's special assessment & deferred maintenance risk is currently High. The objective of your multi-year Funding Plan is to fund your Reserves to a level where you will enjoy a low risk of such Reserve cash flow problems.

• Based on this starting point and your anticipated future expenses, our recommendation is to budget Reserve Contributions at the 100% level as noted above. The 100% "Full" contribution rate is designed to gradually achieve this funding objective by the end of our 30-year report scope.

• No assets appropriate for Reserve designation known to be excluded. See appendix for component information and the basis of our assumptions.

#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost
	Inventory Appendix			
100	Sanitary Survey	3	0	$6,050
101	Water System Plan - Update	6	4	$33,000
102	Well #5 - Replace Casing	80	80	$147,500
102	Well Pump / Motor #5 - Replace	10	10	$22,500
103	Well Pump / Motor #1 - Replace	10	9	$12,000
104	Well #1 - Replace Casing	80	34	$147,500
105	Well Pump / Motor #2 - Replace	10	4	$18,050
106	Well #2 - Replace Casing	80	44	$147,500
107	Well Pump / Motor #4 - Replace	10	0	$22,400
108	Well #4 - Replace Casing	80	54	$147,500
109	Source Flow Meters - Replace	5	0	$7,650
110	Storage Tank #1 - Replace	80	32	$677,500
111	Storage Tank #1 - Coat Exterior	20	12	$29,500
112	Storage Tank #1 - Coat Interior	20	15	$115,500
114	Storage Tank #2 - Replace	80	52	$923,000
115	Storage Tank #2 - Coat Exterior	20	12	$71,050
116	Storage Tank #2 - Coat Interior	20	12	$273,500
118	Storage Reservoirs - Dive Inspect	5	1	$7,400
119	Reservoir 2 Ladder - Repaint	10	0	$11,900
120	Reservoir Cathodic Protection 1	20	14	$15,300
121	Reservoir Cathodic Protection 2	20	4	$21,850
122	Water Hammer Surge Tanks	50	1	$14,200
300	Water Main Project D-1: Replace	60	0	$511,500
301	Water Main Project D-2: Replace	60	1	$374,000
302	Water Main Project D-3: Replace	60	4	$395,500
303	Water Main Project D-4: Replace	60	7	$527,000
304	Water Main Project D-5a: Replace	60	10	$523,500
305	Water Main Project D-5b: Replace	60	13	$524,500
306	Water Main Project D-6: Replace	60	16	$584,500
307	Water Main Project D-7: Replace	60	19	$299,500
308	Remaining Water Main Lines -Replace	60	22	$797,500
309	Remaining Water Main Lines -Replace	60	25	$797,500
310	Main Lines Replaced 2002, Cycle	60	43	$977,500
310	Main Lines Replaced 2009, Cycle	60	50	$573,500
311	Main Valves- Rplc (2002)	30	13	$104,150
311	Main Valves- Rplc (2009)	30	20	$72,500
311	Main Valves- Rplc (other)	30	22	$63,950
311	Main Valves- Rplc (Phase 1)	30	0	$55,750
311	Main Valves- Rplc (Phase 2)	30	1	$55,150
311	Main Valves- Rplc (Phase 3)	30	4	$23,700
311	Main Valves- Rplc (Phase 4)	30	7	$31,550
311	Main Valves- Rplc (Phase 5a)	30	10	$12,000
311	Main Valves- Rplc (Phase 5b)	30	13	$10,915
311	Main Valves- Rplc (Phase 6)	30	16	$28,900
311	Main Valves- Rplc (Phase 7)	30	19	$13,700

#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost
312	Hydrant near Maint. Bldg.	30	24	$5,450
312	Hydrants - Rplc (2002)	30	13	$50,250
312	Hydrants - Rplc (2009)	30	20	$32,750
312	Hydrants - Rplc (other)	30	15	$39,350
312	Hydrants - Rplc (Phase 1)	30	0	$13,100
312	Hydrants - Rplc (Phase 2)	30	1	$24,050
312	Hydrants - Rplc (Phase 3)	30	4	$28,400
312	Hydrants - Rplc (Phase 4)	30	7	$27,350
312	Hydrants - Rplc (Phase 5a)	30	10	$9,550
312	Hydrants - Rplc (Phase 5b)	30	13	$16,400
312	Hydrants - Rplc (Phase 6)	30	16	$29,500
312	Hydrants - Rplc (Phase 7)	30	19	$5,450
316	Water Service Meters -Rplc(Phase1)	10	3	$7,400
316	Water Service Meters -Rplc(Phase10)	10	2	$7,400
316	Water Service Meters -Rplc(Phase2)	10	4	$7,400
316	Water Service Meters -Rplc(Phase3)	10	5	$7,400
316	Water Service Meters -Rplc(Phase4)	10	6	$7,400
316	Water Service Meters -Rplc(Phase5)	10	7	$7,400
316	Water Service Meters -Rplc(Phase6)	10	8	$7,400
316	Water Service Meters -Rplc(Phase7)	10	9	$7,400
316	Water Service Meters -Rplc(Phase8)	10	0	$7,400
316	Water Service Meters -Rplc(Phase9)	10	1	$7,400
317	Water Meter Setters -Rplc(Phase1)	20	13	$24,450
317	Water Meter Setters -Rplc(Phase2)	20	14	$24,450
317	Water Meter Setters -Rplc(Phase3)	20	15	$24,450
317	Water Meter Setters -Rplc(Phase4)	20	16	$24,450
317	Water Meter Setters -Rplc(Phase5)	20	17	$24,450
317	Water Meter Setters -Rplc(Phase6)	20	18	$24,450
317	Water Meter Setters -Rplc(Phase7)	20	19	$24,450
317	Water Meter Setters -Rplc(Phase8)	20	0	$24,450
317	Water Meter Setters -Rplc(Phase9)	20	1	$24,450
317	Water Meter Setters-Rplc (Phase10)	20	2	$24,450
323	Cla-Val Valves - Repair/Replace	5	0	$4,950
324	Leak Detection	4	1	$7,400
400	Well 4 Control Systems - Replace	25	6	$21,850
400	Well 5 Cntrl Systems - Replace	25	25	$21,850
400	Wells 1 & 2 Cntrl Systems - Replace	25	6	$36,600
401	Caustic Systems - Repair/Replace	30	11	$24,600
402	Well #1 & #2 Generator & Controls	50	45	$43,700
402	Well #4 Generator - Replace	50	27	$47,800
403	Telemetry System - Replace	20	5	$20,800
410	Well House 1, 2 - Replace	40	3	$24,550
410	Well House 4 - Replace	40	8	$12,000
410	Well House 5 - Replace	40	40	$12,000
411	Well Sites Fence - Replace	30	9	$15,850
412	Reservoir Fences - Replace	30	9	$11,250
450	Water Trailer - Purchase	10	0	$6,050
450	Water Truck - Replace	10	0	$10,000
460	Public Utility Water - Pay Tax	1	0	$12,000
94	**Total Funded Components**			

#	Component	Useful Life (yrs)	Rem. Useful Life (yrs)	Current Average Cost

Note 1: Yellow highlighted line items are expected to require attention in this intial year, green highlighted items are expected to occur within the first-five years.

Introduction

A Reserve Study is the art and science of anticipating, and preparing for, an association's major common area repair and replacement expenses. Partially art, because in this field we are making projections about the future. Partially science, because our work is a combination of research and well-defined computations, following consistent National Reserve Study Standard principles.

The foundation of this and every Reserve Study is your Reserve Component List (what you are reserving for). This is because the Reserve Component List defines the *scope and schedule* of all your anticipated upcoming Reserve projects. Based on that List and your starting balance, we calculate the association's Reserve Fund Strength (reported in terms of "Percent Funded"). Then we compute a Reserve Funding Plan to provide for the Reserve needs of the association. These form the three results of your Reserve Study.

RESERVE STUDY RESULTS

Reserve contributions are not “for the future”. Reserve contributions are designed to offset the ongoing, daily deterioration of your Reserve assets. Done well, a stable, budgeted Reserve Funding Plan will collect sufficient funds from the owners who enjoyed the use of those assets, so the association is financially prepared for the irregular expenditures scattered through future years when those projects eventually require replacement.

Methodology

For this Update With-Site-Visit Reserve Study, we started with a review of your prior Reserve Study, then looked into recent Reserve expenditures, evaluated how expenditures are handled (ongoing maintenance vs Reserves), and researched any well-established association precedents. We performed an on-site inspection to evaluate your common areas, updating and adjusting your Reserve Component List as appropriate.

Which Physical Assets are Funded by Reserves?

RESERVE COMPONENT "FOUR-PART TEST"

There is a national-standard four-part test to determine which expenses should appear in your Reserve Component List. First, it must be a common area maintenance responsibility. Second, the component must have a limited life. Third, the remaining life must be predictable (or it by definition is a *surprise* which cannot be accurately anticipated). Fourth, the component must be above a minimum threshold cost (often between .5% and 1% of an association's total budget). This limits Reserve Components to major, predictable expenses. Within this framework, it is inappropriate to include *lifetime* components, unpredictable expenses (such as damage due to fire, flood, or earthquake), and expenses more appropriately handled from the Operational Budget or as an insured loss.

How do we establish Useful Life and Remaining Useful Life estimates?

1) Visual Inspection (observed wear and age)
2) Association Reserves database of experience
3) Client History (install dates & previous life cycle information)
4) Vendor Evaluation and Recommendation

How do we establish Current Repair/Replacement Cost Estimates?

In this order...

1) Actual client cost history, or current proposals
2) Comparison to Association Reserves database of work done at similar associations
3) Vendor Recommendations
4) Reliable National Industry cost estimating guidebooks

How much Reserves are enough?

Reserve adequacy is not measured in cash terms. Reserve adequacy is found when the *amount* of current Reserve cash is compared to Reserve component deterioration (the *needs of the association*). Having *enough* means the association can execute its projects in a timely manner with existing Reserve funds. Not having *enough* typically creates deferred maintenance or special assessments.

Adequacy is measured in a two-step process:

1) Calculate the *value of deterioration* at the association (called Fully Funded Balance, or FFB).
2) Compare that to the Reserve Fund Balance, and express as a percentage.

Each year, the *value of deterioration* at the association changes. When there is more deterioration (as components approach the time they need to be replaced), there should be more cash to offset that deterioration and prepare for the expenditure. Conversely, the *value of deterioration* shrinks after projects are accomplished. The *value of deterioration* (the FFB) changes each year, and is a moving but predictable target.

There is a high risk of special assessments and deferred maintenance when the Percent Funded is *weak*, below 30%. Approximately 30% of all associations are in this high risk range. While the 100% point is Ideal (indicating Reserve cash is equal to the *value of deterioration*), a Reserve Fund in the 70% - 130% range is considered strong (low risk of special assessment).

Measuring your Reserves by Percent Funded tells how well prepared your association is for upcoming Reserve expenses. New buyers should be very aware of this important disclosure!

How much should we contribute?

RESERVE FUNDING PRINCIPLES

According to National Reserve Study Standards, there are four Funding Principles to balance in developing your Reserve Funding Plan. Our first objective is to design a plan that provides you with sufficient cash to perform your Reserve projects on time. Second, a stable contribution is desirable because it keeps these naturally irregular expenses from unsettling the budget.

Reserve contributions that are evenly distributed over current and future owners enable each owner to pay their fair share of the association's Reserve expenses over the years. And finally, we develop a plan that is fiscally responsible and safe for Boardmembers to recommend to their association. Remember, it is the Board's job to provide for the ongoing care of the common areas. Boardmembers invite liability exposure when Reserve contributions are inadequate to offset ongoing common area deterioration.

What is our Recommended Funding Goal?

FUNDING OBJECTIVES

Maintaining the Reserve Fund at a level equal to the *value* of deterioration is called "Full Funding" (100% Funded). As each asset ages and becomes "used up," the Reserve Fund grows proportionally. **This is simple, responsible, and our recommendation.** Evidence shows that associations in the 70 - 130% range *enjoy a low risk of special assessments or deferred maintenance.*

Allowing the Reserves to fall close to zero, but not below zero, is called Baseline Funding. Doing so allows the Reserve Fund to drop into the 0 - 30% range, where there is a high risk of special assessments & deferred maintenance. Since Baseline Funding still provides for the timely execution of all Reserve projects, and only the "margin of safety" is different, Baseline Funding contributions average only 10% - 15% less than Full Funding contributions. Threshold Funding is the title of all other Cash or Percent Funded objectives *between* Baseline Funding and Full Funding.

Site Inspection Notes

During our site visit on 9/28/2017, we visually inspected all visible common area while compiling a photographic inventory, noting: current condition, make & model information where appropriate, apparent levels of care and maintenance, exposure to weather elements and other factors that may affect the components useful life. We met with board members and had extensive tour with on-site maintenance manager. We discussed past projects, current concerns and future plans.

It is highly recommended the Association coordinate a water line and roads replacement project. We recommend Association consult with an engineer to develop a plan and incorporate in future reserve study updates. The costs/timing estimations in this reserve study are to be used as place marker and should be adjusted based on professional consultation.

Projected Expenses

While this Reserve Study looks forward 30 years, we have no expectation that all these expenses will all take place as anticipated. This Reserve Study needs to be updated annually because we expect the timing of these expenses to shift and the size of these expenses to change. We do feel more certain of the timing and cost of near-term expenses than expenses many years away.

The figure below summarizes the projected future expenses at your association as defined by your Reserve Component List. A summary of these expenses are shown in the 30-yr Summary Table, while details of the projects that make up these expenses are shown in the Cash Flow Detail Table.

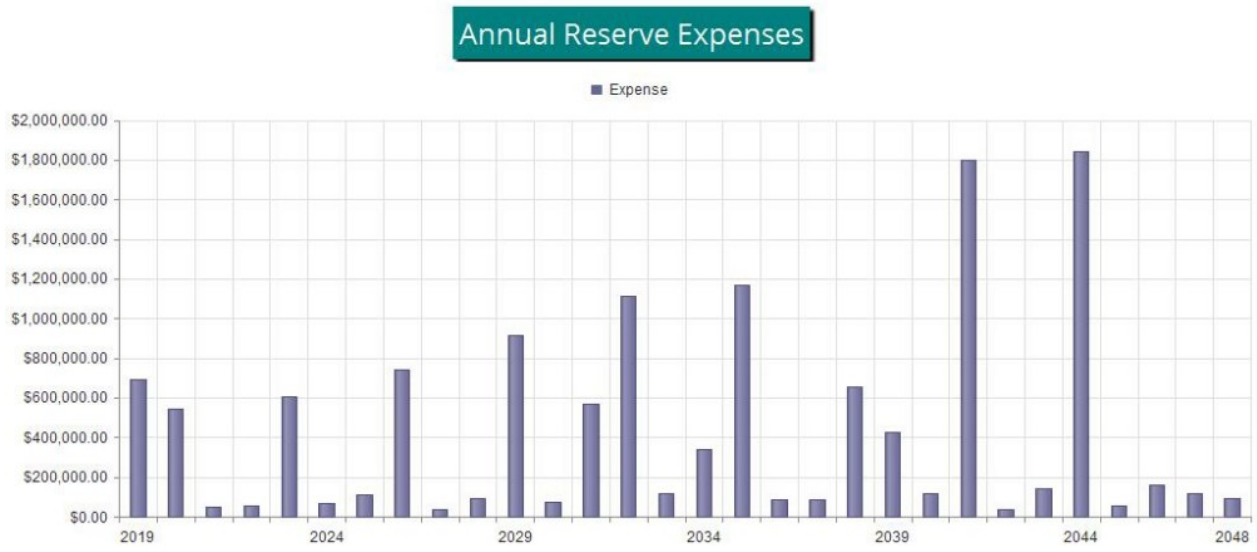


Figure 1

Reserve Fund Status

The starting point for our financial analysis is your Reserve Fund balance, projected to be $340,560 as-of the start of your Fiscal Year on 1/1/2019. As of that date , your Fully Funded Balance is computed to be $6,553,892 (see Fully Funded Balance Table). This figure represents the deteriorated value of your common area components.

Recommended Funding Plan

Based on your current Percent Funded and your near-term and long-term Reserve needs, we are recommending budgeted contributions of $450,000 per year this Fiscal Year. The overall 30-yr plan, in perspective, is shown below. This same information is shown numerically in both the 30-yr Summary Table and the Cash Flow Detail Table.

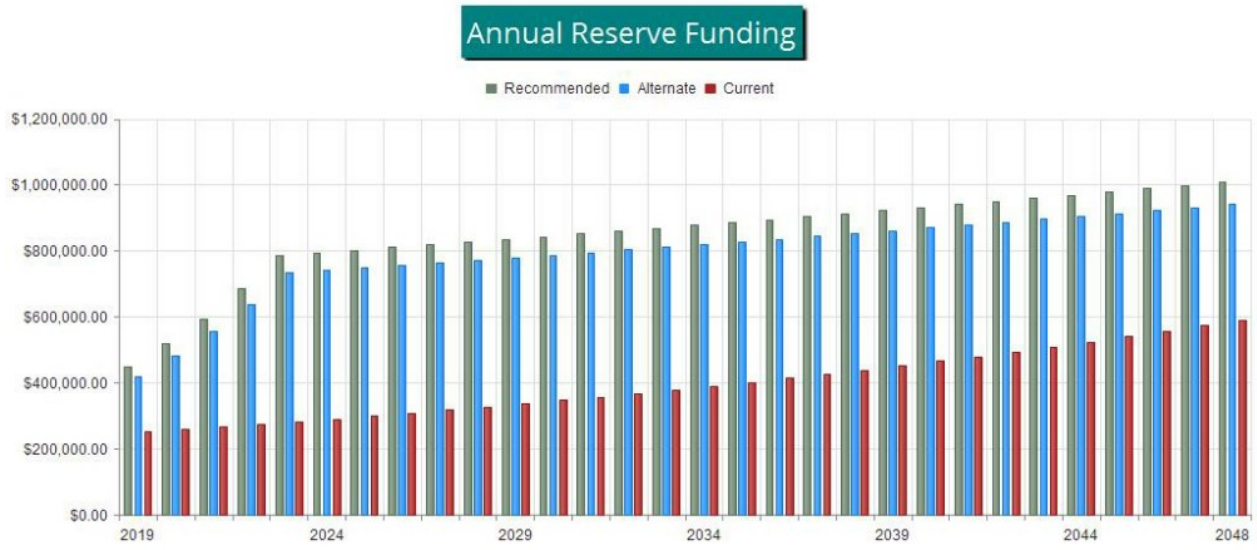


Figure 2

The following chart shows your Reserve balance under our recommended Full Funding Plan, an alternate Baseline Funding Plan, and at your current budgeted contribution rate (assumes future increases), compared to your always-changing Fully Funded Balance target.

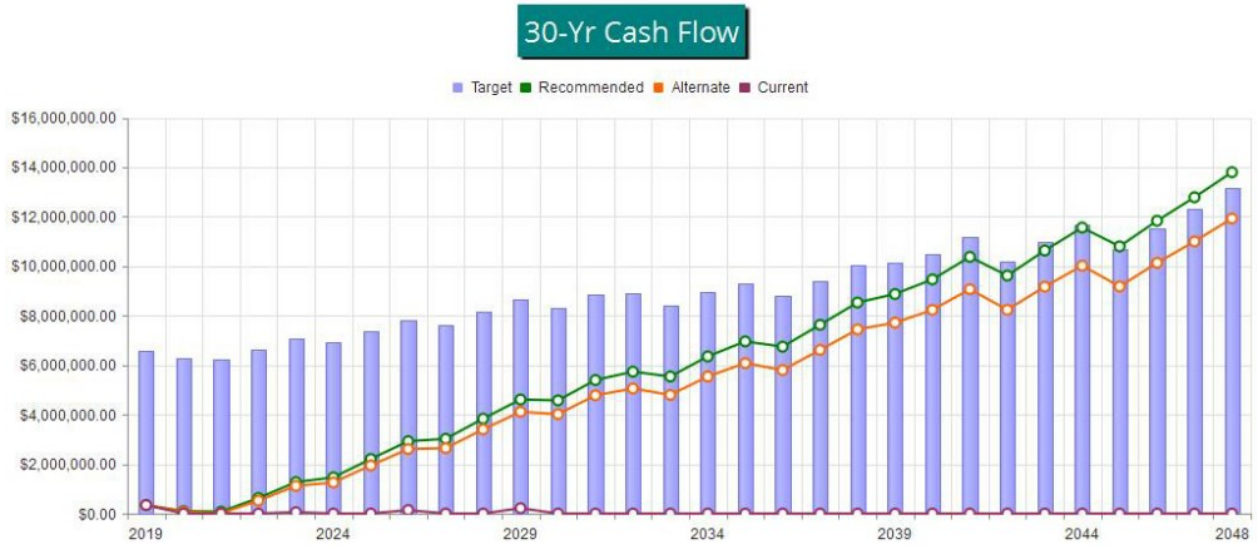


Figure 3

This figure shows the same information plotted on a Percent Funded scale. It is clear here to see how your Reserve Fund strength approaches the 100% Funded level under our recommended multi-yr Funding Plan.

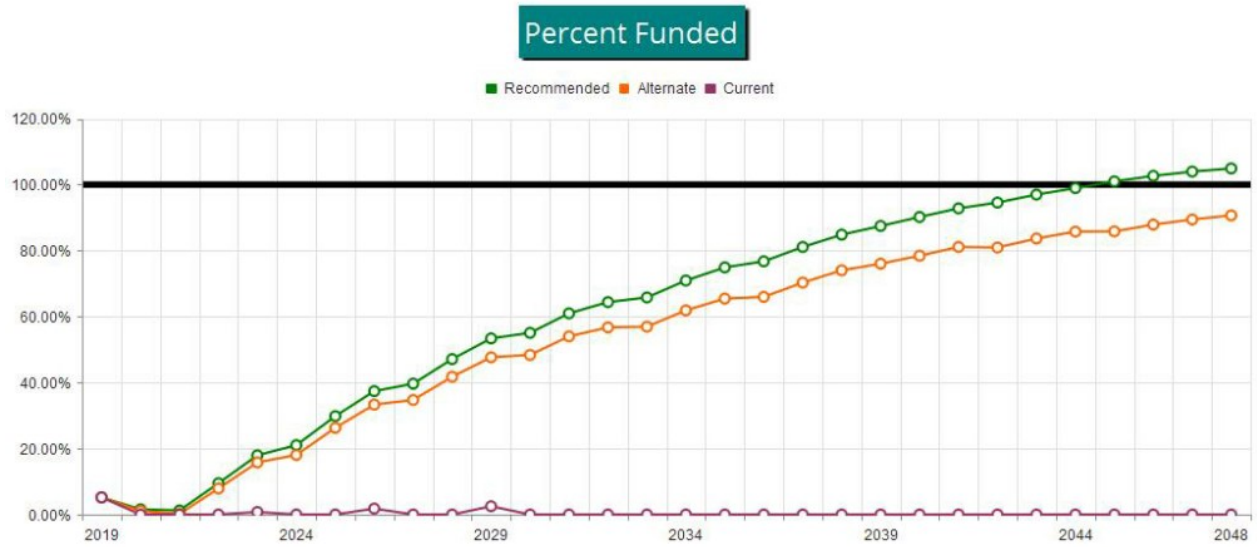


Figure 4

Table Descriptions

The tabular information in this Report is broken down into nine tables, not all which may have been chosen by your Project Manager to appear in your report. Tables are listed in the order in which they appear in your Report.

Executive Summary is a summary of your Reserve Components

Budget Summary is a management and accounting tool, summarizing groupings of your Reserve Components.

Analysis Summary provides a summary of the starting financial information and your Project Manager's Financial Analysis decision points.

Reserve Component List Detail discloses key Component information, providing the foundation upon which the financial analysis is performed.

Fully Funded Balance shows the calculation of the Fully Funded Balance for each of your components, and their contributions to the association total. For each component, the Fully Funded Balance is the fraction of life used up multiplied by its estimated Current Replacement Cost.

Component Significance shows the relative significance of each component to Reserve funding needs of the association, helping you see which components have more (or less) influence than others on your total Reserve contribution rate. The deterioration cost/yr of each component is calculated by dividing the estimated Current Replacement Cost by its Useful Life, then that component's percentage of the total is displayed.

Accounting-Tax Summary provides information on each Component's proportionate portion of key totals, valuable to accounting professionals primarily during tax preparation time of year.

30-Yr Reserve Plan Summary provides a one-page 30-year summary of the cash flowing into and out of the Reserve Fund, with a display of the Fully Funded Balance, Percent Funded, and special assessment risk at the beginning of each year.

30-Year Income/Expense Detail shows the detailed income and expenses for each of the next 30 years. This table makes it possible to see which components are projected to require repair or replacement in a particular year, and the size of those individual expenses.

#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate Best Case	Current Cost Estimate Worst Case
	Inventory Appendix					
100	Sanitary Survey	State required survey	3	0	$5,500	$6,600
101	Water System Plan - Update	Every 6 years	6	4	$28,000	$38,000
102	Well #5 - Replace Casing	8" steel, Unk depth	80	80	$126,000	$169,000
102	Well Pump / Motor #5 - Replace	(1) 7.5 hp submersible 4"	10	10	$20,000	$25,000
103	Well Pump / Motor #1 - Replace	(1) 7.5 hp submersible 4"	10	9	$10,900	$13,100
104	Well #1 - Replace Casing	8" steel, 60'	80	34	$126,000	$169,000
105	Well Pump / Motor #2 - Replace	(1) 30 hp submersible 6"	10	4	$17,500	$18,600
106	Well #2 - Replace Casing	10" steel, 67'	80	44	$126,000	$169,000
107	Well Pump / Motor #4 - Replace	(1) 25 hp submersible 6"	10	0	$19,700	$25,100
108	Well #4 - Replace Casing	12" steel, 45'	80	54	$126,000	$169,000
109	Source Flow Meters - Replace	(4*) source meters	5	0	$7,400	$7,900
110	Storage Tank #1 - Replace	182,000 gallon steel	80	32	$612,000	$743,000
111	Storage Tank #1 - Coat Exterior	182,000 gallon	20	12	$27,300	$31,700
112	Storage Tank #1 - Coat Interior	182,000 gallon	20	15	$109,000	$122,000
114	Storage Tank #2 - Replace	423,000 gallon steel	80	52	$863,000	$983,000
115	Storage Tank #2 - Coat Exterior	423,000 gallon	20	12	$65,600	$76,500
116	Storage Tank #2 - Coat Interior	423,000 gallon	20	12	$219,000	$328,000
118	Storage Reservoirs - Dive Inspect	(2) dive inspections	5	1	$6,800	$8,000
119	Reservoir 2 Ladder - Repaint	Ladder assembly	10	0	$10,800	$13,000
120	Reservoir Cathodic Protection 1	(1) cathodic system	20	14	$14,200	$16,400
121	Reservoir Cathodic Protection 2	(1) cathodic system	20	4	$19,700	$24,000
122	Water Hammer Surge Tanks	Surge tanks	50	1	$10,900	$17,500
300	Water Main Project D-1: Replace	~ 0.9 miles	60	0	$490,000	$533,000
301	Water Main Project D-2: Replace	~ 0.7 miles	60	1	$352,000	$396,000
302	Water Main Project D-3: Replace	~ 0.7 miles	60	4	$374,000	$417,000
303	Water Main Project D-4: Replace	~ 0.9 miles	60	7	$505,000	$549,000
304	Water Main Project D-5a: Replace	~ .85 miles	60	10	$502,000	$545,000
305	Water Main Project D-5b: Replace	~ .85 miles	60	13	$503,000	$546,000
306	Water Main Project D-6: Replace	~ 1.0 miles	60	16	$563,000	$606,000
307	Water Main Project D-7: Replace	~ .5 miles	60	19	$278,000	$321,000
308	Remaining Water Main Lines -Replace	~ 1.25 miles	60	22	$765,000	$830,000
309	Remaining Water Main Lines -Replace	~ 1.25 miles	60	25	$765,000	$830,000
310	Main Lines Replaced 2002, Cycle	~ 1.53 miles	60	43	$945,000	$1,010,000
310	Main Lines Replaced 2009, Cycle	~ .9 miles	60	50	$546,000	$601,000
311	Main Valves- Rplc (2002)	40 valves	30	13	$93,300	$115,000
311	Main Valves- Rplc (2009)	31 valves	30	20	$67,000	$78,000
311	Main Valves- Rplc (other)	36 valves	30	22	$58,500	$69,400
311	Main Valves- Rplc (Phase 1)	25 valves	30	0	$50,300	$61,200
311	Main Valves- Rplc (Phase 2)	24 valves	30	1	$49,700	$60,600
311	Main Valves- Rplc (Phase 3)	12 valves	30	4	$18,200	$29,200
311	Main Valves- Rplc (Phase 4)	15 valves	30	7	$26,100	$37,000
311	Main Valves- Rplc (Phase 5a)	6 valves	30	10	$10,900	$13,100
311	Main Valves- Rplc (Phase 5b)	5 valves	30	13	$9,830	$12,000
311	Main Valves- Rplc (Phase 6)	14 valves	30	16	$23,400	$34,400

#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate	
					Best Case	Worst Case
311	Main Valves- Rplc (Phase 7)	7 valves	30	19	$11,500	$15,900
312	Hydrant near Maint. Bldg.	1 new hydrant	30	24	$4,900	$6,000
312	Hydrants - Rplc (2002)	9 hydrants, 1 air vac	30	13	$44,800	$55,700
312	Hydrants - Rplc (2009)	5 hydrants, 5 air vac	30	20	$27,300	$38,200
312	Hydrants - Rplc (other)	4 hydrts,2 needed,6 air v	30	15	$33,900	$44,800
312	Hydrants - Rplc (Phase 1)	1 hydrt,1 needed,2 air v	30	0	$10,900	$15,300
312	Hydrants - Rplc (Phase 2)	3 hydrts,need 1, 2 air v	30	1	$18,600	$29,500
312	Hydrants - Rplc (Phase 3)	5 hydrants, 1 needed	30	4	$22,900	$33,900
312	Hydrants - Rplc (Phase 4)	3 hydrants, 2 needed	30	7	$21,900	$32,800
312	Hydrants - Rplc (Phase 5a)	1 hyrdnt,need 1, 1 air v	30	10	$4,900	$14,200
312	Hydrants - Rplc (Phase 5b)	1 hydrnt,2 needed	30	13	$13,100	$19,700
312	Hydrants - Rplc (Phase 6)	4 hydrnts,need 1, 2 air v	30	16	$24,000	$35,000
312	Hydrants - Rplc (Phase 7)	1 hydrant	30	19	$4,900	$6,000
316	Water Service Meters -Rplc(Phase1)	~103.5 of 1,034 connectns	10	3	$6,800	$8,000
316	Water Service Meters -Rplc(Phase10)	~103.5 of 1,034 connectns	10	2	$6,800	$8,000
316	Water Service Meters -Rplc(Phase2)	~103.5 of 1,034 connectns	10	4	$6,800	$8,000
316	Water Service Meters -Rplc(Phase3)	~103.5 of 1,034 connectns	10	5	$6,800	$8,000
316	Water Service Meters -Rplc(Phase4)	~103.5 of 1,034 connectns	10	6	$6,800	$8,000
316	Water Service Meters -Rplc(Phase5)	~103.5 of 1,034 connectns	10	7	$6,800	$8,000
316	Water Service Meters -Rplc(Phase6)	~103.5 of 1,034 connectns	10	8	$6,800	$8,000
316	Water Service Meters -Rplc(Phase7)	~103.5 of 1,034 connectns	10	9	$6,800	$8,000
316	Water Service Meters -Rplc(Phase8)	~103.5 of 1,034 connectns	10	0	$6,800	$8,000
316	Water Service Meters -Rplc(Phase9)	~103.5 of 1,034 connectns	10	1	$6,800	$8,000
317	Water Meter Setters -Rplc(Phase1)	~103.5 of 1,034 connectns	20	13	$22,300	$26,600
317	Water Meter Setters -Rplc(Phase2)	~103.5 of 1,034 connectns	20	14	$22,300	$26,600
317	Water Meter Setters -Rplc(Phase3)	~103.5 of 1,034 connectns	20	15	$22,300	$26,600
317	Water Meter Setters -Rplc(Phase4)	~103.5 of 1,034 connectns	20	16	$22,300	$26,600
317	Water Meter Setters -Rplc(Phase5)	~103.5 of 1,034 connectns	20	17	$22,300	$26,600
317	Water Meter Setters -Rplc(Phase6)	~103.5 of 1,034 connectns	20	18	$22,300	$26,600
317	Water Meter Setters -Rplc(Phase7)	~103.5 of 1,034 connectns	20	19	$22,300	$26,600
317	Water Meter Setters -Rplc(Phase8)	~103.5 of 1,034 connectns	20	0	$22,300	$26,600
317	Water Meter Setters -Rplc(Phase9)	~103.5 of 1,034 connectns	20	1	$22,300	$26,600
317	Water Meter Setters-Rplc (Phase10)	~103.5 of 1,034 connectns	20	2	$22,300	$26,600
323	Cla-Val Valves - Repair/Replace	(2) Cla-Val flow control	5	0	$4,300	$5,600
324	Leak Detection	Every other year	4	1	$6,800	$8,000
400	Well 4 Control Systems - Replace	Motor controls, related	25	6	$18,600	$25,100
400	Well 5 Cntrl Systems - Replace	Motor controls, related	25	25	$18,600	$25,100
400	Wells 1 & 2 Cntrl Systems - Replace	Motor controls, related	25	6	$30,600	$42,600
401	Caustic Systems - Repair/Replace	(2) Sodium Hydroxide syst	30	11	$21,900	$27,300
402	Well #1 & #2 Generator & Controls	Generator controls / Elec	50	45	$38,200	$49,200
402	Well #4 Generator - Replace	100 kw Detroit Diesel	50	27	$43,700	$51,900
403	Telemetry System - Replace	(1) Telemetry system	20	5	$19,700	$21,900
410	Well House 1, 2 - Replace	(3) Structures	40	3	$22,900	$26,200
410	Well House 4 - Replace	(2) Structures	40	8	$10,900	$13,100
410	Well House 5 - Replace	~(2) Structures	40	40	$10,900	$13,100
411	Well Sites Fence - Replace	~ 720LF, chain link	30	9	$15,300	$16,400
412	Reservoir Fences - Replace	~ 500 LF, chain link	30	9	$10,500	$12,000
450	Water Trailer - Purchase	New purchase	10	0	$5,500	$6,600

#	Component	Quantity	Useful Life	Rem. Useful Life	Current Cost Estimate Best Case	Current Cost Estimate Worst Case
450	Water Truck - Replace	Ford Ranger, 1993	10	0	$8,000	$12,000
460	Public Utility Water - Pay Tax	Water Reserve/Consumption	1	0	$10,000	$14,000
94	Total Funded Components					

#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
	Inventory Appendix							
100	Sanitary Survey	$6,050	X	3	/	3	=	$6,050
101	Water System Plan - Update	$33,000	X	2	/	6	=	$11,000
102	Well #5 - Replace Casing	$147,500	X	0	/	80	=	$0
102	Well Pump / Motor #5 - Replace	$22,500	X	0	/	10	=	$0
103	Well Pump / Motor #1 - Replace	$12,000	X	1	/	10	=	$1,200
104	Well #1 - Replace Casing	$147,500	X	46	/	80	=	$84,813
105	Well Pump / Motor #2 - Replace	$18,050	X	6	/	10	=	$10,830
106	Well #2 - Replace Casing	$147,500	X	36	/	80	=	$66,375
107	Well Pump / Motor #4 - Replace	$22,400	X	10	/	10	=	$22,400
108	Well #4 - Replace Casing	$147,500	X	26	/	80	=	$47,938
109	Source Flow Meters - Replace	$7,650	X	5	/	5	=	$7,650
110	Storage Tank #1 - Replace	$677,500	X	48	/	80	=	$406,500
111	Storage Tank #1 - Coat Exterior	$29,500	X	8	/	20	=	$11,800
112	Storage Tank #1 - Coat Interior	$115,500	X	5	/	20	=	$28,875
114	Storage Tank #2 - Replace	$923,000	X	28	/	80	=	$323,050
115	Storage Tank #2 - Coat Exterior	$71,050	X	8	/	20	=	$28,420
116	Storage Tank #2 - Coat Interior	$273,500	X	8	/	20	=	$109,400
118	Storage Reservoirs - Dive Inspect	$7,400	X	4	/	5	=	$5,920
119	Reservoir 2 Ladder - Repaint	$11,900	X	10	/	10	=	$11,900
120	Reservoir Cathodic Protection 1	$15,300	X	6	/	20	=	$4,590
121	Reservoir Cathodic Protection 2	$21,850	X	16	/	20	=	$17,480
122	Water Hammer Surge Tanks	$14,200	X	49	/	50	=	$13,916
300	Water Main Project D-1: Replace	$511,500	X	60	/	60	=	$511,500
301	Water Main Project D-2: Replace	$374,000	X	59	/	60	=	$367,767
302	Water Main Project D-3: Replace	$395,500	X	56	/	60	=	$369,133
303	Water Main Project D-4: Replace	$527,000	X	53	/	60	=	$465,517
304	Water Main Project D-5a: Replace	$523,500	X	50	/	60	=	$436,250
305	Water Main Project D-5b: Replace	$524,500	X	47	/	60	=	$410,858
306	Water Main Project D-6: Replace	$584,500	X	44	/	60	=	$428,633
307	Water Main Project D-7: Replace	$299,500	X	41	/	60	=	$204,658
308	Remaining Water Main Lines -Replace	$797,500	X	38	/	60	=	$505,083
309	Remaining Water Main Lines -Replace	$797,500	X	35	/	60	=	$465,208
310	Main Lines Replaced 2002, Cycle	$977,500	X	17	/	60	=	$276,958
310	Main Lines Replaced 2009, Cycle	$573,500	X	10	/	60	=	$95,583
311	Main Valves- Rplc (2002)	$104,150	X	17	/	30	=	$59,018
311	Main Valves- Rplc (2009)	$72,500	X	10	/	30	=	$24,167
311	Main Valves- Rplc (other)	$63,950	X	8	/	30	=	$17,053
311	Main Valves- Rplc (Phase 1)	$55,750	X	30	/	30	=	$55,750
311	Main Valves- Rplc (Phase 2)	$55,150	X	29	/	30	=	$53,312
311	Main Valves- Rplc (Phase 3)	$23,700	X	26	/	30	=	$20,540
311	Main Valves- Rplc (Phase 4)	$31,550	X	23	/	30	=	$24,188
311	Main Valves- Rplc (Phase 5a)	$12,000	X	20	/	30	=	$8,000
311	Main Valves- Rplc (Phase 5b)	$10,915	X	17	/	30	=	$6,185
311	Main Valves- Rplc (Phase 6)	$28,900	X	14	/	30	=	$13,487
311	Main Valves- Rplc (Phase 7)	$13,700	X	11	/	30	=	$5,023

#	Component	Current Cost Estimate	X	Effective Age	/	Useful Life	=	Fully Funded Balance
312	Hydrant near Maint. Bldg.	$5,450	X	6	/	30	=	$1,090
312	Hydrants - Rplc (2002)	$50,250	X	17	/	30	=	$28,475
312	Hydrants - Rplc (2009)	$32,750	X	10	/	30	=	$10,917
312	Hydrants - Rplc (other)	$39,350	X	15	/	30	=	$19,675
312	Hydrants - Rplc (Phase 1)	$13,100	X	30	/	30	=	$13,100
312	Hydrants - Rplc (Phase 2)	$24,050	X	29	/	30	=	$23,248
312	Hydrants - Rplc (Phase 3)	$28,400	X	26	/	30	=	$24,613
312	Hydrants - Rplc (Phase 4)	$27,350	X	23	/	30	=	$20,968
312	Hydrants - Rplc (Phase 5a)	$9,550	X	20	/	30	=	$6,367
312	Hydrants - Rplc (Phase 5b)	$16,400	X	17	/	30	=	$9,293
312	Hydrants - Rplc (Phase 6)	$29,500	X	14	/	30	=	$13,767
312	Hydrants - Rplc (Phase 7)	$5,450	X	11	/	30	=	$1,998
316	Water Service Meters -Rplc(Phase1)	$7,400	X	7	/	10	=	$5,180
316	Water Service Meters -Rplc(Phase10)	$7,400	X	8	/	10	=	$5,920
316	Water Service Meters -Rplc(Phase2)	$7,400	X	6	/	10	=	$4,440
316	Water Service Meters -Rplc(Phase3)	$7,400	X	5	/	10	=	$3,700
316	Water Service Meters -Rplc(Phase4)	$7,400	X	4	/	10	=	$2,960
316	Water Service Meters -Rplc(Phase5)	$7,400	X	3	/	10	=	$2,220
316	Water Service Meters -Rplc(Phase6)	$7,400	X	2	/	10	=	$1,480
316	Water Service Meters -Rplc(Phase7)	$7,400	X	1	/	10	=	$740
316	Water Service Meters -Rplc(Phase8)	$7,400	X	10	/	10	=	$7,400
316	Water Service Meters -Rplc(Phase9)	$7,400	X	9	/	10	=	$6,660
317	Water Meter Setters -Rplc(Phase1)	$24,450	X	7	/	20	=	$8,558
317	Water Meter Setters -Rplc(Phase2)	$24,450	X	6	/	20	=	$7,335
317	Water Meter Setters -Rplc(Phase3)	$24,450	X	5	/	20	=	$6,113
317	Water Meter Setters -Rplc(Phase4)	$24,450	X	4	/	20	=	$4,890
317	Water Meter Setters -Rplc(Phase5)	$24,450	X	3	/	20	=	$3,668
317	Water Meter Setters -Rplc(Phase6)	$24,450	X	2	/	20	=	$2,445
317	Water Meter Setters -Rplc(Phase7)	$24,450	X	1	/	20	=	$1,223
317	Water Meter Setters -Rplc(Phase8)	$24,450	X	20	/	20	=	$24,450
317	Water Meter Setters -Rplc(Phase9)	$24,450	X	19	/	20	=	$23,228
317	Water Meter Setters-Rplc (Phase10)	$24,450	X	18	/	20	=	$22,005
323	Cla-Val Valves - Repair/Replace	$4,950	X	5	/	5	=	$4,950
324	Leak Detection	$7,400	X	3	/	4	=	$5,550
400	Well 4 Control Systems - Replace	$21,850	X	19	/	25	=	$16,606
400	Well 5 Cntrl Systems - Replace	$21,850	X	0	/	25	=	$0
400	Wells 1 & 2 Cntrl Systems - Replace	$36,600	X	19	/	25	=	$27,816
401	Caustic Systems - Repair/Replace	$24,600	X	19	/	30	=	$15,580
402	Well #1 & #2 Generator & Controls	$43,700	X	5	/	50	=	$4,370
402	Well #4 Generator - Replace	$47,800	X	23	/	50	=	$21,988
403	Telemetry System - Replace	$20,800	X	15	/	20	=	$15,600
410	Well House 1, 2 - Replace	$24,550	X	37	/	40	=	$22,709
410	Well House 4 - Replace	$12,000	X	32	/	40	=	$9,600
410	Well House 5 - Replace	$12,000	X	0	/	40	=	$0
411	Well Sites Fence - Replace	$15,850	X	21	/	30	=	$11,095
412	Reservoir Fences - Replace	$11,250	X	21	/	30	=	$7,875
450	Water Trailer - Purchase	$6,050	X	10	/	10	=	$6,050
450	Water Truck - Replace	$10,000	X	10	/	10	=	$10,000
460	Public Utility Water - Pay Tax	$12,000	X	1	/	1	=	$12,000

	$6,553,892

#	Component	Useful Life (yrs)	Current Cost Estimate	Deterioration Cost/Yr	Deterioration Significance
	Inventory Appendix				
100	Sanitary Survey	3	$6,050	$2,017	0.78 %
101	Water System Plan - Update	6	$33,000	$5,500	2.13 %
102	Well #5 - Replace Casing	80	$147,500	$1,844	0.71 %
102	Well Pump / Motor #5 - Replace	10	$22,500	$2,250	0.87 %
103	Well Pump / Motor #1 - Replace	10	$12,000	$1,200	0.46 %
104	Well #1 - Replace Casing	80	$147,500	$1,844	0.71 %
105	Well Pump / Motor #2 - Replace	10	$18,050	$1,805	0.70 %
106	Well #2 - Replace Casing	80	$147,500	$1,844	0.71 %
107	Well Pump / Motor #4 - Replace	10	$22,400	$2,240	0.87 %
108	Well #4 - Replace Casing	80	$147,500	$1,844	0.71 %
109	Source Flow Meters - Replace	5	$7,650	$1,530	0.59 %
110	Storage Tank #1 - Replace	80	$677,500	$8,469	3.28 %
111	Storage Tank #1 - Coat Exterior	20	$29,500	$1,475	0.57 %
112	Storage Tank #1 - Coat Interior	20	$115,500	$5,775	2.24 %
114	Storage Tank #2 - Replace	80	$923,000	$11,538	4.47 %
115	Storage Tank #2 - Coat Exterior	20	$71,050	$3,553	1.38 %
116	Storage Tank #2 - Coat Interior	20	$273,500	$13,675	5.30 %
118	Storage Reservoirs - Dive Inspect	5	$7,400	$1,480	0.57 %
119	Reservoir 2 Ladder - Repaint	10	$11,900	$1,190	0.46 %
120	Reservoir Cathodic Protection 1	20	$15,300	$765	0.30 %
121	Reservoir Cathodic Protection 2	20	$21,850	$1,093	0.42 %
122	Water Hammer Surge Tanks	50	$14,200	$284	0.11 %
300	Water Main Project D-1: Replace	60	$511,500	$8,525	3.30 %
301	Water Main Project D-2: Replace	60	$374,000	$6,233	2.41 %
302	Water Main Project D-3: Replace	60	$395,500	$6,592	2.55 %
303	Water Main Project D-4: Replace	60	$527,000	$8,783	3.40 %
304	Water Main Project D-5a: Replace	60	$523,500	$8,725	3.38 %
305	Water Main Project D-5b: Replace	60	$524,500	$8,742	3.39 %
306	Water Main Project D-6: Replace	60	$584,500	$9,742	3.77 %
307	Water Main Project D-7: Replace	60	$299,500	$4,992	1.93 %
308	Remaining Water Main Lines -Replace	60	$797,500	$13,292	5.15 %
309	Remaining Water Main Lines -Replace	60	$797,500	$13,292	5.15 %
310	Main Lines Replaced 2002, Cycle	60	$977,500	$16,292	6.31 %
310	Main Lines Replaced 2009, Cycle	60	$573,500	$9,558	3.70 %
311	Main Valves- Rplc (2002)	30	$104,150	$3,472	1.34 %
311	Main Valves- Rplc (2009)	30	$72,500	$2,417	0.94 %
311	Main Valves- Rplc (other)	30	$63,950	$2,132	0.83 %
311	Main Valves- Rplc (Phase 1)	30	$55,750	$1,858	0.72 %
311	Main Valves- Rplc (Phase 2)	30	$55,150	$1,838	0.71 %
311	Main Valves- Rplc (Phase 3)	30	$23,700	$790	0.31 %
311	Main Valves- Rplc (Phase 4)	30	$31,550	$1,052	0.41 %
311	Main Valves- Rplc (Phase 5a)	30	$12,000	$400	0.15 %
311	Main Valves- Rplc (Phase 5b)	30	$10,915	$364	0.14 %
311	Main Valves- Rplc (Phase 6)	30	$28,900	$963	0.37 %
311	Main Valves- Rplc (Phase 7)	30	$13,700	$457	0.18 %

#	Component	Useful Life (yrs)	Current Cost Estimate	Deterioration Cost/Yr	Deterioration Significance
312	Hydrant near Maint. Bldg.	30	$5,450	$182	0.07 %
312	Hydrants - Rplc (2002)	30	$50,250	$1,675	0.65 %
312	Hydrants - Rplc (2009)	30	$32,750	$1,092	0.42 %
312	Hydrants - Rplc (other)	30	$39,350	$1,312	0.51 %
312	Hydrants - Rplc (Phase 1)	30	$13,100	$437	0.17 %
312	Hydrants - Rplc (Phase 2)	30	$24,050	$802	0.31 %
312	Hydrants - Rplc (Phase 3)	30	$28,400	$947	0.37 %
312	Hydrants - Rplc (Phase 4)	30	$27,350	$912	0.35 %
312	Hydrants - Rplc (Phase 5a)	30	$9,550	$318	0.12 %
312	Hydrants - Rplc (Phase 5b)	30	$16,400	$547	0.21 %
312	Hydrants - Rplc (Phase 6)	30	$29,500	$983	0.38 %
312	Hydrants - Rplc (Phase 7)	30	$5,450	$182	0.07 %
316	Water Service Meters -Rplc(Phase1)	10	$7,400	$740	0.29 %
316	Water Service Meters -Rplc(Phase10)	10	$7,400	$740	0.29 %
316	Water Service Meters -Rplc(Phase2)	10	$7,400	$740	0.29 %
316	Water Service Meters -Rplc(Phase3)	10	$7,400	$740	0.29 %
316	Water Service Meters -Rplc(Phase4)	10	$7,400	$740	0.29 %
316	Water Service Meters -Rplc(Phase5)	10	$7,400	$740	0.29 %
316	Water Service Meters -Rplc(Phase6)	10	$7,400	$740	0.29 %
316	Water Service Meters -Rplc(Phase7)	10	$7,400	$740	0.29 %
316	Water Service Meters -Rplc(Phase8)	10	$7,400	$740	0.29 %
316	Water Service Meters -Rplc(Phase9)	10	$7,400	$740	0.29 %
317	Water Meter Setters -Rplc(Phase1)	20	$24,450	$1,223	0.47 %
317	Water Meter Setters -Rplc(Phase2)	20	$24,450	$1,223	0.47 %
317	Water Meter Setters -Rplc(Phase3)	20	$24,450	$1,223	0.47 %
317	Water Meter Setters -Rplc(Phase4)	20	$24,450	$1,223	0.47 %
317	Water Meter Setters -Rplc(Phase5)	20	$24,450	$1,223	0.47 %
317	Water Meter Setters -Rplc(Phase6)	20	$24,450	$1,223	0.47 %
317	Water Meter Setters -Rplc(Phase7)	20	$24,450	$1,223	0.47 %
317	Water Meter Setters -Rplc(Phase8)	20	$24,450	$1,223	0.47 %
317	Water Meter Setters -Rplc(Phase9)	20	$24,450	$1,223	0.47 %
317	Water Meter Setters-Rplc (Phase10)	20	$24,450	$1,223	0.47 %
323	Cla-Val Valves - Repair/Replace	5	$4,950	$990	0.38 %
324	Leak Detection	4	$7,400	$1,850	0.72 %
400	Well 4 Control Systems - Replace	25	$21,850	$874	0.34 %
400	Well 5 Cntrl Systems - Replace	25	$21,850	$874	0.34 %
400	Wells 1 & 2 Cntrl Systems - Replace	25	$36,600	$1,464	0.57 %
401	Caustic Systems - Repair/Replace	30	$24,600	$820	0.32 %
402	Well #1 & #2 Generator & Controls	50	$43,700	$874	0.34 %
402	Well #4 Generator - Replace	50	$47,800	$956	0.37 %
403	Telemetry System - Replace	20	$20,800	$1,040	0.40 %
410	Well House 1, 2 - Replace	40	$24,550	$614	0.24 %
410	Well House 4 - Replace	40	$12,000	$300	0.12 %
410	Well House 5 - Replace	40	$12,000	$300	0.12 %
411	Well Sites Fence - Replace	30	$15,850	$528	0.20 %
412	Reservoir Fences - Replace	30	$11,250	$375	0.15 %
450	Water Trailer - Purchase	10	$6,050	$605	0.23 %
450	Water Truck - Replace	10	$10,000	$1,000	0.39 %
460	Public Utility Water - Pay Tax	1	$12,000	$12,000	4.65 %
94	Total Funded Components			$258,197	100.00 %

30-Year Reserve Plan Summary

7223-5 WSV

Fiscal Year Start: 2019	Interest: 1.00 %	Inflation: 3.00 %

Reserve Fund Strength Calculations: (All values of Fiscal Year Start Date)	Projected Reserve Balance Changes

Year	Starting Reserve Balance	Fully Funded Balance	Percent Funded	Special Assmt Risk	Reserve Contribs.	Loan or Special Assmts	Interest Income	Reserve Expenses
2019	$340,560	$6,553,892	5.2 %	High	$450,000	$0	$2,200	$693,200
2020	$99,559	$6,302,456	1.6 %	High	$517,500	$0	$878	$541,832
2021	$76,106	$6,207,363	1.2 %	High	$595,125	$0	$3,520	$46,520
2022	$628,231	$6,627,807	9.5 %	High	$684,394	$0	$9,474	$54,636
2023	$1,267,462	$7,060,968	18.0 %	High	$787,053	$0	$13,634	$607,662
2024	$1,460,487	$6,946,225	21.0 %	High	$794,923	$0	$18,314	$69,788
2025	$2,203,936	$7,391,030	29.8 %	High	$802,873	$0	$25,626	$109,017
2026	$2,923,418	$7,818,023	37.4 %	Medium	$810,901	$0	$29,702	$744,443
2027	$3,019,579	$7,612,863	39.7 %	Medium	$819,010	$0	$34,249	$39,777
2028	$3,833,061	$8,137,167	47.1 %	Medium	$827,200	$0	$42,190	$93,878
2029	$4,608,573	$8,631,582	53.4 %	Medium	$835,472	$0	$45,884	$917,760
2030	$4,572,170	$8,302,640	55.1 %	Medium	$843,827	$0	$49,813	$71,150
2031	$5,394,660	$8,846,562	61.0 %	Medium	$852,265	$0	$55,614	$569,591
2032	$5,732,948	$8,904,450	64.4 %	Medium	$860,788	$0	$56,329	$1,112,363
2033	$5,537,703	$8,416,395	65.8 %	Medium	$869,396	$0	$59,412	$116,772
2034	$6,349,739	$8,950,873	70.9 %	Low	$878,090	$0	$66,499	$338,624
2035	$6,955,704	$9,284,946	74.9 %	Low	$886,871	$0	$68,470	$1,166,862
2036	$6,744,182	$8,788,386	76.7 %	Low	$895,740	$0	$71,826	$84,708
2037	$7,627,039	$9,404,350	81.1 %	Low	$904,697	$0	$80,739	$84,951
2038	$8,527,523	$10,051,730	84.8 %	Low	$913,744	$0	$86,958	$656,688
2039	$8,871,537	$10,143,224	87.5 %	Low	$922,881	$0	$91,631	$423,623
2040	$9,462,426	$10,491,511	90.2 %	Low	$932,110	$0	$99,137	$120,361
2041	$10,373,312	$11,177,015	92.8 %	Low	$941,431	$0	$99,908	$1,797,880
2042	$9,616,771	$10,170,083	94.6 %	Low	$950,846	$0	$101,193	$38,288
2043	$10,630,523	$10,960,609	97.0 %	Low	$960,354	$0	$110,895	$143,922
2044	$11,557,849	$11,681,794	98.9 %	Low	$969,958	$0	$111,732	$1,841,582
2045	$10,797,956	$10,692,242	101.0 %	Low	$979,657	$0	$113,106	$57,797
2046	$11,832,923	$11,527,008	102.7 %	Low	$989,454	$0	$123,026	$162,709
2047	$12,782,693	$12,295,963	104.0 %	Low	$999,348	$0	$132,832	$119,887
2048	$13,794,986	$13,149,814	104.9 %	Low	$1,009,342	$0	$143,195	$91,435

	Fiscal Year	2019	2020	2021	2022	2023
	Starting Reserve Balance	$340,560	$99,559	$76,106	$628,231	$1,267,462
	Annual Reserve Contribution	$450,000	$517,500	$595,125	$684,394	$787,053
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$2,200	$878	$3,520	$9,474	$13,634
	Total Income	$792,759	$617,937	$674,751	$1,322,099	$2,068,149
#	Component					
	Inventory Appendix					
100	Sanitary Survey	$6,050	$0	$0	$6,611	$0
101	Water System Plan - Update	$0	$0	$0	$0	$37,142
102	Well #5 - Replace Casing	$0	$0	$0	$0	$0
102	Well Pump / Motor #5 - Replace	$0	$0	$0	$0	$0
103	Well Pump / Motor #1 - Replace	$0	$0	$0	$0	$0
104	Well #1 - Replace Casing	$0	$0	$0	$0	$0
105	Well Pump / Motor #2 - Replace	$0	$0	$0	$0	$20,315
106	Well #2 - Replace Casing	$0	$0	$0	$0	$0
107	Well Pump / Motor #4 - Replace	$22,400	$0	$0	$0	$0
108	Well #4 - Replace Casing	$0	$0	$0	$0	$0
109	Source Flow Meters - Replace	$7,650	$0	$0	$0	$0
110	Storage Tank #1 - Replace	$0	$0	$0	$0	$0
111	Storage Tank #1 - Coat Exterior	$0	$0	$0	$0	$0
112	Storage Tank #1 - Coat Interior	$0	$0	$0	$0	$0
114	Storage Tank #2 - Replace	$0	$0	$0	$0	$0
115	Storage Tank #2 - Coat Exterior	$0	$0	$0	$0	$0
116	Storage Tank #2 - Coat Interior	$0	$0	$0	$0	$0
118	Storage Reservoirs - Dive Inspect	$0	$7,622	$0	$0	$0
119	Reservoir 2 Ladder - Repaint	$11,900	$0	$0	$0	$0
120	Reservoir Cathodic Protection 1	$0	$0	$0	$0	$0
121	Reservoir Cathodic Protection 2	$0	$0	$0	$0	$24,592
122	Water Hammer Surge Tanks	$0	$14,626	$0	$0	$0
300	Water Main Project D-1: Replace	$511,500	$0	$0	$0	$0
301	Water Main Project D-2: Replace	$0	$385,220	$0	$0	$0
302	Water Main Project D-3: Replace	$0	$0	$0	$0	$445,139
303	Water Main Project D-4: Replace	$0	$0	$0	$0	$0
304	Water Main Project D-5a: Replace	$0	$0	$0	$0	$0
305	Water Main Project D-5b: Replace	$0	$0	$0	$0	$0
306	Water Main Project D-6: Replace	$0	$0	$0	$0	$0
307	Water Main Project D-7: Replace	$0	$0	$0	$0	$0
308	Remaining Water Main Lines -Replace	$0	$0	$0	$0	$0
309	Remaining Water Main Lines -Replace	$0	$0	$0	$0	$0
310	Main Lines Replaced 2002, Cycle	$0	$0	$0	$0	$0
310	Main Lines Replaced 2009, Cycle	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2002)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2009)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (other)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 1)	$55,750	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 2)	$0	$56,805	$0	$0	$0
311	Main Valves- Rplc (Phase 3)	$0	$0	$0	$0	$26,675
311	Main Valves- Rplc (Phase 4)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5a)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5b)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 6)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 7)	$0	$0	$0	$0	$0
312	Hydrant near Maint. Bldg.	$0	$0	$0	$0	$0
312	Hydrants - Rplc (2002)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (2009)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (other)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 1)	$13,100	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 2)	$0	$24,772	$0	$0	$0
312	Hydrants - Rplc (Phase 3)	$0	$0	$0	$0	$31,964
312	Hydrants - Rplc (Phase 4)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5a)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5b)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 6)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 7)	$0	$0	$0	$0	$0

	Fiscal Year	2019	2020	2021	2022	2023
316	Water Service Meters -Rplc(Phase1)	$0	$0	$0	$8,086	$0
316	Water Service Meters -Rplc(Phase10)	$0	$0	$7,851	$0	$0
316	Water Service Meters -Rplc(Phase2)	$0	$0	$0	$0	$8,329
316	Water Service Meters -Rplc(Phase3)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase4)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase5)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase6)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase7)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase8)	$7,400	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase9)	$0	$7,622	$0	$0	$0
317	Water Meter Setters -Rplc(Phase1)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase2)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase3)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase4)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase5)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase6)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase7)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase8)	$24,450	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase9)	$0	$25,184	$0	$0	$0
317	Water Meter Setters-Rplc (Phase10)	$0	$0	$25,939	$0	$0
323	Cla-Val Valves - Repair/Replace	$4,950	$0	$0	$0	$0
324	Leak Detection	$0	$7,622	$0	$0	$0
400	Well 4 Control Systems - Replace	$0	$0	$0	$0	$0
400	Well 5 Cntrl Systems - Replace	$0	$0	$0	$0	$0
400	Wells 1 & 2 Cntrl Systems - Replace	$0	$0	$0	$0	$0
401	Caustic Systems - Repair/Replace	$0	$0	$0	$0	$0
402	Well #1 & #2 Generator & Controls	$0	$0	$0	$0	$0
402	Well #4 Generator - Replace	$0	$0	$0	$0	$0
403	Telemetry System - Replace	$0	$0	$0	$0	$0
410	Well House 1, 2 - Replace	$0	$0	$0	$26,826	$0
410	Well House 4 - Replace	$0	$0	$0	$0	$0
410	Well House 5 - Replace	$0	$0	$0	$0	$0
411	Well Sites Fence - Replace	$0	$0	$0	$0	$0
412	Reservoir Fences - Replace	$0	$0	$0	$0	$0
450	Water Trailer - Purchase	$6,050	$0	$0	$0	$0
450	Water Truck - Replace	$10,000	$0	$0	$0	$0
460	Public Utility Water - Pay Tax	$12,000	$12,360	$12,731	$13,113	$13,506
	Total Expenses	$693,200	$541,832	$46,520	$54,636	$607,662
	Ending Reserve Balance	$99,559	$76,106	$628,231	$1,267,462	$1,460,487

	Fiscal Year	2024	2025	2026	2027	2028
	Starting Reserve Balance	$1,460,487	$2,203,936	$2,923,418	$3,019,579	$3,833,061
	Annual Reserve Contribution	$794,923	$802,873	$810,901	$819,010	$827,200
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$18,314	$25,626	$29,702	$34,249	$42,190
	Total Income	$2,273,725	$3,032,435	$3,764,021	$3,872,838	$4,702,452
#	Component					
	Inventory Appendix					
100	Sanitary Survey	$0	$7,224	$0	$0	$7,894
101	Water System Plan - Update	$0	$0	$0	$0	$0
102	Well #5 - Replace Casing	$0	$0	$0	$0	$0
102	Well Pump / Motor #5 - Replace	$0	$0	$0	$0	$0
103	Well Pump / Motor #1 - Replace	$0	$0	$0	$0	$15,657
104	Well #1 - Replace Casing	$0	$0	$0	$0	$0
105	Well Pump / Motor #2 - Replace	$0	$0	$0	$0	$0
106	Well #2 - Replace Casing	$0	$0	$0	$0	$0
107	Well Pump / Motor #4 - Replace	$0	$0	$0	$0	$0
108	Well #4 - Replace Casing	$0	$0	$0	$0	$0
109	Source Flow Meters - Replace	$8,868	$0	$0	$0	$0
110	Storage Tank #1 - Replace	$0	$0	$0	$0	$0
111	Storage Tank #1 - Coat Exterior	$0	$0	$0	$0	$0
112	Storage Tank #1 - Coat Interior	$0	$0	$0	$0	$0
114	Storage Tank #2 - Replace	$0	$0	$0	$0	$0
115	Storage Tank #2 - Coat Exterior	$0	$0	$0	$0	$0
116	Storage Tank #2 - Coat Interior	$0	$0	$0	$0	$0
118	Storage Reservoirs - Dive Inspect	$0	$8,836	$0	$0	$0
119	Reservoir 2 Ladder - Repaint	$0	$0	$0	$0	$0
120	Reservoir Cathodic Protection 1	$0	$0	$0	$0	$0
121	Reservoir Cathodic Protection 2	$0	$0	$0	$0	$0
122	Water Hammer Surge Tanks	$0	$0	$0	$0	$0
300	Water Main Project D-1: Replace	$0	$0	$0	$0	$0
301	Water Main Project D-2: Replace	$0	$0	$0	$0	$0
302	Water Main Project D-3: Replace	$0	$0	$0	$0	$0
303	Water Main Project D-4: Replace	$0	$0	$648,144	$0	$0
304	Water Main Project D-5a: Replace	$0	$0	$0	$0	$0
305	Water Main Project D-5b: Replace	$0	$0	$0	$0	$0
306	Water Main Project D-6: Replace	$0	$0	$0	$0	$0
307	Water Main Project D-7: Replace	$0	$0	$0	$0	$0
308	Remaining Water Main Lines -Replace	$0	$0	$0	$0	$0
309	Remaining Water Main Lines -Replace	$0	$0	$0	$0	$0
310	Main Lines Replaced 2002, Cycle	$0	$0	$0	$0	$0
310	Main Lines Replaced 2009, Cycle	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2002)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2009)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (other)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 1)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 2)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 3)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 4)	$0	$0	$38,803	$0	$0
311	Main Valves- Rplc (Phase 5a)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5b)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 6)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 7)	$0	$0	$0	$0	$0
312	Hydrant near Maint. Bldg.	$0	$0	$0	$0	$0
312	Hydrants - Rplc (2002)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (2009)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (other)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 1)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 2)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 3)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 4)	$0	$0	$33,637	$0	$0
312	Hydrants - Rplc (Phase 5a)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5b)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 6)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 7)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase1)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase10)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase2)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase3)	$8,579	$0	$0	$0	$0

	Fiscal Year	2024	2025	2026	2027	2028
316	Water Service Meters -Rplc(Phase4)	$0	$8,836	$0	$0	$0
316	Water Service Meters -Rplc(Phase5)	$0	$0	$9,101	$0	$0
316	Water Service Meters -Rplc(Phase6)	$0	$0	$0	$9,374	$0
316	Water Service Meters -Rplc(Phase7)	$0	$0	$0	$0	$9,655
316	Water Service Meters -Rplc(Phase8)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase9)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase1)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase2)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase3)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase4)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase5)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase6)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase7)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase8)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase9)	$0	$0	$0	$0	$0
317	Water Meter Setters-Rplc (Phase10)	$0	$0	$0	$0	$0
323	Cla-Val Valves - Repair/Replace	$5,738	$0	$0	$0	$0
324	Leak Detection	$8,579	$0	$0	$0	$9,655
400	Well 4 Control Systems - Replace	$0	$26,090	$0	$0	$0
400	Well 5 Cntrl Systems - Replace	$0	$0	$0	$0	$0
400	Wells 1 & 2 Cntrl Systems - Replace	$0	$43,702	$0	$0	$0
401	Caustic Systems - Repair/Replace	$0	$0	$0	$0	$0
402	Well #1 & #2 Generator & Controls	$0	$0	$0	$0	$0
402	Well #4 Generator - Replace	$0	$0	$0	$0	$0
403	Telemetry System - Replace	$24,113	$0	$0	$0	$0
410	Well House 1, 2 - Replace	$0	$0	$0	$0	$0
410	Well House 4 - Replace	$0	$0	$0	$15,201	$0
410	Well House 5 - Replace	$0	$0	$0	$0	$0
411	Well Sites Fence - Replace	$0	$0	$0	$0	$20,681
412	Reservoir Fences - Replace	$0	$0	$0	$0	$14,679
450	Water Trailer - Purchase	$0	$0	$0	$0	$0
450	Water Truck - Replace	$0	$0	$0	$0	$0
460	Public Utility Water - Pay Tax	$13,911	$14,329	$14,758	$15,201	$15,657
	Total Expenses	$69,788	$109,017	$744,443	$39,777	$93,878
	Ending Reserve Balance	$2,203,936	$2,923,418	$3,019,579	$3,833,061	$4,608,573

	Fiscal Year	2029	2030	2031	2032	2033
	Starting Reserve Balance	$4,608,573	$4,572,170	$5,394,660	$5,732,948	$5,537,703
	Annual Reserve Contribution	$835,472	$843,827	$852,265	$860,788	$869,396
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$45,884	$49,813	$55,614	$56,329	$59,412
	Total Income	$5,489,930	$5,465,810	$6,302,540	$6,650,066	$6,466,511
#	Component					
	Inventory Appendix					
100	Sanitary Survey	$0	$0	$8,626	$0	$0
101	Water System Plan - Update	$44,349	$0	$0	$0	$0
102	Well #5 - Replace Casing	$0	$0	$0	$0	$0
102	Well Pump / Motor #5 - Replace	$30,238	$0	$0	$0	$0
103	Well Pump / Motor #1 - Replace	$0	$0	$0	$0	$0
104	Well #1 - Replace Casing	$0	$0	$0	$0	$0
105	Well Pump / Motor #2 - Replace	$0	$0	$0	$0	$27,302
106	Well #2 - Replace Casing	$0	$0	$0	$0	$0
107	Well Pump / Motor #4 - Replace	$30,104	$0	$0	$0	$0
108	Well #4 - Replace Casing	$0	$0	$0	$0	$0
109	Source Flow Meters - Replace	$10,281	$0	$0	$0	$0
110	Storage Tank #1 - Replace	$0	$0	$0	$0	$0
111	Storage Tank #1 - Coat Exterior	$0	$0	$42,060	$0	$0
112	Storage Tank #1 - Coat Interior	$0	$0	$0	$0	$0
114	Storage Tank #2 - Replace	$0	$0	$0	$0	$0
115	Storage Tank #2 - Coat Exterior	$0	$0	$101,300	$0	$0
116	Storage Tank #2 - Coat Interior	$0	$0	$389,946	$0	$0
118	Storage Reservoirs - Dive Inspect	$0	$10,243	$0	$0	$0
119	Reservoir 2 Ladder - Repaint	$15,993	$0	$0	$0	$0
120	Reservoir Cathodic Protection 1	$0	$0	$0	$0	$23,143
121	Reservoir Cathodic Protection 2	$0	$0	$0	$0	$0
122	Water Hammer Surge Tanks	$0	$0	$0	$0	$0
300	Water Main Project D-1: Replace	$0	$0	$0	$0	$0
301	Water Main Project D-2: Replace	$0	$0	$0	$0	$0
302	Water Main Project D-3: Replace	$0	$0	$0	$0	$0
303	Water Main Project D-4: Replace	$0	$0	$0	$0	$0
304	Water Main Project D-5a: Replace	$703,540	$0	$0	$0	$0
305	Water Main Project D-5b: Replace	$0	$0	$0	$770,246	$0
306	Water Main Project D-6: Replace	$0	$0	$0	$0	$0
307	Water Main Project D-7: Replace	$0	$0	$0	$0	$0
308	Remaining Water Main Lines -Replace	$0	$0	$0	$0	$0
309	Remaining Water Main Lines -Replace	$0	$0	$0	$0	$0
310	Main Lines Replaced 2002, Cycle	$0	$0	$0	$0	$0
310	Main Lines Replaced 2009, Cycle	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2002)	$0	$0	$0	$152,948	$0
311	Main Valves- Rplc (2009)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (other)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 1)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 2)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 3)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 4)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5a)	$16,127	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5b)	$0	$0	$0	$16,029	$0
311	Main Valves- Rplc (Phase 6)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 7)	$0	$0	$0	$0	$0
312	Hydrant near Maint. Bldg.	$0	$0	$0	$0	$0
312	Hydrants - Rplc (2002)	$0	$0	$0	$73,794	$0
312	Hydrants - Rplc (2009)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (other)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 1)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 2)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 3)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 4)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5a)	$12,834	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5b)	$0	$0	$0	$24,084	$0
312	Hydrants - Rplc (Phase 6)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 7)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase1)	$0	$0	$0	$10,867	$0
316	Water Service Meters -Rplc(Phase10)	$0	$0	$10,551	$0	$0
316	Water Service Meters -Rplc(Phase2)	$0	$0	$0	$0	$11,193
316	Water Service Meters -Rplc(Phase3)	$0	$0	$0	$0	$0

	Fiscal Year	2029	2030	2031	2032	2033
316	Water Service Meters -Rplc(Phase4)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase5)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase6)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase7)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase8)	$9,945	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase9)	$0	$10,243	$0	$0	$0
317	Water Meter Setters -Rplc(Phase1)	$0	$0	$0	$35,906	$0
317	Water Meter Setters -Rplc(Phase2)	$0	$0	$0	$0	$36,983
317	Water Meter Setters -Rplc(Phase3)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase4)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase5)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase6)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase7)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase8)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase9)	$0	$0	$0	$0	$0
317	Water Meter Setters-Rplc (Phase10)	$0	$0	$0	$0	$0
323	Cla-Val Valves - Repair/Replace	$6,652	$0	$0	$0	$0
324	Leak Detection	$0	$0	$0	$10,867	$0
400	Well 4 Control Systems - Replace	$0	$0	$0	$0	$0
400	Well 5 Cntrl Systems - Replace	$0	$0	$0	$0	$0
400	Wells 1 & 2 Cntrl Systems - Replace	$0	$0	$0	$0	$0
401	Caustic Systems - Repair/Replace	$0	$34,052	$0	$0	$0
402	Well #1 & #2 Generator & Controls	$0	$0	$0	$0	$0
402	Well #4 Generator - Replace	$0	$0	$0	$0	$0
403	Telemetry System - Replace	$0	$0	$0	$0	$0
410	Well House 1, 2 - Replace	$0	$0	$0	$0	$0
410	Well House 4 - Replace	$0	$0	$0	$0	$0
410	Well House 5 - Replace	$0	$0	$0	$0	$0
411	Well Sites Fence - Replace	$0	$0	$0	$0	$0
412	Reservoir Fences - Replace	$0	$0	$0	$0	$0
450	Water Trailer - Purchase	$8,131	$0	$0	$0	$0
450	Water Truck - Replace	$13,439	$0	$0	$0	$0
460	Public Utility Water - Pay Tax	$16,127	$16,611	$17,109	$17,622	$18,151
	Total Expenses	$917,760	$71,150	$569,591	$1,112,363	$116,772
	Ending Reserve Balance	$4,572,170	$5,394,660	$5,732,948	$5,537,703	$6,349,739

	Fiscal Year	2034	2035	2036	2037	2038
	Starting Reserve Balance	$6,349,739	$6,955,704	$6,744,182	$7,627,039	$8,527,523
	Annual Reserve Contribution	$878,090	$886,871	$895,740	$904,697	$913,744
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$66,499	$68,470	$71,826	$80,739	$86,958
	Total Income	$7,294,328	$7,911,045	$7,711,747	$8,612,474	$9,528,225
#	Component					
	Inventory Appendix					
100	Sanitary Survey	$9,426	$0	$0	$10,300	$0
101	Water System Plan - Update	$0	$52,955	$0	$0	$0
102	Well #5 - Replace Casing	$0	$0	$0	$0	$0
102	Well Pump / Motor #5 - Replace	$0	$0	$0	$0	$0
103	Well Pump / Motor #1 - Replace	$0	$0	$0	$0	$21,042
104	Well #1 - Replace Casing	$0	$0	$0	$0	$0
105	Well Pump / Motor #2 - Replace	$0	$0	$0	$0	$0
106	Well #2 - Replace Casing	$0	$0	$0	$0	$0
107	Well Pump / Motor #4 - Replace	$0	$0	$0	$0	$0
108	Well #4 - Replace Casing	$0	$0	$0	$0	$0
109	Source Flow Meters - Replace	$11,918	$0	$0	$0	$0
110	Storage Tank #1 - Replace	$0	$0	$0	$0	$0
111	Storage Tank #1 - Coat Exterior	$0	$0	$0	$0	$0
112	Storage Tank #1 - Coat Interior	$179,945	$0	$0	$0	$0
114	Storage Tank #2 - Replace	$0	$0	$0	$0	$0
115	Storage Tank #2 - Coat Exterior	$0	$0	$0	$0	$0
116	Storage Tank #2 - Coat Interior	$0	$0	$0	$0	$0
118	Storage Reservoirs - Dive Inspect	$0	$11,875	$0	$0	$0
119	Reservoir 2 Ladder - Repaint	$0	$0	$0	$0	$0
120	Reservoir Cathodic Protection 1	$0	$0	$0	$0	$0
121	Reservoir Cathodic Protection 2	$0	$0	$0	$0	$0
122	Water Hammer Surge Tanks	$0	$0	$0	$0	$0
300	Water Main Project D-1: Replace	$0	$0	$0	$0	$0
301	Water Main Project D-2: Replace	$0	$0	$0	$0	$0
302	Water Main Project D-3: Replace	$0	$0	$0	$0	$0
303	Water Main Project D-4: Replace	$0	$0	$0	$0	$0
304	Water Main Project D-5a: Replace	$0	$0	$0	$0	$0
305	Water Main Project D-5b: Replace	$0	$0	$0	$0	$0
306	Water Main Project D-6: Replace	$0	$937,951	$0	$0	$0
307	Water Main Project D-7: Replace	$0	$0	$0	$0	$525,175
308	Remaining Water Main Lines -Replace	$0	$0	$0	$0	$0
309	Remaining Water Main Lines -Replace	$0	$0	$0	$0	$0
310	Main Lines Replaced 2002, Cycle	$0	$0	$0	$0	$0
310	Main Lines Replaced 2009, Cycle	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2002)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2009)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (other)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 1)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 2)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 3)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 4)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5a)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5b)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 6)	$0	$46,376	$0	$0	$0
311	Main Valves- Rplc (Phase 7)	$0	$0	$0	$0	$24,023
312	Hydrant near Maint. Bldg.	$0	$0	$0	$0	$0
312	Hydrants - Rplc (2002)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (2009)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (other)	$61,306	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 1)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 2)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 3)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 4)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5a)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5b)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 6)	$0	$47,339	$0	$0	$0
312	Hydrants - Rplc (Phase 7)	$0	$0	$0	$0	$9,557
316	Water Service Meters -Rplc(Phase1)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase10)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase2)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase3)	$11,529	$0	$0	$0	$0

	Fiscal Year	2034	2035	2036	2037	2038
316	Water Service Meters -Rplc(Phase4)	$0	$11,875	$0	$0	$0
316	Water Service Meters -Rplc(Phase5)	$0	$0	$12,231	$0	$0
316	Water Service Meters -Rplc(Phase6)	$0	$0	$0	$12,598	$0
316	Water Service Meters -Rplc(Phase7)	$0	$0	$0	$0	$12,976
316	Water Service Meters -Rplc(Phase8)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase9)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase1)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase2)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase3)	$38,092	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase4)	$0	$39,235	$0	$0	$0
317	Water Meter Setters -Rplc(Phase5)	$0	$0	$40,412	$0	$0
317	Water Meter Setters -Rplc(Phase6)	$0	$0	$0	$41,624	$0
317	Water Meter Setters -Rplc(Phase7)	$0	$0	$0	$0	$42,873
317	Water Meter Setters -Rplc(Phase8)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase9)	$0	$0	$0	$0	$0
317	Water Meter Setters-Rplc (Phase10)	$0	$0	$0	$0	$0
323	Cla-Val Valves - Repair/Replace	$7,712	$0	$0	$0	$0
324	Leak Detection	$0	$0	$12,231	$0	$0
400	Well 4 Control Systems - Replace	$0	$0	$0	$0	$0
400	Well 5 Cntrl Systems - Replace	$0	$0	$0	$0	$0
400	Wells 1 & 2 Cntrl Systems - Replace	$0	$0	$0	$0	$0
401	Caustic Systems - Repair/Replace	$0	$0	$0	$0	$0
402	Well #1 & #2 Generator & Controls	$0	$0	$0	$0	$0
402	Well #4 Generator - Replace	$0	$0	$0	$0	$0
403	Telemetry System - Replace	$0	$0	$0	$0	$0
410	Well House 1, 2 - Replace	$0	$0	$0	$0	$0
410	Well House 4 - Replace	$0	$0	$0	$0	$0
410	Well House 5 - Replace	$0	$0	$0	$0	$0
411	Well Sites Fence - Replace	$0	$0	$0	$0	$0
412	Reservoir Fences - Replace	$0	$0	$0	$0	$0
450	Water Trailer - Purchase	$0	$0	$0	$0	$0
450	Water Truck - Replace	$0	$0	$0	$0	$0
460	Public Utility Water - Pay Tax	$18,696	$19,256	$19,834	$20,429	$21,042
	Total Expenses	$338,624	$1,166,862	$84,708	$84,951	$656,688
	Ending Reserve Balance	$6,955,704	$6,744,182	$7,627,039	$8,527,523	$8,871,537

	Fiscal Year	2039	2040	2041	2042	2043
	Starting Reserve Balance	$8,871,537	$9,462,426	$10,373,312	$9,616,771	$10,630,523
	Annual Reserve Contribution	$922,881	$932,110	$941,431	$950,846	$960,354
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$91,631	$99,137	$99,908	$101,193	$110,895
	Total Income	$9,886,049	$10,493,673	$11,414,651	$10,668,810	$11,701,771
#	Component					
	Inventory Appendix					
100	Sanitary Survey	$0	$11,255	$0	$0	$12,298
101	Water System Plan - Update	$0	$0	$63,231	$0	$0
102	Well #5 - Replace Casing	$0	$0	$0	$0	$0
102	Well Pump / Motor #5 - Replace	$40,638	$0	$0	$0	$0
103	Well Pump / Motor #1 - Replace	$0	$0	$0	$0	$0
104	Well #1 - Replace Casing	$0	$0	$0	$0	$0
105	Well Pump / Motor #2 - Replace	$0	$0	$0	$0	$36,692
106	Well #2 - Replace Casing	$0	$0	$0	$0	$0
107	Well Pump / Motor #4 - Replace	$40,457	$0	$0	$0	$0
108	Well #4 - Replace Casing	$0	$0	$0	$0	$0
109	Source Flow Meters - Replace	$13,817	$0	$0	$0	$0
110	Storage Tank #1 - Replace	$0	$0	$0	$0	$0
111	Storage Tank #1 - Coat Exterior	$0	$0	$0	$0	$0
112	Storage Tank #1 - Coat Interior	$0	$0	$0	$0	$0
114	Storage Tank #2 - Replace	$0	$0	$0	$0	$0
115	Storage Tank #2 - Coat Exterior	$0	$0	$0	$0	$0
116	Storage Tank #2 - Coat Interior	$0	$0	$0	$0	$0
118	Storage Reservoirs - Dive Inspect	$0	$13,766	$0	$0	$0
119	Reservoir 2 Ladder - Repaint	$21,493	$0	$0	$0	$0
120	Reservoir Cathodic Protection 1	$0	$0	$0	$0	$0
121	Reservoir Cathodic Protection 2	$0	$0	$0	$0	$44,417
122	Water Hammer Surge Tanks	$0	$0	$0	$0	$0
300	Water Main Project D-1: Replace	$0	$0	$0	$0	$0
301	Water Main Project D-2: Replace	$0	$0	$0	$0	$0
302	Water Main Project D-3: Replace	$0	$0	$0	$0	$0
303	Water Main Project D-4: Replace	$0	$0	$0	$0	$0
304	Water Main Project D-5a: Replace	$0	$0	$0	$0	$0
305	Water Main Project D-5b: Replace	$0	$0	$0	$0	$0
306	Water Main Project D-6: Replace	$0	$0	$0	$0	$0
307	Water Main Project D-7: Replace	$0	$0	$0	$0	$0
308	Remaining Water Main Lines -Replace	$0	$0	$1,528,092	$0	$0
309	Remaining Water Main Lines -Replace	$0	$0	$0	$0	$0
310	Main Lines Replaced 2002, Cycle	$0	$0	$0	$0	$0
310	Main Lines Replaced 2009, Cycle	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2002)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2009)	$130,943	$0	$0	$0	$0
311	Main Valves- Rplc (other)	$0	$0	$122,535	$0	$0
311	Main Valves- Rplc (Phase 1)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 2)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 3)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 4)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5a)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5b)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 6)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 7)	$0	$0	$0	$0	$0
312	Hydrant near Maint. Bldg.	$0	$0	$0	$0	$11,079
312	Hydrants - Rplc (2002)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (2009)	$59,150	$0	$0	$0	$0
312	Hydrants - Rplc (other)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 1)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 2)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 3)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 4)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5a)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5b)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 6)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 7)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase1)	$0	$0	$0	$14,605	$0
316	Water Service Meters -Rplc(Phase10)	$0	$0	$14,179	$0	$0
316	Water Service Meters -Rplc(Phase2)	$0	$0	$0	$0	$15,043
316	Water Service Meters -Rplc(Phase3)	$0	$0	$0	$0	$0

	Fiscal Year	2039	2040	2041	2042	2043
316	Water Service Meters -Rplc(Phase4)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase5)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase6)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase7)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase8)	$13,365	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase9)	$0	$13,766	$0	$0	$0
317	Water Meter Setters -Rplc(Phase1)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase2)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase3)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase4)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase5)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase6)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase7)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase8)	$44,159	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase9)	$0	$45,484	$0	$0	$0
317	Water Meter Setters-Rplc (Phase10)	$0	$0	$46,849	$0	$0
323	Cla-Val Valves - Repair/Replace	$8,940	$0	$0	$0	$0
324	Leak Detection	$0	$13,766	$0	$0	$0
400	Well 4 Control Systems - Replace	$0	$0	$0	$0	$0
400	Well 5 Cntrl Systems - Replace	$0	$0	$0	$0	$0
400	Wells 1 & 2 Cntrl Systems - Replace	$0	$0	$0	$0	$0
401	Caustic Systems - Repair/Replace	$0	$0	$0	$0	$0
402	Well #1 & #2 Generator & Controls	$0	$0	$0	$0	$0
402	Well #4 Generator - Replace	$0	$0	$0	$0	$0
403	Telemetry System - Replace	$0	$0	$0	$0	$0
410	Well House 1, 2 - Replace	$0	$0	$0	$0	$0
410	Well House 4 - Replace	$0	$0	$0	$0	$0
410	Well House 5 - Replace	$0	$0	$0	$0	$0
411	Well Sites Fence - Replace	$0	$0	$0	$0	$0
412	Reservoir Fences - Replace	$0	$0	$0	$0	$0
450	Water Trailer - Purchase	$10,927	$0	$0	$0	$0
450	Water Truck - Replace	$18,061	$0	$0	$0	$0
460	Public Utility Water - Pay Tax	$21,673	$22,324	$22,993	$23,683	$24,394
	Total Expenses	$423,623	$120,361	$1,797,880	$38,288	$143,922
	Ending Reserve Balance	$9,462,426	$10,373,312	$9,616,771	$10,630,523	$11,557,849

	Fiscal Year	2044	2045	2046	2047	2048
	Starting Reserve Balance	$11,557,849	$10,797,956	$11,832,923	$12,782,693	$13,794,986
	Annual Reserve Contribution	$969,958	$979,657	$989,454	$999,348	$1,009,342
	Recommended Special Assessments	$0	$0	$0	$0	$0
	Interest Earnings	$111,732	$113,106	$123,026	$132,832	$143,195
	Total Income	$12,639,539	$11,890,720	$12,945,402	$13,914,873	$14,947,522
#	Component					
	Inventory Appendix					
100	Sanitary Survey	$0	$0	$13,439	$0	$0
101	Water System Plan - Update	$0	$0	$0	$75,502	$0
102	Well #5 - Replace Casing	$0	$0	$0	$0	$0
102	Well Pump / Motor #5 - Replace	$0	$0	$0	$0	$0
103	Well Pump / Motor #1 - Replace	$0	$0	$0	$0	$28,279
104	Well #1 - Replace Casing	$0	$0	$0	$0	$0
105	Well Pump / Motor #2 - Replace	$0	$0	$0	$0	$0
106	Well #2 - Replace Casing	$0	$0	$0	$0	$0
107	Well Pump / Motor #4 - Replace	$0	$0	$0	$0	$0
108	Well #4 - Replace Casing	$0	$0	$0	$0	$0
109	Source Flow Meters - Replace	$16,017	$0	$0	$0	$0
110	Storage Tank #1 - Replace	$0	$0	$0	$0	$0
111	Storage Tank #1 - Coat Exterior	$0	$0	$0	$0	$0
112	Storage Tank #1 - Coat Interior	$0	$0	$0	$0	$0
114	Storage Tank #2 - Replace	$0	$0	$0	$0	$0
115	Storage Tank #2 - Coat Exterior	$0	$0	$0	$0	$0
116	Storage Tank #2 - Coat Interior	$0	$0	$0	$0	$0
118	Storage Reservoirs - Dive Inspect	$0	$15,959	$0	$0	$0
119	Reservoir 2 Ladder - Repaint	$0	$0	$0	$0	$0
120	Reservoir Cathodic Protection 1	$0	$0	$0	$0	$0
121	Reservoir Cathodic Protection 2	$0	$0	$0	$0	$0
122	Water Hammer Surge Tanks	$0	$0	$0	$0	$0
300	Water Main Project D-1: Replace	$0	$0	$0	$0	$0
301	Water Main Project D-2: Replace	$0	$0	$0	$0	$0
302	Water Main Project D-3: Replace	$0	$0	$0	$0	$0
303	Water Main Project D-4: Replace	$0	$0	$0	$0	$0
304	Water Main Project D-5a: Replace	$0	$0	$0	$0	$0
305	Water Main Project D-5b: Replace	$0	$0	$0	$0	$0
306	Water Main Project D-6: Replace	$0	$0	$0	$0	$0
307	Water Main Project D-7: Replace	$0	$0	$0	$0	$0
308	Remaining Water Main Lines -Replace	$0	$0	$0	$0	$0
309	Remaining Water Main Lines -Replace	$1,669,788	$0	$0	$0	$0
310	Main Lines Replaced 2002, Cycle	$0	$0	$0	$0	$0
310	Main Lines Replaced 2009, Cycle	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2002)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (2009)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (other)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 1)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 2)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 3)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 4)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5a)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 5b)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 6)	$0	$0	$0	$0	$0
311	Main Valves- Rplc (Phase 7)	$0	$0	$0	$0	$0
312	Hydrant near Maint. Bldg.	$0	$0	$0	$0	$0
312	Hydrants - Rplc (2002)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (2009)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (other)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 1)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 2)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 3)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 4)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5a)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 5b)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 6)	$0	$0	$0	$0	$0
312	Hydrants - Rplc (Phase 7)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase1)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase10)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase2)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase3)	$15,494	$0	$0	$0	$0

	Fiscal Year	2044	2045	2046	2047	2048
316	Water Service Meters -Rplc(Phase4)	$0	$15,959	$0	$0	$0
316	Water Service Meters -Rplc(Phase5)	$0	$0	$16,438	$0	$0
316	Water Service Meters -Rplc(Phase6)	$0	$0	$0	$16,931	$0
316	Water Service Meters -Rplc(Phase7)	$0	$0	$0	$0	$17,439
316	Water Service Meters -Rplc(Phase8)	$0	$0	$0	$0	$0
316	Water Service Meters -Rplc(Phase9)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase1)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase2)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase3)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase4)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase5)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase6)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase7)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase8)	$0	$0	$0	$0	$0
317	Water Meter Setters -Rplc(Phase9)	$0	$0	$0	$0	$0
317	Water Meter Setters-Rplc (Phase10)	$0	$0	$0	$0	$0
323	Cla-Val Valves - Repair/Replace	$10,364	$0	$0	$0	$0
324	Leak Detection	$15,494	$0	$0	$0	$17,439
400	Well 4 Control Systems - Replace	$0	$0	$0	$0	$0
400	Well 5 Cntrl Systems - Replace	$45,749	$0	$0	$0	$0
400	Wells 1 & 2 Cntrl Systems - Replace	$0	$0	$0	$0	$0
401	Caustic Systems - Repair/Replace	$0	$0	$0	$0	$0
402	Well #1 & #2 Generator & Controls	$0	$0	$0	$0	$0
402	Well #4 Generator - Replace	$0	$0	$106,178	$0	$0
403	Telemetry System - Replace	$43,551	$0	$0	$0	$0
410	Well House 1, 2 - Replace	$0	$0	$0	$0	$0
410	Well House 4 - Replace	$0	$0	$0	$0	$0
410	Well House 5 - Replace	$0	$0	$0	$0	$0
411	Well Sites Fence - Replace	$0	$0	$0	$0	$0
412	Reservoir Fences - Replace	$0	$0	$0	$0	$0
450	Water Trailer - Purchase	$0	$0	$0	$0	$0
450	Water Truck - Replace	$0	$0	$0	$0	$0
460	Public Utility Water - Pay Tax	$25,125	$25,879	$26,655	$27,455	$28,279
	Total Expenses	$1,841,582	$57,797	$162,709	$119,887	$91,435
	Ending Reserve Balance	$10,797,956	$11,832,923	$12,782,693	$13,794,986	$14,856,087

Accuracy, Limitations, and Disclosures

"The reserve study should be reviewed carefully. It may not include all common and limited common element components that will require major maintenance, repair or replacement in future years, and may not include regular contributions to a reserve account for the cost of such maintenance, repair, or replacement. The failure to include a component in a reserve study, or to provide contributions to a reserve account for a component, may, under some circumstances, require you to pay on demand as a special assessment your share of common expenses for the cost of major maintenance, repair or replacement of a reserve component."

Association Reserves and its employees have no ownership, management, or other business relationships with the client other than this Reserve Study engagement. James Talaga, company President, is a credentialed Reserve Specialist (#066). All work done by Association Reserves WA, LLC is performed under his responsible charge and is performed in accordance with National Reserve Study Standards (NRSS). There are no material issues to our knowledge that have not been disclosed to the client that would cause a distortion of the client's situation.

Per NRSS, information provided by official representative(s) of the client, vendors, and suppliers regarding financial details, component physical details and/or quantities, or historical issues/conditions will be deemed reliable, and is not intended to be used for the purpose of any type of audit, quality/forensic analysis, or background checks of historical records. As such, information provided to us has not been audited or independently verified.

Estimates for interest and inflation have been included, because including such estimates are more accurate than ignoring them completely. When we are hired to prepare Update reports, the client is considered to have deemed those previously developed component quantities as accurate and reliable, whether established by our firm or other individuals/firms (unless specifically mentioned in our Site Inspection Notes). During inspections our company standard is to establish measurements within 5% accuracy, and our scope includes visual inspection of accessible areas and components and does not include any destructive or other testing. Our work is done only for budget purposes. Uses or expectations outside our expertise and scope of work include, but are not limited to: project audit, quality inspection, and the identification of construction defects, hazardous materials, or dangerous conditions. Identifying hidden issues such as but not limited to, plumbing or electrical problems are also outside our scope of work. Our estimates assume proper original installation & construction, adherence to recommended preventive maintenance, a stable economic environment, and do not consider frequency or severity of natural disasters. Our opinions of component Useful Life, Remaining Useful Life, and current or future cost estimates are not a warranty or guarantee of actual costs or timing.

Because the physical and financial status of the property, legislation, the economy, weather, owner expectations, and usage are all in a continual state of change over which we have no control, we do not expect that the events projected in this document will all occur exactly as planned. This Reserve Study is by nature a "one-year" document in need of being updated annually so that more accurate estimates can be incorporated. It is only because a long-term perspective improves the accuracy of near-term planning that this Report projects expenses into the future. We fully expect a number of adjustments will be necessary through the interim years to the cost and timing of expense projections and the funding necessary to prepare for those estimated expenses.

In this engagement our compensation is not contingent upon our conclusions, and our liability in any matter involving this Reserve Study is limited to our fee for services rendered.

Terms and Definitions

BTU	British Thermal Unit (a standard unit of energy)
DIA	Diameter
GSF	Gross Square Feet (area). Equivalent to Square Feet
GSY	Gross Square Yards (area). Equivalent to Square Yards
HP	Horsepower
LF	Linear Feet (length)
Effective Age	The difference between Useful Life and Remaining Useful Life. Note that this is not necessarily equivalent to the chronological age of the component.
Fully Funded Balance (FFB)	The value of the deterioration of the Reserve Components. This is the fraction of life "used up" of each component multiplied by its estimated Current Replacement. While calculated for each component, it is summed together for an association total.
Inflation	Cost factors are adjusted for inflation at the rate defined in the Executive Summary and compounded annually. These increasing costs can be seen as you follow the recurring cycles of a component on the "30-yr Income/Expense Detail" table.
Interest	Interest earnings on Reserve Funds are calculated using the average balance for the year (taking into account income and expenses through the year) and compounded monthly using the rate defined in the Executive Summary. Annual interest earning assumption appears in the Executive Summary.
Percent Funded	The ratio, at a particular point in time (the first day of the Fiscal Year), of the actual (or projected) Reserve Balance to the Fully Funded Balance, expressed as a percentage.
Remaining Useful Life (RUL)	The estimated time, in years, that a common area component can be expected to continue to serve its intended function.
Useful Life (UL)	The estimated time, in years, that a common area component can be expected to serve its intended function.

Component Details

The primary purpose of the Component Details appendix is to provide the reader with the basis of our funding assumptions resulting from our research and analysis. The information presented here represents a wide range of components that were observed and measured against National Reserve Study Standards to determine if they meet the criteria for reserve funding.

1) Common area repair & replacement responsibility
2) Component must have a limited useful life
3) Life limit must be predictable
4) Above a minimum threshold cost (board's discretion – typically ½ to 1% of Annual operating expenses).

Not all your components may have been found appropriate for reserve funding. In our judgment, the components meeting the above four criteria are shown with the Useful Life (how often the project is expected to occur), Remaining Useful Life (when the next instance of the expense will be) and representative market cost range termed "Best Cost" and "Worst Cost". There are many factors that can result in a wide variety of potential costs, and we have attempted to present the cost range in which your actual expense will occur.

Where no Useful Life, Remaining Useful Life, or pricing exists, the component was deemed inappropriate for Reserve Funding.

Comp #: 99 Water Permits, Laws & Reg's **Quantity: Requirements**
Location: Community water system
Funded?: No. No predictable basis for reserves at this time
History: Unknown
Evaluation: The U.S. and Washington State have a legal framework for providing safe drinking water. Congress passed the Safe Drinking Water Act (SDWA) in 1974 to protect public health by regulating the nation's public drinking water supply. Under the SDWA, the U.S. Environmental Protection Agency (EPA) sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards.

EPA granted the Washington State Department of Health Office of Drinking Water the authority to implement the Safe Drinking Water Act and enforce federal drinking water rules in our state.

The state rules used to govern Group A public water systems are found the Washington Administrative Code (WAC chapter 246-290 and chapter 246-292). These rules cover many areas of water system operations and management, and are consistent with the SDWA. The State defines the Clearwood Water System as a “Group A Community” type (Id #13615U).

Information provided in this Reserve Study in regards to the water system is in no way intended to replace any Federal or State regulation(s) or Water System Plan (WSP).

Typically, application, permit fees, etc… are expensed through operating budget. If some basis for cyclical funding emerges, reserve funding can be incorporated in future reserve study updates. The WA State Department of Health (DOH) has a variety of helpful publications and resources on its web site.
http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance

Useful Life:
0 years

Remaining Life:

Best Case: Worst Case:

Cost Source:

Comp #: 100 Sanitary Survey **Quantity: State required survey**
Location: Water system components
Funded?: Yes.
History: Unknown
Evaluation: This component factors cyclical funding for WA state required sanitary survey of system.

https://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/RegulationandCompliance/SanitarySurveys

No records or information provided to us regarding when last survey was completed.

Useful Life:
3 years

Remaining Life:
0 years

Best Case: $ 5,500 Worst Case: $ 6,600

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 101 Water System Plan - Update **Quantity: Every 6 years**
Location: Community water system
Funded?: Yes.
History: Plan being updated in 2017, previous plan updates in 2011 & 2005
Evaluation: The state of Washington requires group A water systems to cause the preparation of a comprehensive Water System Plan prepared every six years. At the time of our reserve study preparation in late 2017, it was reported to us the water system plan was being updated by NWS but not yet available to us. The most completed plan update provided to us was for 2011 by Skillings Connolly Engineering, Lacey Washington. Cyclical funding needs for the plan, prepared by professional engineering consulting firm is factored below.

Useful Life:
6 years

Remaining Life:
4 years

No Photo Available

Best Case: $ 28,000 Worst Case: $ 38,000

Lower allowance Higher allowance

Cost Source: Associations inflated budgeted amount for 2017

Comp #: 102 Well #5 - Install **Quantity: (1) water well**

Location: Divisions I & VII common area
Funded?: No. Useful life not predicatable
History: A new well titled Well #5 is anticipated to be installed in 2018
Evaluation: There are four wells currently on the property. Well 1 drilled in 1965, well 2 in 1975, well 3 (currently non-active) in 1995 and well 4 in 2001. Detailed information about background, depth, supply, etc… can be found within the 2011 Water System Plan by Skillings Connolly Engineering. At the time of our report writing in late 2017, a Water System plan was being updated. In addition to supplying quality water, wells must have sufficient capacity to meet fire flow demands.

Due to well #4 has testing positively for bacteria the Association will be installing another well titled "Well #5". Anticipation by our contacts is this well will be installed by 1/1/2019, the start date of this reserve study.

The various components of the well are shown for separate funding in this reserve study. The WA State Department of Health (DOH) has a variety of helpful publications and resources on its web site.
http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance

Useful Life:

Remaining Life:

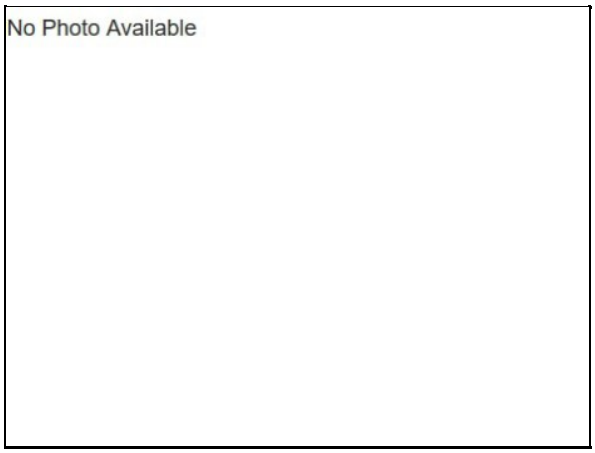
Best Case: Worst Case:

Cost Source:

Comp #: 102 Well #5 - Replace Casing **Quantity: 8" steel, Unk depth**

Location: Well #5
Funded?: Yes.
History: Assumed in place by 1/1/2019, the start date of this reserve study
Evaluation: Well #5 is anticipated to be installed/in-place by 1/1/2019. We are unsure how deep the well will be; width reported by management. The steel well casing may eventually deteriorate and collapse, but is unpredictable. Because of the cost and operating significance of the well, even though timing is difficult to predict, reserve funding is recommended; the WA DOH Small Water System Management Program Guide recommends planning for a useful life of 50 - 100 years. Consulting engineer(s) can help further assess and predict replacement timing.

The WA State Department of Health (DOH) has a variety of helpful publications and resources on its web site.
http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance



Useful Life:
80 years

Remaining Life:
80 years

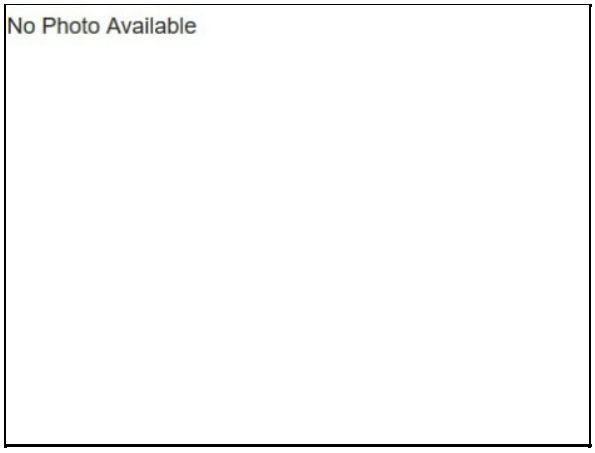
Best Case: $ 126,000 Worst Case: $ 169,000

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client, Inflated

Comp #: 102 Well Pump / Motor #5 - Replace **Quantity: (1) 7.5 hp submersible 4"**

Location: Well house Division I common area
Funded?: Yes.
History: Assumption is will be in place by 1/1/2019, the start date of this reserve study
Evaluation: Well #5 is anticipated to be installed/in-place by 1/1/2019. We are unsure what size pump will be installed so estimation is included here. Based upon similar expense data from other AR clients, cyclical funding is shown below at ten year interval. Track actual expenses and timing of all components within the reserve study for accurate future reserve study updates.



Useful Life:
10 years

Remaining Life:
10 years

Best Case: $ 20,000 Worst Case: $ 25,000

Lower allowance Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 103 Well Pump / Motor #1 - Replace **Quantity: (1) 7.5 hp submersible 4"**

Location: Well house Division I common area

Funded?: Yes.

History: Budgeted for replacement in 2018, previously replaced in 2005

Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. According to budget documents provided to us in 2017 during our preparation of the 2019 reserve study, Association is budgeting to replace this in 2018. Our reserve study reflects replacement as planned. Based upon similar expense data from other AR clients, cyclical funding is shown below. Track actual expenses and timing of all components within the reserve study for accurate future reserve study updates.

Useful Life:
10 years

Remaining Life:
9 years

Best Case:	$ 10,900	Worst Case:	$ 13,100
	Lower allowance		Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 104 Well #1 - Replace Casing **Quantity: 8" steel, 60'**
Location: Well #1
Funded?: Yes.
History: 1965
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. The original well was reported to be placed into service in 1965. See Water System plan for spec's. The well itself continues to produce sufficient water quality and volume (120 gpm).

The steel well casing may eventually deteriorate and collapse, but is unpredictable. Because of the cost and operating significance of the well, even though timing is difficult to predict, reserve funding is recommended; the WA DOH Small Water System Management Program Guide recommends planning for a useful life of 50 - 100 years. Consulting engineer(s) can help further assess and predict replacement timing.

The WA State Department of Health (DOH) has a variety of helpful publications and resources on its web site. http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance

Useful Life:
80 years

Remaining Life:
34 years

Best Case: $ 126,000 Worst Case: $ 169,000

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client, Inflated

Comp #: 105 Well Pump / Motor #2 - Replace **Quantity: (1) 30 hp submersible 6"**

Location: Well #2

Funded?: Yes.

History: Replaced last 2013

Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. No problems reported to us. Typical service life based upon our research and experience with clients is seven to ten years. Track actual expenses and timing of all components within the reserve study for accurate future reserve study updates. Defer if remains functional/efficient.

Useful Life:
10 years

Remaining Life:
4 years

Best Case: $ 17,500 Worst Case: $ 18,600

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client, Inflated

Comp #: 106 Well #2 - Replace Casing **Quantity: 10" steel, 67'**

Location: Well #2, vault
Funded?: Yes.
History: 1975
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. See Water System plan for spec's. Reported to us, the well itself continues to produce sufficient water quality and volume.

The steel well casing may eventually deteriorate and collapse, but is unpredictable. Because of the cost and operating significance of the well, even though timing is difficult to predict, reserve funding is recommended; the WA DOH Small Water System Management Program Guide recommends planning for a useful life of 50 - 100 years. Consulting engineer(s) can help further assess and predict replacement timing.

The WA State Department of Health (DOH) has a variety of helpful publications and resources on its web site. http://www.doh.wa.gov/CommunityandEnvironment/DrinkingWater/WaterSystemAssistance

Useful Life:
80 years

Remaining Life:
44 years

Best Case: $ 126,000 Worst Case: $ 169,000

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client, Inflated

Comp #: 107 Well Pump / Motor #4 - Replace **Quantity: (1) 25 hp submersible 6"**
Location: Well house Division VII common area
Funded?: Yes.
History: 2007
Evaluation: Due to problems with Well #4, it is anticipated Well #5 will be installed and in place by 1/1/2019, the start date of this reserve study. At the time of our report writing late 2017, a determination had not been made whether Well #4 would be decommissioned following installation of Well #5. We are leaving the various components for Well #4 as funded components in the reserve study but this may be changed at a later date.

Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. No problems currently reported to us of 25 hp replaced in 2007 (previous pump was 40 hp). Cyclical funding is shown below at ten year interval. Defer if remains operational, efficient.

Useful Life:
10 years

Remaining Life:
0 years

Best Case: $ 19,700 Worst Case: $ 25,100

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 108 Well #4 - Replace Casing **Quantity: 12" steel, 45'**

Location: Well #4

Funded?: Yes.

History: 2001

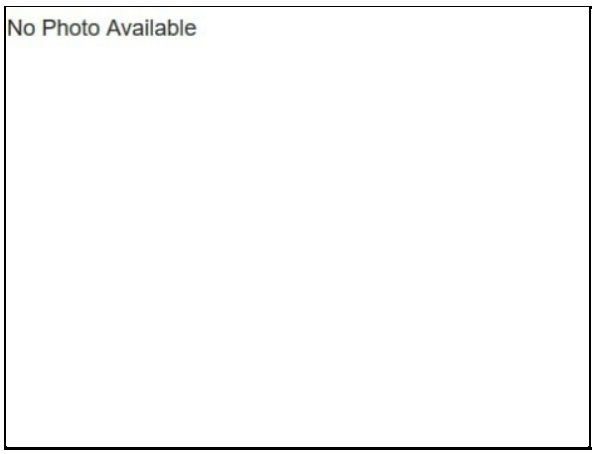
Evaluation: Due to problems with Well #4, it is anticipated Well #5 will be installed and in place by 1/1/2019, the start date of this reserve study. At the time of our report writing late 2017, a determination had not been made whether Well #4 would be decommissioned following installation of Well #5. We are leaving the various components for Well #4 as funded components in the reserve study but this may be changed at a later date.

Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Again, although well itself continues to produce sufficient volume, location leads to periodic issues with quality.

The steel well casing may eventually deteriorate and collapse, but is unpredictable. Because of the cost and operating significance of the well, even though timing is difficult to predict, reserve funding is recommended; the WA DOH Small Water System Management Program Guide recommends planning for a useful life of 50 - 100 years. Consulting engineer(s) can help further assess and predict replacement timing.

Useful Life:
80 years

Remaining Life:
54 years



Best Case: $ 126,000 Worst Case: $ 169,000

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client, Inflated

Comp #: 109 Source Flow Meters - Replace **Quantity: (4*) source meters**

Location: Wells 1, 2 & 4 and Well 5 to be added

Funded?: Yes.

History: 2011 ($6,210)

Evaluation: Due to problems with Well #4, it is anticipated Well #5 will be installed and in place by 1/1/2019, the start date of this reserve study. At the time of our report writing late 2017, a determination had not been made whether Well #4 would be decommissioned following installation of Well #5. We are leaving the various components for Well #4 as funded components in the reserve study but this may be changed at a later date. We assume flow meter at Well #5 included here.

Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. These expenses are above the reserve funding threshold and therefore factored herein. Typical life is in the 5 year range. Typically more efficient to replace vs. calibrate.

Useful Life:
5 years

Remaining Life:
0 years

Best Case: $ 7,400 Worst Case: $ 7,900

Lower allowance Higher allowance

Cost Source: Client Cost History, Inflated

Comp #: 110 Storage Tank #1 - Replace **Quantity: 182,000 gallon steel**

Location: Weyerhaueser property south of Bald Hill Rd.

Funded?: Yes.

History: 1975 per Clearwood

Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. No known issues currently reported to us; most recent tank inspection and cleaning in 2015 (see #118). This storage tank stated within 2011 WSP (Clearwood data) to be originally installed in 1975; significantly refurbished in 2011. Based on our previous research, the tank was blasted and coated on the interior and exterior with an industrial epoxy system by T Bailey, Inc., Anacortes. This was the first coating since original. According to the Project Manager from T Bailey, Scott Lavelle, prior to coating there was some flaking paint and minor local rust, but no pock-marks or significant deterioration noted. Seismic retro-fitting also occurred to ensure adequate foundation support. Tank was determined to be in good condition for age - concurrence with project structural engineering firm, Sargent (see evaluation within 2011 WSP). The tank also has cathodic protection system for additional protection and maximum life. Cathodic protection affects the portion of tank that is submerged; not above the water line. http://water.me.vccs.edu/courses/ENV110/lesson10_3.htm.

Typical industry life expectancy for steel storage tanks is 50 or more years. Tank #1 is 44 years old as of 2019. Recent coating project may extend total service life - T Bailey estimates service life of epoxy coating to be 15 to 20 years. Regular maintenance and inspection / testing by engineering firm are also key; there are engineering testing methodologies to determine wall thickness, strength, etc. For planning purposes, at the suggestion of Clearwood HOA, replacement scheduled herein for at the end of a second future coating life cycle.

Useful Life:
80 years

Remaining Life:
32 years

Best Case:	$ 612,000	Worst Case:	$ 743,000
	Lower allowance		Higher allowance

Cost Source: Prior Budget Estimate by T Bailey, Inflated

Comp #: 111 Storage Tank #1 - Coat Exterior **Quantity: 182,000 gallon**

Location: Weyerhaueser property south of Bald Hill Rd.

Funded?: Yes.

History: 2011

Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. This large storage tank was reportedly installed in 1975 and was significantly refurbished in 2011, including blast and coat on the interior and exterior with an industrial epoxy system by T Bailey, Inc., Anacortes. This was the first coating since original. According to the Project Manager from T Bailey, Scott Lavelle, prior to coating there was some flaking paint and minor local rust, but no pock-marks or significant deterioration noted. Coating project may extend total service life - T Bailey estimates service life of exterior epoxy coating to be 15 to 20 years.

Useful Life:
20 years

Remaining Life:
12 years

Best Case:	$ 27,300	Worst Case:	$ 31,700
	Lower allowance		Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 112 Storage Tank #1 - Coat Interior **Quantity: 182,000 gallon**

Location: Weyerhaueser property south of Bald Hill Rd.

Funded?: Yes.

History: 2011

Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. This large storage tank was reportedly installed in 1975 and was significantly refurbished in 2011, including blast and coat on the interior and exterior with an industrial epoxy system by T Bailey, Inc., Anacortes. This was the first coating since original. According to the Project Manager from T Bailey, Scott Lavelle, prior to coating there was some flaking paint and minor local rust, but no pock-marks or significant deterioration noted. Coating project may extend total service life - T Bailey estimates service life of interior epoxy coating to be 15 to 20 years. Most recent inspection/cleaning in 2015 (see #118).

Useful Life:
20 years

Remaining Life:
15 years

Best Case: $ 109,000 Worst Case: $ 122,000

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client

Comp #: 114 Storage Tank #2 - Replace **Quantity: 423,000 gallon steel**

Location: Weyerhaueser property south of Bald Hill Rd.

Funded?: Yes.

History: 1997

Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. No known issues currently reported to us; most recent tank inspection and cleaning in 2015 (see #118). This storage tank stated within 2011 WSP (Clearwood data) to be originally installed in 1997; significantly refurbished in 2011. Based on our previous research, the tank was blasted and coated on the interior and exterior with an industrial epoxy system by T Bailey, Inc., Anacortes. This was the first coating since original. According to the Project Manager from T Bailey, Scott Lavelle, prior to coating there was some flaking paint and minor local rust, but no pock-marks or significant deterioration noted. Seismic retro-fitting also occurred to ensure adequate foundation support. Tank was determined to be in good condition for age - concurrence with project structural engineering firm, Sargent (see evaluation within 2011 WSP). The tank also has cathodic protection system for additional protection and maximum life. Cathodic protection affects the portion of tank that is submerged; not above the water line.
http://water.me.vccs.edu/courses/ENV110/lesson10_3.htm.

Typical industry life expectancy for steel storage tanks is 50 or more years. Tank #2 is 22 years old as of 2019. Recent coating project may extend total service life - T Bailey estimates service life of epoxy coating to be 15 to 20 years. Regular maintenance and inspection / testing by engineering firm are also key; there are engineering testing methodologies to determine wall thickness, strength, etc. For planning purposes, at the suggestion of Clearwood HOA, replacement scheduled herein for at the end of a second future coating life cycle.

Useful Life:
80 years

Remaining Life:
52 years

Best Case: $ 863,000 Worst Case: $ 983,000

Lower allowance Higher allowance

Cost Source: Prior Budget Estimate by T Bailey, Inflated

Comp #: 115 Storage Tank #2 - Coat Exterior **Quantity: 423,000 gallon**

Location: Weyerhaueser property south of Bald Hill Rd.

Funded?: Yes.

History: 2011

Evaluation: This large storage tank was installed in 1997 and was significantly refurbished in 2011, including blast and coat on the interior and exterior with an industrial epoxy system by T Bailey, Inc., Anacortes. This was the first coating since original. According to the Project Manager from T Bailey, Scott Lavelle, prior to coating there was some flaking paint and minor local rust, but no pock-marks or significant deterioration noted. Coating project may extend total service life - T Bailey estimates service life of epoxy coating to be 15 to 20 years.

Useful Life:
20 years

Remaining Life:
12 years

Best Case:	$ 65,600	Worst Case:	$ 76,500
	Lower allowance to blast and recoat both interior and exterior of tank #2		Higher allowance

Cost Source: Estimate Provided by Client

Comp #: 116 Storage Tank #2 - Coat Interior **Quantity: 423,000 gallon**

Location: Weyerhaueser property south of Bald Hill Rd.
Funded?: Yes.
History: 2011
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. This large storage tank was reportedly installed in 1997 and was significantly refurbished in 2011, including blast and coat on the interior and exterior with an industrial epoxy system by T Bailey, Inc., Anacortes. This was the first coating since original. According to the Project Manager from T Bailey, Scott Lavelle, prior to coating there was some flaking paint and minor local rust, but no pock-marks or significant deterioration noted. Coating project may extend total service life - T Bailey estimates service life of interior epoxy coating to be 15 to 20 years. Most recent inspection/cleaning in 2015 (see #118).

Useful Life:
20 years

Remaining Life:
12 years

Best Case: $ 219,000 Worst Case: $ 328,000

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client

Comp #: 118 Storage Reservoirs - Dive Inspect **Quantity: (2) dive inspections**

Location: Storage tanks, every 5 years
Funded?: Yes.
History: Inspection and cleaning in 2015; previous to this in 2010
Evaluation: According to expense records, both tanks were cleaned and inspected in 2015. No problems reported to us. Plan for similar cycles as shown.

Useful Life:
5 years

Remaining Life:
1 years

Best Case: $ 6,800 Worst Case: $ 8,000

Lower allowance Higher allowance

Cost Source: Client Cost History, Inflated

Comp #: 119 Reservoir 2 Ladder - Repaint **Quantity: Ladder assembly**
Location: Reservoir 2
Funded?: Yes.
History: Unknown
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Painting of reservoir 2 ladder factored below as shown.

Useful Life:
10 years

Remaining Life:
0 years

Best Case: $ 10,800 Worst Case: $ 13,000

Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 120 Reservoir Cathodic Protection 1 **Quantity: (1) cathodic system**
Location: Reservoir interior
Funded?: Yes.
History: Unknown
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Cyclical replacement of cathodic protection system.

Useful Life:
20 years

Remaining Life:
14 years

Best Case: $ 14,200 Worst Case: $ 16,400

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client

Comp #: 121 Reservoir Cathodic Protection 2 **Quantity: (1) cathodic system**
Location: Reservoir interior
Funded?: Yes.
History: Unknown
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Cyclical replacement of cathodic protection system.

Useful Life:
20 years

Remaining Life:
4 years

Best Case: $ 19,700 Worst Case: $ 24,000

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client

Comp #: 122 Water Hammer Surge Tanks **Quantity: Surge tanks**
Location: Equipment room
Funded?: Yes.
History: Unknown
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Cyclical replacement of surge tanks factored.

Useful Life:
50 years

Remaining Life:
1 years

Best Case: $ 10,900 Worst Case: $ 17,500

Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 300 Water Main Project D-1: Replace **Quantity: ~ 0.9 miles**

Location: N Clearlake Blvd SE from front gate to interesection of Perimeter Court (see WSP)
Funded?: Yes.
History: Original
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. A significant portion of the water distribution main piping recommended to be replaced in a phased manner as a result of engineering analysis by Skillings Connolly Engineers, preparer of your 2011 Water System Plan. See WSP for supporting detail. Much of the original piping is Asbestos Cement (50% to 60%); remainder is PVC, Ductile Iron, HDPE. Sequence of replacement shown herein determined by Skillings Connolly and considers work needed at roadways which coincides - see HOA reserve study road components. Some areas replaced in 2002 and 2009 (see components #310).

Note that there has been some discussion regarding an in-depth study/analysis and testing of piping to further assess condition of piping. We are not aware a decision has been made yet to go forward with this. In our experience with this type of materials and age, best to proactively replace and most efficiently completed with roads project as shown in reserve study.

Included in this project are related service connections, blow-offs, air vac's and hydrants. All existing 4" recommended to be replaced with 8" lines per Skillings Connolly. Replacement mains consist of PVC, estimated to have a service life of 50 years or more with ordinary care and maintenance and if properly bedded and installed.

Useful Life:
60 years

Remaining Life:
0 years

Best Case: $ 490,000 Worst Case: $ 533,000

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 301 Water Main Project D-2: Replace **Quantity: ~ 0.7 miles**
Location: Blue Hills Drive (see WSP)
Funded?: Yes.
History: Original
Evaluation: This component factors phase of recommended water main replacement program - see component #300 and community Water System Plan for supporting detail of assumptions.

Useful Life:
60 years

Remaining Life:
1 years

Best Case: $ 352,000 Worst Case: $ 396,000

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 302 Water Main Project D-3: Replace **Quantity: ~ 0.7 miles**
Location: Blue Water Drive (see WSP)
Funded?: Yes.
History: Original
Evaluation: This component factors phase of recommended water main replacement program - see component #300 and community Water System Plan for supporting detail of assumptions.

Useful Life:
60 years

Remaining Life:
4 years

Best Case: $ 374,000 Worst Case: $ 417,000

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 303 Water Main Project D-4: Replace **Quantity: ~ 0.9 miles**
Location: Rampart Drive SE (see WSP)
Funded?: Yes.
History: Original
Evaluation: This component factors phase of recommended water main replacement program - see component #300 and community Water System Plan for supporting detail of assumptions.

Useful Life:
60 years

Remaining Life:
7 years

Best Case: $ 505,000 Worst Case: $ 549,000

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 304 Water Main Project D-5a: Replace **Quantity: ~ .85 miles**
Location: Divisions I, II & III (see WSP)
Funded?: Yes.
History: Original
Evaluation: This component factors phase of recommended water main replacement program - see component #300 and community Water System Plan for supporting detail of assumptions.

Useful Life:
60 years

Remaining Life:
10 years

Best Case: $ 502,000 Worst Case: $ 545,000

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 305 Water Main Project D-5b: Replace **Quantity: ~ .85 miles**
Location: Divisions I, II & III (see WSP)
Funded?: Yes.
History: Original
Evaluation: This component factors phase of recommended water main replacement program - see component #300 and community Water System Plan for supporting detail of assumptions.

Useful Life:
60 years

Remaining Life:
13 years

Best Case: $ 503,000 Worst Case: $ 546,000

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 306 Water Main Project D-6: Replace **Quantity: ~ 1.0 miles**
Location: Upland Dr., Clearland Dr. and 0.2 miles of Clearlake Blvd SE (see WSP)
Funded?: Yes.
History: Original
Evaluation: This component factors phase of recommended water main replacement program - see component #300 and community Water System Plan for supporting detail of assumptions.

Useful Life:
60 years

Remaining Life:
16 years

Best Case: $ 563,000 Worst Case: $ 606,000

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 307 Water Main Project D-7: Replace **Quantity: ~ .5 miles**
Location: Clearview Ct. thru Overlake Ct. to No Clearlake Blvd. SE (see WSP)
Funded?: Yes.
History: Original
Evaluation: This component factors phase of recommended water main replacement program - see component #300 and community Water System Plan for supporting detail of assumptions.

Useful Life:
60 years

Remaining Life:
19 years

Best Case: $ 278,000 Worst Case: $ 321,000

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 308 Remaining Water Main Lines -Replace **Quantity: ~ 1.25 miles**
Location: Not yet determined
Funded?: Yes.
History: Original
Evaluation: This component factors phase of water main replacement program outside of recommendations within the Water System Plan - see component #300 and community Water System Plan for supporting detail of assumptions.

Useful Life:
60 years

Remaining Life:
22 years

No Photo Available

Best Case: $ 765,000 Worst Case: $ 830,000

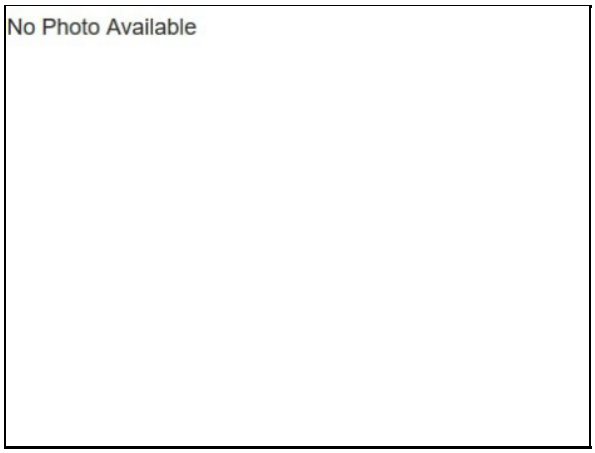
Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 309 Remaining Water Main Lines -Replace **Quantity: ~ 1.25 miles**
Location: Not yet determined
Funded?: Yes.
History: Original
Evaluation: This component factors phase of water main replacement program outside of recommendations within the Water System Plan - see component #300 and community Water System Plan for supporting detail of assumptions.

Useful Life:
60 years

Remaining Life:
25 years



Best Case: $ 765,000 Worst Case: $ 830,000

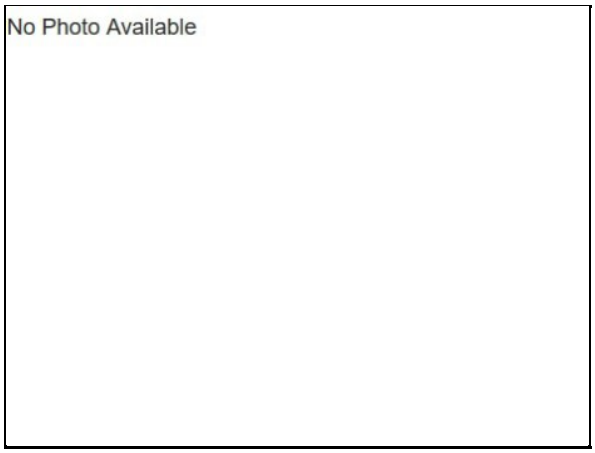
Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 309 Service Lines - Replace **Quantity: ~1,034 connections**
Location: Each lot throughout community
Funded?: No.
History: Unknown
Evaluation: Service lines off of the main water distribution lines are of various materials. Much of the original lines are "blue-poly" known to be life-limited, prone to fracturing over time. When water mains are replaced, new service line piping is installed in conjunction; currently reported to be PEP (polyethylene) along with PVC mains. Existing lines are repaired / replaced as needed as general maintenance and repair within operating budget. At this time, there is no expectation to accelerate replacement of service connections prior to phased replacement of main lines (see components 300 - 305). Therefore, no basis for cyclical reserve funding at this time. Continue proactive leak detection , repair / replacement as needed using operating funds.

Useful Life:
0 years

Remaining Life:



Best Case: Worst Case:

Cost Source:

Comp #: 310 Main Lines Replaced 2002, Cycle **Quantity: ~ 1.53 miles**
Location: See WSP, early phases
Funded?: Yes.
History: Replaced 2002
Evaluation: This component factors cyclical replacement of water mains replaced last in 2002; replaced with PVC.

Useful Life:
60 years

Remaining Life:
43 years

Best Case: $ 945,000 Worst Case: $ 1,010,000

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 310 Main Lines Replaced 2009, Cycle **Quantity: ~ .9 miles**
Location: See WSP, early phases
Funded?: Yes.
History: Replaced in 2009
Evaluation: This component factors cyclical replacement of water mains replaced last in 2009; replaced with PVC.

Useful Life:
60 years

Remaining Life:
50 years

Best Case: $ 546,000 Worst Case: $ 601,000

Lower allowance Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 311 Main Valves- Rplc (2002) **Quantity: 40 valves**
Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: This component factors cyclical replacement of gate valves, corresponding with main replacement program. Photo is typical and does not represent phasing.

Useful Life:
30 years

Remaining Life:
13 years

Best Case: $ 93,300 Worst Case: $ 115,000

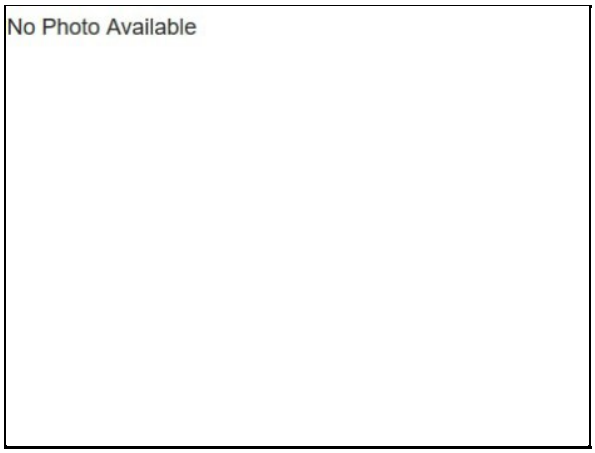
Lower estimate to replace Higher estimate

Cost Source: Estimate Provided by Client

Comp #: 311 Main Valves- Rplc (2009) **Quantity: 31 valves**
Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: This component factors cyclical replacement of gate valves, corresponding with main replacement program. Photo is typical and does not represent phasing.

Useful Life:
30 years

Remaining Life:
20 years



Best Case: $ 67,000 Worst Case: $ 78,000

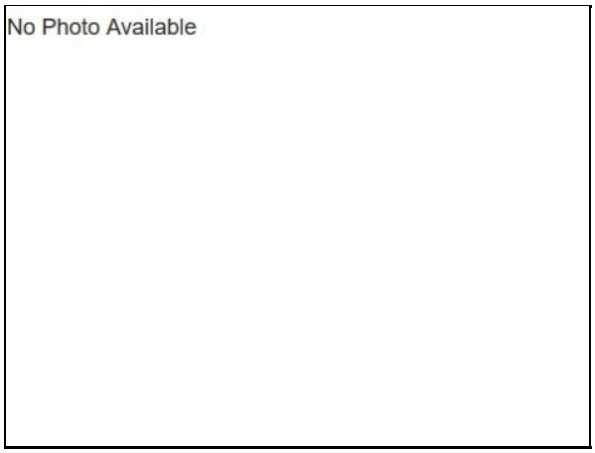
Lower estimate to replace Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 311 Main Valves- Rplc (other) **Quantity: 36 valves**
Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: This component factors cyclical replacement of gate valves, corresponding with main replacement program. Photo is typical and does not represent phasing.

Useful Life:
30 years

Remaining Life:
22 years



Best Case: $ 58,500 Worst Case: $ 69,400

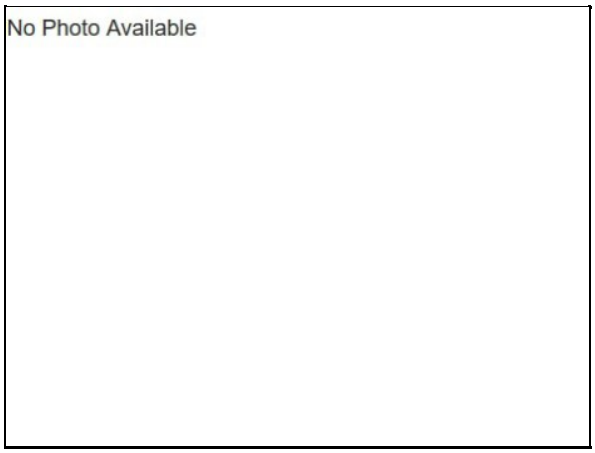
Lower estimate to replace Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 311 Main Valves- Rplc (Phase 1) **Quantity: 25 valves**
Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: Variety of main sizes and types throughout system. Water manager maintains log indicating 216 valves on mains throughout system. In addition there are about 25 air vacuum valves throughout main system. Yearly exercise of valves is reported. Historical information indicates these valves were or are to be replaced in conjunction with mains (see components 300 - 309). Typical service life industry estimate is in the 30 year range. This component factors phased future replacement beginning roughly 30 years after main replacement. This initial grouping are those replaced in 2002.

Useful Life:
30 years

Remaining Life:
0 years



Best Case: $ 50,300 Worst Case: $ 61,200

Lower estimate to replace Higher estimate

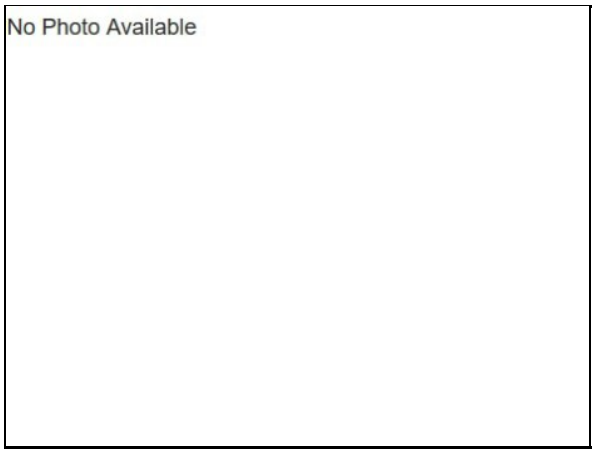
Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 311 Main Valves- Rplc (Phase 2) **Quantity: 24 valves**

Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: This component factors cyclical replacement of gate valves, corresponding with main replacement program. Photo is typical and does not represent phasing.

Useful Life:
30 years

Remaining Life:
1 years



Best Case: $ 49,700 Worst Case: $ 60,600

Lower estimate to replace Higher estimate

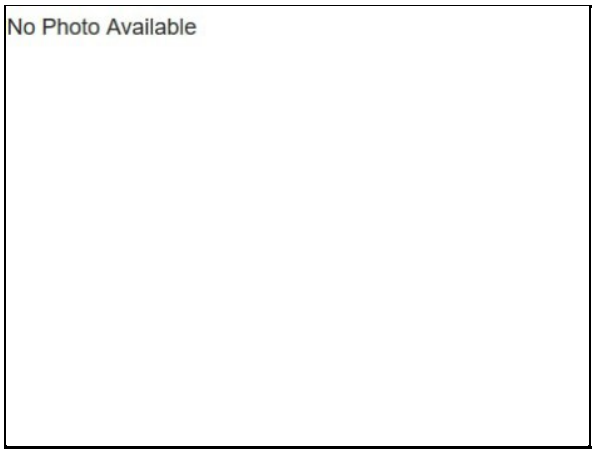
Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 311 Main Valves- Rplc (Phase 3) **Quantity: 12 valves**

Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: This component factors cyclical replacement of gate valves, corresponding with main replacement program. Photo is typical and does not represent phasing.

Useful Life:
30 years

Remaining Life:
4 years



Best Case: $ 18,200 Worst Case: $ 29,200

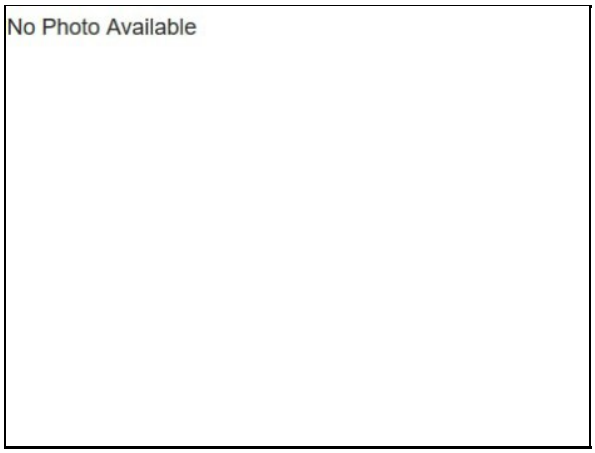
Lower estimate to replace Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 311 Main Valves- Rplc (Phase 4) **Quantity: 15 valves**
Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: This component factors cyclical replacement of gate valves, corresponding with main replacement program. Photo is typical and does not represent phasing.

Useful Life:
30 years

Remaining Life:
7 years



Best Case: $ 26,100 Worst Case: $ 37,000

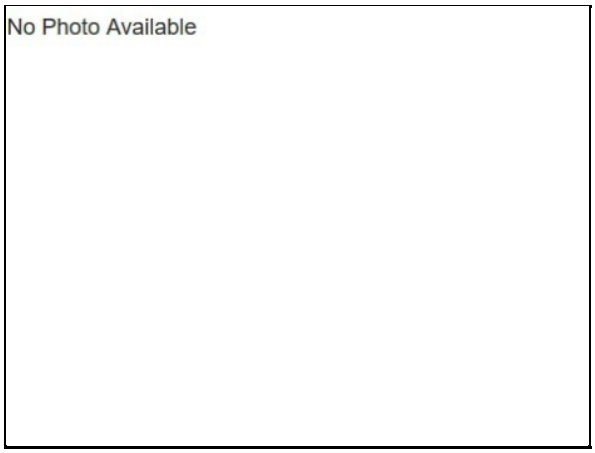
Lower estimate to replace Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 311 Main Valves- Rplc (Phase 5a) **Quantity: 6 valves**
Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: This component factors cyclical replacement of gate valves, corresponding with main replacement program. Photo is typical and does not represent phasing.

Useful Life:
30 years

Remaining Life:
10 years



Best Case: $ 10,900 Worst Case: $ 13,100

Lower estimate to replace Higher estimate

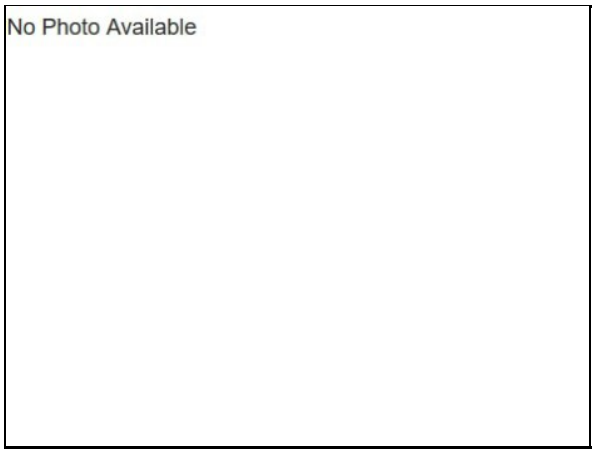
Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 311 Main Valves- Rplc (Phase 5b) **Quantity: 5 valves**

Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: This component factors cyclical replacement of gate valves, corresponding with main replacement program. Photo is typical and does not represent phasing.

Useful Life:
30 years

Remaining Life:
13 years



Best Case: $ 9,830 Worst Case: $ 12,000

Lower estimate to replace Higher estimate

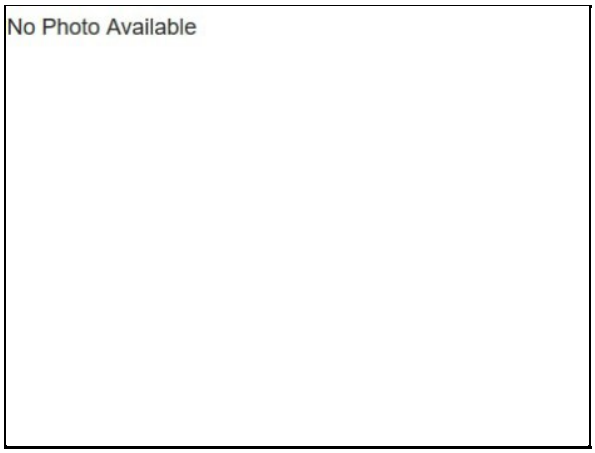
Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 311 Main Valves- Rplc (Phase 6) **Quantity: 14 valves**

Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: This component factors cyclical replacement of gate valves, corresponding with main replacement program. Photo is typical and does not represent phasing.

Useful Life:
30 years

Remaining Life:
16 years



Best Case: $ 23,400 Worst Case: $ 34,400

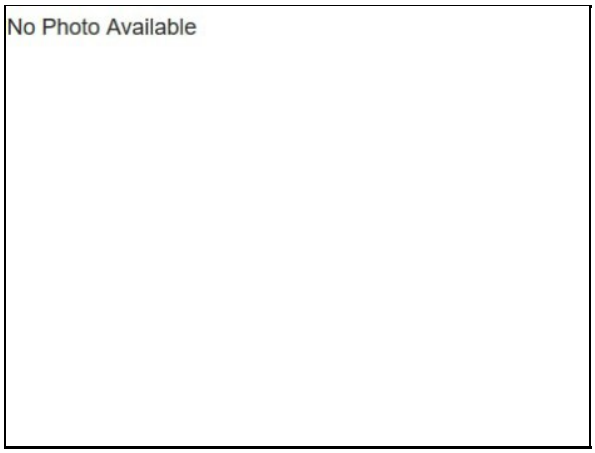
Lower estimate to replace Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 311 Main Valves- Rplc (Phase 7) **Quantity: 7 valves**
Location: Throughout distribution system main lines
Funded?: Yes.
History:
Evaluation: This component factors cyclical replacement of gate valves, corresponding with main replacement program. Photo is typical and does not represent phasing.

Useful Life:
30 years

Remaining Life:
19 years



Best Case: $ 11,500 Worst Case: $ 15,900

Lower estimate to replace Higher estimate

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 312 Hydrant near Maint. Bldg. **Quantity: 1 new hydrant**
Location: By maintenance building
Funded?: Yes.
History: 2013
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Cyclical replacement of hydrants factored - see subsequent components. Photo typical - does not represent phasing.

Useful Life:
30 years

Remaining Life:
24 years

Best Case: $ 4,900 Worst Case: $ 6,000

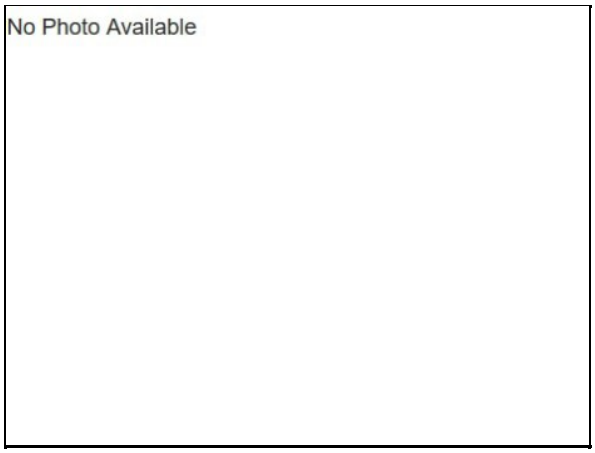
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (2002) **Quantity: 9 hydrants, 1 air vac**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
13 years



Best Case: $ 44,800 Worst Case: $ 55,700

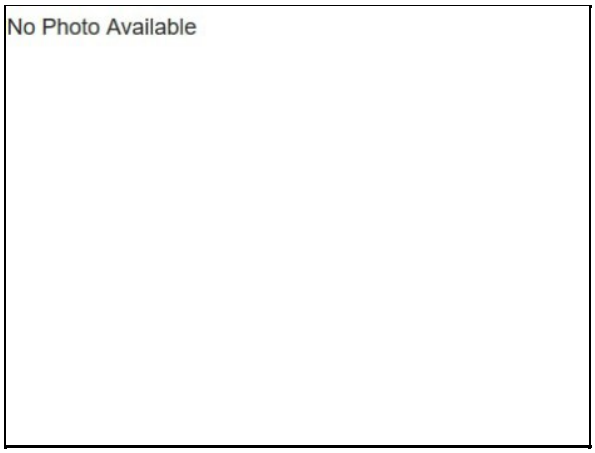
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (2009) **Quantity: 5 hydrants, 5 air vac**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
20 years



Best Case: $ 27,300 Worst Case: $ 38,200

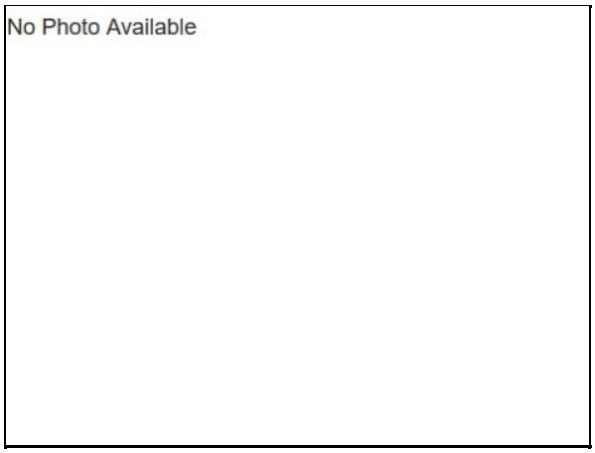
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (other) **Quantity: 4 hydrts,2 needed,6 air v**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
15 years



Best Case: $ 33,900 Worst Case: $ 44,800

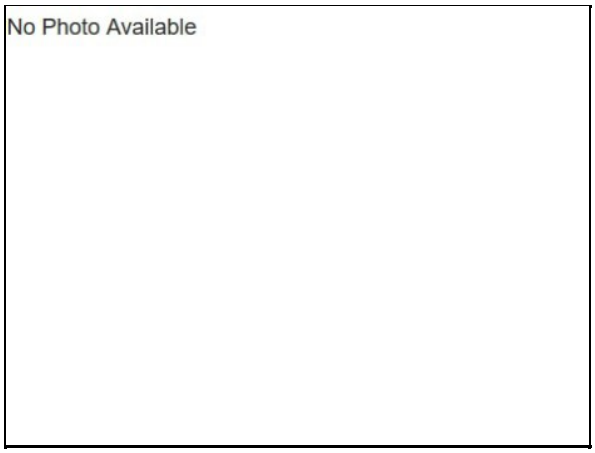
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (Phase 1) **Quantity: 1 hydrt,1 needed,2 air v**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
0 years



Best Case: $ 10,900 Worst Case: $ 15,300

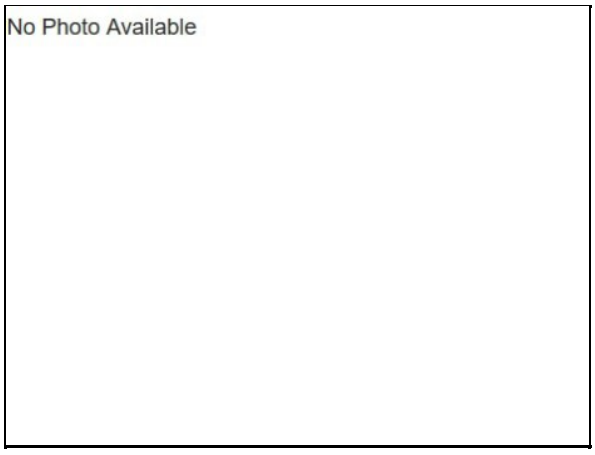
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (Phase 2) **Quantity: 3 hydrts,need 1, 2 air v**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
1 years



Best Case: $ 18,600 Worst Case: $ 29,500

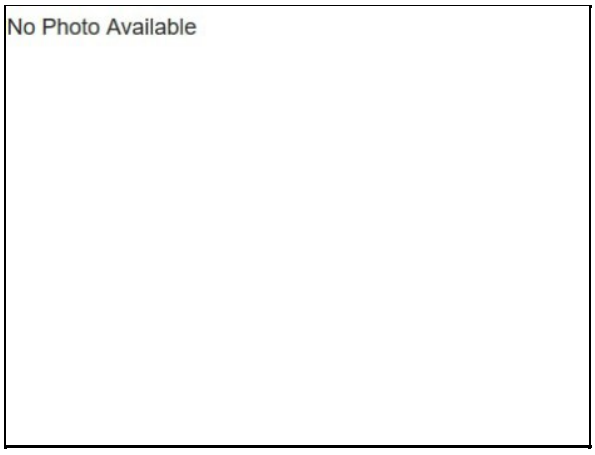
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (Phase 3) **Quantity: 5 hydrants, 1 needed**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
4 years



Best Case: $ 22,900 Worst Case: $ 33,900

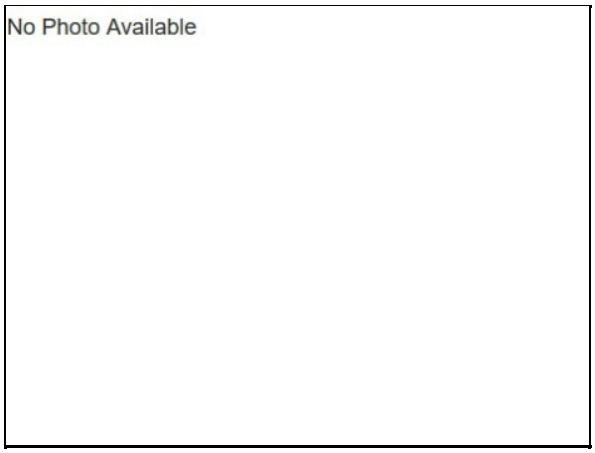
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (Phase 4) **Quantity: 3 hydrants, 2 needed**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
7 years



Best Case: $ 21,900 Worst Case: $ 32,800

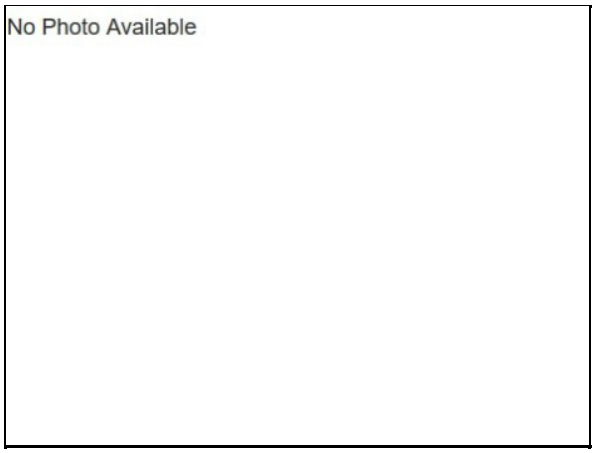
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (Phase 5a) **Quantity: 1 hyrdnt,need 1, 1 air v**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
10 years



Best Case: $ 4,900 Worst Case: $ 14,200

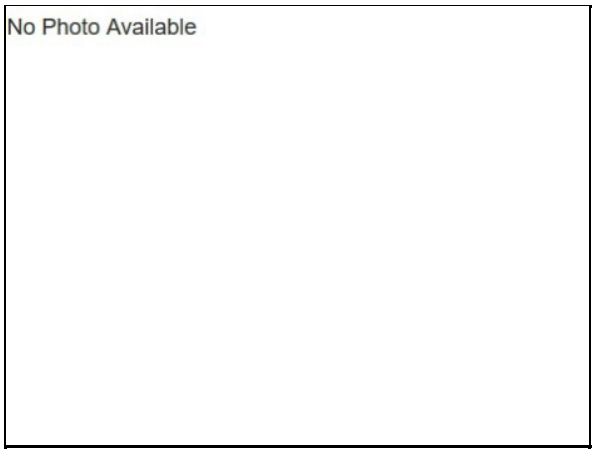
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (Phase 5b) **Quantity: 1 hydrnt,2 needed**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
13 years



Best Case: $ 13,100 Worst Case: $ 19,700

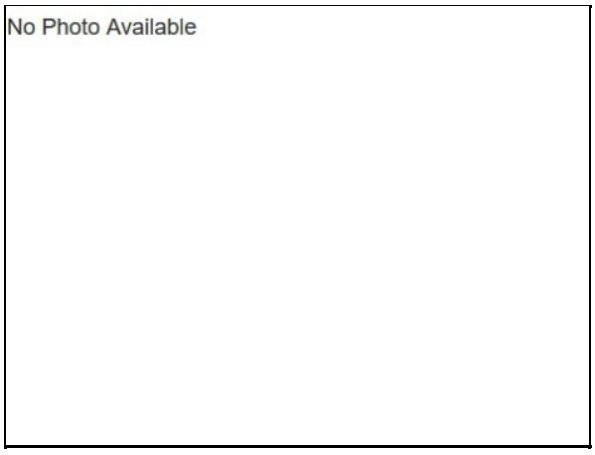
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (Phase 6) **Quantity: 4 hydrnts,need 1, 2 air v**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
16 years



Best Case: $ 24,000 Worst Case: $ 35,000

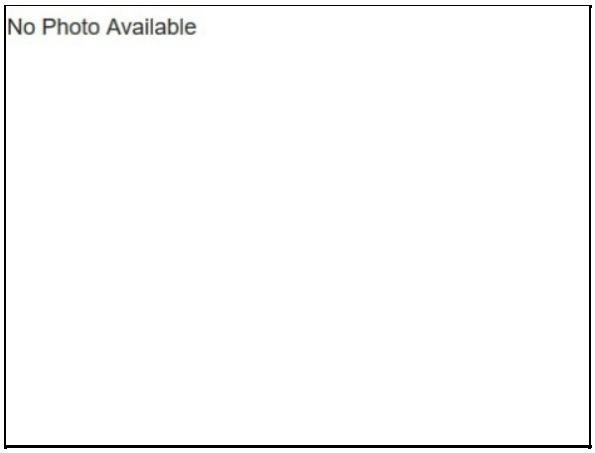
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 312 Hydrants - Rplc (Phase 7) **Quantity: 1 hydrant**
Location: See maintenance spreadsheet
Funded?: Yes.
History: Unknown
Evaluation: Cyclical replacement of hydrants factored - see first component in this series for more information.

Useful Life:
30 years

Remaining Life:
19 years



Best Case: $ 4,900 Worst Case: $ 6,000

Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 316 Water Service Meters -Rplc(Phase1) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Ongoing replacement project occurs annually for new meters and setters. As discussed in the past, manager estimates useful life of the meters to be 10 years, so program is to replace on a rotating basis for approximately 1/10 of total meters each year, reportedly factored within reserves.

Useful Life:
10 years

Remaining Life:
3 years

Best Case: $ 6,800 Worst Case: $ 8,000

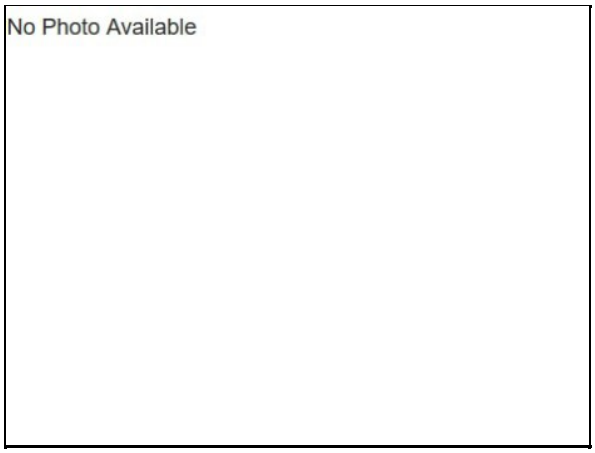
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 316 Water Service Meters -Rplc(Phase10) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
10 years

Remaining Life:
2 years



Best Case: $ 6,800 Worst Case: $ 8,000

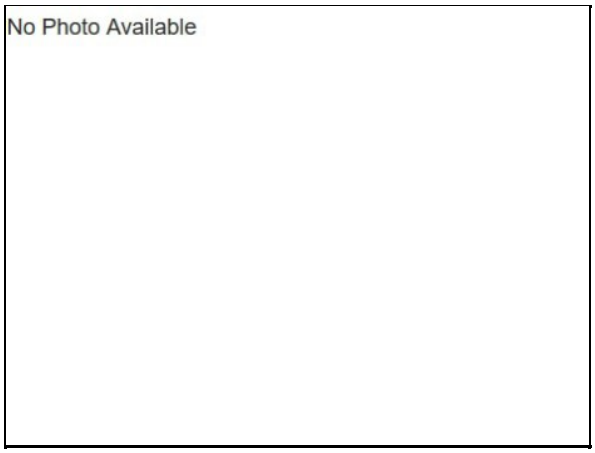
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 316 Water Service Meters -Rplc(Phase2) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
10 years

Remaining Life:
4 years



Best Case: $ 6,800 Worst Case: $ 8,000

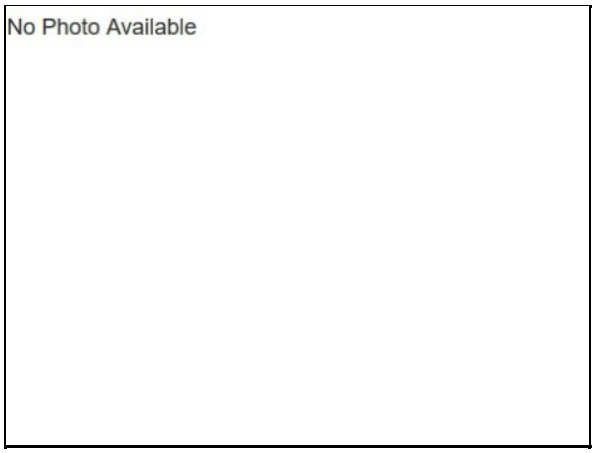
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 316 Water Service Meters -Rplc(Phase3) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
10 years

Remaining Life:
5 years



Best Case: $ 6,800 Worst Case: $ 8,000

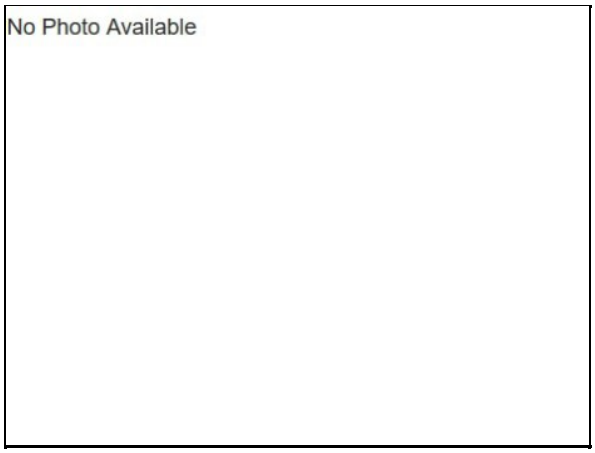
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 316 Water Service Meters -Rplc(Phase4) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
10 years

Remaining Life:
6 years



Best Case: $ 6,800 Worst Case: $ 8,000

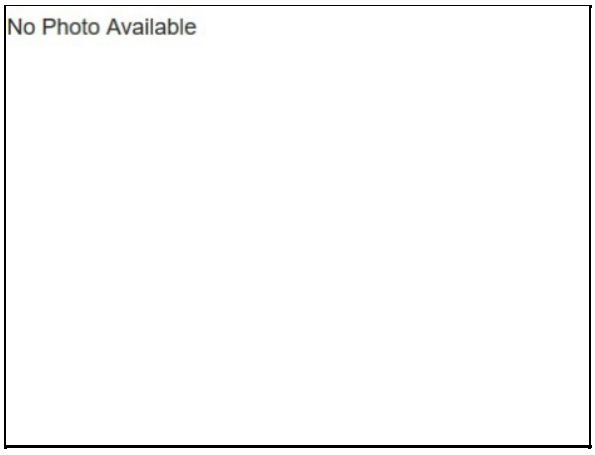
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 316 Water Service Meters -Rplc(Phase5) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Assume 2016
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
10 years

Remaining Life:
7 years



Best Case: $ 6,800 Worst Case: $ 8,000

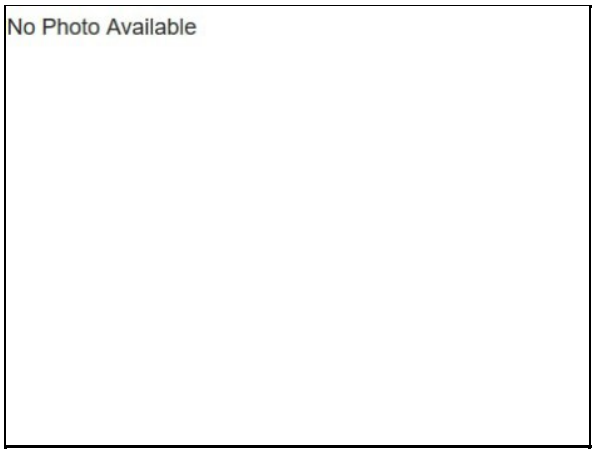
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 316 Water Service Meters -Rplc(Phase6) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Assumption 2017
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
10 years

Remaining Life:
8 years



Best Case: $ 6,800 Worst Case: $ 8,000

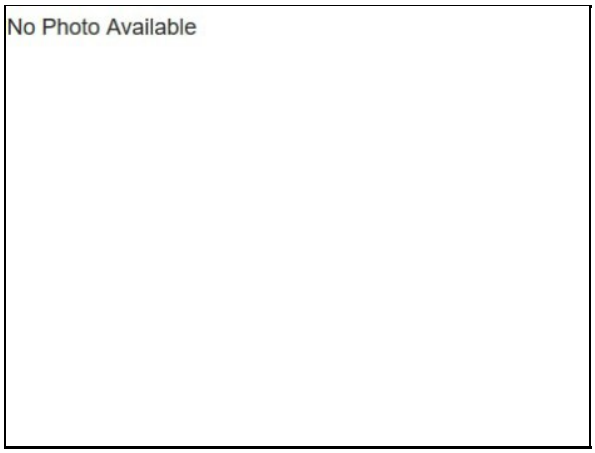
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 316 Water Service Meters -Rplc(Phase7) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Assumption 2018
Evaluation: Phased replacement; see first component in this series for more information. This phase shown in Associations' budget documents as a 2018 project.

Useful Life:
10 years

Remaining Life:
9 years



Best Case: $ 6,800 Worst Case: $ 8,000

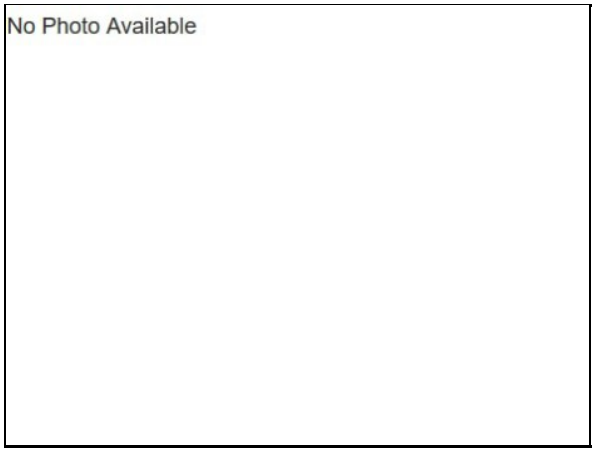
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 316 Water Service Meters -Rplc(Phase8) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
10 years

Remaining Life:
0 years



Best Case: $ 6,800 Worst Case: $ 8,000

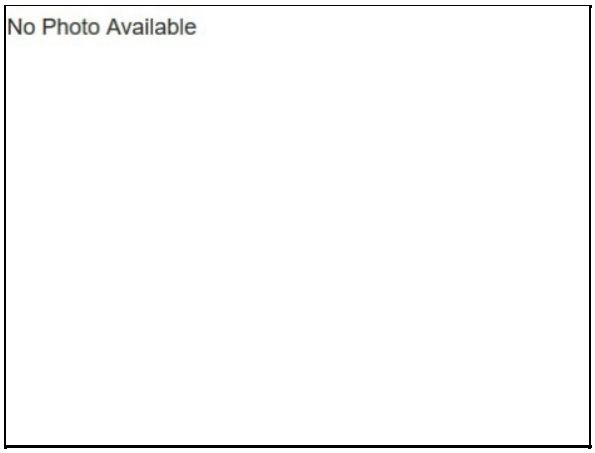
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 316 Water Service Meters -Rplc(Phase9) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
10 years

Remaining Life:
1 years



Best Case: $ 6,800 Worst Case: $ 8,000

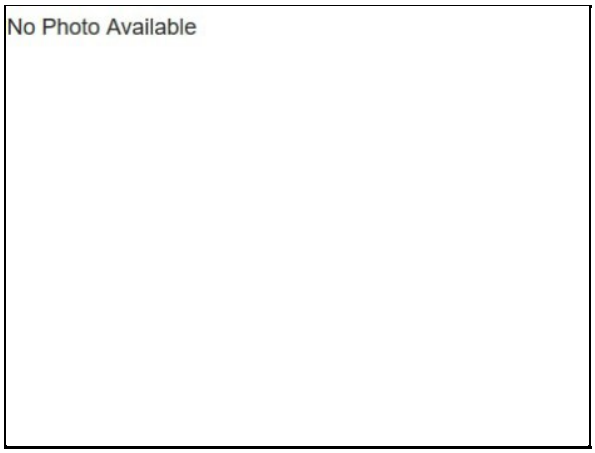
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 317 Water Meter Setters -Rplc(Phase1) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Ongoing installation of meters and setters currently. The meter setters are projected to have a 20 year service life.

Useful Life:
20 years

Remaining Life:
13 years



Best Case: $ 22,300 Worst Case: $ 26,600

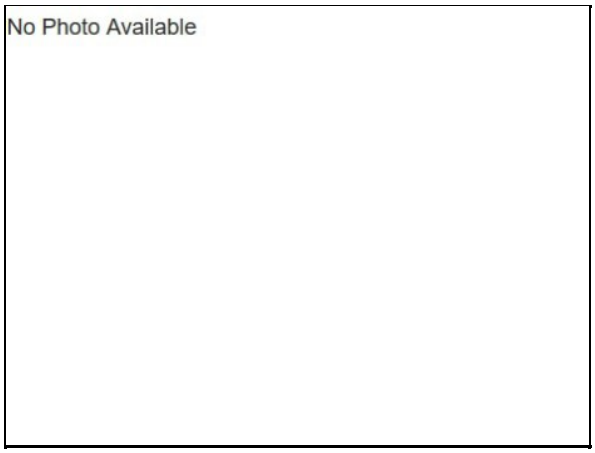
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 317 Water Meter Setters -Rplc(Phase2) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
20 years

Remaining Life:
14 years



Best Case: $ 22,300 Worst Case: $ 26,600

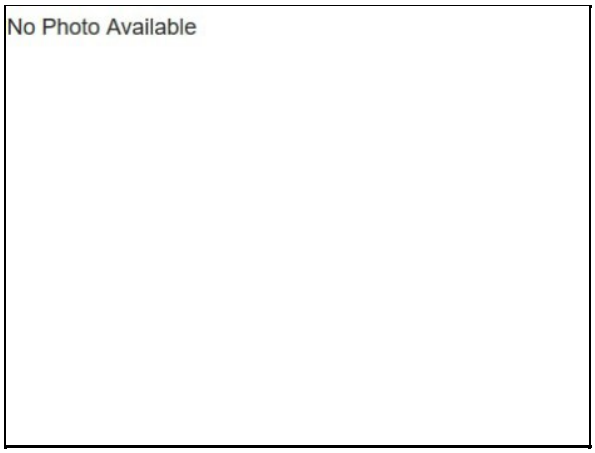
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 317 Water Meter Setters -Rplc(Phase3) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
20 years

Remaining Life:
15 years



Best Case: $ 22,300 Worst Case: $ 26,600

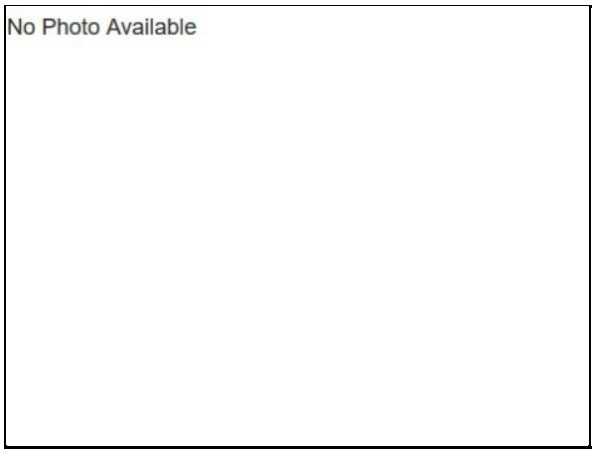
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 317 Water Meter Setters -Rplc(Phase4) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Assumed 2015
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
20 years

Remaining Life:
16 years



Best Case: $ 22,300 Worst Case: $ 26,600

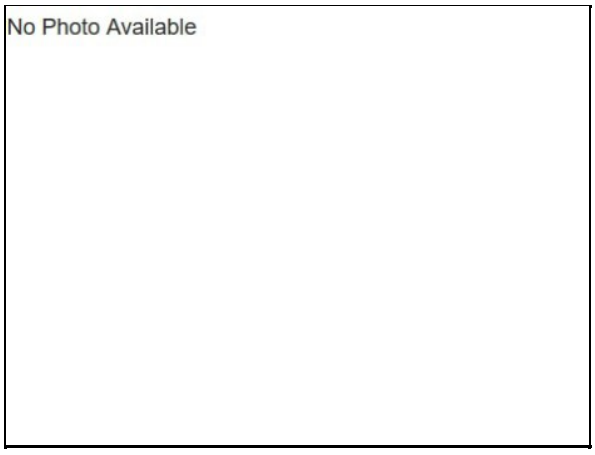
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 317 Water Meter Setters -Rplc(Phase5) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Assumed 2016
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
20 years

Remaining Life:
17 years



Best Case: $ 22,300 Worst Case: $ 26,600

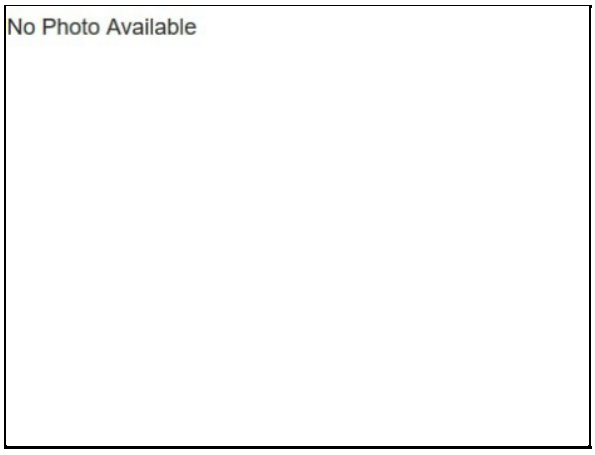
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 317 Water Meter Setters -Rplc(Phase6) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Assumed 2017
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
20 years

Remaining Life:
18 years



Best Case: $ 22,300 Worst Case: $ 26,600

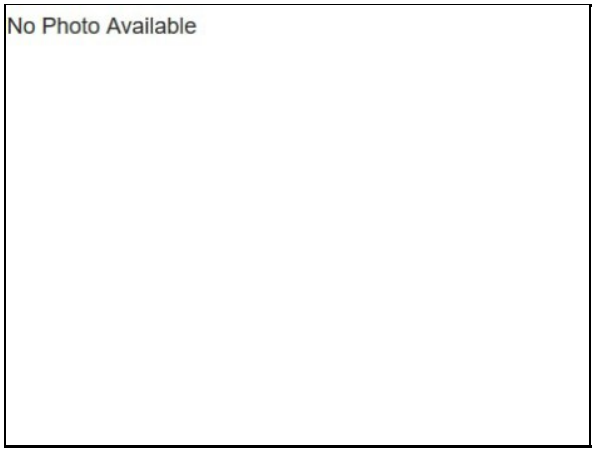
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 317 Water Meter Setters -Rplc(Phase7) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Assumed 2018
Evaluation: Phased replacement; see first component in this series for more information. This phase shown on Association budget as a project to occur in 2018.

Useful Life:
20 years

Remaining Life:
19 years



Best Case: $ 22,300 Worst Case: $ 26,600

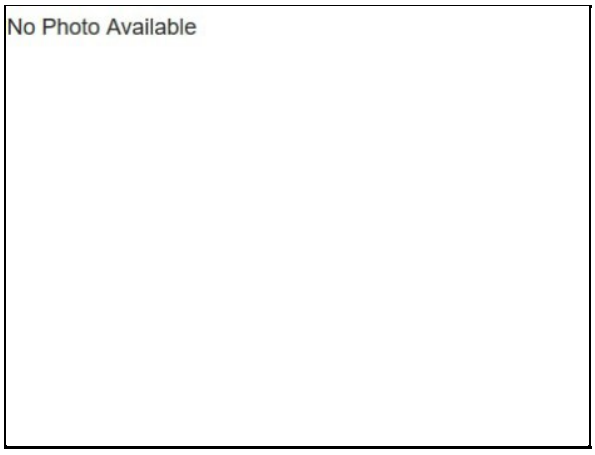
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 317 Water Meter Setters -Rplc(Phase8) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
20 years

Remaining Life:
0 years



Best Case: $ 22,300 Worst Case: $ 26,600

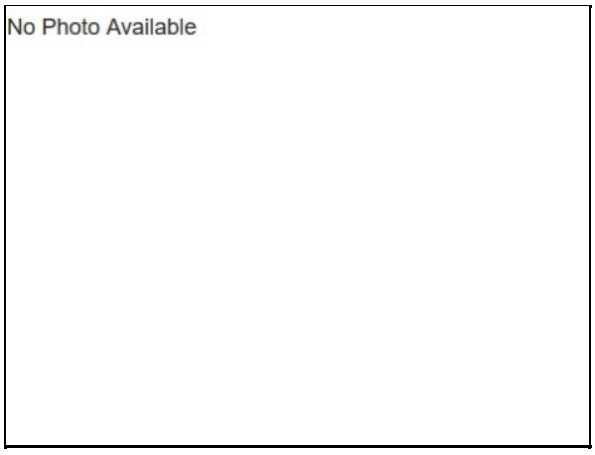
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 317 Water Meter Setters -Rplc(Phase9) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
20 years

Remaining Life:
1 years



Best Case: $ 22,300 Worst Case: $ 26,600

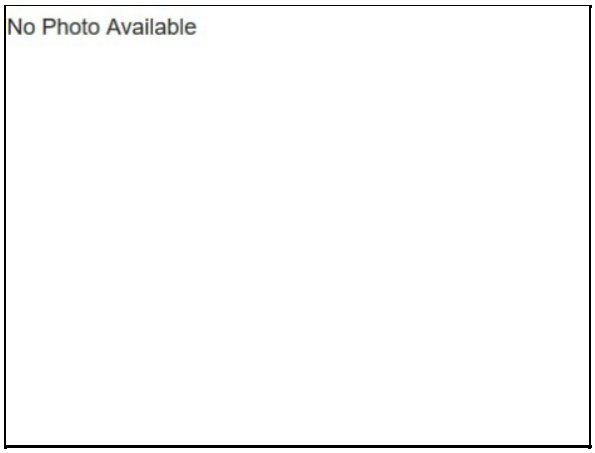
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 317 Water Meter Setters-Rplc (Phase10) **Quantity: ~103.5 of 1,034 connectns**
Location: Each lot throughout community
Funded?: Yes.
History: Unknown
Evaluation: Phased replacement; see first component in this series for more information.

Useful Life:
20 years

Remaining Life:
2 years



Best Case: $ 22,300 Worst Case: $ 26,600

Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 323 Cla-Val Valves - Repair/Replace **Quantity: (2) Cla-Val flow control**
Location: Wells
Funded?: Yes.
History: Unknown
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Large flow control valves have reportedly been significantly repaired twice within the last ten to fifteen years. This component factors reserve funding at 5 year interval to repair one of the two Cla-Val valves. Note: photo here is from previous inspection.

Useful Life:
5 years

Remaining Life:
0 years

Best Case: $ 4,300 Worst Case: $ 5,600

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client, Inflated

Comp #: 324 Leak Detection **Quantity: Every other year**

Location: Water distribution system

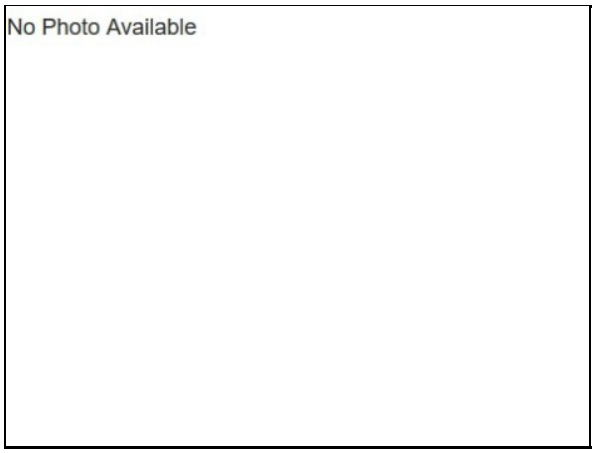
Funded?: Yes.

History: Last performed in 2016 per Association expense records

Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. The water use efficiency report for 2016 indicates distribution system leakage at 17%; this is up from previous years with 2015 at 14%, 2014 at 6.9% and 2013 at 7.1%. Management reports feeder lines and valves are a concern.

Useful Life:
4 years

Remaining Life:
1 years



Best Case: $ 6,800 Worst Case: $ 8,000

Lower allowance Higher allowance

Cost Source: Estimate Provided by Client, Inflated

Comp #: 400 Well 4 Control Systems - Replace **Quantity: Motor controls, related**

Location: Well house

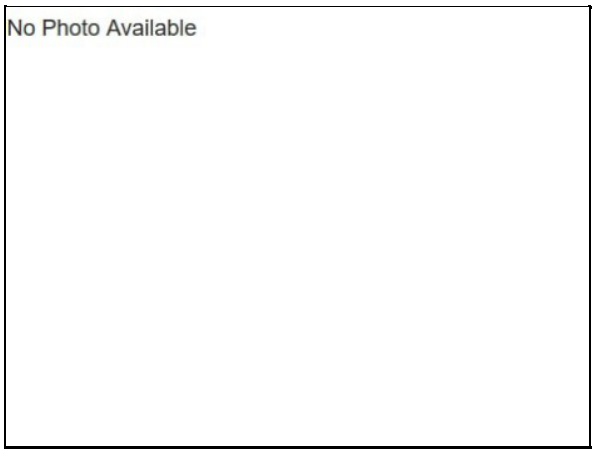
Funded?: Yes.

History: Installed around 2000

Evaluation: Due to problems with Well #4, it is anticipated Well #5 will be installed and in place by 1/1/2019, the start date of this reserve study. At the time of our report writing late 2017, a determination had not been made whether Well #4 would be decommissioned following installation of Well #5. We are leaving the various components for Well #4 as funded components in the reserve study but this may be changed at a later date. This component factors cyclical replacement - cost can vary depending upon desired features, potential implementation of variable frequency drives.

Useful Life:
25 years

Remaining Life:
6 years



Best Case: $ 18,600 Worst Case: $ 25,100

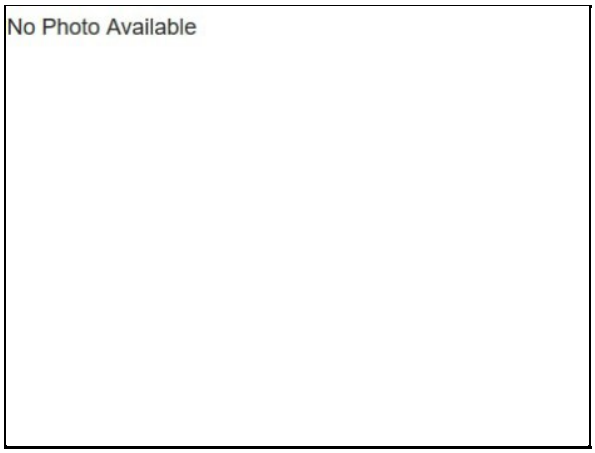
Lower allowance Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 400 Well 5 Cntrl Systems - Replace **Quantity: Motor controls, related**
Location: Well houses
Funded?: Yes.
History: Assumed in place by 1/1/2019
Evaluation: Well #5 is anticipated to be installed/in-place by 1/1/2019. This component factors cyclical replacement - cost can vary depending upon desired features, potential implementation of variable frequency drives. Estimation used here as not in place during our late 2017 site visit.

Useful Life:
25 years

Remaining Life:
25 years



Best Case: $ 18,600 Worst Case: $ 25,100

Lower allowance Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 400 Wells 1 & 2 Cntrl Systems - Replace **Quantity: Motor controls, related**
Location: Well houses
Funded?: Yes.
History: Around 2000
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. No major problems reported, only minor relay repair reported during last study update. Installed around the time of sodium hydroxide system in 2000. This component factors cyclical replacement - cost can vary depending upon desired features, potential implementation of variable frequency drives.

Useful Life:
25 years

Remaining Life:
6 years

Best Case: $ 30,600 Worst Case: $ 42,600

Lower allowance Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 401 Caustic Systems - Repair/Replace **Quantity: (2) Sodium Hydroxide syst**

Location: Well houses at 1 / 2 and 3 / 4 sites
Funded?: Yes.
History: 2000
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Previously reported to us, some recent replacement of booster pump and heater, but those were below the reserve funding threshold according to the water manager. No problems reported at this time. This component factors a funding allowance for eventual replacement around the 30 year mark of life. During our late 2017 report preparation, anticipated that a new well #5 would be installed by 1/1/2019 the start date of this reserve study. A determination if Well #4 would be decommissioned was not yet made. At this time, without more information we are leaving this component for Wells 1/2 and 3/4 sites. Management anticipates Well #5 will have an injection system but unsure if caustic or otherwise. Update once more information is available.

Useful Life:
30 years

Remaining Life:
11 years

Best Case:	$ 21,900	Worst Case:	$ 27,300
	Lower allowance		Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 402 Well #1 & #2 Generator & Controls **Quantity: Generator controls / Elec**
Location: Well house # 1 & #2
Funded?: Yes.
History: Installed about 2014
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Cyclical replacement of newer 100kw generator and controls factored every 50 years. Routine maintenance and incidental expenses should be factored in operating budget.

Useful Life:
50 years

Remaining Life:
45 years

Best Case: $ 38,200 Worst Case: $ 49,200

Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 402 Well #4 Generator - Replace **Quantity: 100 kw Detroit Diesel**
Location: Adjacent to # 3 / 4 well house
Funded?: Yes.
History: 1996
Evaluation: Due to problems with Well #4, it is anticipated Well #5 will be installed and in place by 1/1/2019, the start date of this reserve study. At the time of our report writing late 2017, a determination had not been made whether Well #4 would be decommissioned following installation of Well #5. We are leaving the various components for Well #4 as funded components in the reserve study but this may be changed at a later date. We are unsure if/what type of generator will be installed at Well #5 therefore we have not added a generator for Well #5 and we have left Well #4's generator as shown. This may need to be adjusted once actual specs. are known.

Useful Life:
50 years

Remaining Life:
27 years

Best Case: $ 43,700 Worst Case: $ 51,900

Lower allowance Higher allowance

Cost Source: Inflated Research with Local Vendor/Contractor

Comp #: 403 Telemetry System - Replace **Quantity: (1) Telemetry system**

Location: Storage / well houses

Funded?: Yes.

History: Unknown

Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Basic telemetry in place for notification in the event of power failure, shut-down. Reportedly installed in 2004. This component factors 20 year service life of system.

When replacement is deemed appropriate, consider upgrade to SCADA system. Supervisory Control and Data Acquisition (SCADA) is a process control system that enables a site operator to monitor and control processes from remote location. A properly designed SCADA system saves time and money by eliminating the need for service personnel to visit each site for inspection, data collection/logging or make adjustments. Real-time monitoring, system modifications, troubleshooting, increased equipment life, automatic report generating . . . these are just a few of the benefits that come with today's SCADA system.

Useful Life:
20 years

Remaining Life:
5 years

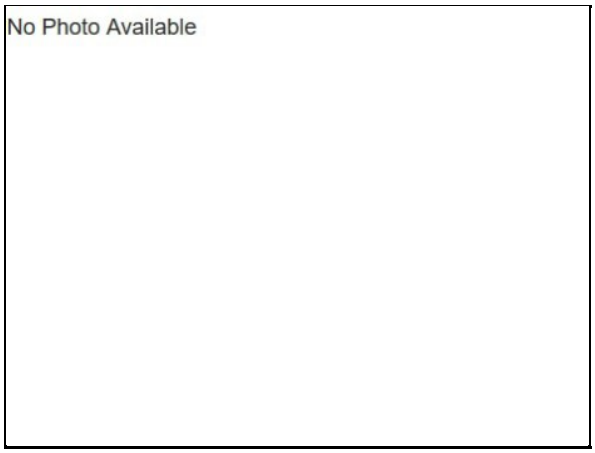
Best Case:	$ 19,700	Worst Case:	$ 21,900
	Lower allowance		Higher allowance

Cost Source: Inflated Client Cost History

Comp #: 404 Computer Equipment - Replace **Quantity: (1) laptop (1) desktop**
Location: Water department
Funded?: No.
History: Unknown
Evaluation: Note: a Water Systems Plan is currently underway (2017), however not completed at the time of our report preparation late 2017, thus we are still relying on 2011 WSP and current management information. Previously reported to us, computer needs are minimal, limited to minor administrative and meter reading purposes. Any repair / replacement need is expected to be below $2,000 and therefore best suited as general operating / maintenance issue. No reserve funding suggested based upon current equipment profile.

Useful Life:
0 years

Remaining Life:



Best Case: Worst Case:

Cost Source:

Comp #: 410 Well House 1, 2 - Replace **Quantity: (3) Structures**
Location: Division I
Funded?: Yes.
History: Varies - see comments
Evaluation: No major issues observed or reported of well houses and sodium hydroxide system shed; siding, roofing and visible structural components appear in average condition. The well house #1 & #2 was reportedly installed in 1974, shed in 2000. Repairs were made after fire in 2007 and both were painted in 2009. Well houses #4 were built in 1995 and painted in 2009.

Useful Life:
40 years

Remaining Life:
3 years

Best Case: $ 22,900 Worst Case: $ 26,200

Lower allowance Higher allowance

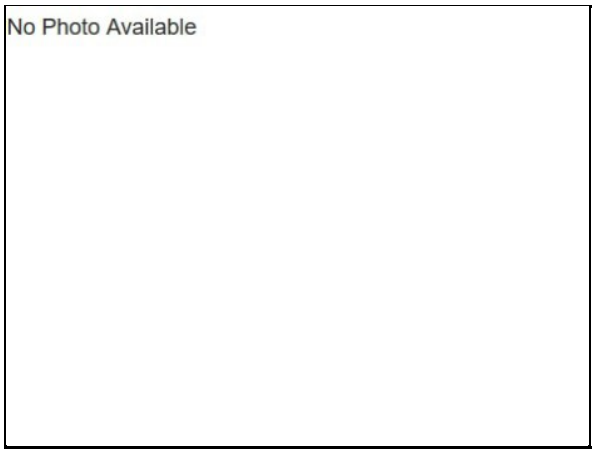
Cost Source: Inflated Estimate Provided by Client

Comp #: 410 Well House 4 - Replace **Quantity: (2) Structures**
Location: DivisionVII common area
Funded?: Yes.
History: Varies - see comments
Evaluation: At the time of our report writing late 2017, a determination had not been made whether Well #4 would be decommissioned following installation of Well #5. We are leaving the various components for Well #4 as funded components in the reserve study but this may be changed at a later date.

No major issues observed or reported of well houses and sodium hydroxide system shed; siding, roofing and visible structural components appear in average condition. The well house #1 & #2 was reportedly installed in 1974, shed in 2000. Repairs were made after fire in 2007 and both were painted in 2009. Well houses #4 were built in 1995 and painted in 2009.

Useful Life:
40 years

Remaining Life:
8 years



Best Case: $ 10,900 Worst Case: $ 13,100

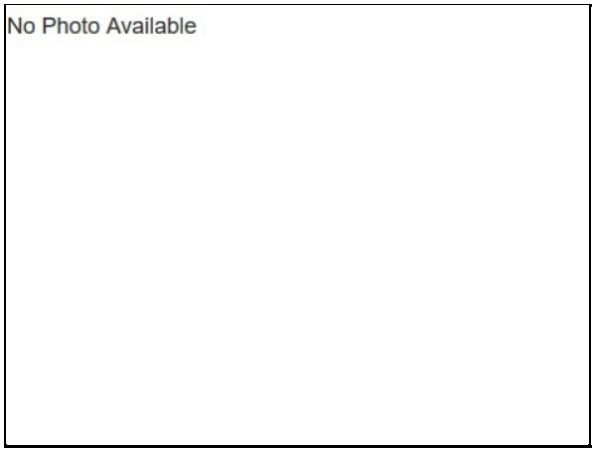
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 410 Well House 5 - Replace **Quantity: ~(2) Structures**
Location: TBD
Funded?: Yes.
History: Anticipated complete by 1/1/2019
Evaluation: Well #5 is anticipated to be installed/in-place by 1/1/2019. No specifications/detailed information on well house(s) that will be installed. We are assuming will be similar to structures at well house #4. Plan for long term replacement as shown here. This component may need to be adjusted once in-place.

Useful Life:
40 years

Remaining Life:
40 years



Best Case: $ 10,900 Worst Case: $ 13,100

Lower allowance Higher allowance

Cost Source: Based on well house #4

Comp #: 411 Well Sites Fence - Replace **Quantity: ~ 720LF, chain link**
Location: Two well sites (#1/2 & 4)
Funded?: Yes.
History: Unknown
Evaluation: No obvious major or widespread damage observed or reported. Depreciation schedules from 2004 indicate fencing was installed in 1997 / 1998. Typical service life is in the 30 year range. Treat local repair needs as general maintenance expense and plan for eventual total replacement as reserve project.

Useful Life:
30 years

Remaining Life:
9 years

Best Case: $ 15,300 Worst Case: $ 16,400

Lower allowance Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 412 Reservoir Fences - Replace **Quantity: ~ 500 LF, chain link**
Location: Perimeter of reservoir sites
Funded?: Yes.
History: Unknown
Evaluation: No obvious major or widespread damage observed or reported. Typical service life is in the 30 year range. Treat local repair needs as general maintenance expense and plan for eventual total replacement as reserve project.

Useful Life:
30 years

Remaining Life:
9 years

Best Case: $ 10,500 Worst Case: $ 12,000

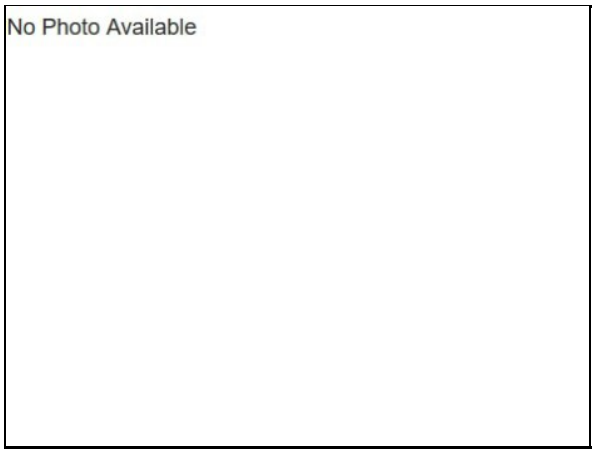
Lower allowance Higher allowance

Cost Source: ARI Cost Database: Similar Project Cost History

Comp #: 450 Water Trailer - Purchase **Quantity: New purchase**
Location: Maintenance yard
Funded?: Yes.
History: N/A
Evaluation: It has been anticipated for several years a new water trailer and truck (next component) would be purchased. Still not purchased so remaining useful life shows as zero.

Useful Life:
10 years

Remaining Life:
0 years



Best Case: $ 5,500 Worst Case: $ 6,600

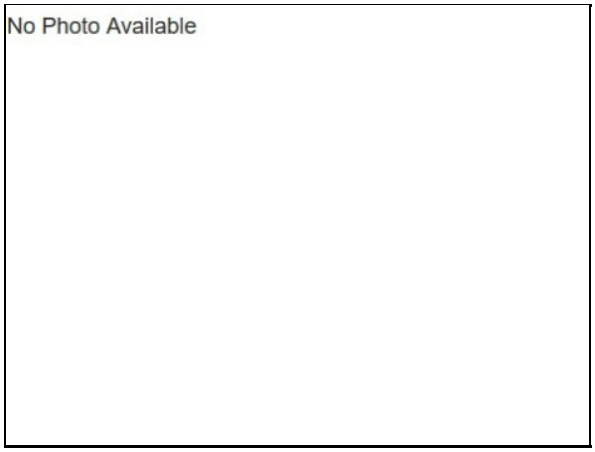
Lower allowance Higher allowance

Cost Source: Inflated Estimate Provided by Client

Comp #: 450 Water Truck - Replace **Quantity: Ford Ranger, 1993**
Location: Maintenance yard
Funded?: Yes.
History: Used vehicle purchased in 2005
Evaluation: Older truck with maintenance manager reporting should be on the list for replacement soon.

Useful Life:
10 years

Remaining Life:
0 years



Best Case: $ 8,000 Worst Case: $ 12,000

Lower allowance Higher allowance

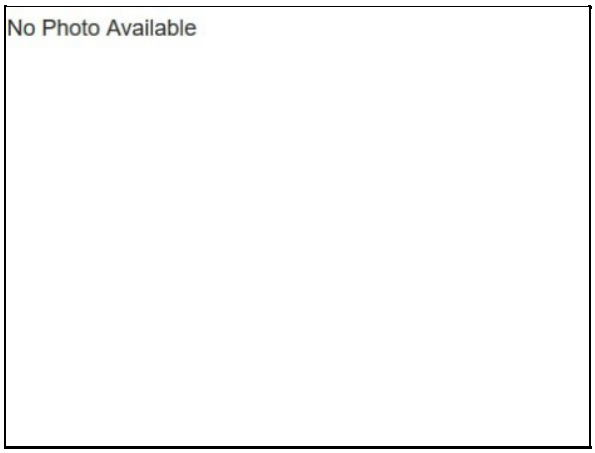
Cost Source: Estimate Provided by Client

Comp #: 460 Public Utility Water - Pay Tax **Quantity: Water Reserve/Consumption**

Location: See comments
Funded?: Yes.
History: See comments
Evaluation: As discussed with Association Accountant, Association audited by Department of Revenue in 2014 and was determined Association was responsible for Public Utility Taxes for their Water Reserves and Water Consumption billings each year. In requesting guidance from Associations' attorney regarding the legal aspects of this tax, Clearwood was advised that the cost of the tax for the Water Reserve component could be paid by Associations' Water Reserve funding. While we would typically recommend this annual cost be included in Associations' annual operating budget, based on request from Associations' accountant we are including funding here. The tax described to us as 5% of the total revenue for Water Reserves. The amount shown here is an estimate as agreed to by client.

Useful Life:
1 years

Remaining Life:
0 years



Best Case:	$ 10,000	Worst Case:	$ 14,000
	Lower allowance		Higher allowance

Cost Source: Estimate agreed to by Association accountant